

Anywire

AnyWire Product Catalog

New Sensor Network Technology
AnyWire for wiring savings

Open Network

DigitalLinkSensor

AnyWireASLINK



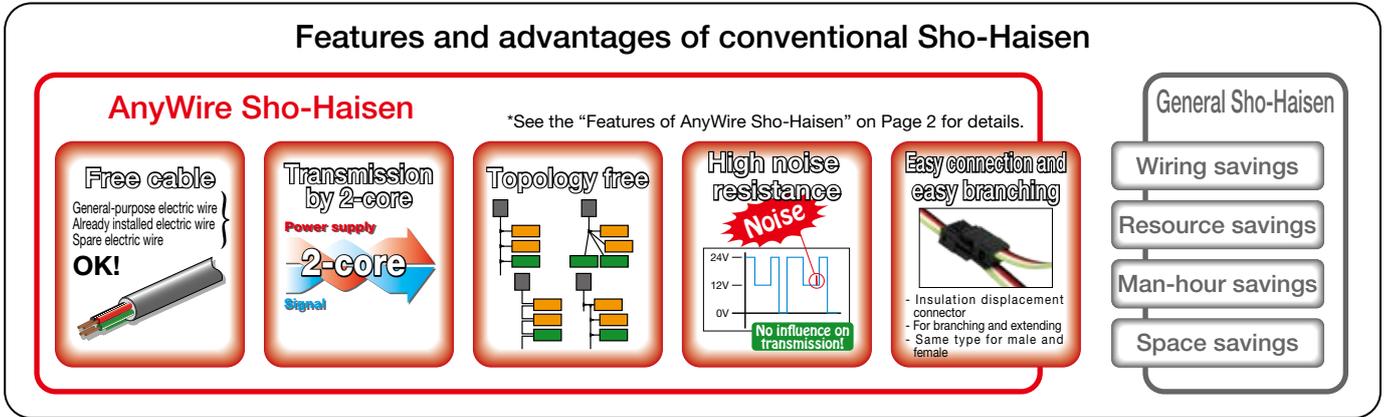
PC Interface
I/O Interface

Ethernet

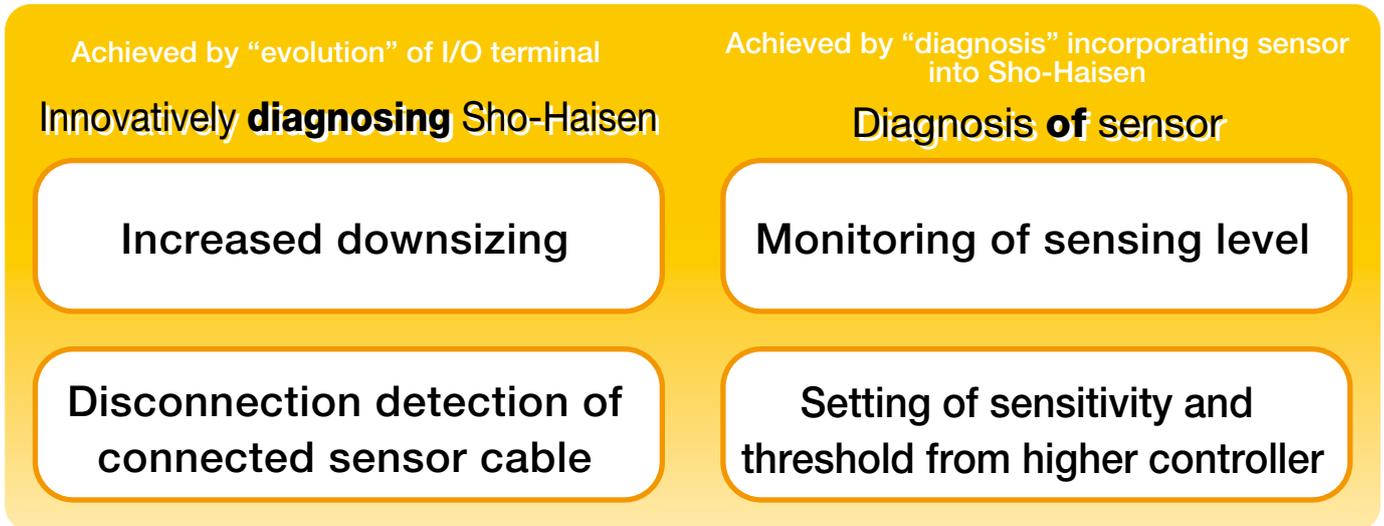
RS-232C
PLC

Concept of AnyWireASLINK

AnyWire always focuses on “manufacturing from the viewpoint of on-site” and continues to send out various proposals. AnyWireASLINK is the breakthrough Sho-Haisen system that offers additional value in diverse ways in continuation to all of the advantages and features of the conventional AnyWire Sho-Haisen system.



New + Added Values



Completely new Sho-Haisen system || in which all elements are incorporated into one

That is “Innovatively diagnosing Sho-Haisen”

Digital link sensor

AnyWireASLINK

iQSS compatible

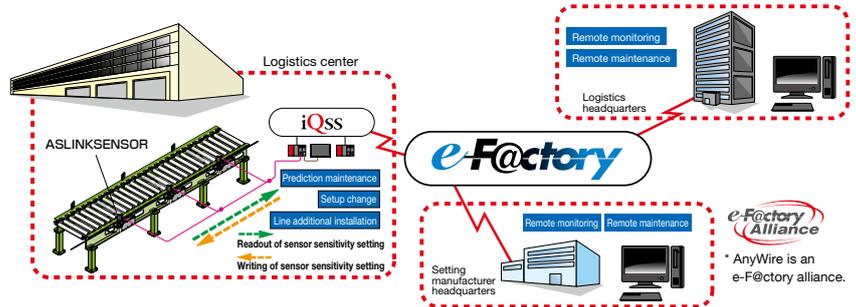
AnyWireASLINK is an iQSS-compatible application. Seamlessly combines comprehensive applications such as a sequencer and GOT, and sensor control.



Sensors are incorporated into FA integrated concept iQ Platform of Mitsubishi Electric Corporation. Solutions realize customer TCO reductions which continuously enhance the linkage between a sensor, sequencer, display and engineering environment. This is iQ Sensor Solution (iQSS).

e-F@ctory compatible

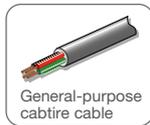
In addition, "visualization" and "diagnosis" from a terminal at a remote area to 1 bit at the end by linkage with e-F@ctory. New relationship between sequencer and sensor is realized.



* See our "Energy monitoring energy saving support" catalog for details on power and current monitoring.

Features of AnyWire Sho-Haisen

Free cable (any transmission media (electric wire) can be selected)



Inexpensive general-purpose cabtire cables which are available from anywhere can be used. Even spare electric wires and electric wires which have already been used in another system can be used as they are in the high noise resistance AnyWireASLINK if they have electric wire diameters which are within the operating condition range. The link connector (only for 4 poles) for a cabtire cable is also available.

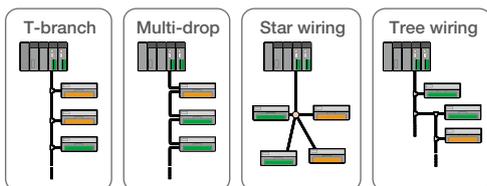
(Note) Contact us separately for details on use.

Transmission by 2-core



Since the AnyWireASLINK system employs a power supply superposition method, it can transmit power and signals in 2-core using a 2-wire type (non-insulation) type terminal. In addition, if current capacity on the load side is large, a terminal of a 4-wire (insulation) type which can locally supply power can also be selected by separately preparing a power source. Furthermore, a system in which these two terminals are mixed can be built.

Topology free (No limitation in branching)



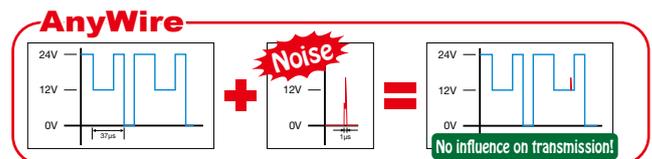
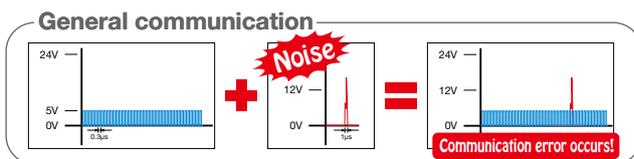
AnyWireASLINK system allows for flexible branch and connection. There is no detailed regulation such as designation of the branching method and minimum distance between the respective terminals, and various wiring methods such as T-branch, multi-drop, star and tree wiring can be selected, and there is no problem even if these methods are mixed.

* It is recommended to wire with T-branch in order to easily isolate at time of trouble.
* It is recommended to decrease the number of branches wherever possible for stable transmission (within 10).

High noise resistance

AnyWireASLINK system is

- ① Different in transmission voltage: 24V DC compared to general 5V DC. Greater margin can be taken for noise.
- ② Different in transmission clock: 27kHz compared to general approx. 3 to 10Mbps. With a sufficiently large clock width, hardly susceptible to noise.



Easy connection and easy branching



Usability which conventional types do not have is achieved by using the AnyWire link connector

Features of link-connector and how to use

- Branching can be made even in the middle of wiring because of crimping.
- No waste is produced because an electric wire is not cut/sheath is not stripped.
- There is no difference between male and female, and are the same models, so it is easy to understand.

Features of AnyWireASLINK

Innovatively diagnosing Sho-Haisen - "Increased downsizing"

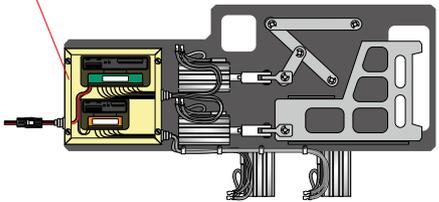
< Increase in space efficiency by downsizing of I/O terminal >

Elimination of BOX is promoted by increased downsizing including small I/O terminal of fingertip size allowing dispersion from 1-point and 2-point, and 8-point terminal of terminal block type realizing compact size of volume ratio of 1/3 in comparison with conventional types.

Before

Replaceable type jig is used. Downsizing is attempted by ingenuity of design, however, the relay box is bulky and downsizing cannot be achieved as expected. In order to respond to a wide variety of products, freedom of design is also necessary, and it is desirable to simultaneously save energy by downsizing and weight savings.

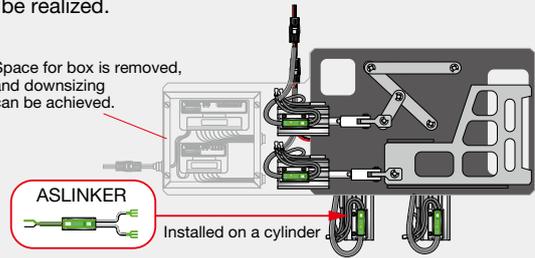
The input/output terminal is housed in the relay box.




After

ASLINK is a very small terminal comparable to a relay connector. Since ASLINKER is directly installed to a cylinder, a relay box for sensor wiring can be removed, and downsizing and weight saving can be realized.

Space for box is removed, and downsizing can be achieved.



ASLINKER
Installed on a cylinder

Increase in freedom of design

Jig size reduced approx. 1/3, light-weight

Recovery from failure is made easy.

Innovatively diagnosing Sho-Haisen - "Detection of disconnection of connected sensor cable"



< Whether sensor non-detection? or disconnection? can immediately be determined >

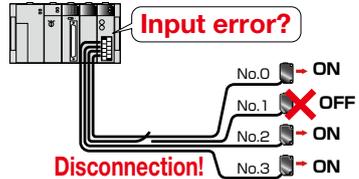
It was necessary for conventional I/O terminals to confirm whether sensor was in a non-detection state or whether sensor itself was in failure (sensor cable disconnection) for actual product. However, remote monitoring is allowed from higher controller and disconnected sensor is also easily identified by mounting this function.

Before

ID (address) which should turn ON at a determined timing is not turned ON and the equipment stops.

- Is the sensor in failure?
- Is the mechanism part in failure?
- Is the terminal in failure?
- Is the wire disconnected?

There are various causes as to why the sensor is in OFF status, and confirmation and inspection with input which cannot be judged on the controller side are essential. This means that an investigation into the cause will take many hours.



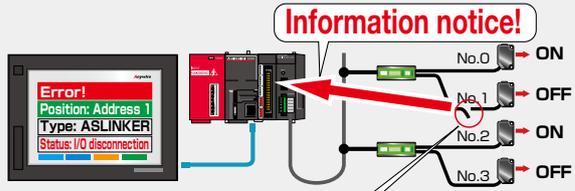
Input error?

Disconnection!



After

Disconnection detection function for sensor cable mounted on ASLINKER can significantly reduce time spent on investigation of cause. Monitoring is also facilitated by combination with GOT, and a highly visible monitoring system is allowed to be built.



Information notice!

Detection of connected sensor disconnection!

Decrease in time for investigation of cause

Reduction in maintenance man-hours

Decrease in equipment stop time → Increase in availability

Diagnosis of sensor – “Monitoring of sensing level”



< Diagnosing not only ON/OFF but also measured value for preventive maintenance >

Photoelectric sensor of ON/OFF operation etc., cannot actually determine ON far from OFF or ON close to OFF. ASLINKSENSOR allowing diagnosing of measured values can monitor its state from a higher controller, therefore, it can grasp the state of the sensor. Use of ASLINKMONITOR also allows for confirmation of measured values on-site.

Before

The typical sensor judges ON and OFF on a threshold boundary and outputs a signal. Therefore, the typical sensor cannot detect a drop in actual sensing level etc., (such as deviation of light axis and adherence of dirt) and suddenly stops operation at the instant when the sensing level falls below the threshold.

After

ASLINKSENSOR always monitors sensing level of a sensor. The sensing level is converted into digital data, which is transmitted to a higher controller and is monitored by GOT, therefore, preventive measures such as replacement, adjustment and cleaning can be taken before “the sensor can be turned ON.”

[Example of status which can be monitored]

- Sensing level
- Applicable ID (address)
- Sensor type

Monitor search is allowed in combination with GOT.

Comprehension of sensing level

System emergency stop prevention

Monitor is also allowed by GOT.

Diagnosis of sensor – “Setting of sensitivity and threshold from higher controller”



< Collective change of sensitivity setting and reduction in adjustment production steps and man-hours by fine adjustment of threshold >

It was common to perform sensitivity setting of sensor and adjustment of threshold one by one on-site. However, ASLINKSENSOR allows collective setting changes of all sensors to be operated from a higher position. ASLINKSENSOR can also save set values. Therefore, it minimizes downtime such as at the time of setup change. In addition, this can prevent “momentary stop” before it happens during adjustment of threshold, and can control maintenance timing.

Before

Sensitivity setting of each sensor and recording of set values to ensure traceability are, in general, manually performed even today. Therefore, both setting and recording required a large number of man-hours over many hours.

After

ASLINKAMP and ASLINKSENSOR allow the sensing level to be adjusted from a higher controller and also allow current set values to be saved. On the other hand, they also allow the saved set values to be reflected onto each sensor, resulting in significant reduction in man-hours. In addition, momentary stop can be prevented by adjustment of threshold to control maintenance timing.

Reduction in adjustment production steps and man-hours

Reduction in set value recording operation

Batch/individual setting are selectable.

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Product configuration of AnyWireASLINK

Master unit

ASLINKMASTER

Master unit compatible with a MELSEC sequencer and various widely prevalent industrial open networks

- Interface for each MELSEC series



- Bridge unit for CC-LINK network

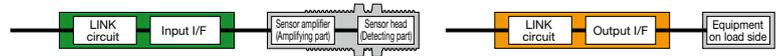


I/O terminal

ASLINKER

General-purpose input/output equipment ready unit

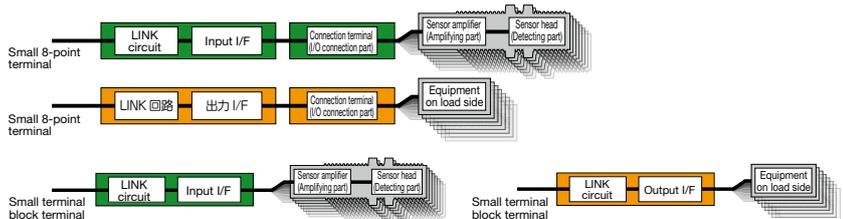
[Circuit block diagram]



ASLINKTERMINAL

General-purpose input/output equipment ready terminal

[Circuit block diagram]



Slave unit

Analog terminal

ASLINKAMP

Analog input/output unit

[Circuit block diagram]



Sensor/Amplifier

ASLINKSENSOR

Digital link function built-in sensor

[Circuit block diagram]



ASLINKAMP

Multi-amplifier and analog input unit compatible with commercial sensor head

[Circuit block diagram]



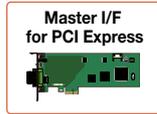
ASLINKMONITOR

Optional address sensing level display unit

· Gateway for open network



· Interface for PC Bus



· Resend unit



· Bridge for AnyWire DB A20



➔ P.19

[Example of product]



Cable type M12 connector type



* With limitation

➔ P.35

[Example of product]



Small 8-point terminal Small terminal block terminal



➔ P.49

[Example of product]

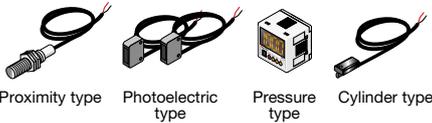


Analog input unit

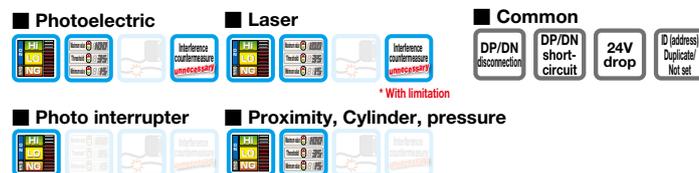


➔ P.75

[Example of product]



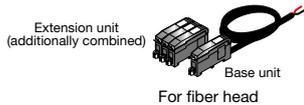
Proximity type Photoelectric type Pressure type Cylinder type



* With limitation

➔ P.87

[Example of product]

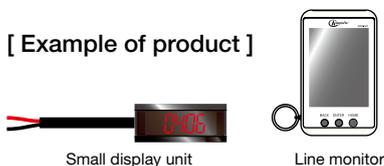


Base unit For fiber head



➔ P.105

[Example of product]



Small display unit Line monitor

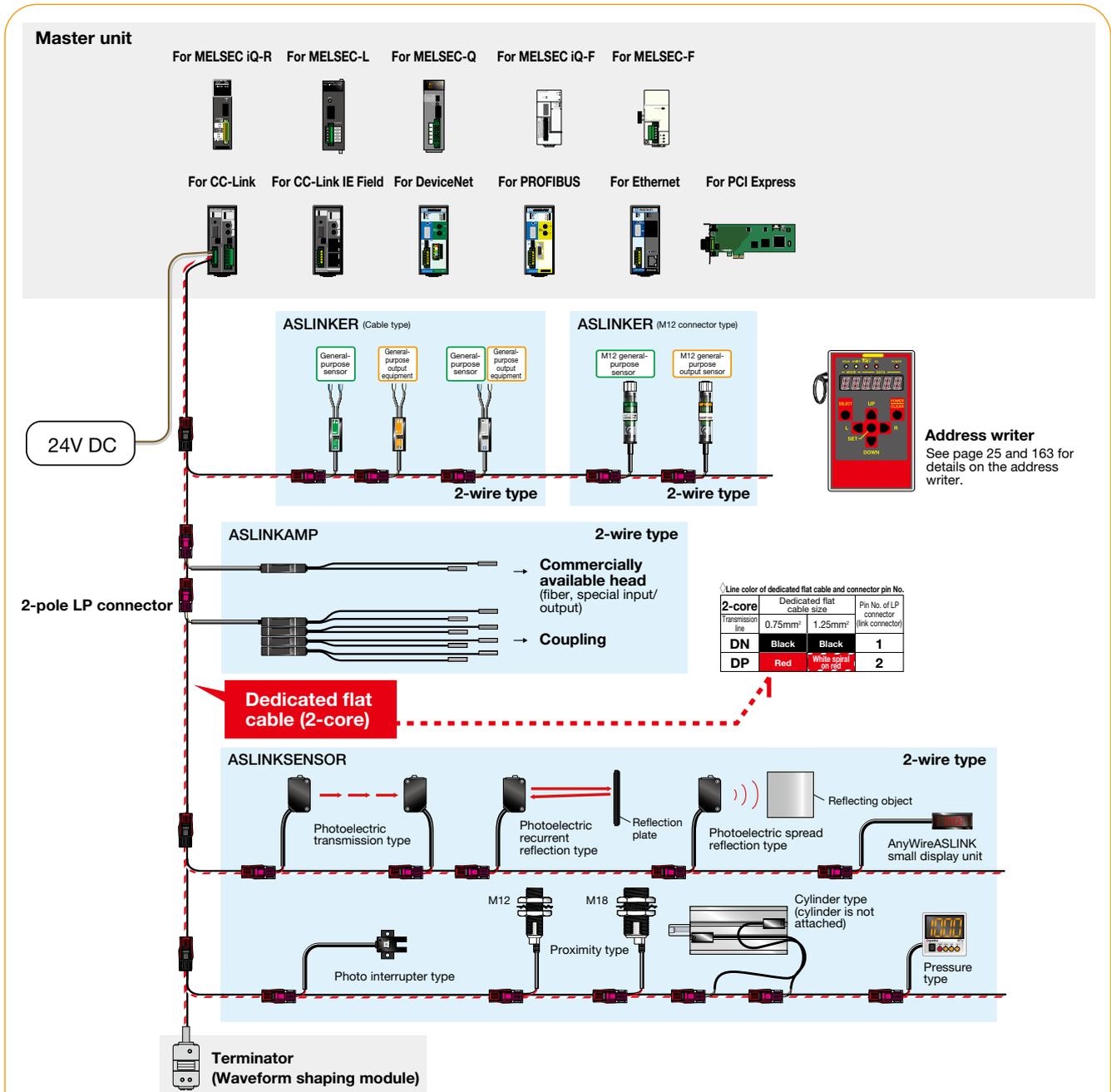


➔ P.152

*Check details of each product with the product pages or the operation manual.

System configuration

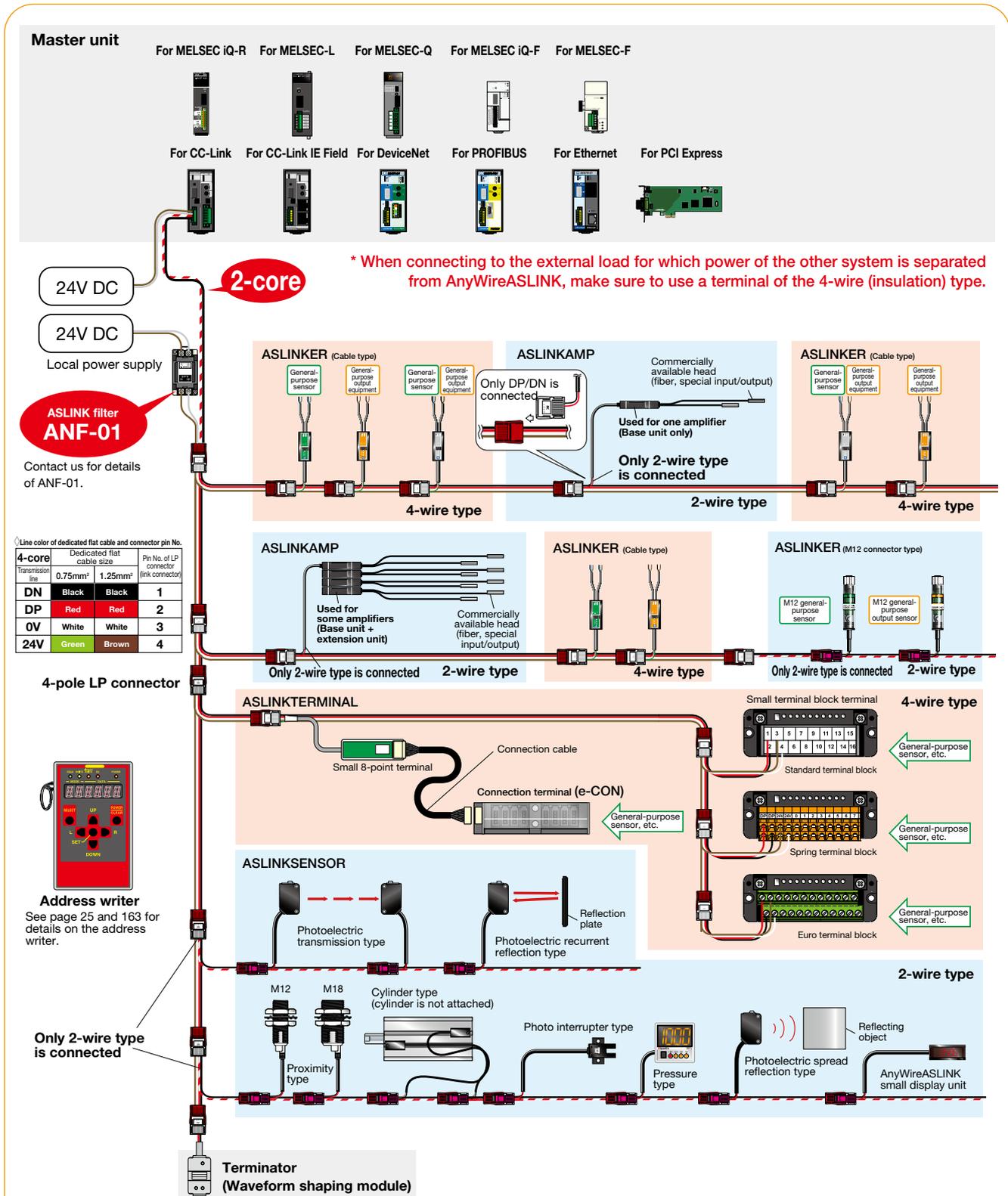
◆ System consisting of 2-wire type only (when local power supply is unnecessary)



[System configuration]

- There is a master interface for MELSEC iQ-R, L, Q, iQ-F which operates as an intelligent unit. In addition, there is also a master block for MELSEC-F which operates as a specially added block. There is a bridge for CC-Link and a bridge for CC-Link IE Field in addition to the above.
- There is a gateway for DeviceNet and a gateway for PROFIBUS as a master unit for open field bus, and there is also a gateway for Ethernet compatibility with some Ethernet-linked protocols.
- Master interface for PCI Express is also available as a master unit for PC bus.
- ASLINKMASTER is incompatible with our “DB A40/A20 series” and “Bitty series” for connection.
- Connect a terminator (waveform shaping module) at the most distal end of the transmission line laid from ASLINKMASTER.
- Perform address setting of the terminal and initial setting of the sensor sensitivity by using an address writer. (Sensor sensitivity setting is allowed from both of the address writer and higher controller.)

◆ System in which 2-wire type and 4-wire type are mixed (when local power supply is unnecessary)

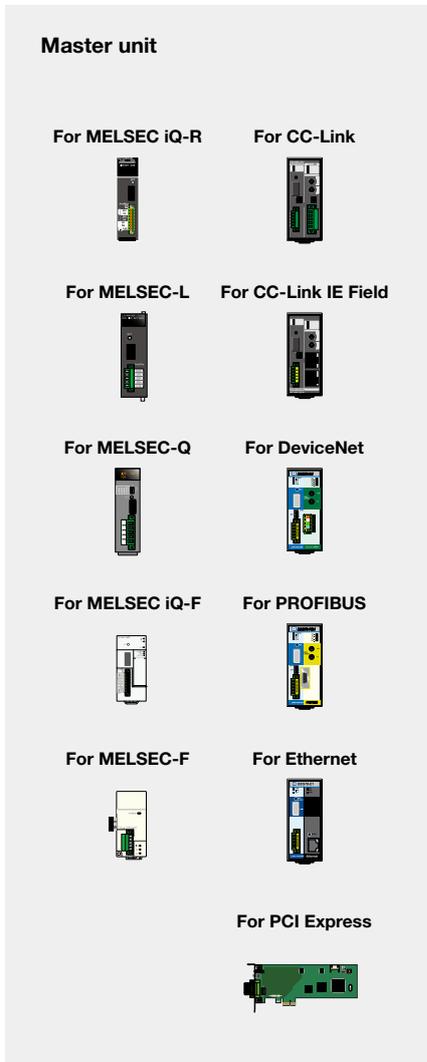


[System configuration] *Pay attention to the following item in addition to the content of [System configuration] on page 09.

- When you intend to expand the power supply capacity of AnyWireASLINK, use a terminal of the [4-wire (insulation) type] which allows for local power supply.

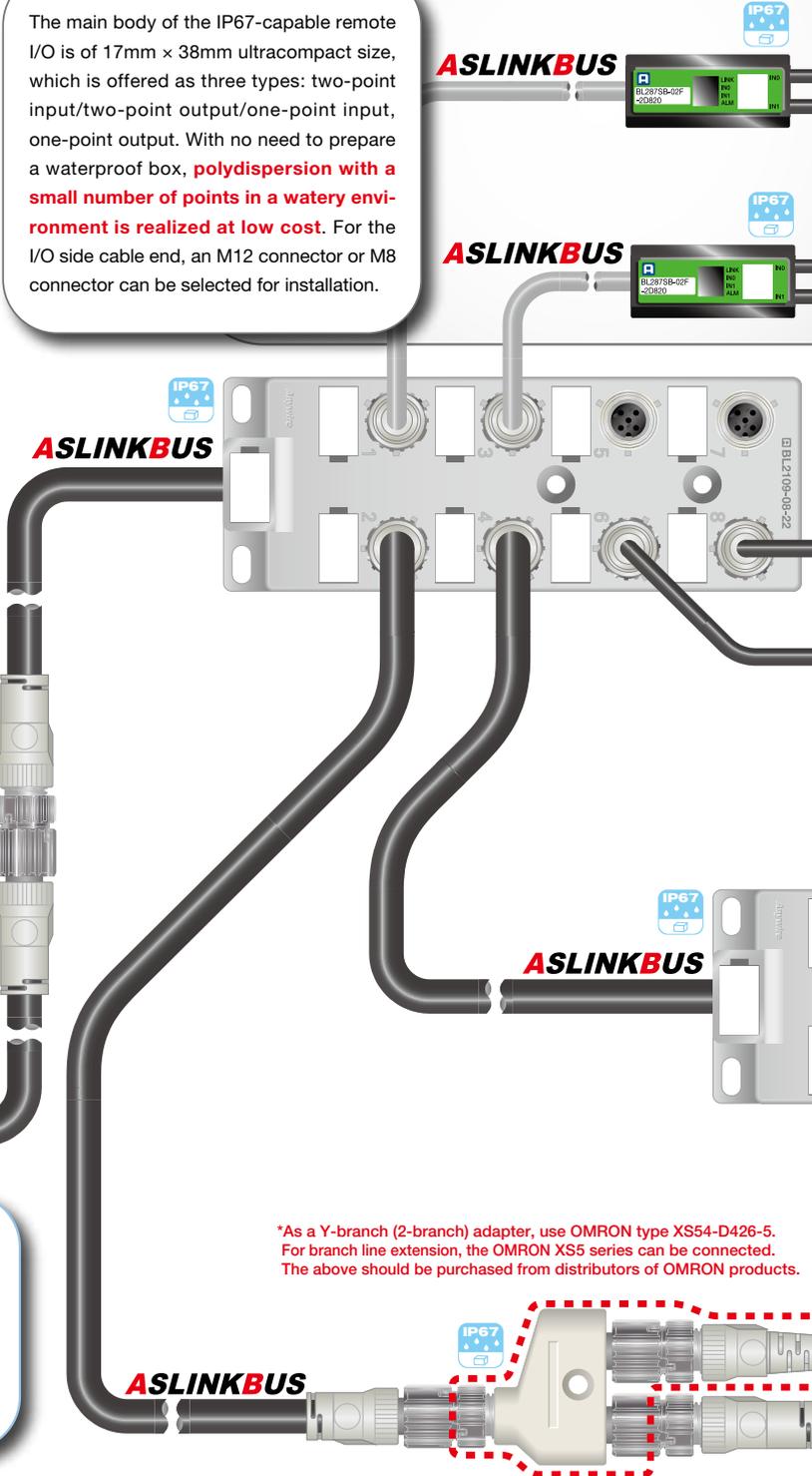
System configuration

◆ System for environment-resistant area



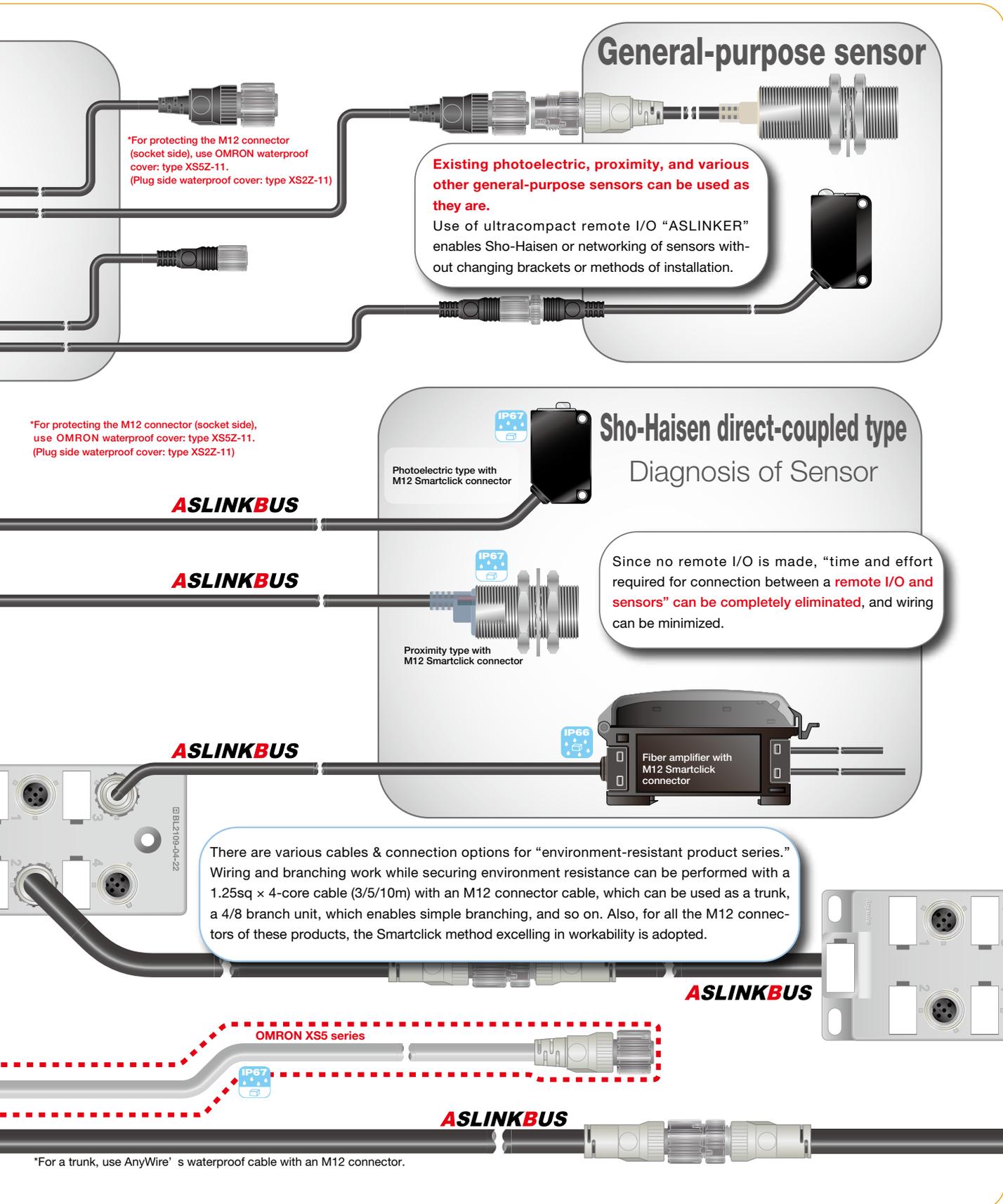
The main body of the IP67-capable remote I/O is of 17mm x 38mm ultracompact size, which is offered as three types: two-point input/two-point output/one-point input, one-point output. With no need to prepare a waterproof box, **polydispersion with a small number of points in a watery environment is realized at low cost.** For the I/O side cable end, an M12 connector or M8 connector can be selected for installation.

Ultracompact I/O terminal ASLINKER



Due to the lineup of the “environment-resistant product series,” polydispersion with a small number of points and Sho-Haisen are easily realized even under harsh sites requiring environment resistance such as **car manufacturing lines, semiconductor manufacturing equipment, and food and beverage production lines.** Moreover, low-cost diagnosis by using Sho-Haisen direct-coupled sensors is also possible.

*As a Y-branch (2-branch) adapter, use OMRON type XS54-D426-5. For branch line extension, the OMRON XS5 series can be connected. The above should be purchased from distributors of OMRON products.



* Smartclick is a registered trademark of OMRON Corporation.

Various Connection Methods

◆ Connection of terminal side

There are roughly two types of methods for connection of terminals on AnyWireASLINK.

One method is the “**2-wire (non-insulation) type**” and the other method is the “**4-wire (insulation) type**.” For basic configuration of AnyWireASLINK, connection with the 2-wire (non-insulation) type is assumed. Not only the transmission signal but also **power to operate the terminal and equipment on the load side are superimposed** on these 2 electric wires.

A 4-wire (insulation) type is a terminal used when the current capacity on the load side is not covered by supply current of a 2-wire (non-insulation) type, and **responds to both power supply from the master side and power supply on the local side**. See page 161 for how to calculate supply current on the terminal of each type.

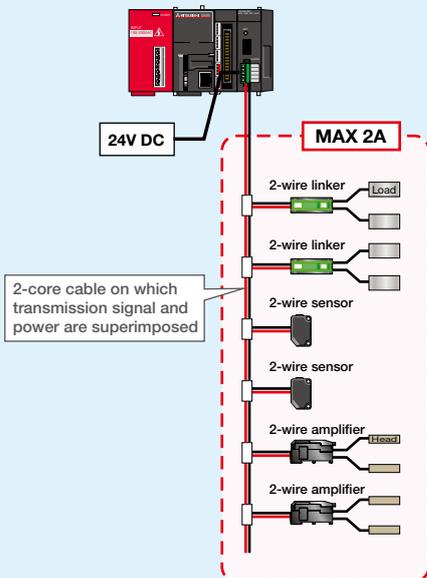
Furthermore, when connecting to external load for which power of the other system separated from AnyWireASLINK is used, make sure to use a terminal of a 4-wire (insulation) type.

2-wire (non-insulation) type

- Number of wirings is decreased.
- This type can be used with power supplied only to the master side.
- This type can be used for load of the closed circuit such as a sensor and LED.
- Power of maximum 2A is supplied to the local through transmission line.

■ Power supply by power superimposition

Operation is available as it is without another power supply!

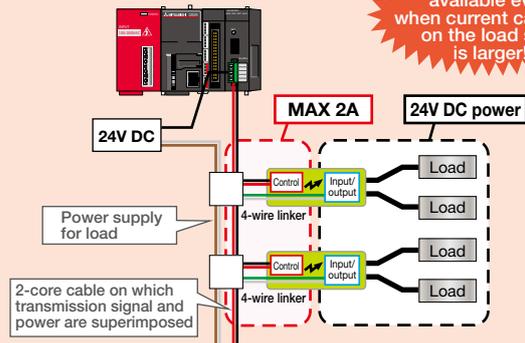


4-wire (insulation) type

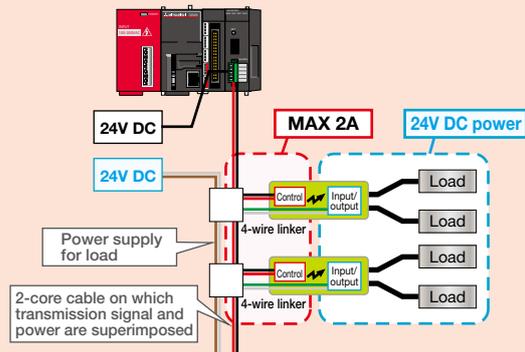
- Load with large consumption current can be used.
- Common can be taken with power other than AnyWireASLINK.

■ Power supply to the entire system

Operation is also available even when current capacity on the load side is larger!



■ Local power supply



◆ List of connection method classification for every terminal (slave equipment) type

Type	ASLINKER		ASLINKTERMINAL	ASLINKAMP			ASLINKSENSOR
	Cable type	M12 connector type		Fiber	Analog input unit	Analog output unit	
2-wire (non-insulation) type	○*1	○	×	○*2	○	×	○
4-wire (insulation) type	○*1	×	○	○*2	×	○	×

*1 ASLINKER of IP67 structure is also included.
*2 Without 7 segment display/IP65 is 2-wire type (non-insulation), and with 7 segment display is 4-wire type (insulation).

Basic transmission specifications

◆ General specifications

*This description is a representative general specification. Since some products have partially different specifications, please check the instruction manual for details.

Ambient temperature use	0 to 55°C
Ambient temperature storage	-25°C to 75°C
Ambient humidity use	10 to 90%RH, No condensation
Ambient humidity storage	
Atmosphere use	No corrosive gas
Altitude use *1	0 to 2000m
Pollution level *2	2 or less

*1 Do not use or store the AnyWireASLINK equipment in an environment pressurized above the atmospheric pressure at altitude 0m. Malfunction may result.

*2 This is an index showing the degree of generation of conducting substance in an environment where the equipment is used. Pollution level 2 means generation of non-conducting pollution only. However, temporary conduction may occur by accidental condensation in this environment.

◆ Performance specifications

Transmission clock	27kHz (37μs)		
Transmission distance/ supply current	1.25mm ²	50m or less	2A or less
		Exceeding 50m, 100m or less	1A or less
		Exceeding 100m, 200m or less	0.5A or less
	0.75mm ²	50m or less	1.2A or less
		Exceeding 50m, 100m or less	0.6A or less
		Exceeding 100m, 200m or less	0.3A or less
	0.5mm ²	50m or less	0.8A or less
		Exceeding 50m, 100m or less	0.4A or less
		Exceeding 100m, 200m or less	0.2A or less
Number of connection points	Up to 128 units (See page 161 and the following pages for the calculation method of the number of connectable units.)		
Transmission method	DC power supply superimposed total frame/cyclic method		
Connection mode	T-branch method, multi-drop method, star wiring method, tree branch method		
Transmission protocol	AnyWireASLINK protocol		
Error control	Double check, checksum		
	Up to 512 points (Input 256 points/output 256 points) However, up to 128 points for FX3U-128ASL-M (Input + output ≤ 128 points) (number of input points is prioritized in case of input + output ≥ 128 points) Up to 384 points for FX5-ASL-M (Input + output ≤ 384 points) (Input up to 256 points/output up to 256 points)		
Number of connection I/O points RAS function	Transmission line disconnection detection function, transmission line short-circuit detection function, transmission circuit drive power drop detection function ID (address) redundant/non-setting detection function		
Electric wire used	<ul style="list-style-type: none"> · General-purpose 2-wire/4-wire cable (VCTF, VCT 0.75 to 1.25mm², rated temperature 70°C) · General-purpose electric wire (0.75 to 1.25mm², rated temperature 70°C) · Dedicated flat cable (0.75 mm²/1.25mm², rated temperature 90°C) 		

*3 · Total length also includes the cable section of the terminal with cable.

· Size of the cable section of the terminal with cable is not included in this condition.

· When consumption current above DP-DN allowable supply current is required, use 4-wire terminal which allows for local power supply.

· When 2-wire type and 4-wire type are mixed, there is no problem if the current value obtained by adding current on the load side of the 2-wire type section and operation current on all terminals of the 2-wire type and 4-wire type is within DP-DN allowable supply current.

◆ Transmission cycle time

Transmission I/O point number setting	64 points (Input 32 points, output 32 points)	128 points (Input 64 points, output 64 points)	256 points (Input 128 points, output 128 points)	512 points (Input 256 points, output 256 points)
1 transmission cycle time	2.4ms	3.6ms	6.0ms	10.7ms

Transmission cycle time is time to update input and output data of the master unit and all slave units.

In actuality, "transmission delay time," twice of transmission cycle time is generated by influence of the double check function.

◆ Precautions on transmission

◇ If the transmission line is a 4-core line (DP, DN, 24V and 0V run together) and the length exceeds 50m, connect "ASLINK filter [model ANF-01]" in series to 24V and 0V at a position where 4-core running starts together (immediately below the master unit in general connection state). (Maximum allowable current 5A/DC24V)

→ Signal is stabilized in order to enhance noise resistance and suppress influence of cross-talk by transmission signal.

→ In both cases when collectively supplying from the power source for master and when supplying from local power source, these shall be inserted.

→ When complying with CE standard, insert "ASLINK filter [model ANF-01]" regardless of laying method and distance.

*Master unit = ASLINKMASTER, slave unit = various terminals (ASLINKER, ASLINKTERMINAL, ASLINKAMP, ASLINKSENSOR)

Function of AnyWireASLINK system

AnyWireASLINK is a “Digital link sensor” having various functions.

Close combination of a higher controller and terminal contributes to “enhancement of availability” and “reduction in man-hours,” and smallness of terminal realizes “space saving.”

For various functions of AnyWireASLINK, parameters can be written and confirmed using the address writer (such as ARW-04). For more information, see page 163 or the operation manual (Product Guide) of each product.



ARW-04

Digital link function “Digital link function” is a general term for characteristic functions which each product of AnyWireASLINK has.

*Digital link function to be mounted depends on products.



Sensing level monitoring

If a sensor and reflection plate are contaminated with dust or powdered dust when a photoelectric sensor is used, sensitivity of detection is deteriorated and the operation becomes unstable or becomes disabled. ASLINKAMP and ASLINKSENSOR can monitor not only ON/OFF of the sensor but also the sensing level itself, that can realize preventive maintenance to prevent “momentary stop” before it happens.



Read-out/writing of sensor sensitivity setting

Setting of boundary value (threshold) where a sensor turns ON/OFF and sensor sensitivity can be read out/written from a higher controller.

- ◇ The sensor the sensitivity of which drops is kept in operation until maintenance.
- ◇ Sensitivity adjustment is automatized at time of work setup change, etc., by recording sensitivity setting in various cases.

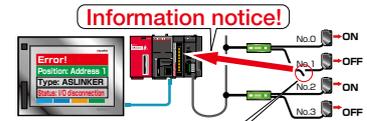


Sets threshold of ON/OFF detection.



Sensor cable disconnection detection

When the sensor signal is turned OFF, whether “the sensor is turned OFF” or “power source is turned off and sensor is OFF” cannot be generally judged. This function can detect disconnection of a sensor, therefore, takes no time for investigation of cause.

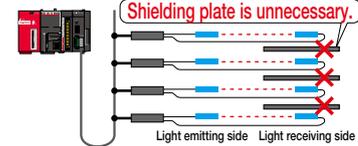


Detects disconnection of connected sensor!



Countermeasure for interference of photoelectric sensor is unnecessary.

Since ASLINKAMP and ASLINKSENSOR operate in time division, no interference occurs even when some sensors are simultaneously installed, and a shielding plate for interference countermeasure which has conventionally been required is unnecessary.



RAS function

“RAS” function is a function that improves reliability, availability and serviceability.

* The transmission line consists of DP (data line, plus side) and DN (data line, minus side) (In case of 4-wire type, 24V line and 0V line are added to the above line.)



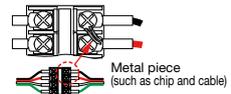
Transmission line disconnection detection

When the transmission line (DP/DN line) is disconnected, the master detects this and notifies an error, and at the same time, flashes the ASLINKMASTER indication lamp. In addition, disconnection location of the transmission line can be searched from the separated address number.



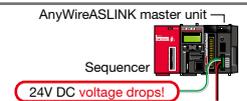
Transmission line short-circuit detection

When the transmission line (DP/DN line) is short-circuited, the master detects this and immediately stops transmission, and notifies an error, and at the same time, flashes the ASLINKMASTER indication lamp. Short-circuit can be quickly recognized and damage to equipment from trouble is prevented.



Transmission circuit drive power supply drop detection

When voltage of 24V DC power supplied to ASLINKMASTER drops, the master detects this and stops transmission, and notifies an error, and at the same time, flashes the ASLINKMASTER indication lamp. Voltage drop of transmission power can be quickly recognized and transmission trouble is prevented.



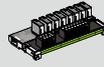
ID (address) duplex, non-setting detection

ASLINKMASTER recognizes ID (address) set to the connected digital link unit and digital link sensor, and notifies errors if there is any duplex or unset unit or sensor. In addition, error is also indicated with the associated terminal.



List of Functions and Features of Slave Units

○: Mounted x: Not mounted /: Not applicable -: Not determined

Slave	Application	Functions						RAS <small>Transmission line disconnection detection, transmission line short-circuit detection, transmission circuit drive power drop detection, ID(address) redundant, non-setting detection</small>	Features
		Sensing level monitoring	Sensor sensitivity setting Read/write	Sensor cable disconnection detection	Interference countermeasure unnecessary	Downsizing			
ASLINKER (Smart Linker) 	General-purpose sensor General-purpose output equipment	x	x	○	x	○		○	Sensor cable disconnection detection, without relay Box
ASLINKER (Cable type)*1 	General-purpose sensor General-purpose output equipment	x	x	○*2	x	○		○	Sensor cable disconnection detection,*2 without relay Box
ASLINKER (M12 connector type) 	M12 connector connection Sensor	x	x	○*2	x	○		○	Sensor cable disconnection detection,*2 without relay Box
ASLINKTERMINAL (Small terminal block terminal) 	General-purpose sensor General-purpose output equipment	x	x	x	x	○		○	Without relay Box
ASLINKTERMINAL (Integrated small terminal) 	General-purpose sensor General-purpose output equipment	x	x	x	x	○		○	Without relay Box
ASLINKTERMINAL (Small 8-point terminal) 	General-purpose sensor General-purpose output equipment	x	x	x	x	○		○	Without relay Box
ASLINKTERMINAL (Manifold driver) 	General-purpose sensor General-purpose output equipment	x	x	x	x	○		○	Without relay Box
ASLINKTERMINAL (Relay terminal) 	General-purpose sensor General-purpose output equipment	x	x	x	x	○		○	Without relay Box
ASLINKKAMP (Fiber type) 	Dedicated fiber head General-purpose fiber head	○	○	/	/	○		○	Preventive maintenance, decrease in adjustment production steps and man-hours, traceability, without relay Box
ASLINKKAMP (Analog input/output unit) 	Current/voltage output/input equipment	/	/	/	/	○		○	Traceability, without relay Box
ASLINKSENSOR (Photoelectric type) 	Light detection	○	○	/	/	○		○	Preventive maintenance, decrease in adjustment production steps and man-hours, traceability, without relay Box
ASLINKSENSOR (Laser type) 	Light detection	○	○	/	/	○*2		○	Preventive maintenance, decrease in adjustment production steps and man-hours, traceability, without relay Box
ASLINKSENSOR (Proximity type) 	Magnetic induction detection	○	○	/	/	x		○	Preventive maintenance, decrease in adjustment production steps and man-hours, traceability, without relay Box
ASLINKSENSOR (Cylinder type) 	Cylinder rod Position detection	○	○	/	/	○		○	Preventive maintenance, decrease in adjustment production steps and man-hours, traceability, without relay Box
ASLINKSENSOR (Photo interrupter type) 	Light transmission detection	○	x	/	/	○		○	Preventive maintenance, decrease in adjustment production steps and man-hours, traceability, without relay Box
ASLINKSENSOR (Pressure type) 	Air pressure detection	○	○	/	/	○		○	Preventive maintenance, decrease in adjustment production steps and man-hours, traceability, without relay Box

*1 ASLINKER of IP67 structure is also included.

*2 With limitation

Master units / Terminator



Basic products necessary for configuration of AnyWireASLINK system.

	Interface for Each MELSEC Series	· · · · · 19
	Bridge Unit for CC-LINK Network	· · · · · 20
	Gateway for Open Network	· · · · · 21
	Interface for PC Bus	· · · · · 21
	Resend Unit	· · · · · 21
	Bridge for AnyWire DB A20	· · · · · 22
	Terminator	· · · · · 22

◆ Interface for Each MELSEC Series

• MELSEC iQ-R AnyWire Master unit

	Model	RJ51AW12AL	Standard price (¥)	Sold by Mitsubishi Electric Corporation		
	Corresponding CPU*1	R04CPU, R120CPU, R32ENCPU, R32PCPU, R32SFCPU-SET, R08CPU, R04ENCPU, R120ENCPU, R120PCPU, R120SFCPU-SET, R16CPU, R08ENCPU, R08PCPU, R08SFCPU-SET, R12CCPU-V, R32CPU, R16ENCPU, R16PCPU, R16SFCPU-SET				
	Power supply	Circuit: (supplied from iQ-R bus side)	Voltage +5[V]±5% Current 0.2[A] max.			
		Transmission line driver: (Supplied to front panel terminal)	Voltage 24[V] DC +15 to -10% (21.6 to 27.6[V] DC) Ripple 0.5[V]p-p max. Current 0.1[A] (when 128 slave units are connected, not including load current)			
	Number of occupied input/output points	32 points (I/O allotment: Interior 32 points)				
Outer dimensions (mm)	106.0(H)×27.8(W)×124(D)		Mass	200g		

• MELSEC-L AnyWireASLINK Master unit

	Model	LJ51AW12AL	Standard price (¥)	Sold by Mitsubishi Electric Corporation		
	Corresponding CPU*1	L02SCPU, L02SCPU-P, L02CPU, L02CPU-P, L06CPU, L06CPU-P, L26CPU, L26CPU-P, L26CPU-BT, L26CPU-PBT, LJ72GF15-T2				
	Power supply	Circuit: (supplied from L bus side)	Voltage +5[V]±5% Current 0.2[A] max.			
		Transmission line driver: (Supplied to front panel terminal)	Voltage 24[V] DC +15 to -10% (21.6 to 27.6[V] DC) Ripple 0.5[V]p-p max. Current 0.1[A] (when 128 slave units are connected, not including load current)			
	Number of occupied input/output points	32 points (I/O allotment: Interior 32 points)				
Outer dimensions (mm)	90.0(H) × 28.5(W) × 104.5(D)		Mass	200g		

• MELSEC-Q AnyWireASLINK Master unit

	Model	QJ51AW12AL	Standard price (¥)	Sold by Mitsubishi Electric Corporation		
	Corresponding CPU*1	Q00JCPU, Q02PHCPU, Q01UCPU, Q26UDHCPU, Q50UDEHCPU, Q06CCPU-V, Q00CPU, Q06PHCPU, Q02UCPU, Q03UDECPU, Q100UDEHCPU, Q06CCPU-V-B, Q01CPU, Q12PHCPU, Q03UDCPU, Q04UDEHCPU, Q03UDVCPU, Q12DCCPU-V, Q02CPU, Q25PHCPU, Q04UDHCPU, Q06UDEHCPU, Q04UDVCPU, Q24DHCCPU-V, Q02HCPU, Q12PRHCPU, Q06UDHCPU, Q10UDEHCPU, Q06UDVCPU, Q06HCPU, Q25PRHCPU, Q10UDHCPU, Q13UDEHCPU, Q13UDVCPU, Q12HCPU, Q00UJCPU, Q13UDHCPU, Q20UDEHCPU, Q26UDVCPU, Q25HCPU, Q00UCPU, Q20UDHCPU, Q26UDEHCPU, Q06CCPU-V-H01				
	Power supply	Circuit: (supplied from Q bus side)	Voltage +5[V]±5% Current 0.2[A] max.			
		Transmission line driver: (Supplied to front panel terminal)	Voltage 24[V] DC +15 to -10% (21.6 to 27.6[V] DC) Ripple 0.5[V]p-p max. Current 0.1[A] (when 128 slave units are connected, not including load current)			
	Number of occupied input/output points	32 points (I/O allotment: Interior 32 points)				
Outer dimensions (mm)	98.0(H) × 27.4(W) × 100.0(D)		Mass	200g		

• MELSEC iQ-F AnyWireASLINK Master unit

	Model	FX5-ASL-M	Standard price (¥)	Sold by Mitsubishi Electric Corporation		
	Corresponding CPU*1	FX5U, FX5UC				
	Power supply	Circuit: (Supplied from additionally installed cable side)	Voltage +5[V] Current 0.13[A] max.			
		Transmission line driver: (Supplied to front panel terminal)	Voltage 24[V] DC +15 to -10% (21.6 to 27.6[V] DC) Ripple 0.5[V]p-p max. Current 0.1[A] (when 128 slave units are connected, not including load current)			
	Number of occupied input/output points	8 points				
Outer dimensions (mm)	90.0(H) × 40.0(W) × 97.3(D)		Mass	200g		

• MELSEC-F AnyWireASLINK Master block

	Model	FX3U-128ASL-M	Standard price (¥)	Sold by Mitsubishi Electric Corporation		
	Corresponding CPU*1	FX3G (Ver.1.00~), FX3U (Ver.2.20~), FX3GC (Ver.1.40~), FX3UC (Ver.2.20~)				
	Power supply	Circuit: (Supplied from additionally installed cable side)	Voltage +5[V] Current 0.13[A] max.			
		Transmission line driver: (Supplied to front panel terminal)	Voltage 24[V] DC +15 to -10% (21.6 to 27.6[V] DC) Ripple 0.5[V]p-p max. Current 0.1[A] (when 128 slave units are connected, not including load current)			
	Number of occupied input/output points	8 points				
Outer dimensions (mm)	90.0(H) × 43.0(W) × 95.5(D)		Mass	200g		

*1 Confirm details on corresponding CPU and other limitations with the AnyWireASLINK master unit users manual of each product published by Mitsubishi Electric Corporation.

*Master unit = ASLINKMASTER, slave unit = various terminals (ASLINKER, ASLINKTERMINAL, ASLINKAMP, ASLINKSENSOR)

◆ Bridge Unit for CC-LINK Network

• CC-Link-AnyWireASLINK Bridge Unit

	Model	NZ2AW1C2AL	Standard price (¥)	Sold by Mitsubishi Electric Corporation
	OpenFieldBus side Support protocol	Corresponding CC-Link Ver. 1.10, Ver. 2.00 (Switched by setting)		
	Power supply	Transmission line driver: (Supplied to front panel terminal)	Voltage 24[V] DC +15 to -10% (21.6 to 27.6[V] DC) Current 0.2[A] (when 128 slave units are connected, not including load current)	
	Number of occupied stations	Set to Ver. 1.10 (1 station, 2 stations, 3 stations, 4 stations selected) or Ver. 2.00 (4 stations fixed, expanded 2 times setting)		
	Outer dimensions (mm)	105.5(H) x 43.0(W) x 86.0(D)	Mass	200g

• CC-Link IE Field – AnyWireASLINK Bridge Unit

	Model	NZ2AW1GFAL	Standard price (¥)	Sold by Mitsubishi Electric Corporation
	OpenFieldBus side Support protocol	Corresponding CC-Link IE Field		
	Power supply	Transmission line driver: (Supplied to front panel terminal)	Voltage 24[V] DC +15 to -10% (21.6 to 27.6[V] DC) Current 0.3[A] (when 128 slave units are connected, not including load current)	
	Outer dimensions (mm)	105.5(H) x 43.0(W) x 86.0(D)	Mass	200g

Interface

Bridge Unit

Gateway

Interface for PC

Resend Unit

Bridge for AnyWire DB A20

Terminator

*Master unit = ASLINKMASTER, slave unit = various terminals (ASLINKER, ASLINKTERMINAL, ASLINKAMP, ASLINKSENSOR)

◆ Gateway for Open Network

• AnyWireASLINK DeviceNet Gateway*2

	Model	B2G78-D1	Standard price (¥)	Open
	OpenFieldBus side Support protocol	Corresponding DeviceNet		
	Power supply	Transmission line driver: (Supplied to front panel terminal)	Voltage 24[V] DC +15 to -10% (21.6 to 27.6[V] DC) Ripple 0.5[V]p-p max. Current 0.15[A] (when 128 slave units are connected, not including load current)	
	Outer dimensions (mm)	105.8(H) × 43.0(W) × 86.0(D)	Mass	190g

• AnyWireASLINK PROFIBUS Gateway*2

	Model	B2G78-PB1	Standard price (¥)	Open
	OpenFieldBus side Support protocol	Corresponding PROFIBUS		
	Power supply	Transmission line driver: (Supplied to front panel terminal)	Voltage 24[V] DC +15 to -10% (21.6 to 27.6[V] DC) Ripple 0.5[V]p-p max. Current 0.15[A] (when 128 slave units are connected, not including load current)	
	Outer dimensions (mm)	105.8(H) × 43.0(W) × 86.0(D)	Mass	190g

• AnyWireASLINK Ethernet Gateway*2

	Model	B2G78-E1	Standard price (¥)	Open
	OpenFieldBus side Support protocol	SLMP (Seamless Message Protocol) EtherNet/IP Modbus/TCP Response command (0x02) Read Discrete Inputs: BIT IN, (0x01) Read Coils: BIT OUT, (0x05) Write Single Coil: BIT OUT (0x04) Read Input Registers: WORD IN, (0x03) Read Holding Registers: WORD OUT (0x06) Write Single Register: WORD OUT, (0x10) Read Multiple Registers: WORD OUT		
	Power supply	Transmission line driver: (Supplied to front panel terminal)	Voltage 24[V] DC +15 to -10% (21.6 to 27.6[V] DC) Ripple 0.5[V]p-p max. Current 0.15[A] (when 128 slave units are connected, not including load current)	
	Outer dimensions (mm)	105.8(H)×43.0(W)×86.0(D)	Mass	190g

*2 Contact our sales division for digital link function relationship of B2G78-D1, B2G78-PB1 and B2G78-E1.

◆ Master Interface for PC Bus

• AnyWireASLINK Master I/F for PCI Express*3

	Model	B2P8-E01	Standard price (¥)	Open
	PCI Express side specification	PCI Express 2.0 compatible (Gen 2) x1 lane (usable with x1, x4, x8, x16 slots) Low profile compatible (brackets for low profile and standard profile are included)		
	Power supply	Transmission line driver: (Supplies to connector terminal on bracket surface)	Voltage 24[V] DC +15 to -10% (21.6 to 27.6[V] DC) Ripple 0.5[V]p-p max. Current 0.1[A] (when 128 slave units are connected, not including load current)	
	Outer dimensions (mm)	67.9(W)×167.6(D) (Only Master I/F board section)	Mass	65g (when installed with a low profile bracket)

*3 For information regarding B2P8-E01 digital function compatibility, please contact our sales division.

◆ Resend Unit

• AnyWireASLINK resend unit *4

	Model	BR27-01	Standard price (¥)	Open
	Product specifications	Transmission between input terminal and output terminal with the same address setting is conducted. Ex.) When an input is made into the input terminal with address of 50, the output signal is automatically transmitted to the output terminal with address of 50.		
	Power supply	Transmission line driver: (Supplies to connector terminal)	Voltage 24[V] DC +15 to -10% (21.6 to 27.6[V] DC) Ripple 0.5[V]p-p max. Current 0.1[A] (when 128 slave units are connected, not including load current)	
	Outer dimensions (mm)	40.0(H)×100.0(W)×48.0(D)	Mass	200g

*4 For information regarding BR27-01 digital function compatibility, please contact our sales division.

*Master unit = ASLINKMASTER, slave unit = various terminals (ASLINKER, ASLINKTERMINAL, ASLINKAMP, ASLINKSENSOR)

◆ Bridge for AnyWire DB A20

• AnyWireASLINK bridge for DB A20 series *5

	Model	AB27-AL	Standard price (¥)	Open
	Product specifications	AnyWire DB A20 series (dedicated protocol for AnyWire BUS) (Can be used only for 31.3 kHz setting. Only one unit can be connected.)		
	Power supply	Transmission line driver: (Supplies to connector terminal)	Voltage 24[V] DC +15 to -10% (21.6 to 27.6[V] DC) Ripple 0.5[V]p-p max. Current 0.1[A] (when 128 slave units are connected, not including load current)	
	Outer dimensions (mm)	40.2(H)×100.0(W)×40.0(D)	Mass	69g

*5 For information regarding AB27-AL digital function compatibility, please contact our sales division.

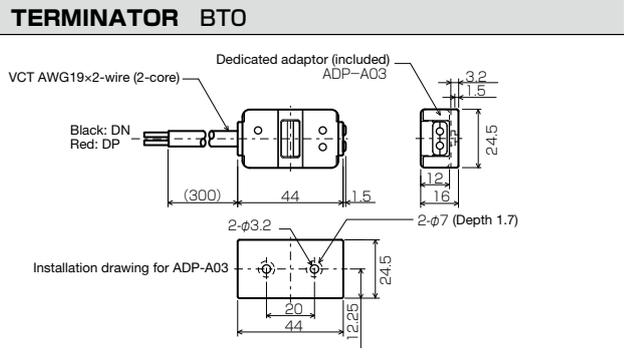
Terminator (Terminator for AnyWireASLINK)

◆ Terminator (Waveform shaping module)

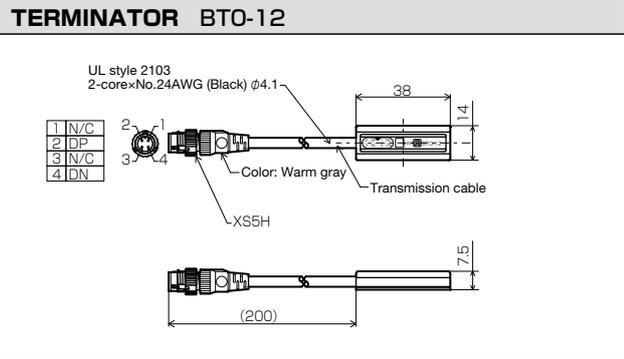
Unit: mm



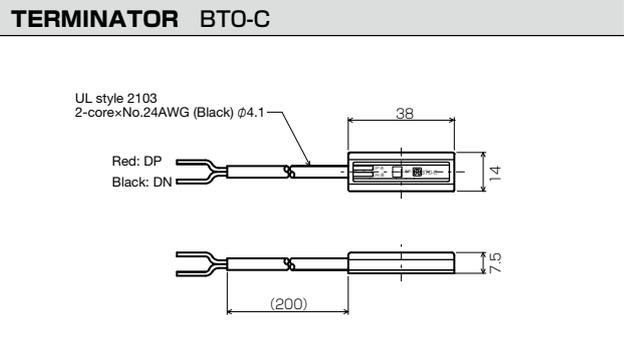
BTO



BTO-12



BTO-C



* Smartclick is a registered trademark of OMRON Corporation.

Product specifications	Dimensions (mm)	Model	Standard price(¥)
Transmission waveform shaping module (with polarity) cable connection (mounting adaptor is included)	44×24.5×12	BTO	Open
Transmission waveform shaping module (with polarity) M12 connector connection (IP67)	14×38×7.5	BTO-12	Open
Transmission waveform shaping module (with polarity) cable connection (IP67)	14×38×7.5	BTO-C	Open
BTO-12 and BTO-C mounting dedicated adaptor (4 adaptors included)		ADP-81	Open

*The dimensions are numerical values excluding the cable section.

*Master unit = ASLINKMASTER, slave unit = various terminals (ASLINKER, ASLINKTERMINAL, ASLINKAMP, ASLINKSENSOR)

Engineering tool



Introduction of address writer and tool required for configuration of system

	Address Writer	· · · · · 25
iQSS	GX Works2	· · · · · 26

Address Writer

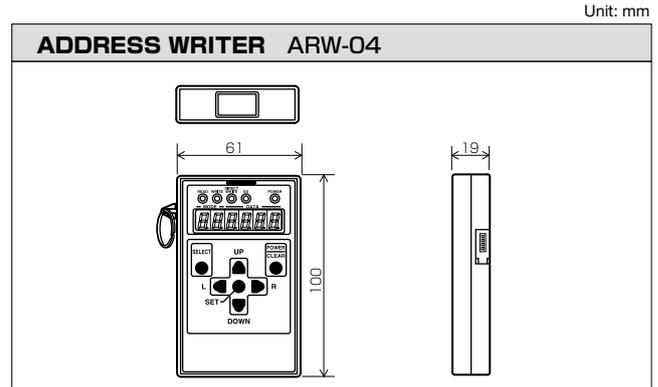
◆ Address Writer



Address writer
ARW-04 appearance

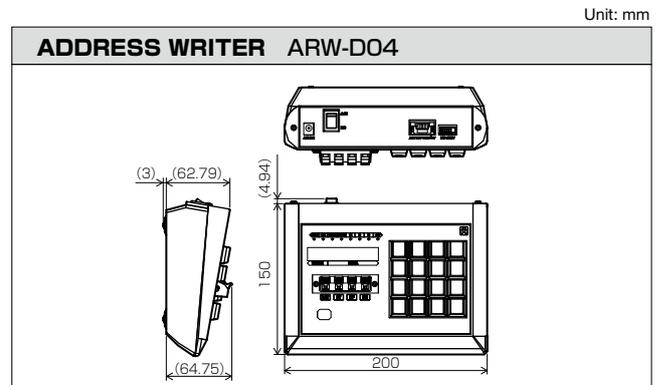


Remote head
ARW-RH appearance



Product specifications	Details	Model	Standardprice (¥)
Address setting Parameter setting Teaching [Reading/writing]	Non-contact setting portable tool by infrared communication 7 segment display, driven by dry battery	ARW-04	Open
	Infrared remote head for setting address, parameter in narrow locations	ARW-RH	Open
	Address writer ARW-04 + infrared remote head	ARW-04-RH	Open

◆ Desktop Address Writer



Product specifications	Details	Model	Standardprice (¥)
Address setting Parameter setting Teaching [Reading/writing]	Address setting, parameter setting and teaching by infrared communications or parameter setting through transmission line Dry batteries or AC adaptor drive	ARW-D04	Open
	Transmission line extension cable for ARW-D04 (50cm with 4-pole LP connectors on both ends)	ARW-EX-L4L4	Open
	Transmission line extension cable for ARW-D04 (50cm with 4-pole LP connector-M12 connector)	ARW-EX-L412	Open

*It is necessary to connect with the transmission line (LP connector connection/push terminal connection) even when setting by infrared communication.

See page 163 for details on the address writer and desktop address writer.

◆ **GX Works2**

AnyWireASLINK is compatible with iQSS, which allows the sensor state to be easily monitored and adjusted in the engineering environment “GX Works2” of Mitsubishi Electric Corporation.

- Monitoring of sensor state
- Adjustment of set values
- Backup/restoration of set values

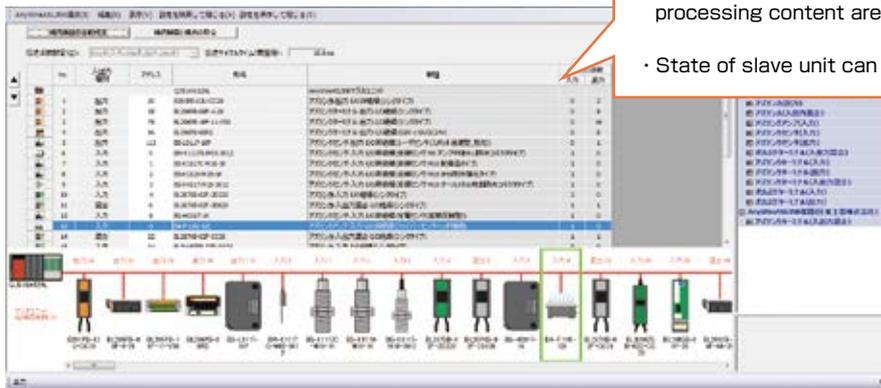


Address Writer

GX Works2

Easy startup

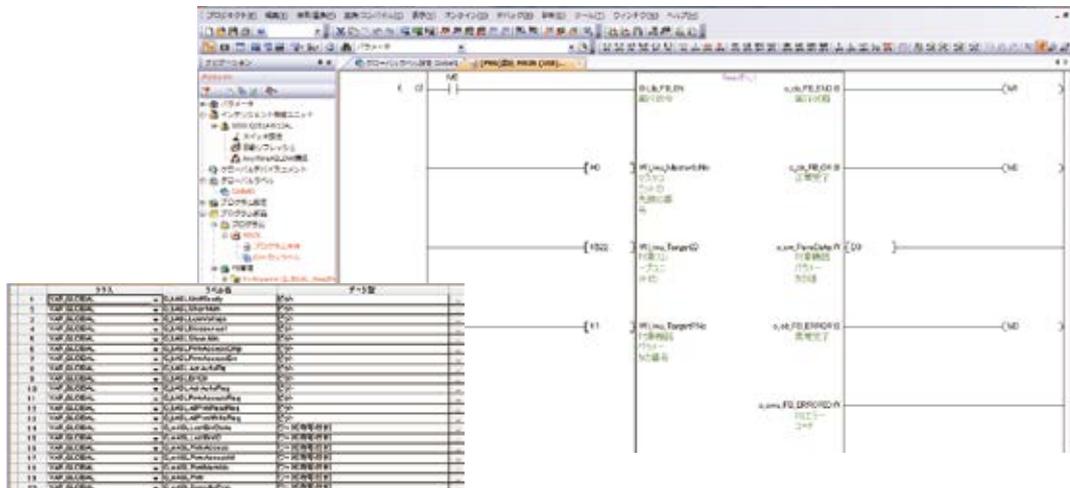
System configuration diagram is automatically created.
Each slave unit can be set from the system configuration diagram.



- Slave units are automatically detected and added to the system configuration diagram.
- Troubleshooting is easy! Error codes and processing content are displayed.
- State of slave unit can be easily grasped.

Easy programming

Function block (FB), sample ladders and sample screens allow for easy programming.

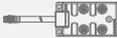


FB (function block) are available to download from MELSOFT Library corner on the Mitsubishi Electric Corporation FA website.
For details of GW Works2 and iQSS, contact Mitsubishi Electric Corporation.

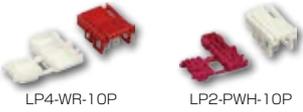
Accessories / Special Units



Introduction of cables, connectors and filter convenient for system configuration

	Transmission Cable and Connector	29
	Branch Unit (IP67)	31
	Cabtire Cable (IP67)	31
	Filter	32

◆ AnyWire Cable/Connector (AnyWire transmission cable & connector)

Product specifications	Details	Model	Standard price(¥)
Flat cable (100m winding) (1.25sq = Conductor resistance 0.015Ω/m · Allowable current 12.7A) (0.75sq = Conductor resistance 0.025Ω/m · Allowable current 7A) (Image on page at right.)	2-core flat cable (AWG16 (1.25sq)×2-core, insulating coating outer diameter φ2.5±0.1mm)	FK2-125-100	Open
	2-core flat cable (AWG18 (0.75sq)×2-core, insulating coating outer diameter φ2.5±0.1mm)	FK2-075-100	Open
	4-core flat cable (AWG16 (1.25sq)×4-core, insulating coating outer diameter φ2.5±0.1mm)	FK4-125-100	Open
	4-core flat cable (AWG18 (0.75sq)×4-core, insulating coating outer diameter φ2.5±0.1mm)	FK4-075-100	Open
LP connector (10 connectors included) *Crimp type link connector (Allowable current 5A)  LP4-WR-10P LP2-PWH-10P Body color Red: for wire diameter size 1.25sq Black: for wire diameter size 0.75sq Gray: for wire diameter size 0.5sq White: for wire diameter size 0.3sq	2 pole type For 2-core flat cable (1.25sq) (Coating outer diameter φ2.54mm Cover: Black Body: Red) For 2-core flat cable (0.75sq) (Coating outer diameter φ2.54mm Cover: Black Body: Black) For cabtire cable (Coating outer diameter φ 1.8 to 2.1mm Cover: yellow Body: Gray) For cabtire cable (Coating outer diameter φ 1.4 to 1.7mm Cover: Pink Body: White)	LP2-BR-10P	Open
		LP2-BK-10P	Open
		LP2-YEG-10P	Open
		LP2-PWH-10P	Open
	4 pole type For 4-core flat cable (1.25sq) (Coating outer diameter φ2.54mm Cover: White Body: Red) Pin protector type For 4-core flat cable (0.75sq) (Coating outer diameter φ2.54mm Cover: White Body: Black) Pin protector type For cabtire cable (Coating outer diameter φ 1.1 to 1.4mm Cover: White Body: White) For cabtire cable (Coating outer diameter φ 2.1 to 2.4mm Cover: Orange Body: Black) For cabtire cable (Coating outer diameter φ 1.8 to 2.1mm Cover: Yellow Body: Black) For cabtire cable (Coating outer diameter φ 2.1 to 2.4mm Cover: Orange Body: Gray) For cabtire cable (Coating outer diameter φ 1.8 to 2.1mm Cover: Yellow Body: Gray)	LP4-WR-10P	Open
		LP4-WH-10P	Open
		LP4-OR-10P	Open
		LP4-YE-10P	Open
		LP4-ORG-10P	Open
		LP4-YEG-10P	Open
		LP4-WW-10P	Open
		LE connector (10 connectors included) *Crimp type e-CON connection link connector 	4-core flat cable (for 1.25 sq) with a built-in 4-pole e-CON socket (Coating outer diameter φ 2.54mm Cover: Black Body: Red)
LE connector (100 connectors included) *Crimp type e-CON connection link connector	4-core flat cable (for 1.25 sq) with a built-in 4-pole e-CON socket (Coating outer diameter φ 2.54mm Cover: Black Body: Red)	LE4-BR-100P	Open
Crimping tool for LP/LE connector 	Crimping tool dedicated to LP/LE connector (The connector can be crimped by pliers, etc., however, a dedicated tool is recommended)	LP-TOOL	Open
T attachment (100 pieces are included) * This cannot be inserted and removed after connection. 	For 4-core flat cable (1.25sq) (coating outer diameter φ 2.54mm for 1.25sq-1.25sq branching)	TA4-GB-100P	Open
	For 4-core flat cable (1.25sq) (coating outer diameter φ 2.54mm for 1.25sq-0.3sq branching)	TA4-WB-100P	Open
Crimping tool for T attachment	Crimping tool dedicated for T attachment (The connector can be crimped by pliers, etc., however, a dedicated tool is recommended)	TA-TOOL	Open
EP connector (8 connectors are included) * Crimp type sensor connector (Used for e-CON connection type (4-pole))  EP4-BL-8P EP4-RE-8P e-con compliant	For sensor connection (0.14 to less than 0.3sq, Coating outer diameter φ 0.8 to 1.0mm Color: Red)	EP4-RE-8P	Open
	For sensor connection (0.14 to less than 0.3sq, Coating outer diameter φ 1.0 to 1.2mm Color: Yellow)	EP4-YE-8P	Open
	For sensor connection (0.14 to less than 0.3sq, Coating outer diameter φ 1.2 to 1.6mm Color: Orange)	EP4-OR-8P	Open
	For sensor connection (0.3 to 0.5sq, Coating outer diameter φ 1.0 to 1.2mm Color: Green)	EP4-GR-8P	Open
	For sensor connection (0.3 to 0.5sq, Coating outer diameter φ 1.2 to 1.6mm Color: Blue)	EP4-BL-8P	Open
	For sensor connection (0.3 to 0.5sq, Coating outer diameter φ 1.6 to 2.0mm Color: Gray)	EP4-GL-8P	Open
Crimping tool for EP connector 	Crimping tool dedicated to EP connector (The connector can be crimped by pliers, etc., however, a dedicated tool is recommended)	EP-TOOL	Open

◇ Flat cable appearance photo



2-core flat cable
AWG16 (1.25sq)×2-core
(DN:DP from the left)



2-core flat cable
AWG18 (0.75sq)×2-core
(DN:DP from the left)



4-core flat cable
AWG16 (1.25sq)×4-core
(DN:DP:0V:24V from the left)



4-core flat cable
AWG18 (0.75sq)×4-core
(DN:DP:0V:24V from the left)



Photo 1

When using the combination of the dedicated flat cable and LP connector (link connector), connect wires so that the black electric wire (DN line) is on the hinge side (No.1) of the connector cover as shown in the photo 1.



Photo 2

Furthermore, if 2-core and 4-core cables are mixed, they can be mutually connected by using an LP connector (link connector) for a 4-core cable even for a 2-core cable. In that case, also set electric wires so that the black electric wire (DN line) is on No.1 of the connector cover as shown in the photo 2, and connect wires as No. 3/4 are kept blank.

“Correspondence table of AnyWireASLINK and applicable connectors” is provided on page 165. See the table when selecting connectors.

Transmission Cable
and Connector

Branch Unit (IP67)

Cabtree Cable (IP67)

Filter

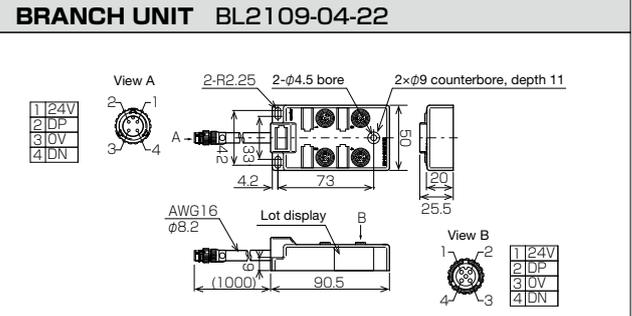
Others Units

◆ Branch unit (IP67) With M12 connector straight plug

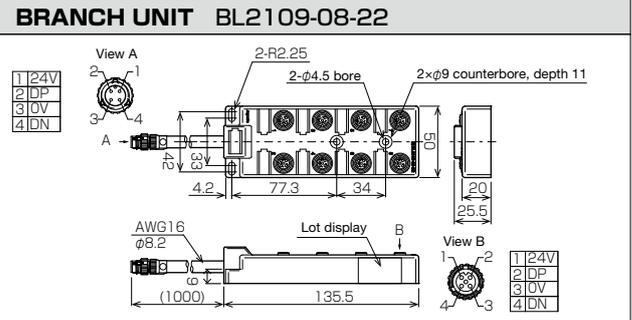
Unit: mm



BL2109-04-22



BL2109-08-22



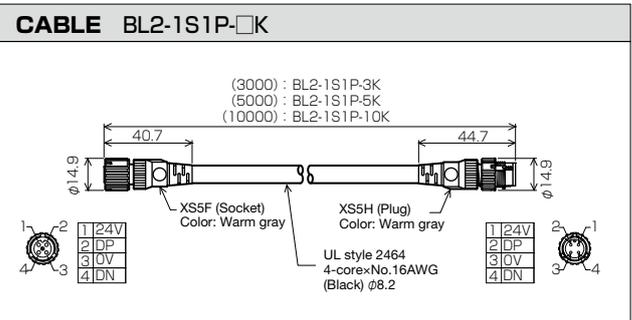
Product specifications	Details	Model	Standard price(¥)
Branch unit (IP67) With M12 connector straight plug	4 ports	BL2109-04-22	Open
	8 ports	BL2109-08-22	Open

◆ Cabtyre cable (IP67) (1.25sq) With M12 connector

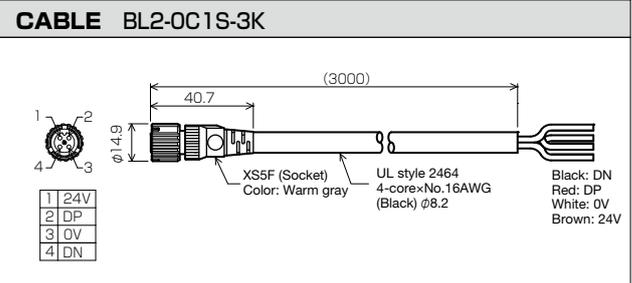
Unit: mm



BL2-1S1P-□K



BL2-0C1S-3K



Product specifications	Details	Model	Standard price(¥)
Cabtyre cable (IP67) (1.25sq) With M12 connector	Straight socket M12/straight plug M12, 3m	BL2-1S1P-3K	Open
	Straight socket M12/straight plug M12, 5m	BL2-1S1P-5K	Open
	Straight socket M12/straight plug M12, 10m	BL2-1S1P-10K	Open
	4-core discrete-wire/straight socket M12, 3m	BL2-0C1S-3K	Open

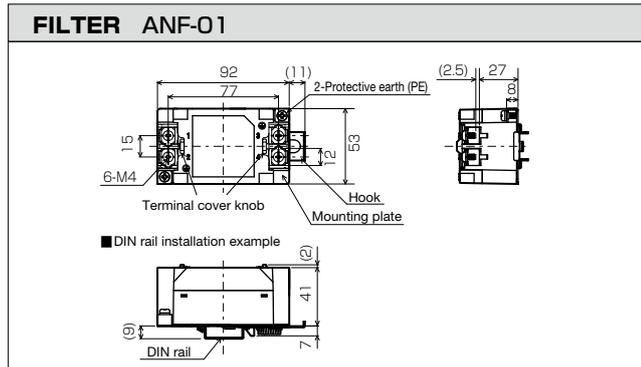
*When connecting an M12 connector spec waterproof cable as a trunk line or branch line when using various slave devices compatible with IP67 (IP66), use our products listed above (such as BL2-1S1P) with an internal wiring spec of 1.25sq wherever possible. If you would like to use a smaller wire diameter waterproof cable for routing, the OMRON XS5 series is recommended (As the internal wiring is 0.5sq, it is necessary to pay attention to the DP-DN allowable supply current value when using an XS5 series waterproof cable totaling 10m or longer for one system. Please contact us for details). Furthermore, as some XS5 series products cannot be used, please contact our technical support service listed at the end of this booklet or our sales division.

* is a registered trademark of OMRON Corporation.

◆ **Filter**



Unit: mm



Product specifications	Dimensions (mm)	Model	Standard price (¥)
Filter for 24V line	92×53×41	ANF-01	Open

*Use this filter when total extension of DP, DN, 24V and 0V lines exceed 50m in a power supply system to be supplied.

*Thoroughly check the specifications with the Product Guide.

Transmission Cable
and Connector

Branch Unit (IP67)

Cable Cable (IP67)

Filter

Slave Units (I/O)



I/O terminals compatible with general-purpose I/O equipment

	ASLINKER SmartLINKER (Disconnection Detection LINKER)	35
	ASLINKER Cable Type	39
	ASLINKER M12 Connector Type	47
	ASLINKTERMINAL Small Terminal Block Terminal (8/16 Points)	49
	ASLINKTERMINAL Integrated Small Terminal (4/8/16 Points)	61
	ASLINKTERMINAL Small 8-Point Terminal	65
	ASLINKTERMINAL Relay Terminal	69
	ASLINKTERMINAL Manifold Driver	70
	List of Specifications	71

ASLINKER

◆ SmartLINKER (Disconnection detection LINKER)

SmartLINKER is an ultra-small I/O terminal that can diagnose **output line disconnection**, **power line short-circuit**, **power line disconnection** and **0 volt line disconnection** in real time while operating 2-wire and 3-wire type sensors. This provides strong support for prompt recovery of the system.



Intelligent Sho-Haisen that can detect sensor disconnection and short-circuit in real time
The answer is

SmartLINKER

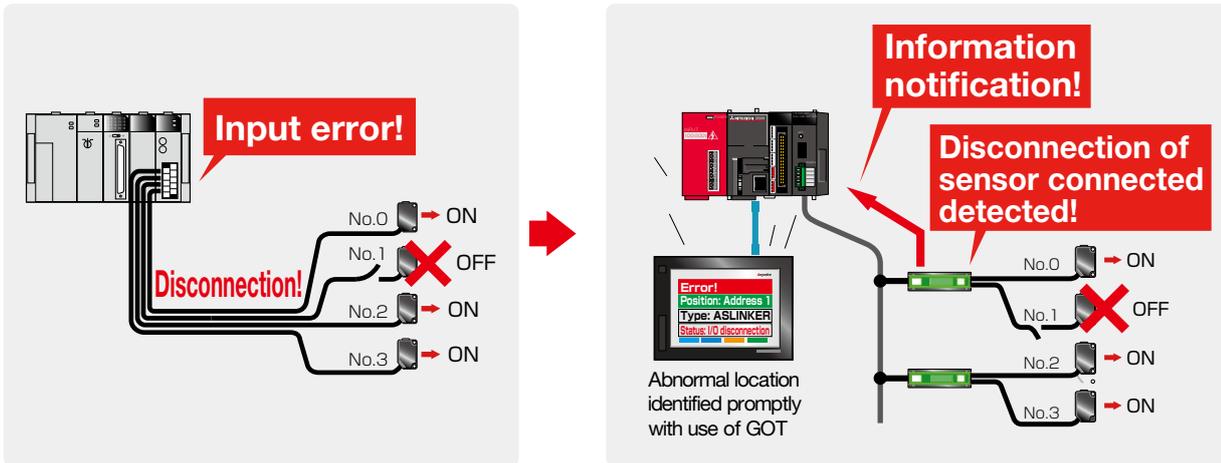
- ASLINKER SmartLINKER
- ASLINKER M12/M12 Cable Type
- ASLINKER M12/M8 Cable Type
- ASLINKER Cable Type
- ASLINKER M12 Connector Type
- ASLINKTERMINAL Small Terminal Block Terminal
- ASLINKTERMINAL Integrated Small Terminal
- ASLINKTERMINAL Small 8-Point Terminal
- ASLINKTERMINAL Relay
- ASLINKTERMINAL Manifold Driver
- List of Specifications

Detection of sensor cable disconnection

ASLINKER of AnyWireASLINK monitors disconnection of 2-wire sensor cable connected and notifies the sequencer.

SmartLINKER is also available for 3-wire sensor disconnection.

This function helps identify the cause and location of disconnection even when it cannot be seen from outside, providing support for prompt recovery.



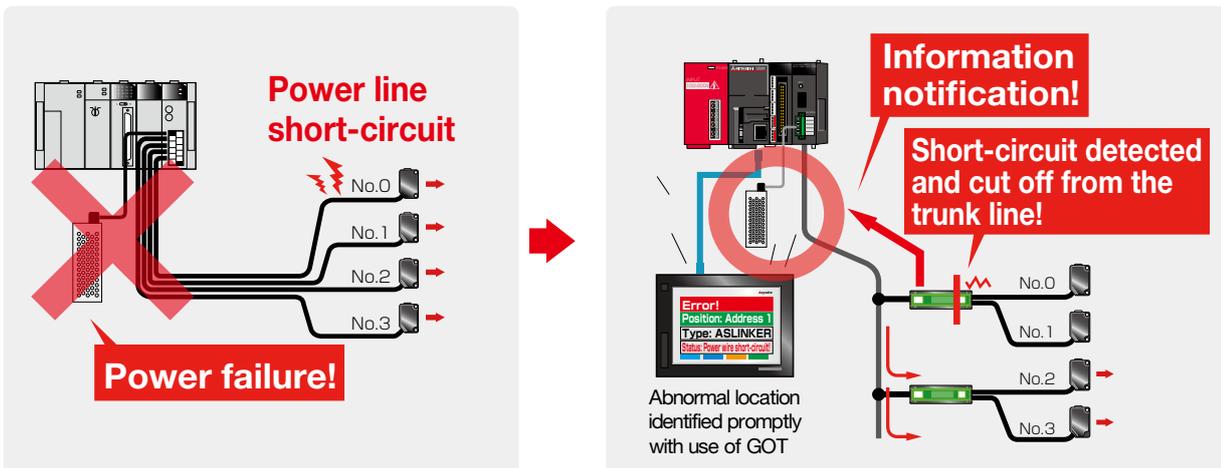
ASLINKER SmartLINKER
ASLINKER M12/M12 Cable Type
ASLINKER M12/M8 Cable Type
ASLINKER Cable Type
ASLINKER M12 Connector Type
ASLINKER TERMINAL Small Terminal Block Terminal
ASLINKER TERMINAL Integrated Small Terminal
ASLINKER TERMINAL Small 8-Point Terminal
ASLINKER TERMINAL Relay
ASLINKER TERMINAL Manifold Driver
List of Specifications

Detection of power line short-circuit of 3-wire type sensor

SmartLINKER monitors power line short-circuit of sensor cable connected, and cuts off from the trunk line when short-circuit occurs.

Thanks to this function, stop of the entire system for a long time due to power failure can be avoided in case of power line short-circuit.

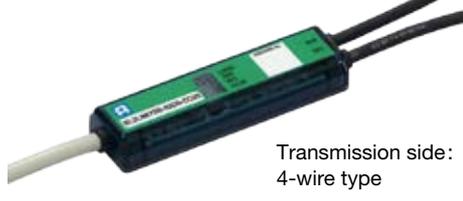
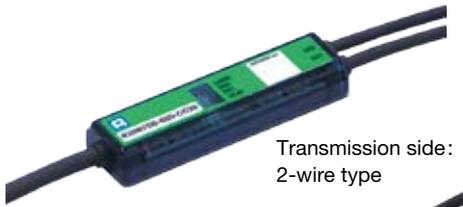
What's more, notification from SmartLINKER allows for prompt identification of abnormal location.



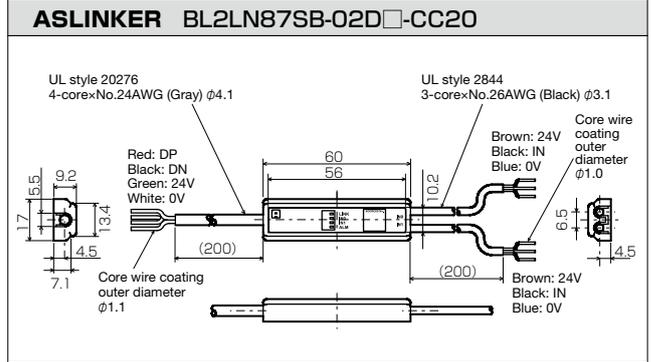
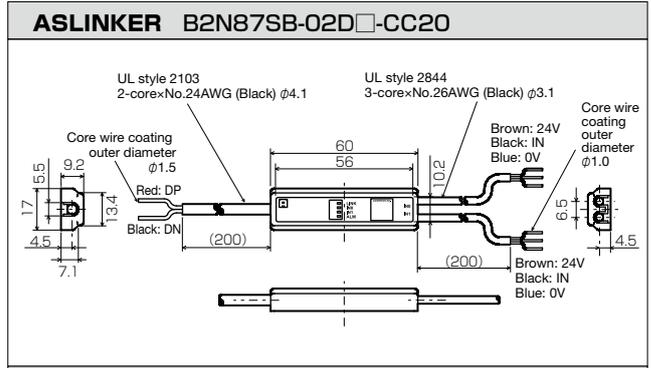
◆ **SmartLINKER (Disconnection detection LINKER)**

< Outline Dimensional Drawings >

Unit: mm



Adaptor ADP-87 ASLINKER can be mounted with screws using the adaptor.



< Specifications >



DimensionA: 17×60×9.2

/ : Not applicable - : Not determined

Model	Number of I/O points		Input/output specifications	Method	Consumption current (mA)		Connection	Dimension (mm)	Mass (g)	Input resistance/1 point (kΩ)		Output max. ON current (mA)		Response time	Standard price (¥)
	Input	Output			Transmission side	I/O side				Per 1 point	Per 1 common				
B2N87SB-02D-CC20	2	/	DC input	NPN	3.4	/	2-wire type (non-insulation)	A	20	6.8	/	/	Max. 1ms	Open	
B2N87SB-02DS-CC20	2	/	DC input	PNP	3.4	/	2-wire type (non-insulation)	A	20	6.8	/	/	Max. 1ms	Open	
BL2LN87SB-02D-CC20	2	/	DC input	NPN	1.5	10.0	4-wire type (insulation)	A	20	6.8	/	/	Max. 1ms	Open	
BL2LN87SB-02DS-CC20	2	/	DC input	PNP	1.5	9.2	4-wire type (insulation)	A	20	6.8	/	/	Max. 1ms	Open	
ADP-87	ASLINKER mounting dedicated adaptor (4 adaptors included)													Open	

*The dimensions are numerical values excluding the cable section.

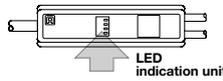
Functional icon indication *See page 15 for details on function.	Sensing level monitoring	Reading/writing of sensor sensitivity setting	Sensor cable disconnection detection	Interference countermeasure unnecessary	DP/DN disconnection	DP/DN short-circuit	24V drop	ID (address) Duplicate/Not set
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< LED indication >

Target model		
B2N87SB-02D□-CC20		
LED symbol	Indication status	Detailed status
LINK (Green)	On	Transmission signal error
	Flashing	Transmission signal reception
	Off	No transmission signal (including disconnection and reverse connection of DP and DN)
ALM (Red)	On	I/O short-circuit or disconnection
	Flashing	Slave unit voltage decrease
	Off	Normal
LINK ALM	Alternate flashing LINK ALM	When master unit detects that the ID (address) of this unit is duplicated or not set
I/O	On	Input ON
	Off	Input ON
	Flashing	Flashing in synchronization with LINK in case of I/O disconnection

Target model		
BL2LN87SB-02D□-CC20		
LED symbol	Indication status	Detailed status
LINK (Green)	On	Transmission signal error
	Flashing	Transmission signal reception
	Off	No transmission signal (including disconnection and reverse connection of DP and DN)
ALM (Red)	On	I/O disconnection, I/O short-circuit, I/O voltage decrease
	Flashing	Slave unit voltage decrease
	Off	Normal
LINK ALM	Alternate flashing LINK ALM	When master unit detects that the ID (address) of this unit is duplicated or not set
I/O	On	Input ON
	Off	Input ON
	Flashing	Flashing in synchronization with LINK in case of I/O disconnection

B2N87SB-02D□-CC20
BL2LN87SB-02D□-CC20



LED indication unit

< Circuit diagram >

Target model	
B2N87SB-02D□-CC20	
<p>NPN input circuit</p> <p><Circuit requirements></p> <p>Rated input voltage : DC24V Maximum switching current : 3.5mA ON current : 2.2mA or more OFF current : 1mA or less ON voltage : 16V or more (between 24VL and IN) OFF voltage : 8V or less (between 24VL and IN) 24VL supply current : 50mA Max. (each point) (between 24VL and 0VL)</p> <p>SmartLINKER side Sensor side Current detection (The circuit diagram is a typical example.)</p>	<p>PNP input circuit</p> <p><Circuit requirements></p> <p>Rated input voltage : DC24V Maximum switching current : 3.5mA ON current : 2.2mA or more OFF current : 1mA or less ON voltage : 16V or more (between IN and 0VL) OFF voltage : 8V or less (between IN and 0VL) 24VL supply current : 50mA Max. (each point) (between 24VL and 0VL)</p> <p>SmartLINKER side Sensor side Current detection (The circuit diagram is a typical example.)</p>

Target model	
BL2LN87SB-02D□-CC20	
<p>NPN input circuit</p> <p><Circuit requirements></p> <p>Rated input voltage : DC24V Maximum switching current : 3.5mA ON current : 2.2mA or more OFF current : 1mA or less ON voltage : 16V or more (between 24VL and IN) OFF voltage : 8V or less (between 24VL and IN) 24V allowable current : 50mA Max. (each point) (between 24VL and 0VL)</p> <p>SmartLINKER side Sensor side Current detection (The circuit diagram is a typical example.)</p>	<p>PNP input circuit</p> <p><Circuit requirements></p> <p>Rated input voltage : DC24V Maximum switching current : 3.5mA ON current : 2.2mA or more OFF current : 1mA or less ON voltage : 16V or more (between IN and 0VL) OFF voltage : 8V or less (between IN and 0VL) 24V allowable current : 50mA Max. (each point) (between 24VL and 0VL)</p> <p>SmartLINKER side Sensor side Current detection (The circuit diagram is a typical example.)</p>

Functional icon indication
*See page 15 for details on function.



Sensing level monitoring



Reading/writing of sensor sensitivity setting



Sensor cable disconnection detection



Interference countermeasure for transmission line unnecessary



DP/DN disconnection detection



DP/DN short-circuit detection



24V drop detection



ID (address) redundant, non-setting detection

ASLINKER

◆ M12/M12 cable type (IP67)



BL287SB-02F-2D220



BL287XB-02F-2D220



BL287PB-02F-2D220

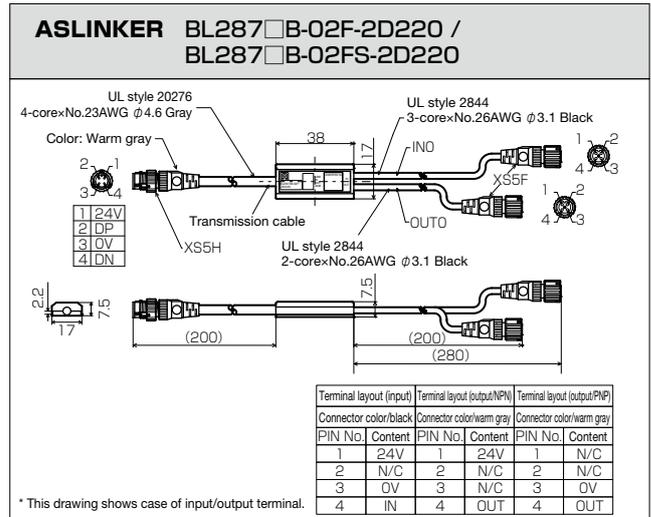


Adaptor ADP-87
ASLINKER can be mounted with screws using the adaptor.

Transmission side: M12
I/O side: M12

< Outline Dimensional Drawings >

Unit: mm



< Specifications >



Dimension A: 17 × 38 × 7.5

/: Not applicable -/: Not determined

Model	Number of I/O points		Input/output specifications	Method	Consumption current (mA)		Connection	Dimension (mm)	Mass (g)	Input resistance/1 point (k Ω)	Output max. ON current (mA)		Response time	Standard price (¥)
	Input	Output			Transmission side	I/O side					Per 1 point	Per 1 common		
BL287SB-02F-2D220	2	/	DC input	NPN	3.4	11.2	4-wire type (insulation)	A	45	6.8	/	/	Max. 1ms	Open
BL287SB-02FS-2D220	2	/	DC input	PNP	3.4	11.2	4-wire type (insulation)	A	45	6.8	/	/	Max. 1ms	Open
BL287XB-02F-2D220	1	1	DC input / Tr output	NPN	3.5	8.0	4-wire type (insulation)	A	45	6.8	100	100	Max. 1ms	Open
BL287XB-02FS-2D220	1	1	DC input / Tr output	PNP	3.6	8.0	4-wire type (insulation)	A	45	6.8	100	100	Max. 1ms	Open
BL287PB-02F-2D220	/	2	Tr output	NPN	3.8	4.7	4-wire type (insulation)	A	45	/	100	200	Max. 1ms	Open
BL287PB-02FS-2D220	/	2	Tr output	PNP	3.8	4.7	4-wire type (insulation)	A	45	/	100	200	Max. 1ms	Open
ADP-87	4-wire type ASLINKER mounting dedicated adaptor (4 adaptors included)													Open

*The dimensions are numerical values excluding the cable section.

*Contact our sales division if you would like to request products of connector and cable specifications other than the above.

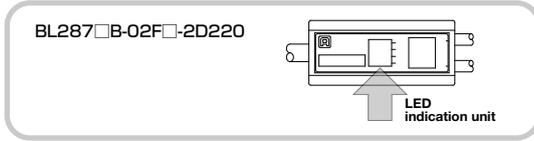
*ASLINKER M12/M18 cable type (IP67) of 2-wire (non-insulation) can be made according to order.

Functional icon indication *See page 15 for details on function.	Sensing level monitoring	Reading/writing of sensor sensitivity setting	Sensor cable disconnection detection	Interference countermeasure for transmission line unnecessary	Transmission line disconnection detection	Transmission line short-circuit detection	Transmission circuit drive power drop detection	ID (address) redundant, non-setting detection
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* is a registered trademark of OMRON Corporation.

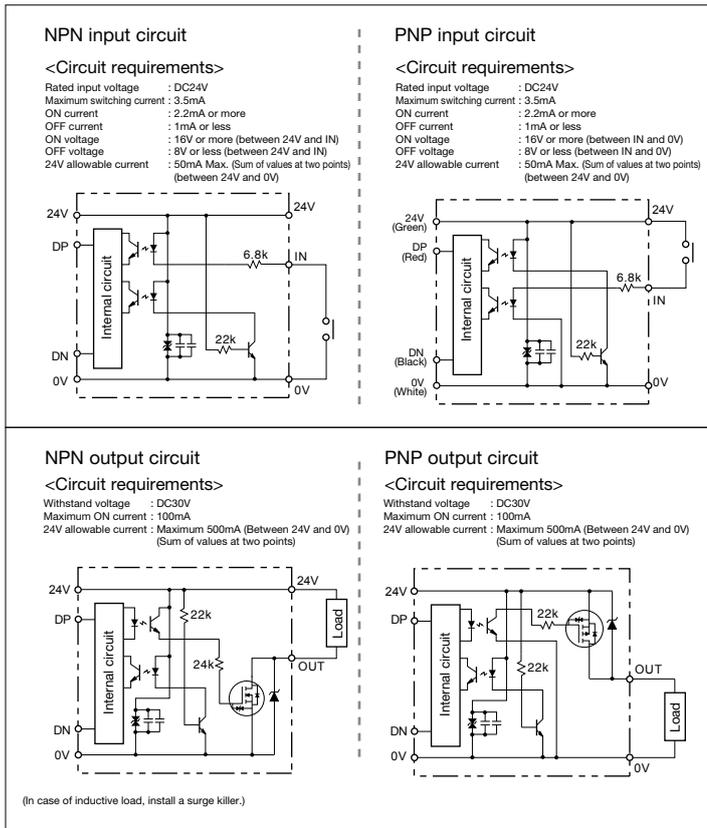
< LED indication >

LED symbol	Indication status	Detailed status
LINK (Green)	On	Transmission signal error
	Flashing	Transmission signal reception
	Off	No transmission signal (including disconnection and reverse connection of DP and DN)
ALM (Red)	On	I/O power supply decrease
	Flashing	Slave unit voltage decrease
	Off	Normal
LINK ALM	Alternate flashing LINK ALM	When master unit detects that the ID (address) of this unit is duplicated or not set
I/O (Orange)	On	Input ON
	Off	Input ON



- ASLINKER SmartLINKER
- ASLINKER M12/M12 Cable Type
- ASLINKER M12/M8 Cable Type
- ASLINKER Cable Type
- ASLINKER M12 Connector Type
- ASLINKTERMINAL Small Terminal Block Terminal
- ASLINKTERMINAL Integrated Small Terminal
- ASLINKTERMINAL Small 8-Point Terminal
- ASLINKTERMINAL Relay
- ASLINKTERMINAL Manifold Driver
- List of Specifications

< Circuit diagram >



Functional icon indication

*See page 15 for details on function.



Sensing level monitoring



Reading/writing of sensor sensitivity setting



Sensor cable disconnection detection



Interference countermeasure for transmission line unnecessary



Transmission line disconnection detection



Transmission line short-circuit detection



Transmission circuit drive power drop detection



ID (address) redundant, non-setting detection

ASLINKER

◆ M12/M8 cable type (IP67)



BL287SB-02F-2D820



BL287XB-02F-2D820

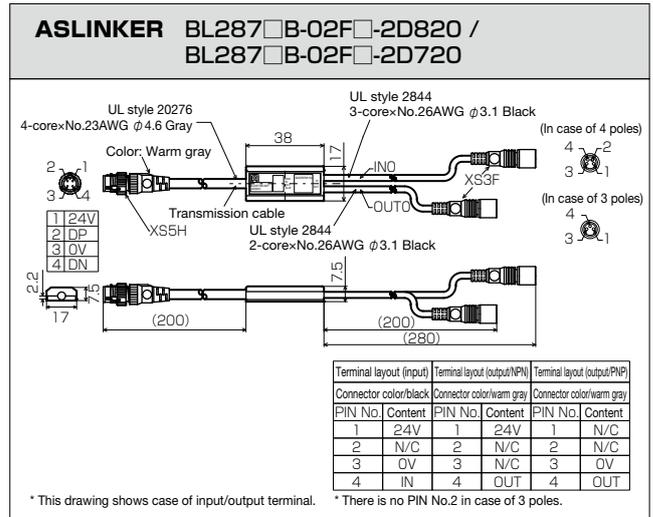
Transmission side: M12
I/O side: M8



Adaptor ADP-87
ASLINKER can be mounted with screws using the adaptor.

< Outline Dimensional Drawings >

Unit: mm



< Specifications >



Dimension A: 17×38×7.5

/: Not applicable --: Not determined

Model	Number of I/O points		Input/output specifications	Method	Consumption current (mA)		Connection	Dimension (mm)	Mass (g)	Input resistance/1 point (kΩ)		Output max. ON current (mA)		Response time	Standard price (¥)
	Input	Output			Transmission side	I/O side				Per 1 point	Per 1 common				
BL287SB-02F-2D820	2		DC input	NPN	3.4	11.2	4-wire type (insulation)	A	35	6.8			Max. 1ms	Open	
BL287SB-02FS-2D820	2		DC input	PNP	3.4	11.2	4-wire type (insulation)	A	35	6.8			Max. 1ms	Open	
BL287XB-02F-2D820	1	1	DC input / Tr output	NPN	3.5	8.0	4-wire type (insulation)	A	35	6.8	100	100	Max. 1ms	Open	
BL287XB-02FS-2D820	1	1	DC input / Tr output	PNP	3.6	8.0	4-wire type (insulation)	A	35	6.8	100	100	Max. 1ms	Open	
BL287SB-02F-2D720 <small>Note 1)</small>	2		DC input	NPN	3.4	11.2	4-wire type (insulation)	A	35	6.8			Max. 1ms	Open	
BL287SB-02FS-2D720 <small>Note 1)</small>	2		DC input	PNP	3.4	11.2	4-wire type (insulation)	A	35	6.8			Max. 1ms	Open	
BL287XB-02F-2D720 <small>Note 2)</small>	1	1	DC input / Tr output	NPN	3.5	8.0	4-wire type (insulation)	A	35	6.8	100	100	Max. 1ms	Open	
BL287XB-02FS-2D720 <small>Note 2)</small>	1	1	DC input / Tr output	PNP	3.6	8.0	4-wire type (insulation)	A	35	6.8	100	100	Max. 1ms	Open	
ADP-87	4-wire type ASLINKER mounting dedicated adaptor (4 adaptors included)													Open	

Note 1): M8 connector specification is 3 poles.

Note 2): M8 connector specification is 3 poles for input, and 4 poles for output.

*The dimensions are numerical values excluding the cable section.

*Contact our sales division if you would like to request products of connector and cable specifications other than the above.

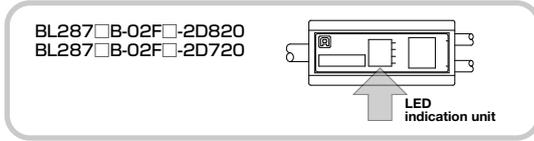
*ASLINKER M12/M18 cable type (IP67) of 2-wire (non-insulation) can be made according to order.

Functional icon indication *See page 15 for details on function.	Sensing level monitoring	Reading/writing of sensor sensitivity setting	Sensor cable disconnection detection	Interference countermeasure for transmission line unnecessary	Transmission line disconnection detection	Transmission line short-circuit detection	Transmission circuit drive power drop detection	ID (address) redundant, non-setting detection
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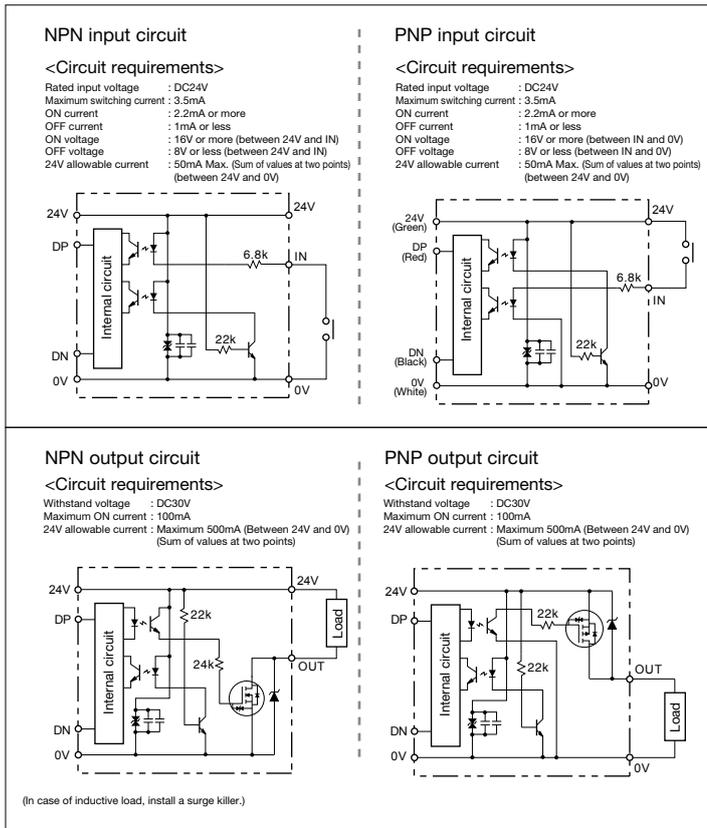
* is a registered trademark of OMRON Corporation.

< LED indication >

LED symbol	Indication status	Detailed status
LINK (Green)	On	Transmission signal error
	Flashing	Transmission signal reception
	Off	No transmission signal (including disconnection and reverse connection of DP and DN)
ALM (Red)	On	I/O power supply decrease
	Flashing	Slave unit voltage decrease
	Off	Normal
LINK ALM	Alternate flashing LINK ALM	When master unit detects that the ID (address) of this unit is duplicated or not set
I/O (Orange)	On	Input ON
	Off	Input OFF

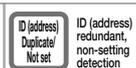
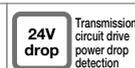
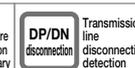
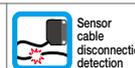


< Circuit diagram >



- ASLINKER SmartLINKER
- ASLINKER M12/M12 Cable Type
- ASLINKER M12/M8 Cable Type
- ASLINKER Cable Type
- ASLINKER M12 Connector Type
- ASLINKTERMINAL Small Terminal Block Terminal
- ASLINKTERMINAL Integrated Small Terminal
- ASLINKTERMINAL Small 8-Point Terminal
- ASLINKTERMINAL Relay
- ASLINKTERMINAL Manifold Driver
- List of Specifications

Functional icon indication
 *See page 15 for details on function.



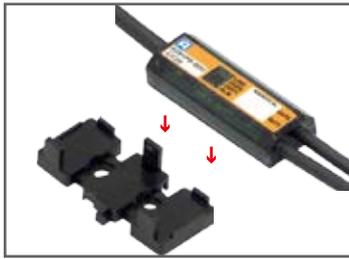
◆ Cable type 2-wire type

< Outline Dimensional Drawings >

Unit: mm

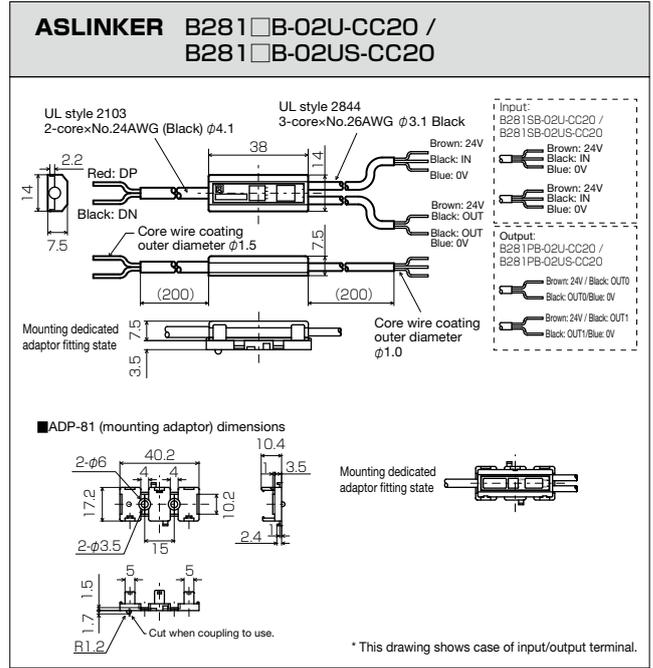


Transmission side: 2-wire type



Adaptor ADP-81

ASLINKER can be mounted with screws using the adaptor.



< Specifications >



DimensionA: 14×38×7.5

/ : Not applicable - : Not determined

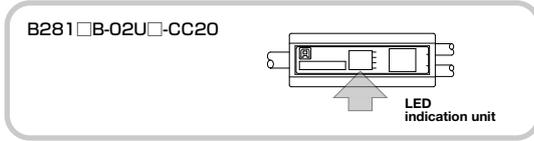
Model	Number of I/O points		Input/output specifications	Method	Consumption current (mA)		Connection	Dimension (mm)	Mass (g)	Input resistance/1 point (kΩ)		Output max. ON current (mA)		Response time	Standard price (¥)
	Input	Output			Transmission side	I/O side				Per 1 point	Per 1 common	Per 1 point	Per 1 common		
B281SB-02U-CC20	2	/	DC input	NPN	15.4	/	2-wire type (non-insulation)	A	15	6.8	/	/	/	Max. 1ms	Open
B281SB-02US-CC20	2	/	DC input	PNP	13.5	/	2-wire type (non-insulation)	A	15	6.8	/	/	/	Max. 1ms	Open
B281XB-02U-CC20	1	1	DC input / Tr output	NPN	10.5	/	2-wire type (non-insulation)	A	15	6.8	100	100	Max. 1ms	Open	
B281XB-02US-CC20	1	1	DC input / Tr output	PNP	10.1	/	2-wire type (non-insulation)	A	15	6.8	100	100	Max. 1ms	Open	
B281PB-02U-CC20	/	2	Tr output	NPN	5.5	/	2-wire type (non-insulation)	A	15	/	100	100	Max. 1ms	Open	
B281PB-02US-CC20	/	2	Tr output	PNP	6.5	/	2-wire type (non-insulation)	A	15	/	100	100	Max. 1ms	Open	
ADP-81	2-wire type ASLINKER mounting dedicated adaptor (2 adaptors included)													Open	

*The dimensions are numerical values excluding the cable section.

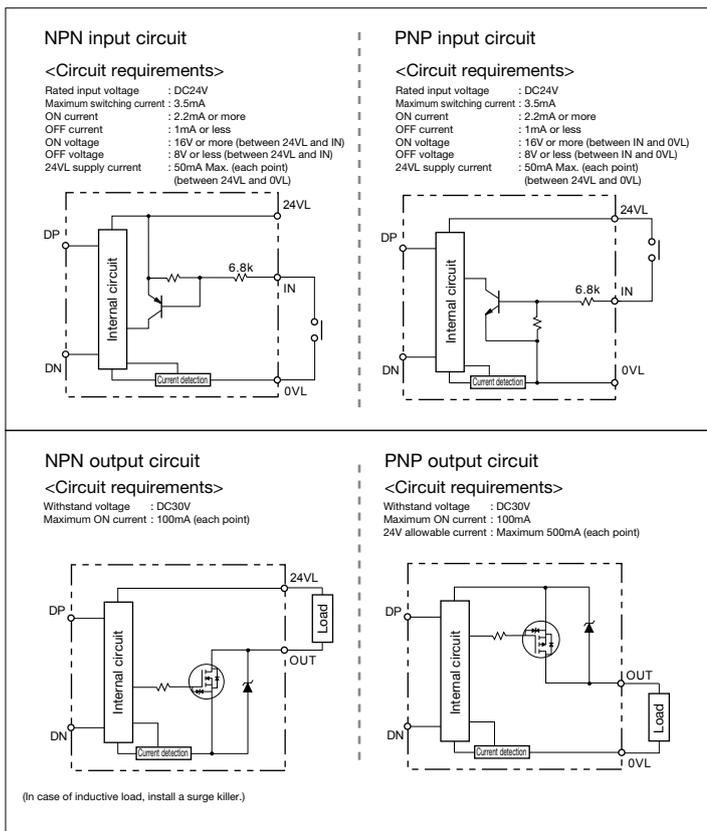
Functional icon indication *See page 15 for details on function.	Sensing level monitoring	Reading/writing of sensor sensitivity setting	Sensor cable disconnection detection	Interference countermeasure for transmission line unnecessary	Transmission line disconnection detection	Transmission line short-circuit detection	Transmission circuit drive power drop detection	ID (address) redundant, non-setting detection	ID (address) Duplicate/Not set
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< LED indication >

LED symbol	Indication status	Detailed status
LINK (Green)	On	Transmission signal error
	Flashing	Transmission signal reception
	Off	No transmission signal <small>(including disconnection and reverse connection of DP and DN)</small>
ALM (Red)	On	I/O short-circuit or disconnection
	Flashing	Slave unit voltage decrease
	Off	Normal
LINK ALM	Alternate flashing LINK ALM	When master unit detects that the ID (address) of this unit is duplicated or not set
I/O (Orange)	On	Input ON
	Off	Input OFF
ALM LINK I/O	On ALM LINK Flashing IN	Shows I/O disconnection when IN flashes in synchronization with LINK when ALM is lit.



< Circuit diagram >



- ASLINKER SmartLINKER
- ASLINKER M12/M12 Cable Type
- ASLINKER M12/M8 Cable Type
- ASLINKER Cable Type
- ASLINKER M12 Connector Type
- ASLINKER TERMINAL Small Terminal Block Terminal
- ASLINKER TERMINAL Integrated Small Terminal
- ASLINKER TERMINAL Small 8-Point Terminal
- ASLINKER TERMINAL Relay
- ASLINKER TERMINAL Manifold Driver
- List of Specifications

Functional icon indication
 *See page 15 for details on function.



Sensing level monitoring



Reading/writing of sensor sensitivity setting



Sensor cable disconnection detection



Interference countermeasure for transmission line unnecessary



Transmission line disconnection detection



Transmission line short-circuit detection



Transmission circuit drive power drop detection



ID (address) redundant, non-setting detection

◆ Cable type 4-wire type



Transmission side: 4-wire type

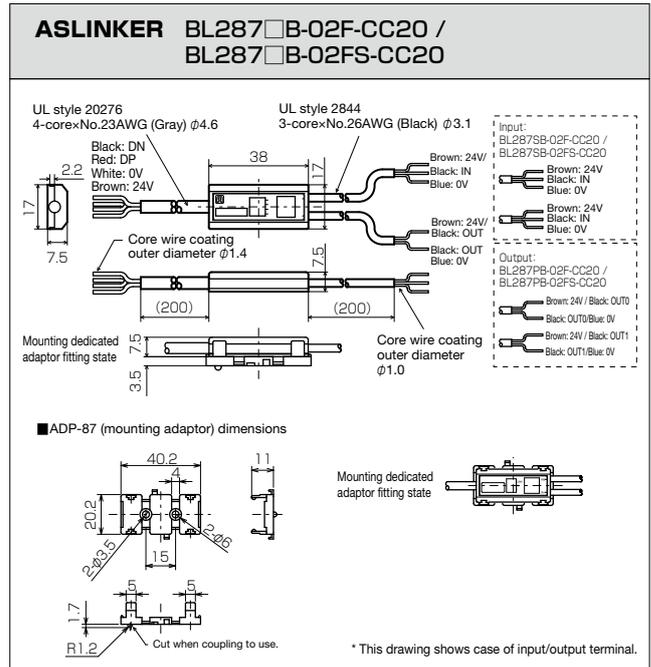


Adaptor ADP-87

ASLINKER can be mounted with screws using the adaptor.

< Outline Dimensional Drawings >

Unit: mm



< Specifications >



DimensionA: 17×38×7.5

/ : Not applicable - : Not determined

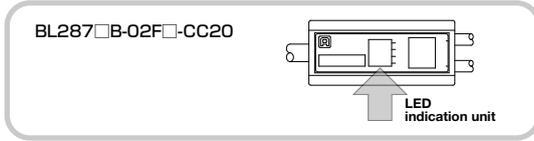
Model	Number of I/O points		Input/output specifications	Method	Consumption current (mA)		Connection	Dimension (mm)	Mass (g)	Input resistance/ Output max. ON current (mA)		Response time	Standard price (¥)	
	Input	Output			Transmission side	I/O side				Per 1 point	Per 1 common			
BL287SB-02F-CC20	2		DC input	NPN	3.4	11.2	4-wire type (insulation)	A	18	6.8		Max. 1ms	Open	
BL287SB-02FS-CC20	2		DC input	PNP	3.4	11.2	4-wire type (insulation)	A	18	6.8		Max. 1ms	Open	
BL287XB-02F-CC20	1	1	DC input / Tr output	NPN	3.5	8.0	4-wire type (insulation)	A	18	6.8	100	100	Max. 1ms	Open
BL287XB-02FS-CC20	1	1	DC input / Tr output	PNP	3.6	8.0	4-wire type (insulation)	A	18	6.8	100	100	Max. 1ms	Open
BL287PB-02F-CC20		2	Tr output	NPN	3.8	4.7	4-wire type (insulation)	A	18		100	200	Max. 1ms	Open
BL287PB-02FS-CC20		2	Tr output	PNP	3.8	4.7	4-wire type (insulation)	A	18		100	200	Max. 1ms	Open
ADP-87	4-wire type ASLINKER mounting dedicated adaptor (4 adaptors included)											Open		

*The dimensions are numerical values excluding the cable section.

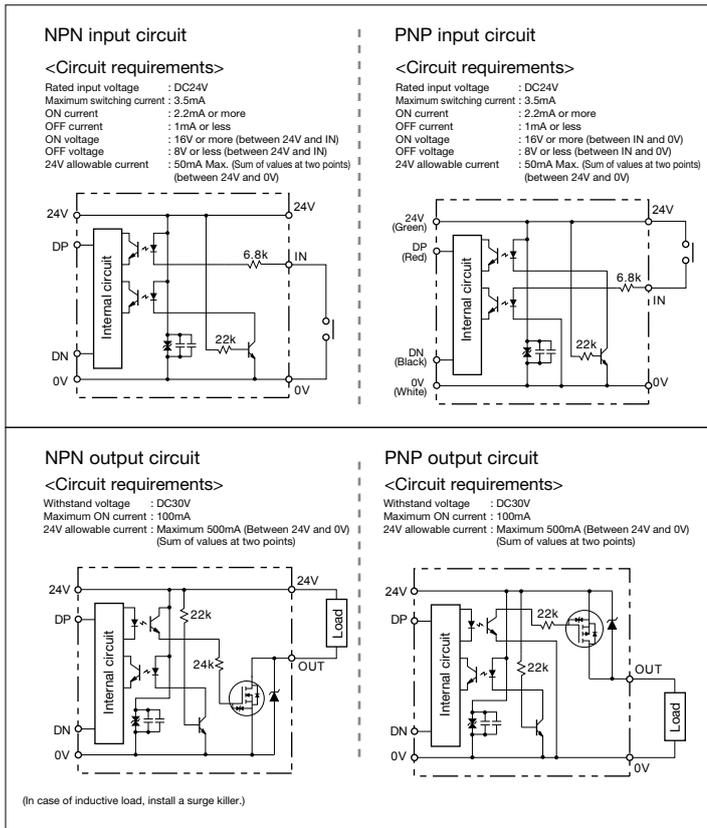
Functional icon indication *See page 15 for details on function.	Sensing level monitoring	Reading/writing of sensor sensitivity setting	Sensor cable disconnection detection	Interference countermeasure for transmission line unnecessary	Transmission line disconnection detection	Transmission line short-circuit detection	Transmission circuit drive power drop detection	ID (address) redundant, non-setting detection
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< LED indication >

LED symbol	Indication status	Detailed status
LINK (Green)	On	Transmission signal error
	Flashing	Transmission signal reception
	Off	No transmission signal (including disconnection and reverse connection of DP and DN)
ALM (Red)	On	I/O power supply decrease
	Flashing	Slave unit voltage decrease
	Off	Normal
LINK ALM	Alternate flashing LINK ALM	When master unit detects that the ID (address) of this unit is duplicated or not set
I/O (Orange)	On	Input ON
	Off	Input ON

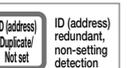
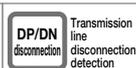
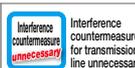
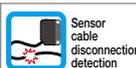


< Circuit diagram >



- ASLINKER SmartLINKER
- ASLINKER M12/M12 Cable Type
- ASLINKER M12/M8 Cable Type
- ASLINKER Cable Type**
- ASLINKER M12 Connector Type
- ASLINKTERMINAL Small Terminal Block Terminal
- ASLINKTERMINAL Integrated Small Terminal
- ASLINKTERMINAL Small 8-Point Terminal
- ASLINKTERMINAL Relay
- ASLINKTERMINAL Manifold Driver
- List of Specifications

Functional icon indication
 *See page 15 for details on function.



◆ M12 Connector Type (IP67)

< Outline Dimensional Drawings >

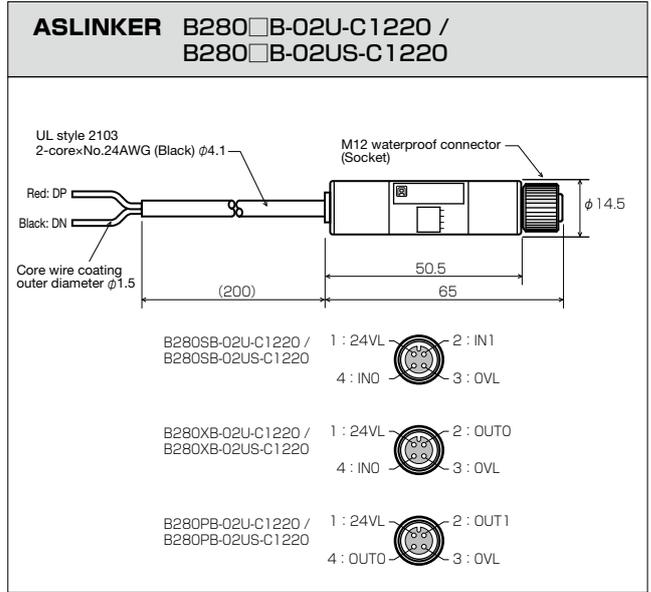
Unit: mm



Transmission side: Cable
I/O side: M12 (Female)



Size comparison of ASLINKER



< Specifications >



DimensionA: φ 14.5×65

/ : Not applicable - : Not determined

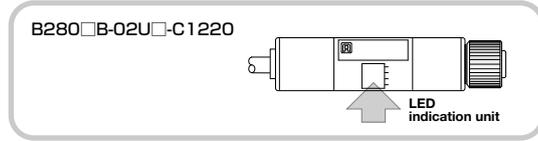
Model	Number of I/O points		Input/output specifications	Method	Consumption current (mA)		Connection	Dimension (mm)	Mass (g)	Input resistance/1 point (kΩ)		Output max. ON current (mA)		Response time	Standard price (¥)
	Input	Output			Transmission side	I/O side				Per 1 point	Per 1 common				
B280SB-02U-C1220	2	/	DC input	NPN	15.4	/	2-wire type (non-insulation)	A	22	6.8	/	/	Max. 1ms	Open	
B280SB-02US-C1220	2	/	DC input	PNP	13.5	/	2-wire type (non-insulation)	A	22	6.8	/	/	Max. 1ms	Open	
B280XB-02U-C1220	1	1	DC input / Tr output	NPN	10.5	/	2-wire type (non-insulation)	A	22	6.8	100	100	Max. 1ms	Open	
B280XB-02US-C1220	1	1	DC input / Tr output	PNP	10.1	/	2-wire type (non-insulation)	A	22	6.8	100	100	Max. 1ms	Open	
B280PB-02U-C1220	/	2	Tr output	NPN	5.5	/	2-wire type (non-insulation)	A	22	/	100	100	Max. 1ms	Open	
B280PB-02US-C1220	/	2	Tr output	PNP	6.5	/	2-wire type (non-insulation)	A	22	/	100	100	Max. 1ms	Open	

*The dimensions are numerical values excluding the cable section.

Functional icon indication *See page 15 for details on function.	Sensing level monitoring	Reading/writing of sensor sensitivity setting	Sensor cable disconnection detection	Interference countermeasure for transmission line unnecessary	DP/DN disconnection Transmission line disconnection detection	DP/DN short-circuit Transmission line short-circuit detection	24V drop Transmission circuit drive power drop detection	ID (address) Duplicate/Not set	ID (address) redundant, non-setting detection
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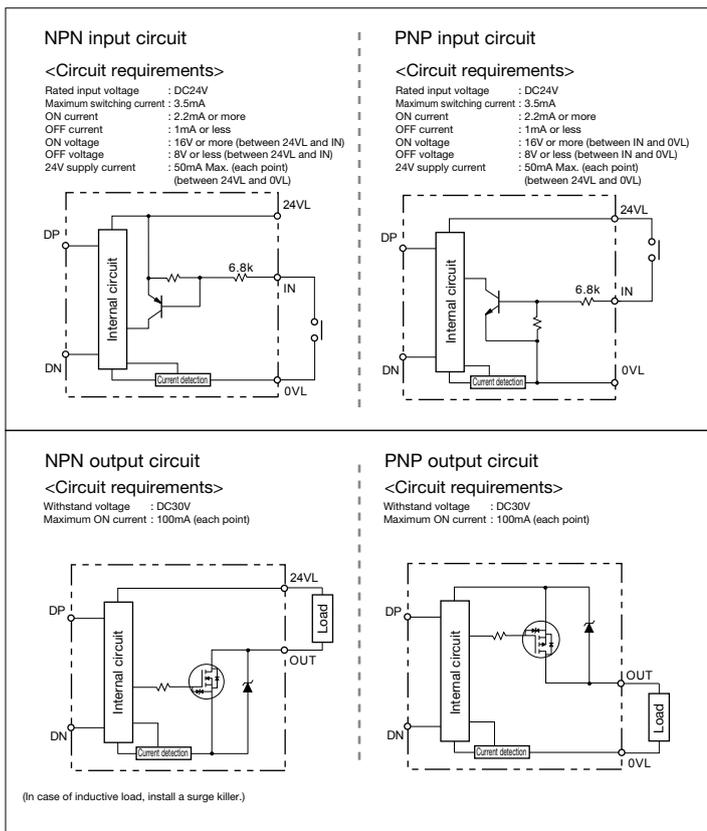
< LED indication >

LED symbol	Indication status	Detailed status
LINK (Green)	On	Transmission signal error
	Flashing	Transmission signal reception
	Off	No transmission signal <small>(including disconnection and reverse connection of DP and DN)</small>
ALM (Red)	On	I/O short-circuit or disconnection
	Flashing	Slave unit voltage decrease
	Off	Normal
LINK ALM	Alternate flashing LINK ALM	When master unit detects that the ID (address) of this unit is duplicated or not set
I/O (Orange)	On	Input ON
	Off	Input OFF
ALM LINK I/O	On ALM LINK Flashing IN	Shows I/O disconnection when IN flashes in synchronization with LINK when ALM is lit.



- ASLINKER SmartLINKER
- ASLINKER M12/M12 Cable Type
- ASLINKER M12/M8 Cable Type
- ASLINKER Cable Type
- ASLINKER M12 Connector Type
- ASLINKTERMINAL Small Terminal Block Terminal
- ASLINKTERMINAL Integrated Small Terminal
- ASLINKTERMINAL Small 8-Point Terminal
- ASLINKTERMINAL Relay
- ASLINKTERMINAL Manifold Driver
- List of Specifications

< Circuit diagram >



Functional icon indication
 *See page 15 for details on function.



Sensing level monitoring



Reading/writing of sensor sensitivity setting



Sensor cable disconnection detection



Interference countermeasure for transmission line unnecessary



Transmission line disconnection detection



Transmission line short-circuit detection



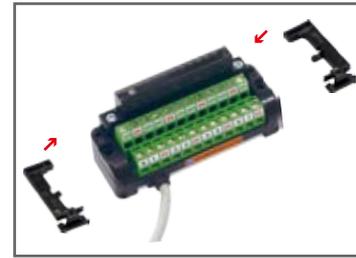
Transmission circuit drive power drop detection



ID (address) redundant, non-setting detection

ASLINKTERMINAL

◆ Small Terminal Block Terminal (Cable type 3-wire type sensor compatible)



Adaptor ADP-108

ASLINKTERMINAL can be mounted on the DIN rail using the adaptor.

< Specifications >



DimensionA: 28.9×81×39.4

/: Not applicable -/: Not determined

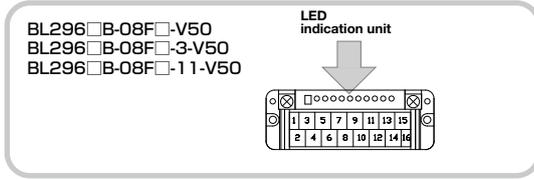
Model	Number of I/O points		Input/output specifications	Method	Consumption current (mA)		Connection	Terminal block type	Dimension (mm)	Mass (g)	Input resistance/1 point (kΩ)	Output max. ON current (mA)		Response time	Standard price (¥)
	Input	Output			Transmission side	I/O side						Per 1 point	Per 1 common		
BL296SB-08F-V50	8	/	DC input	NPN	6	40	4-wire type (insulation)	Standard terminal block	A	90	6.8	/	/	Max. 1ms	Open
BL296SB-08FS-V50	8	/	DC input	PNP	6	40	4-wire type (insulation)	Standard terminal block	A	90	6.8	/	/	Max. 1ms	Open
BL296XB-08F-V50	4	4	DC input / Tr output	NPN	6	26	4-wire type (insulation)	Standard terminal block	A	90	6.8	100	400	Max. 1ms	Open
BL296XB-08FS-V50	4	4	DC input / Tr output	PNP	6	26	4-wire type (insulation)	Standard terminal block	A	90	6.8	100	400	Max. 1ms	Open
BL296PB-08F-V50	/	8	Tr output	NPN	6	10	4-wire type (insulation)	Standard terminal block	A	90	/	100	800	Max. 1ms	Open
BL296PB-08FS-V50	/	8	Tr output	PNP	6	10	4-wire type (insulation)	Standard terminal block	A	90	/	100	800	Max. 1ms	Open
BL296SB-08F-3-V50	8	/	DC input	NPN	6	40	4-wire type (insulation)	Spring terminal block	A	85	6.8	/	/	Max. 1ms	Open
BL296SB-08FS-3-V50	8	/	DC input	PNP	6	40	4-wire type (insulation)	Spring terminal block	A	85	6.8	/	/	Max. 1ms	Open
BL296XB-08F-3-V50	4	4	DC input / Tr output	NPN	6	26	4-wire type (insulation)	Spring terminal block	A	85	6.8	100	400	Max. 1ms	Open
BL296XB-08FS-3-V50	4	4	DC input / Tr output	PNP	6	26	4-wire type (insulation)	Spring terminal block	A	85	6.8	100	400	Max. 1ms	Open
BL296PB-08F-3-V50	/	8	Tr output	NPN	6	10	4-wire type (insulation)	Spring terminal block	A	85	/	100	800	Max. 1ms	Open
BL296PB-08FS-3-V50	/	8	Tr output	PNP	6	10	4-wire type (insulation)	Spring terminal block	A	85	/	100	800	Max. 1ms	Open
BL296SB-08F-11-V50	8	/	DC input	NPN	6	40	4-wire type (insulation)	Euro terminal block	A	85	6.8	/	/	Max. 1ms	Open
BL296SB-08FS-11-V50	8	/	DC input	PNP	6	40	4-wire type (insulation)	Euro terminal block	A	85	6.8	/	/	Max. 1ms	Open
BL296XB-08F-11-V50	4	4	DC input / Tr output	NPN	6	26	4-wire type (insulation)	Euro terminal block	A	85	6.8	100	400	Max. 1ms	Open
BL296XB-08FS-11-V50	4	4	DC input / Tr output	PNP	6	26	4-wire type (insulation)	Euro terminal block	A	85	6.8	100	400	Max. 1ms	Open
BL296PB-08F-11-V50	/	8	Tr output	NPN	6	10	4-wire type (insulation)	Euro terminal block	A	85	/	100	800	Max. 1ms	Open
BL296PB-08FS-11-V50	/	8	Tr output	PNP	6	10	4-wire type (insulation)	Euro terminal block	A	85	/	100	800	Max. 1ms	Open
ADP-108	DIN rail adaptor for fitting ASLINKTERMINAL small terminal block terminal (1 set included)														Open

*The dimensions are numerical values excluding the cable section.

Functional icon indication *See page 15 for details on function.	Sensing level monitoring	Reading/writing of sensor sensitivity setting	Sensor cable disconnection detection	Interference countermeasure for transmission line unnecessary	DP/DN disconnection Transmission line disconnection detection	DP/DN short-circuit Transmission line short-circuit detection	24V drop Transmission circuit drive power drop detection	ID (address) Duplicate/Not set	ID (address) redundant, non-setting detection
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< LED indication >

LED symbol	Indication status	Detailed status
LINK (Green)	On	Transmission signal error
	Flashing	Transmission signal reception
	Off	No transmission signal (including disconnection and reverse connection of DP and DN)
ALM (Red)	On	I/O power supply decrease
	Flashing	Slave unit voltage decrease
	Off	Normal
LINK ALM	Alternate flashing LINK ALM	When master unit detects that the ID (address) of this unit is duplicated or not set
IN (Orange)	On	Input ON
	Off	Input ON



< Circuit diagram >

in case of NPN method

[NPN input circuit]
(Input terminal)
(Input side of input/output terminal)

<Circuit requirements>
Rated input voltage: 24V DC
Maximum switching current: 3.5mA
ON current: 2.2mA or more
OFF current: 1mA or less
ON voltage: 16V or more (between 24V and IN)
OFF voltage: 8V or less (between 24V and IN)

4-wire (insulation) type ASLINK terminal (AnyWire based power source)

[NPN output circuit 1]
(Output terminal)

<Circuit requirements>
Withstand voltage: 30V DC
Maximum ON current: 100mA

*In case of inductive load, install a surge killer.

4-wire (insulation) type ASLINK terminal (AnyWire based power source)

[NPN output circuit 2]
(Output side of input/output terminal)

<Circuit requirements>
Withstand voltage: 30V DC
Maximum ON current: 100mA

*In case of inductive load, install a surge killer.

4-wire (insulation) type ASLINK terminal (AnyWire based power source)

In case of PNP method

[PNP input circuit]
(Input terminal)
(Input side of input/output terminal)

<Circuit requirements>
Rated input voltage: 24V DC
Maximum switching current: 3.5mA
ON current: 2.2mA or more
OFF current: 1mA or less
ON voltage: 16V or more (between IN and 0V)
OFF voltage: 8V or less (between IN and 0V)

4-wire (insulation) type ASLINK terminal (AnyWire based power source)

[PNP output circuit 1]
(Output terminal)

<Circuit requirements>
Withstand voltage: 30V DC
Maximum ON current: 100mA

*In case of inductive load, install a surge killer.

4-wire (insulation) type ASLINK terminal (AnyWire based power source)

[PNP output circuit 2]
(Output side of input/output terminal)

<Circuit requirements>
Withstand voltage: 30V DC
Maximum ON current: 100mA

*In case of inductive load, install a surge killer.

4-wire (insulation) type ASLINK terminal (AnyWire based power source)

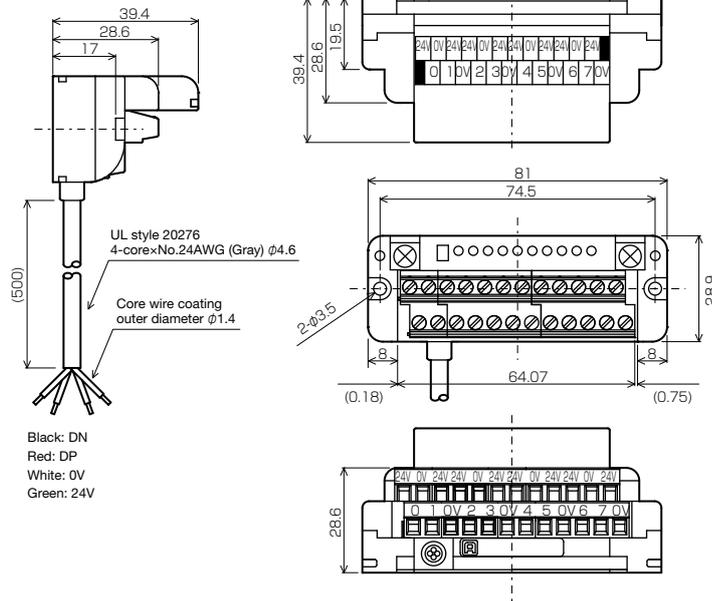
Functional icon indication *See page 15 for details on function.	Sensing level monitoring	Reading/writing of sensor sensitivity setting	Sensor cable disconnection detection	Interference countermeasure for transmission line unnecessary	Transmission line disconnection detection	Transmission line short-circuit detection	Transmission circuit drive power drop detection	ID (address) redundant, Duplicate/Not set	ID (address) redundant, non-setting detection
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- ASLINKER SmartLINKER
- ASLINKER M12/M12 Cable Type
- ASLINKER M12/M8 Cable Type
- ASLINKER Cable Type
- ASLINKER M12 Connector Type
- ASLINKTERMINAL Small Terminal Block Terminal
- ASLINKTERMINAL Integrated Small Terminal
- ASLINKTERMINAL Small 8-Point Terminal
- ASLINKTERMINAL Relay
- ASLINKTERMINAL Manifold Driver
- List of Specifications

< Outline Dimensional Drawings >

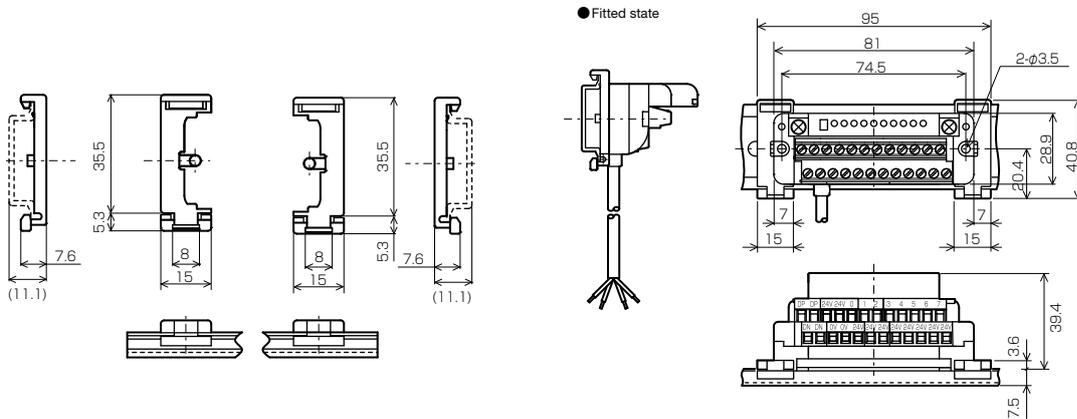
Unit: mm

ASLINKTERMINAL BL296□B-08F□-11-V50



*Example of BL296PB-08F-11-V50. BL296□B-08F□-11-V50 also has the same dimensions.

ASLINKTERMINAL ADP-108 (mounting dedicated DIN rail adaptor) dimensions



*Example of BL296PB-08F-11-V50. Other models also have the same dimensions as indicated.

Functional icon indication

*See page 15 for details on function.



Sensing level monitoring



Reading/writing of sensor sensitivity setting



Sensor cable disconnection detection



Interference countermeasure unnecessary for transmission line unnecessary



Transmission line disconnection detection



Transmission line short-circuit detection



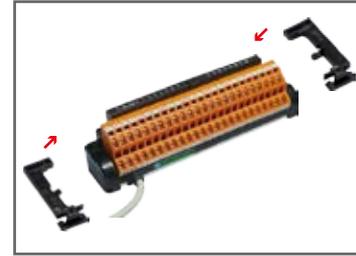
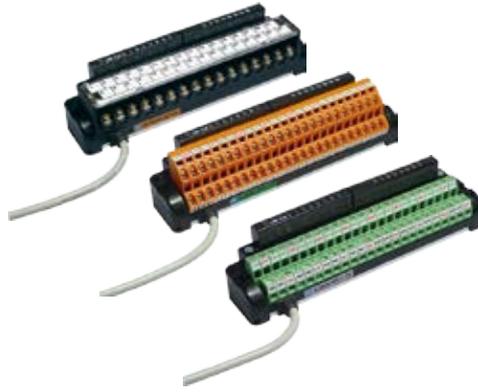
Transmission circuit drive power drop detection



ID (address) redundant, non-setting detection

ASLINKTERMINAL

◆ Small Terminal Block Terminal (Cable type 3-wire type sensor compatible)



Adaptor ADP-108

ASLINKTERMINAL can be mounted on the DIN rail using the adaptor.

< Specifications >



DimensionA: 28.9 × 141 × 39.4

/: Not applicable -/: Not determined

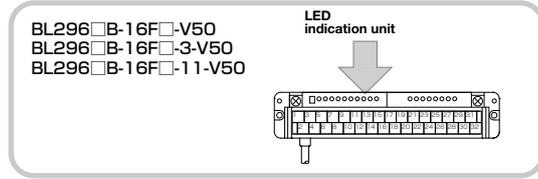
Model	Number of I/O points		Input/output specifications	Method	Consumption current (mA)		Connection	Terminal block type	Dimension (mm)	Mass (g)	Input resistance/1 point (kΩ)		Output max. ON current (mA)		Response time	Standard price (¥)
	Input	Output			Transmission side	I/O side					Per 1 point	Per 1 common				
BL296SB-16F-V50	16	/	DC input	NPN	8	80	4-wire type (insulation)	Standard terminal block	A	150	6.8	/	/	Max. 1ms	Open	
BL296SB-16FS-V50	16	/	DC input	PNP	8	80	4-wire type (insulation)	Standard terminal block	A	150	6.8	/	/	Max. 1ms	Open	
BL296XB-16F-V50	8	8	DC input / Tr output	NPN	8	50	4-wire type (insulation)	Standard terminal block	A	150	6.8	100	800	Max. 1ms	Open	
BL296XB-16FS-V50	8	8	DC input / Tr output	PNP	8	50	4-wire type (insulation)	Standard terminal block	A	150	6.8	100	800	Max. 1ms	Open	
BL296PB-16F-V50	/	16	Tr output	NPN	8	15	4-wire type (insulation)	Standard terminal block	A	150	/	100	1600	Max. 1ms	Open	
BL296PB-16FS-V50	/	16	Tr output	PNP	8	15	4-wire type (insulation)	Standard terminal block	A	150	/	100	1600	Max. 1ms	Open	
BL296SB-16F-3-V50	16	/	DC input	NPN	8	80	4-wire type (insulation)	Spring terminal block	A	145	6.8	/	/	Max. 1ms	Open	
BL296SB-16FS-3-V50	16	/	DC input	PNP	8	80	4-wire type (insulation)	Spring terminal block	A	145	6.8	/	/	Max. 1ms	Open	
BL296XB-16F-3-V50	8	8	DC input / Tr output	NPN	8	50	4-wire type (insulation)	Spring terminal block	A	145	6.8	100	800	Max. 1ms	Open	
BL296XB-16FS-3-V50	8	8	DC input / Tr output	PNP	8	50	4-wire type (insulation)	Spring terminal block	A	145	6.8	100	800	Max. 1ms	Open	
BL296PB-16F-3-V50	/	16	Tr output	NPN	8	15	4-wire type (insulation)	Spring terminal block	A	145	/	100	1600	Max. 1ms	Open	
BL296PB-16FS-3-V50	/	16	Tr output	PNP	8	15	4-wire type (insulation)	Spring terminal block	A	145	/	100	1600	Max. 1ms	Open	
BL296SB-16F-11-V50	16	/	DC input	NPN	8	80	4-wire type (insulation)	Euro terminal block	A	140	6.8	/	/	Max. 1ms	Open	
BL296SB-16FS-11-V50	16	/	DC input	PNP	8	80	4-wire type (insulation)	Euro terminal block	A	140	6.8	/	/	Max. 1ms	Open	
BL296XB-16F-11-V50	8	8	DC input / Tr output	NPN	8	50	4-wire type (insulation)	Euro terminal block	A	140	6.8	100	800	Max. 1ms	Open	
BL296XB-16FS-11-V50	8	8	DC input / Tr output	PNP	8	50	4-wire type (insulation)	Euro terminal block	A	140	6.8	100	800	Max. 1ms	Open	
BL296PB-16F-11-V50	/	16	Tr output	NPN	8	15	4-wire type (insulation)	Euro terminal block	A	140	/	100	1600	Max. 1ms	Open	
BL296PB-16FS-11-V50	/	16	Tr output	PNP	8	15	4-wire type (insulation)	Euro terminal block	A	140	/	100	1600	Max. 1ms	Open	
ADP-108	DIN rail adaptor for fitting ASLINKTERMINAL small terminal block terminal (1 set included)														Open	

*The dimensions are numerical values excluding the cable section.

Functional icon indication *See page 15 for details on function.	Sensing level monitoring	Reading/writing of sensor sensitivity setting	Sensor cable disconnection detection	Interference countermeasure for transmission line unnecessary	DP/DN disconnection Transmission line disconnection detection	DP/DN short-circuit Transmission line short-circuit detection	24V drop Transmission circuit drive power drop detection	ID (address) Duplicate/Not set	ID (address) redundant, non-setting detection
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< LED indication >

LED symbol	Indication status	Detailed status
LINK (Green)	On	Transmission signal error
	Flashing	Transmission signal reception
	Off	No transmission signal (including disconnection and reverse connection of DP and DN)
ALM (Red)	On	I/O power supply decrease
	Flashing	Slave unit voltage decrease
	Off	Normal
LINK ALM	Alternate flashing LINK ALM	When master unit detects that the ID (address) of this unit is duplicated or not set
IN (Orange)	On	Input ON
	Off	Input OFF



< Circuit diagram >

In case of NPN method

[NPN input circuit]
(Input terminal)
(Input side of input/output terminal)

<Circuit requirements>
Rated input voltage: 24V DC
Maximum switching current: 3.5mA
ON current: 2.2mA or more
OFF current: 1mA or less
ON voltage: 16V or more (between 24V and IN)
OFF voltage: 8V or less (between 24V and IN)

4-wire (insulation) type ASLINK terminal (AnyWire based power source)

[NPN output circuit 1]
(Output terminal)

<Circuit requirements>
Withstand voltage: 30V DC
Maximum ON current: 100mA

*In case of inductive load, install a surge killer.

4-wire (insulation) type ASLINK terminal (AnyWire based power source)

[NPN output circuit 2]
(Output side of input/output terminal)

<Circuit requirements>
Withstand voltage: 30V DC
Maximum ON current: 100mA

*In case of inductive load, install a surge killer.

4-wire (insulation) type ASLINK terminal (AnyWire based power source)

In case of PNP method

[PNP input circuit]
(Input terminal)
(Input side of input/output terminal)

<Circuit requirements>
Rated input voltage: 24V DC
Maximum switching current: 3.5mA
ON current: 2.2mA or more
OFF current: 1mA or less
ON voltage: 16V or more (between IN and 0V)
OFF voltage: 8V or less (between IN and 0V)

4-wire (insulation) type ASLINK terminal (AnyWire based power source)

[PNP output circuit 1]
(Output terminal)

<Circuit requirements>
Withstand voltage: 30V DC
Maximum ON current: 100mA

*In case of inductive load, install a surge killer.

4-wire (insulation) type ASLINK terminal (AnyWire based power source)

[PNP output circuit 2]
(Output side of input/output terminal)

<Circuit requirements>
Withstand voltage: 30V DC
Maximum ON current: 100mA

*In case of inductive load, install a surge killer.

4-wire (insulation) type ASLINK terminal (AnyWire based power source)

Functional icon indication

*See page 15 for details on function.



Sensing level monitoring



Reading/writing of sensor sensitivity setting



Sensor cable disconnection detection



Interference countmeasure unnecessary for transmission line unnecessary



Transmission line disconnection detection



Transmission line short-circuit detection



Transmission circuit drive power drop detection



ID (address) redundant, non-setting detection

- ASLINKER SmartLINKER
- ASLINKER M12/M12 Cable Type
- ASLINKER M12/M8 Cable Type
- ASLINKER Cable Type
- ASLINKER M12 Connector Type
- ASLINKTERMINAL Small Terminal Block Terminal
- ASLINKTERMINAL Integrated Small Terminal
- ASLINKTERMINAL Small 8-Point Terminal
- ASLINKTERMINAL Relay
- ASLINKTERMINAL Manifold Driver
- List of Specifications

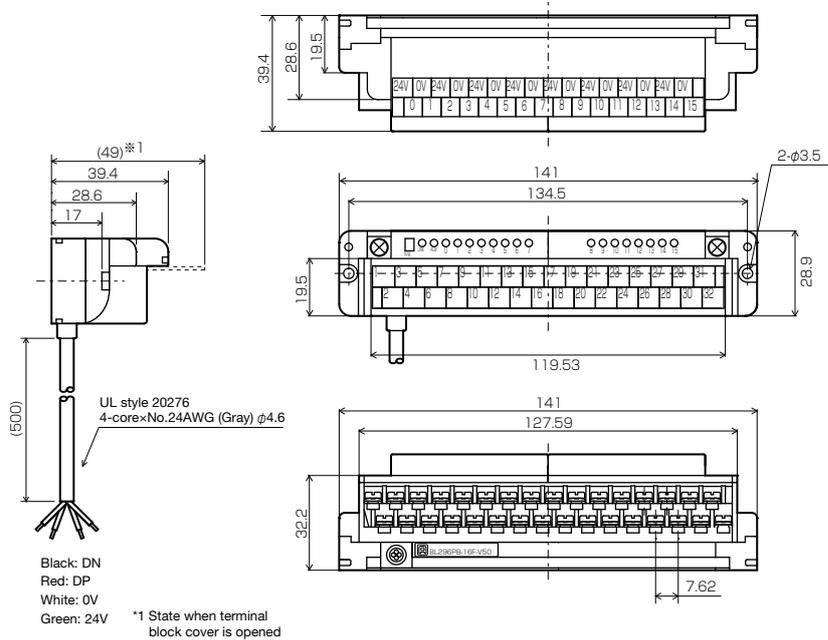
ASLINKTERMINAL

◆ Small Terminal Block Terminal (Cable type 3-wire type sensor compatible)

< Outline Dimensional Drawings >

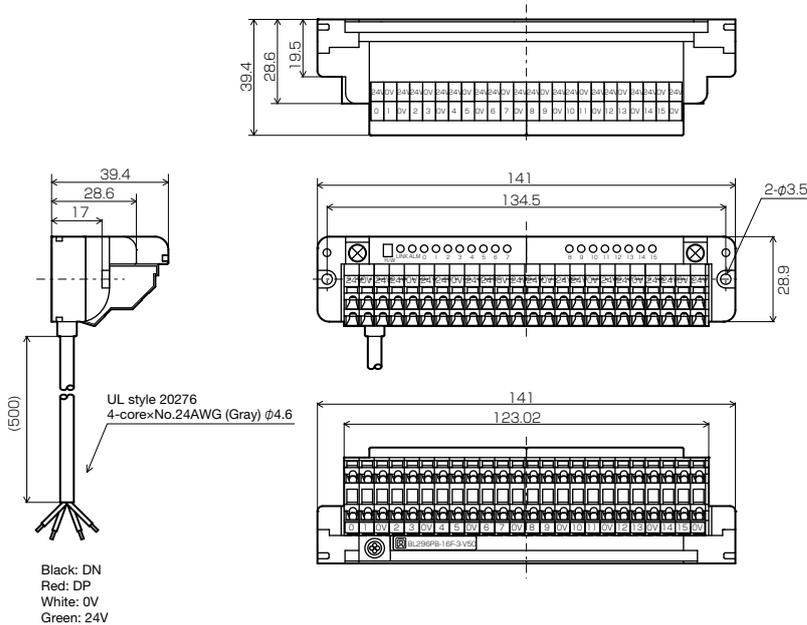
Unit: mm

ASLINKTERMINAL BL296□B-16F□-V50



*Example of BL296PB-16F-V50. BL296□B-16F□-V50 also has the same dimensions.

ASLINKTERMINAL BL296□B-16F□-3-V50



*Example of BL296PB-16F-3-V50. BL296□B-16F□-3-V50 also has the same dimensions.

Functional icon indication
*See page 15 for details on function.

Sensing level monitoring

Reading/writing of sensor sensitivity setting

Sensor cable disconnection detection

Interference countermeasure unnecessary

DP/DN disconnection
Transmission line disconnection detection

DP/DN short-circuit
Transmission line short-circuit detection

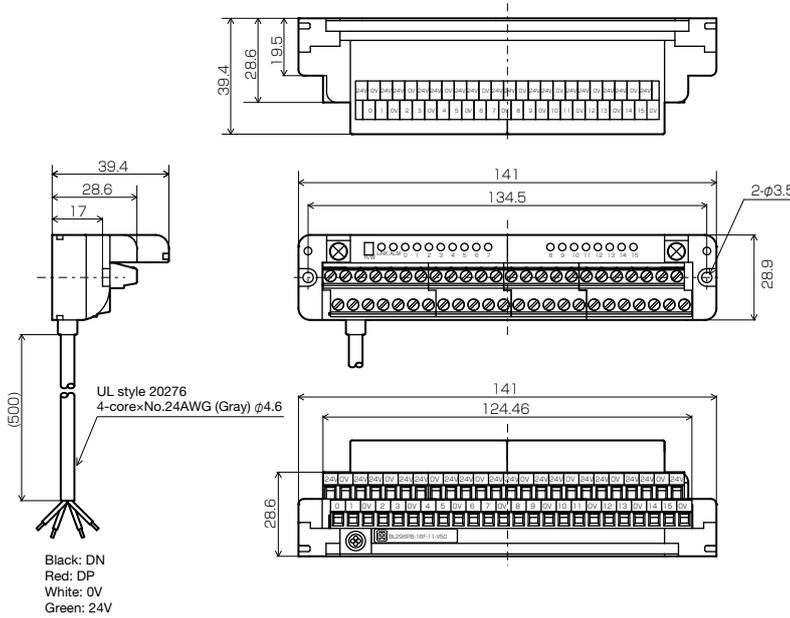
24V drop
Transmission circuit drive power drop detection

ID (address) Duplicate/Not set
ID (address) redundant, non-setting detection

< Outline Dimensional Drawings >

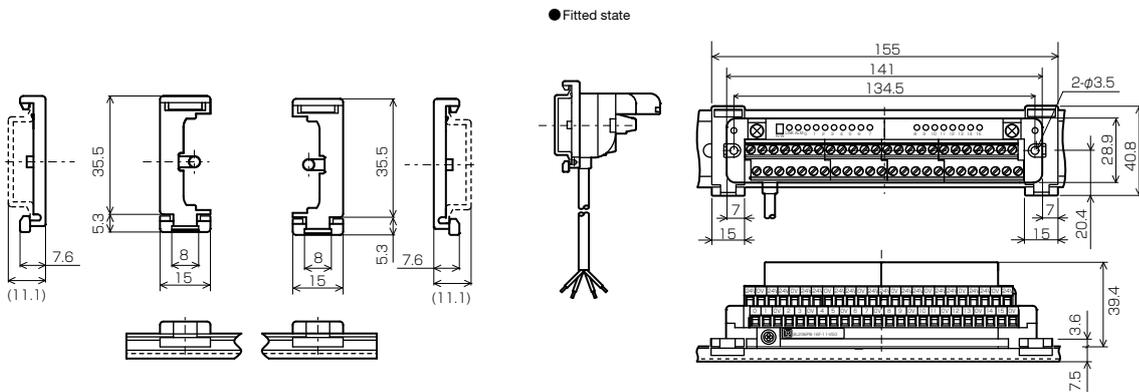
Unit: mm

ASLINKTERMINAL BL296□B-16F□-11-V50



*Example of BL296PB-16F-11-V50. BL296□B-16F□-11-V50 also has the same dimensions.

ASLINKTERMINAL ADP-108 (mounting dedicated DIN rail adaptor) dimensions



*Example of BL296PB-16F-11-V50. Other models also have the same dimensions as indicated.

Functional icon indication

*See page 15 for details on function.



Sensing level monitoring



Reading/writing of sensor sensitivity setting



Sensor cable disconnection detection



Interference countermeasure for transmission line unnecessary



Transmission line disconnection detection



Transmission line short-circuit detection



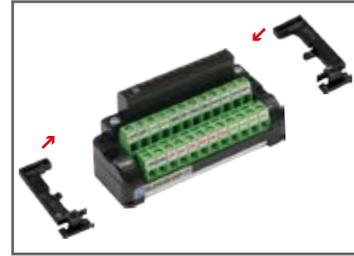
Transmission circuit drive power drop detection



ID (address) redundant, non-setting detection

ASLINKTERMINAL

◆ Small Terminal Block Terminal



Adaptor ADP-108

ASLINKTERMINAL can be mounted on the DIN rail using the adaptor.

< Specifications >



DimensionA: 28.9×81×39.4

/: Not applicable -/: Not determined

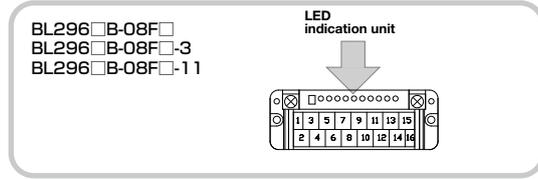
Model	Number of I/O points		Input/output specifications	Method	Consumption current (mA)		Connection	Terminal block type	Dimension (mm)	Mass (g)	Input resistance/1 point (kΩ)		Output max. ON current (mA)		Response time	Standard price (¥)
	Input	Output			Transmission side	I/O side					Per 1 point	Per 1 common				
BL296SB-08F	8		DC input	NPN	6	40	4-wire type (insulation)	Standard terminal block	A	75	6.8			Max. 1ms	Open	
BL296SB-08FS	8		DC input	PNP	6	40	4-wire type (insulation)	Standard terminal block	A	75	6.8			Max. 1ms	Open	
BL296XB-08F	4	4	DC input / Tr output	NPN	6	26	4-wire type (insulation)	Standard terminal block	A	75	6.8	100	400	Max. 1ms	Open	
BL296XB-08FS	4	4	DC input / Tr output	PNP	6	26	4-wire type (insulation)	Standard terminal block	A	75	6.8	100	400	Max. 1ms	Open	
BL296PB-08F		8	Tr output	NPN	6	10	4-wire type (insulation)	Standard terminal block	A	75		100	800	Max. 1ms	Open	
BL296PB-08FS		8	Tr output	PNP	6	10	4-wire type (insulation)	Standard terminal block	A	75		100	800	Max. 1ms	Open	
BL296SB-08F-3	8		DC input	NPN	6	40	4-wire type (insulation)	Spring terminal block	A	70	6.8			Max. 1ms	Open	
BL296SB-08FS-3	8		DC input	PNP	6	40	4-wire type (insulation)	Spring terminal block	A	70	6.8			Max. 1ms	Open	
BL296XB-08F-3	4	4	DC input / Tr output	NPN	6	26	4-wire type (insulation)	Spring terminal block	A	70	6.8	100	400	Max. 1ms	Open	
BL296XB-08FS-3	4	4	DC input / Tr output	PNP	6	26	4-wire type (insulation)	Spring terminal block	A	70	6.8	100	400	Max. 1ms	Open	
BL296PB-08F-3		8	Tr output	NPN	6	10	4-wire type (insulation)	Spring terminal block	A	70		100	800	Max. 1ms	Open	
BL296PB-08FS-3		8	Tr output	PNP	6	10	4-wire type (insulation)	Spring terminal block	A	70		100	800	Max. 1ms	Open	
BL296SB-08F-11	8		DC input	NPN	6	40	4-wire type (insulation)	Euro terminal block	A	65	6.8			Max. 1ms	Open	
BL296SB-08FS-11	8		DC input	PNP	6	40	4-wire type (insulation)	Euro terminal block	A	65	6.8			Max. 1ms	Open	
BL296XB-08F-11	4	4	DC input / Tr output	NPN	6	26	4-wire type (insulation)	Euro terminal block	A	65	6.8	100	400	Max. 1ms	Open	
BL296XB-08FS-11	4	4	DC input / Tr output	PNP	6	26	4-wire type (insulation)	Euro terminal block	A	65	6.8	100	400	Max. 1ms	Open	
BL296PB-08F-11		8	Tr output	NPN	6	10	4-wire type (insulation)	Euro terminal block	A	65		100	800	Max. 1ms	Open	
BL296PB-08FS-11		8	Tr output	PNP	6	10	4-wire type (insulation)	Euro terminal block	A	65		100	800	Max. 1ms	Open	
ADP-108	DIN rail adaptor for fitting ASLINKTERMINAL small terminal block terminal (1 set included)														Open	

*The dimensions are numerical values excluding the cable section.

Functional icon indication *See page 15 for details on function.	Sensing level monitoring	Reading/writing of sensor sensitivity setting	Sensor cable disconnection detection	Interference countermeasure for transmission line unnecessary	DP/DN disconnection Transmission line disconnection detection	DP/DN short-circuit Transmission line short-circuit detection	24V drop Transmission circuit drive power drop detection	ID (address) Duplicate/Not set	ID (address) redundant, non-setting detection
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< LED indication >

LED symbol	Indication status	Detailed status
LINK (Green)	On	Transmission signal error
	Flashing	Transmission signal reception
	Off	No transmission signal (including disconnection and reverse connection of DP and DN)
ALM (Red)	On	I/O power supply decrease
	Flashing	Slave unit voltage decrease
	Off	Normal
LINK ALM	Alternate flashing LINK ALM	When master unit detects that the ID (address) of this unit is duplicated or not set
IN (Orange)	On	Input ON
	Off	Input ON



< Circuit diagram >

in case of NPN method

[NPN input circuit]
(Input terminal)
(Input side of input/output terminal)

<Circuit requirements>
 Rated input voltage: 24V DC
 Maximum switching current: 3.5mA
 ON current: 2.2mA or more
 OFF current: 1mA or less
 ON voltage: 16V or more (between 24V and IN)
 OFF voltage: 8V or less (between 24V and IN)

[NPN output circuit 1]
(Output terminal)

<Circuit requirements>
 Withstand voltage: 30V DC
 Maximum ON current: 100mA

*In case of inductive load, install a surge killer.

[NPN output circuit 2]
(Output side of input/output terminal)

<Circuit requirements>
 Withstand voltage: 30V DC
 Maximum ON current: 100mA

*In case of inductive load, install a surge killer.

In case of PNP method

[PNP input circuit]
(Input terminal)
(Input side of input/output terminal)

<Circuit requirements>
 Rated input voltage: 24V DC
 Maximum switching current: 3.5mA
 ON current: 2.2mA or more
 OFF current: 1mA or less
 ON voltage: 16V or more (between IN and 0V)
 OFF voltage: 8V or less (between IN and 0V)

[PNP output circuit 1]
(Output terminal)

<Circuit requirements>
 Withstand voltage: 30V DC
 Maximum ON current: 100mA

*In case of inductive load, install a surge killer.

[PNP output circuit 2]
(Output side of input/output terminal)

<Circuit requirements>
 Withstand voltage: 30V DC
 Maximum ON current: 100mA

*In case of inductive load, install a surge killer.

Functional icon indication

*See page 15 for details on function.



Sensing level monitoring



Reading/writing of sensor sensitivity setting



Sensor cable disconnection detection



Interference countermeasure for transmission line unnecessary



Transmission line disconnection detection



Transmission line short-circuit detection



Transmission circuit drive power drop detection



ID (address) redundant, non-setting detection

- ASLINKER SmartLINKER
- ASLINKER M12/M12 Cable Type
- ASLINKER M12/M8 Cable Type
- ASLINKER Cable Type
- ASLINKER M12 Connector Type
- ASLINKTERMINAL Small Terminal Block Terminal
- ASLINKTERMINAL Integrated Small Terminal
- ASLINKTERMINAL Small 8-Point Terminal
- ASLINKTERMINAL Relay
- ASLINKTERMINAL Manifold Driver
- List of Specifications

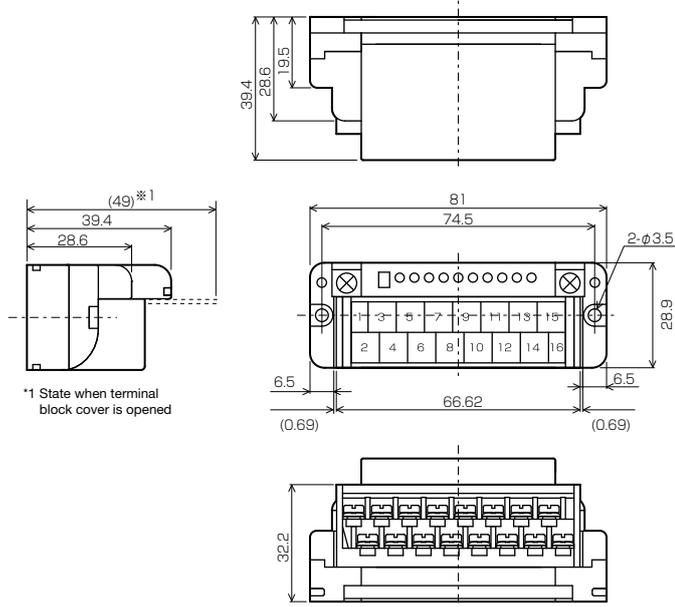
ASLINKTERMINAL

◆ Small Terminal Block Terminal

< Outline Dimensional Drawings >

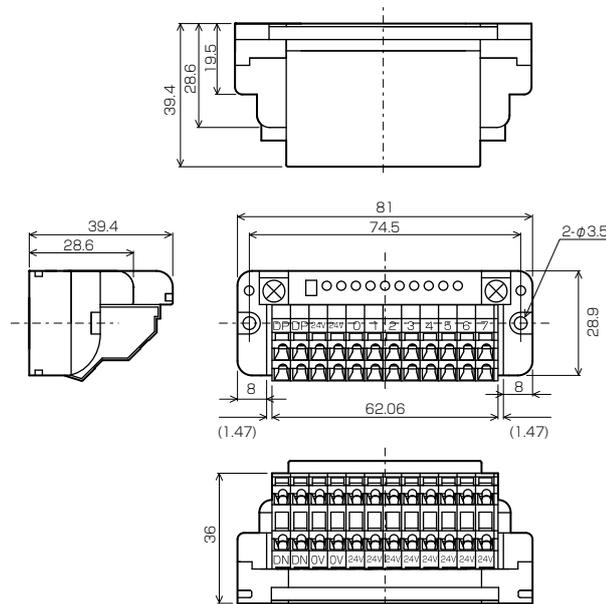
Unit: mm

ASLINKTERMINAL BL296□B-08F□



*Example of BL296PB-08F. BL296□B-08F□ also has the same dimensions.

ASLINKTERMINAL BL296□B-08F□-3



*Example of BL296PB-08F-3. BL296□B-08F□-3 also has the same dimensions.

Functional icon indication
*See page 15 for details on function.

Sensing level monitoring

Reading/writing of sensor sensitivity setting

Sensor cable disconnection detection

Interference countermeasure for transmission line unnecessary

DP/DN disconnection detection

DP/DN short-circuit detection

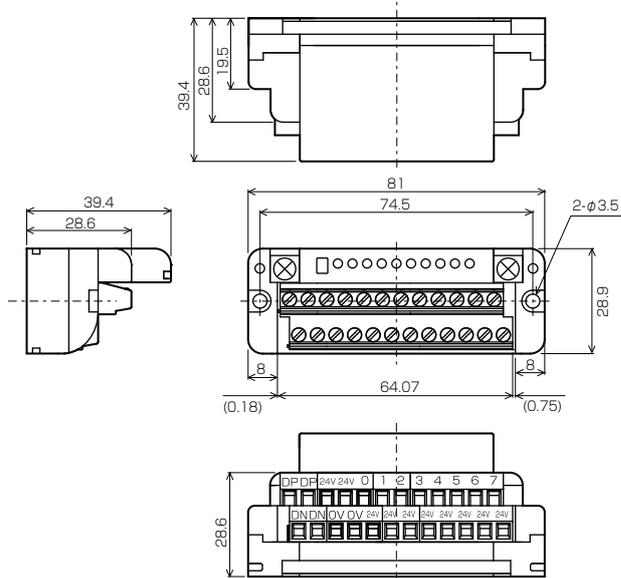
24V drop detection

ID (address) redundant, non-setting detection

< Outline Dimensional Drawings >

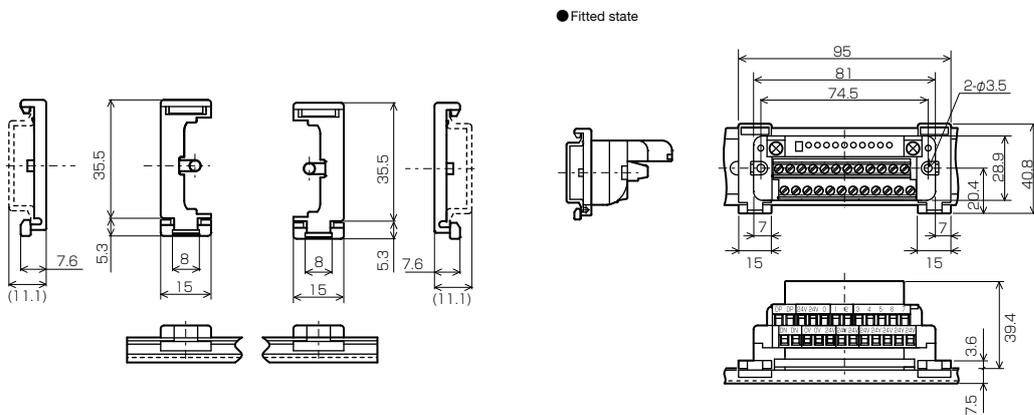
Unit: mm

ASLINKTERMINAL BL296□B-08F□-11



*Example of BL296PB-08F-11. BL296□B-08F□-11 also has the same dimensions.

ASLINKTERMINAL ADP-108 (mounting dedicated DIN rail adaptor) dimensions



*Example of BL296PB-08F-11. Other models also have the same dimensions as indicated.

Functional icon indication

*See page 15 for details on function.



Sensing level monitoring



Reading/writing of sensor sensitivity setting



Sensor cable disconnection detection



Interference countermeasure unnecessary for transmission line unnecessary



Transmission line disconnection detection



Transmission line short-circuit detection



Transmission circuit drive power drop detection



ID (address) redundant, Duplicate/Not set detection

ASLINKTERMINAL

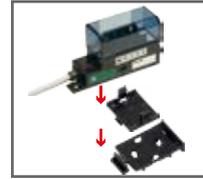
◆ Integrated Small Terminal



BL296□B-04F□-4A-20



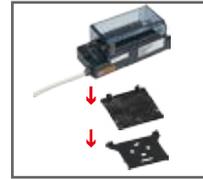
BL296□B-08F□-4-20



Adaptor ADP-T96
ASLINKTERMINAL can be mounted on the DIN rail using the adaptor.



BL296□B-16F□-4A-20



Adaptor ADP-W96
ASLINKTERMINAL can be mounted on the DIN rail using the adaptor.

*Select EP connector (e-CON) from items of accessories.

< Specifications >



Dimension A: 21×80.8×37.7
Dimension B: 21×100×37.1
Dimension C: 43×91×37.1

∕ : Not applicable ∓ : Not determined

Model	Number of I/O points		Input/output specifications	Method	Consumption current (mA)		Connection	I/O side Connection connector	Dimension (mm)	Mass (g)	Input resistance/ ON current (mA)		Response time	Standard price (¥)
	Input	Output			Transmission side	I/O side					Per 1 point	Per 1 common		
BL296SB-04F-4A-20	4	∕	DC input	NPN	5	22	4-wire type (insulation)	e-CON	A	35	6.8	∕	Max. 1ms	Open
BL296SB-04FS-4A-20	4	∕	DC input	PNP	5	22	4-wire type (insulation)	e-CON	A	35	6.8	∕	Max. 1ms	Open
BL296XB-04F-4A-20	2	2	DC input / Tr output	NPN	5	18	4-wire type (insulation)	e-CON	A	35	6.8	100 200	Max. 1ms	Open
BL296XB-04FS-4A-20	2	2	DC input / Tr output	PNP	5	18	4-wire type (insulation)	e-CON	A	35	6.8	100 200	Max. 1ms	Open
BL296PB-04F-4A-20	∕	4	Tr output	NPN	5	8	4-wire type (insulation)	e-CON	A	35	∕	100 400	Max. 1ms	Open
BL296PB-04FS-4A-20	∕	4	Tr output	PNP	5	8	4-wire type (insulation)	e-CON	A	35	∕	100 400	Max. 1ms	Open
BL296SB-08F-4-20	8	∕	DC input	NPN	6	40	4-wire type (insulation)	e-CON	B	40	6.8	∕	Max. 1ms	Open
BL296SB-08FS-4-20	8	∕	DC input	PNP	6	40	4-wire type (insulation)	e-CON	B	40	6.8	∕	Max. 1ms	Open
BL296XB-08F-4-20	4	4	DC input / Tr output	NPN	6	26	4-wire type (insulation)	e-CON	B	40	6.8	100 400	Max. 1ms	Open
BL296XB-08FS-4-20	4	4	DC input / Tr output	PNP	6	26	4-wire type (insulation)	e-CON	B	40	6.8	100 400	Max. 1ms	Open
BL296PB-08F-4-20	∕	8	Tr output	NPN	6	10	4-wire type (insulation)	e-CON	B	40	∕	100 800	Max. 1ms	Open
BL296PB-08FS-4-20	∕	8	Tr output	PNP	6	10	4-wire type (insulation)	e-CON	B	40	∕	100 800	Max. 1ms	Open
BL296SB-16F-4A-20	16	∕	DC input	NPN	8	80	4-wire type (insulation)	e-CON	C	60	6.8	∕	Max. 1ms	Open
BL296SB-16FS-4A-20	16	∕	DC input	PNP	8	80	4-wire type (insulation)	e-CON	C	60	6.8	∕	Max. 1ms	Open
BL296XB-16F-4A-20	8	8	DC input / Tr output	NPN	8	50	4-wire type (insulation)	e-CON	C	60	6.8	100 800	Max. 1ms	Open
BL296XB-16FS-4A-20	8	8	DC input / Tr output	PNP	8	50	4-wire type (insulation)	e-CON	C	60	6.8	100 800	Max. 1ms	Open
BL296PB-16F-4A-20	∕	16	Tr output	NPN	8	15	4-wire type (insulation)	e-CON	C	60	∕	100 1600	Max. 1ms	Open
BL296PB-16FS-4A-20	∕	16	Tr output	PNP	8	15	4-wire type (insulation)	e-CON	C	60	∕	100 1600	Max. 1ms	Open
ADP-T96	DIN rail adaptor for fitting ASLINKTERMINAL integrated type small 4-point/8-point terminal (4 sets included)													Open
ADP-W96	DIN rail adaptor for fitting ASLINKTERMINAL integrated type small 16-point terminal (4 sets included)													Open

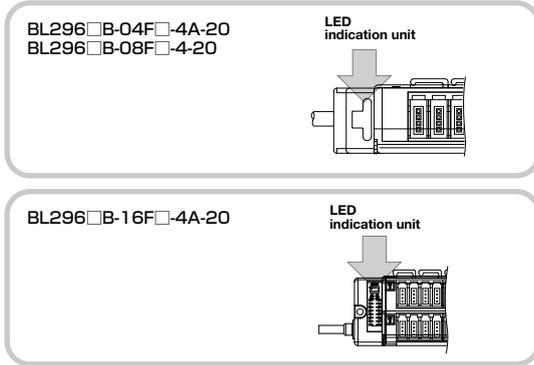
*The dimensions are numerical values excluding the cable section.

Power distribution units are available. For details, see page 64.

Functional icon indication *See page 15 for details on function.	Sensing level monitoring	Reading/writing of sensor sensitivity setting	Sensor cable disconnection detection	Interference countermeasure unnecessary for transmission line unnecessary	DP/DN disconnection Transmission line disconnection detection	DP/DN short-circuit Transmission line short-circuit detection	24V drop Transmission circuit drive power drop detection	ID (address) Duplicate/Not set	ID (address) redundant, non-setting detection
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< LED indication >

LED symbol	Indication status	Detailed status
LINK (Green)	On	Transmission signal error
	Flashing	Transmission signal reception
	Off	No transmission signal (including disconnection and reverse connection of DP and DN)
ALM (Red)	On	I/O power supply decrease
	Flashing	Slave unit voltage decrease
	Off	Normal
LINK ALM	Alternate flashing LINK ALM	When master unit detects that the ID (address) of this unit is duplicated or not set
IN (Orange)	On	Input ON
	Off	Input ON



< Circuit diagram >

In case of NPN method

[NPN input circuit]
(Input terminal)
(Input side of input/output terminal)

<Circuit requirements>
Rated input voltage: 24V DC
Maximum switching current: 3.5mA
ON current: 2.2mA or more
OFF current: 1mA or less
ON voltage: 16V or more (between 24V and IN)
OFF voltage: 8V or less (between 24V and IN)
24V allowable current: Maximum 1A (between 24V and 0V) (per terminal)

4-wire (insulation) type ASLINK terminal (AnyWire based power source)

[NPN output circuit 1]
(Output terminal)

<Circuit requirements>
Withstand voltage: 30V DC
Maximum ON current: 100mA

*In case of inductive load, install a surge killer.

4-wire (insulation) type ASLINK terminal (AnyWire based power source)

[NPN output circuit 2]
(Output side of input/output terminal)

<Circuit requirements>
Withstand voltage: 30V DC
Maximum ON current: 100mA

*In case of inductive load, install a surge killer.

4-wire (insulation) type ASLINK terminal (AnyWire based power source)

In case of PNP method

[PNP input circuit]
(Input terminal)
(Input side of input/output terminal)

<Circuit requirements>
Rated input voltage: 24V DC
Maximum switching current: 3.5mA
ON current: 2.2mA or more
OFF current: 1mA or less
ON voltage: 16V or more (between IN and 0V)
OFF voltage: 8V or less (between IN and 0V)
24V allowable current: Maximum 1A (between 24V and 0V) (per terminal)

4-wire (insulation) type ASLINK terminal (AnyWire based power source)

[PNP output circuit 1]
(Output terminal)

<Circuit requirements>
Withstand voltage: 30V DC
Maximum ON current: 100mA

*In case of inductive load, install a surge killer.

4-wire (insulation) type ASLINK terminal (AnyWire based power source)

[PNP output circuit 2]
(Output side of input/output terminal)

<Circuit requirements>
Withstand voltage: 30V DC
Maximum ON current: 100mA

*In case of inductive load, install a surge killer.

4-wire (insulation) type ASLINK terminal (AnyWire based power source)

Functional icon indication *See page 15 for details on function.	Sensing level monitoring	Reading/writing of sensor sensitivity setting	Sensor cable disconnection detection	Interference count/measure for transmission line unnecessary	Transmission line disconnection detection	Transmission line short-circuit detection	Transmission circuit drive power drop detection	ID (address) redundant, Duplicate/Not set	ID (address) redundant, non-setting detection
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- ASLINK SmartLINKER
- ASLINKER M12/M12 Cable Type
- ASLINKER M12/M8 Cable Type
- ASLINKER Cable Type
- ASLINKER M12 Connector Type
- ASLINKTERMINAL Small Terminal Block Terminal
- ASLINKTERMINAL Integrated Small Terminal
- ASLINKTERMINAL Small 8-Point Terminal
- ASLINKTERMINAL Relay
- ASLINKTERMINAL Manifold Driver
- List of Specifications

ASLINKTERMINAL

◆ Integrated Small Terminal

< Outline Dimensional Drawings >

Unit: mm

ASLINKTERMINAL BL296□B-04F□-4A-20

■ ADP-T96 (mounting dedicated DIN rail adaptor) dimensions

When mounted vertically to the rail: Part A (14.1, 24.2, 20), Part B (6.9, 23, 40.8)

When mounted in parallel to the rail: Part A, Part B

UL style 20276
4-core×No.23AWG (Gray) φ4.6
Black: DN
Red: DP
White: OV
Green: 24V

*Example of BL296SB-04F-4A-20. BL296□B-04F□-4A-20 also has the same dimensions.

ASLINKTERMINAL BL296□B-08F□-4-20

■ ADP-T96 (mounting dedicated DIN rail adaptor) dimensions

When mounted vertically to the rail: Part A (14.1, 24.2, 20), Part B (6.9, 23, 40.8)

When mounted in parallel to the rail: Part A, Part B

UL style 20276
4-core×No.23AWG (Gray) φ4.6
Black: DN
Red: DP
White: OV
Green: 24V

*Example of BL296SB-08F-4-20. BL296□B-08F□-4-20 also has the same dimensions.

Functional icon indication *See page 15 for details on function.	Sensing level monitoring	Reading/writing of sensor sensitivity setting	Sensor cable disconnection detection	Interference countermeasure unnecessary	DP/DN disconnection	DP/DN short-circuit	24V drop	ID (address) Duplicate/Not set
				Interference countermeasure for transmission line unnecessary	Transmission line disconnection detection	Transmission line short-circuit detection	Transmission circuit drive power drop detection	ID (address) redundant, non-setting detection

< Outline Dimensional Drawings >

Unit: mm

ASLINKTERMINAL BL296□B-16F□-4A-20

■ADP-W96 (mounting dedicated DIN rail adaptor) dimensions

When mounted vertically to the rail: Part B, Part A

When mounted in parallel to the rail: Part B, Part A

UL style 20276
4-core No. 23AWG (Gray) ϕ 4.6
Black: DN
Red: DP
White: 0V
Green: 24V

*Example of BL296SB-16F-4A-20. BL296□B-16F□-4A-20 also has the same dimensions.

- ASLINKER SmartLINKER
- ASLINKER M12/M12 Cable Type
- ASLINKER M12/M8 Cable Type
- ASLINKER Cable Type
- ASLINKER M12 Connector Type
- ASLINKTERMINAL Small Terminal Block Terminal
- ASLINKTERMINAL Integrated Small Terminal
- ASLINKTERMINAL Small 8-Point Terminal
- ASLINKTERMINAL Relay
- ASLINKTERMINAL Manifold Driver
- List of Specifications

◆ Power distribution unit

Dimension A: 21×80.8×37.7

Dimension B: 21×100×37.1

< Specifications >

∕: Not applicable -: Not determined

Model	Consumption current (mA)		I/O side Connection connector	Dimension (mm)	Mass (g)	Standard price (¥)
	Transmission side	I/O side				
BL296-04PW4	1	∕	e-CON	A	35	Open
BL296-08PW4	1	∕	e-CON	B	45	Open

*The dimensions are numerical values excluding the cable section.



*Select connector from the accessory items when connecting e-CON.

< LED indication >

LED symbol	Indication status	Detailed status
LINK (Green)	On	Normal
	Off	No power supply

BL296-0□-PW4 **LED indication unit**

< Outline Dimensional Drawings >

ASLINKTERMINAL BL296-04PW4

UL style 20276
4-core No. 23AWG (Gray) ϕ 4.6
Black: DN
Red: DP
White: 0V
Green: 24V

ASLINKTERMINAL BL296-08PW4

UL style 20276
4-core No. 23AWG (Gray) ϕ 4.6
Black: DN
Red: DP
White: 0V
Green: 24V

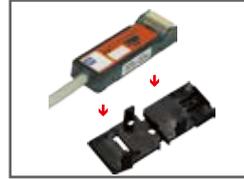
Functional icon indication

*See page 15 for details on function.

Sensing level monitoring	Reading/writing of sensor sensitivity setting	Sensor cable disconnection detection	Interference countermeasure for transmission line unnecessary	DP/DN disconnection Transmission line disconnection detection	DP/DN short-circuit Transmission line short-circuit detection	24V drop Transmission circuit drive power drop detection	ID (address) Duplicate/Not set	ID (address) redundant, non-setting detection
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ASLINKTERMINAL

◆ Small 8-Point Terminal



Adaptor ADP-96
ASLINKTERMINAL can be mounted on the DIN rail using the adaptor.

< Specifications >



Dimension A: 17×55×12.7

/: Not applicable --: Not determined

Model	Number of I/O points		Input/output specifications	Method	Consumption current (mA)		Connection	Dimension (mm)	Mass (g)	Input resistance/1 point (kΩ)	Output max. ON current (mA)		Response time	Standard price (¥)
	Input	Output			Transmission side	I/O side					Per 1 point	Per 1 common		
BL296SB-08F-20	8		DC input	NPN	6	40	4-wire type (insulation)	A	15	6.8	/	/	Max. 1ms	Open
BL296SB-08FS-20	8		DC input	PNP	6	40	4-wire type (insulation)	A	15	6.8	/	/	Max. 1ms	Open
BL296XB-08F-20	4	4	DC input / Tr output	NPN	6	26	4-wire type (insulation)	A	15	6.8	100	400	Max. 1ms	Open
BL296XB-08FS-20	4	4	DC input / Tr output	PNP	6	26	4-wire type (insulation)	A	15	6.8	100	400	Max. 1ms	Open
BL296PB-08F-20		8	Tr output	NPN	6	6	4-wire type (insulation)	A	15	/	100	800	Max. 1ms	Open
BL296PB-08FS-20		8	Tr output	PNP	6	6	4-wire type (insulation)	A	15	/	100	800	Max. 1ms	Open
ADP-96	DIN rail adaptor dedicated for fitting ASLINKTERMINAL small 8-point terminal (1 Adaptor for fitting 4 terminals included)													Open

*The dimensions are numerical values excluding the cable section.

◆ Connection Cable



/: Not applicable --: Not determined

Model	Minimum bending radius	Cable length (mm)	Mass (g)	Standard price (¥)
BL296-08-CN20	R12	21.7×215.2×8.6	11	Open
BL296-08-CN50	R12	21.7×515.2×8.6	26	Open
BL296-08-CN1K	R12	21.7×1015.2×8.6	50	Open

◆ Connection Terminal

Dimension A: 83×21×28.2

/: Not applicable --: Not determined



*Select connector from the accessory items when connecting e-CON.



Adaptor ADP-T96
ASLINKTERMINAL can be mounted on the DIN rail using the adaptor.

Model	Number of I/O points		I/O side Connection connector	Dimension (mm)	Mass (g)	Standard price (¥)
	Input	Output				
BL296S-08-4	8		e-CON	A	20	Open
BL296X-08-4	4	4	e-CON	A	20	Open
BL296P-08-4		8	e-CON	A	20	Open
BL296S-08-9	8		JST XH series	A	18	Open
BL296X-08-9	4	4	JST XH series	A	18	Open
BL296P-08-9		8	JST XH series	A	18	Open
BL296S-08-10	8		Molex 5045 series	A	18	Open
BL296X-08-10	4	4	Molex 5045 series	A	18	Open
BL296P-08-10		8	Molex 5045 series	A	18	Open
ADP-T96	Connection terminal mounting dedicated DIN rail adaptor (4 sets included)					Open

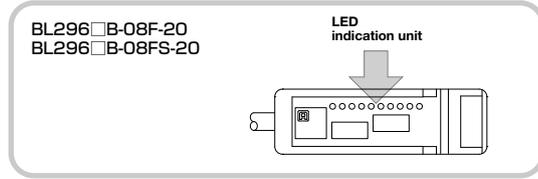
*The dimensions are numerical values excluding the cable section.

Functional icon indication *See page 15 for details on function.	Sensing level monitoring	Reading/writing of sensor sensitivity setting	Sensor cable disconnection detection	Interference countermeasure for transmission line unnecessary	DP/DN disconnection Transmission line disconnection detection	DP/DN short-circuit Transmission line short-circuit detection	24V drop Transmission circuit drive power drop detection	ID (address) Duplicate/Not set	ID (address) redundant, non-setting detection
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◆ Small 8-Point Terminal

< LED indication >

LED symbol	Indication status	Detailed status
LINK (Green)	On	Transmission signal error
	Flashing	Transmission signal reception
	Off	No transmission signal (including disconnection and reverse connection of DP and DN)
ALM (Red)	On	I/O power supply decrease
	Flashing	Slave unit voltage decrease
	Off	Normal
LINK ALM	Alternate flashing LINK ALM	When master unit detects that the ID (address) of this unit is duplicated or not set
IN (Orange)	On	Input ON
	Off	Input ON



< Circuit diagram >

In case of NPN method

[NPN input circuit]
(Input terminal)
(Input side of input/output terminal)

<Circuit requirements>
Rated input voltage: 24V DC
Maximum switching current: 3.5mA
ON current: 2.2mA or more
OFF current: 1mA or less
ON voltage: 16V or more (between 24V and IN)
OFF voltage: 8V or less (between 24V and IN)
24V allowable current: Maximum 1A (between 24V and 0V) (per terminal)

[NPN output circuit 1]
(Output terminal)

<Circuit requirements>
Withstand voltage: 30V DC
Maximum ON current: 100mA

*In case of inductive load, install a surge killer.

[NPN output circuit 2]
(Output side of input/output terminal)

<Circuit requirements>
Withstand voltage: 30V DC
Maximum ON current: 100mA

*In case of inductive load, install a surge killer.

In case of PNP method

[PNP input circuit]
(Input terminal)
(Input side of input/output terminal)

<Circuit requirements>
Rated input voltage: 24V DC
Maximum switching current: 3.5mA
ON current: 2.2mA or more
OFF current: 1mA or less
ON voltage: 16V or more (between IN and 0V)
OFF voltage: 8V or less (between IN and 0V)
24V allowable current: Maximum 1A (between 24V and 0V) (per terminal)

[PNP output circuit 1]
(Output terminal)

<Circuit requirements>
Withstand voltage: 30V DC
Maximum ON current: 100mA

*In case of inductive load, install a surge killer.

[PNP output circuit 2]
(Output side of input/output terminal)

<Circuit requirements>
Withstand voltage: 30V DC
Maximum ON current: 100mA

*In case of inductive load, install a surge killer.

Functional icon indication

*See page 15 for details on function.

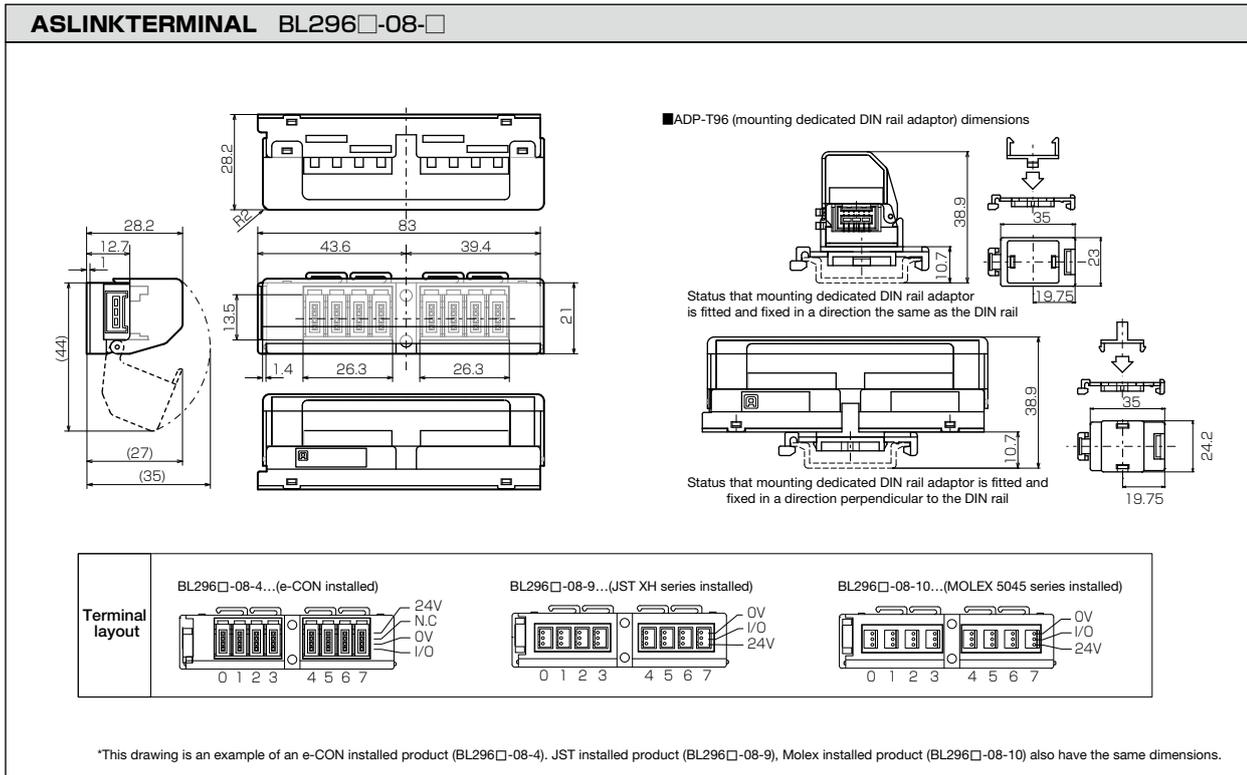
	Sensing level monitoring		Sensor cable disconnection detection		Interference countermeasure for transmission line unnecessary		Transmission line disconnection detection		Transmission line short-circuit detection		Transmission circuit drive power drop detection		ID (address) redundant, Duplicate/Not set		ID (address) redundant, non-setting detection
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- ASLINKER SmartLINKER
- ASLINKER M12/M12 Cable Type
- ASLINKER M12/M8 Cable Type
- ASLINKER Cable Type
- ASLINKER M12 Connector Type
- ASLINKTERMINAL Small Terminal Block Terminal
- ASLINKTERMINAL Integrated Small Terminal
- ASLINKTERMINAL Small 8-Point Terminal
- ASLINKTERMINAL Relay
- ASLINKTERMINAL Manifold Driver
- List of Specifications

◆ Connection Terminal

< Outline Dimensional Drawings >

Unit: mm

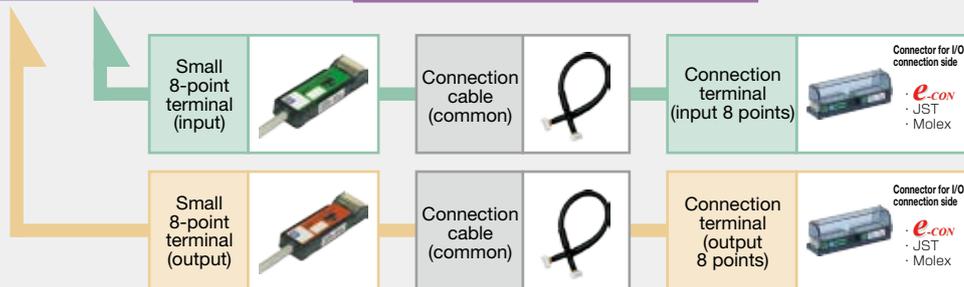
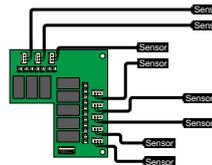


- ASLINKER SmartLINKER
- ASLINKER M12/M12 Cable Type
- ASLINKER M12/M8 Cable Type
- ASLINKER Cable Type
- ASLINKER M12 Connector Type
- ASLINKTERMINAL Small Terminal Block Terminal
- ASLINKTERMINAL Integrated Small Terminal
- ASLINKTERMINAL Small 8-Point Terminal
- ASLINKTERMINAL Relay
- ASLINKTERMINAL Manifold Driver
- List of Specifications

The small 8-point terminal is used in combination of connection terminal and the customer's original board with a connection cable.

Space can be further saved if a customer uniquely develops relay board in locations where mechanical systems are integrated and sensors are condensed. (The figure is an example of input.)

Customer's original board



Functional icon indication	HI LO NG	Sensing level monitoring	Hi/Lo 10/15	Reading/writing of sensor sensitivity setting	Sensor cable disconnection detection	Interference countermeasure unnecessary	Interference countermeasure for transmission line unnecessary	DP/DN disconnection	Transmission line disconnection detection	DP/DN short-circuit	Transmission line short-circuit detection	24V drop	Transmission circuit drive power drop detection	ID (address) Duplicate/Not set	ID (address) redundant, non-setting detection
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ASLINKTERMINAL

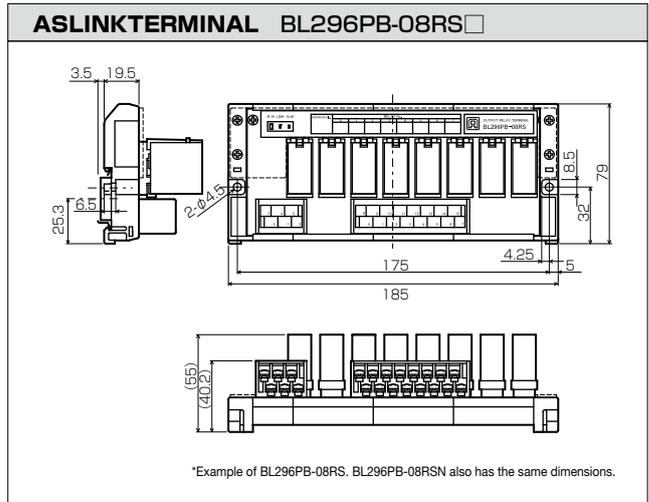
◆ Relay Terminal (G2R relay mounting type)

< Outline Dimensional Drawings >

Unit: mm



Can be mounted on the DIN rail



< Specifications >



Dimension A: 79×185×55

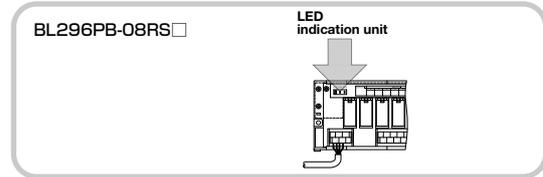
/: Not applicable -/: Not determined

Model	Number of I/O points		Input/output specifications	Method	Consumption current (mA)		Connection	Dimension (mm)	Mass (g)	Input resistance/1 point (kΩ)		Output max. ON current (mA)		Response time	Standard price (¥)
	Input	Output			Transmission side	I/O side				Per 1 point	Per 1 common				
BL296PB-08RS		8	Relay output All points independent circuit	Relay	6	200	4-wire type (insulation)	A	365	/	3000	3000	Max. 1ms	Open	
BL296PB-08RSN	/	8	Relay not mounted All points independent circuit	Relay	6	*	4-wire type (insulation)	A	205	/	3000	3000	Max. 1ms	Open	

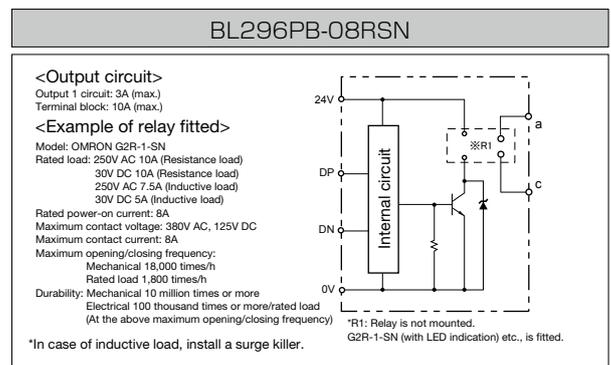
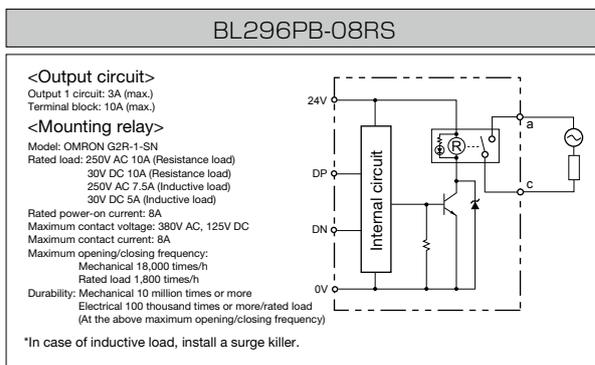
* This differs depending on the relay used.

< LED indication >

LED symbol	Indication status	Detailed status
LINK (Green)	On	Transmission signal error
	Flashing	Transmission signal reception
	Off	No transmission signal (including disconnection and reverse connection of DP and DN)
ALM (Red)	On	I/O power supply decrease
	Flashing	Slave unit voltage decrease
	Off	Normal
LINK ALM	Alternate flashing LINK ALM	When master unit detects that the ID (address) of this unit is duplicated or not set
IN (Orange)	On	Input ON
	Off	Input ON



< Circuit diagram >



Functional icon indication *See page 15 for details on function.		Sensing level monitoring		Reading/writing of sensor sensitivity setting		Sensor cable disconnection detection		Interference countermeasure for transmission line unnecessary		Transmission line disconnection detection		Transmission line short-circuit detection		Transmission circuit drive power drop detection		ID (address) redundant, non-setting detection
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◆ Manifold Driver



Manifold manufactured by CKD Corporation
Compatible with MN4G-T70-FL series

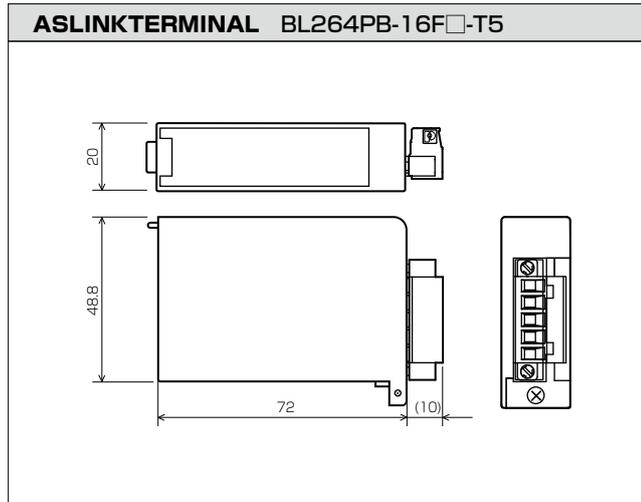
Can be mounted on the DIN rail



State that terminal is fitted to solenoid valve manifold of CKD

< Outline Dimensional Drawings >

Unit: mm



< Specifications >



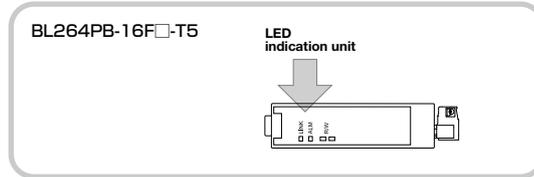
Dimension A: 72×20×48.8

/: Not applicable -/: Not determined

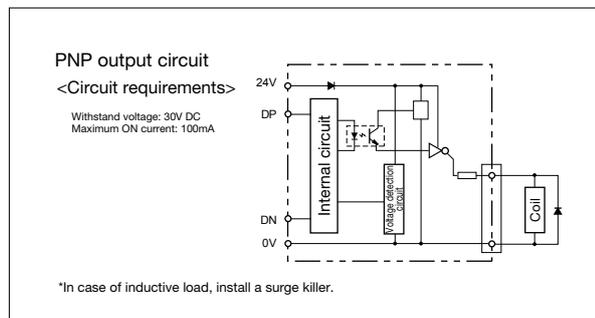
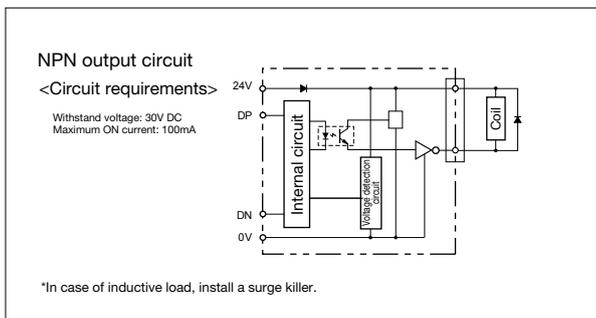
Model	Number of I/O points		Input/output specifications	Method	Consumption current (mA)		Connection	Dimension (mm)	Mass (g)	Input resistance/1 point (kΩ)	Output max. ON current (mA)		Response time	Standard price (¥)
	Input	Output			Transmission side	I/O side					Per 1 point	Per 1 common		
BL264PB-16F-T5	/	16	Tr output	NPN	7	38	4-wire type (insulation)	A	55	/	100	/	Max. 1ms	Open
BL264PB-16FS-T5	/	16	Tr output	PNP	7	38	4-wire type (insulation)	A	55	/	100	/	Max. 1ms	Open

< LED indication >

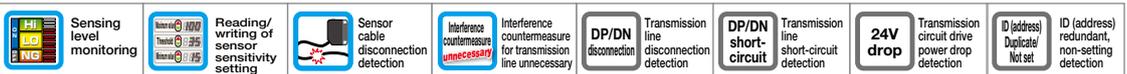
LED symbol	Indication status	Detailed status
LINK (Green)	On	Transmission signal error
	Flashing	Transmission signal reception
	Off	No transmission signal (including disconnection and reverse connection of DP and DN)
ALM (Red)	On	I/O power supply decrease
	Flashing	Slave unit voltage decrease
	Off	Normal
LINK ALM	Alternate flashing	When master unit detects that the ID (address) of this unit is duplicated or not set
IN (Orange)	On	Input ON
	Off	Input ON



< Circuit diagram >



Functional icon indication
*See page 15 for details on function.



ASLINKER / ASLINKTERMINAL

< List of Specifications >

○: Mounted ×: Not mounted /: Not applicable - : Not determined

Model	Number of I/O points		Input/output specifications	Method	Consumption current (mA)		Connection	Mass (g)	Input resistance (1 point)(k Ω)	Output max. ON current (mA)		Sensing level monitoring	Sensor sensitivity setting read/write	Sensor cable disconnection detection	Interference measure unnecessary	RAS function	I/O response time
	Input	Output			Transmission side	I/O side				Per 1 point	Per 1 common						
B2N87SB-02D-CC20	2	/	DC input	NPN	3.4	/	2-wire type (non-insulation)	20	6.8	/	/	×	×	○	×	○	Max. 1ms
B2N87SB-02DS-CC20	2	/	DC input	PNP	3.4	/	2-wire type (non-insulation)	20	6.8	/	/	×	×	○	×	○	Max. 1ms
BL2LN87SB-02D-CC20	2	/	DC input	NPN	1.5	10.0	4-wire type (insulation)	20	6.8	/	/	×	×	○	×	○	Max. 1ms
BL2LN87SB-02DS-CC20	2	/	DC input	PNP	1.5	9.2	4-wire type (insulation)	20	6.8	/	/	×	×	○	×	○	Max. 1ms
BL287SB-02F-2D220	2	/	DC input	NPN	3.4	11.2	4-wire type (insulation)	45	6.8	/	/	×	×	×	×	○	Max. 1ms
BL287SB-02FS-2D220	2	/	DC input	PNP	3.4	11.2	4-wire type (insulation)	45	6.8	/	/	×	×	×	×	○	Max. 1ms
BL287XB-02F-2D220	1	1	DC input / Tr output	NPN	3.5	8.0	4-wire type (insulation)	45	6.8	100	100	×	×	×	×	○	Max. 1ms
BL287XB-02FS-2D220	1	1	DC input / Tr output	PNP	3.6	8.0	4-wire type (insulation)	45	6.8	100	100	×	×	×	×	○	Max. 1ms
BL287PB-02F-2D220	/	2	Tr output	NPN	3.8	4.7	4-wire type (insulation)	45	/	100	200	×	×	×	×	○	Max. 1ms
BL287PB-02FS-2D220	/	2	Tr output	PNP	3.8	4.7	4-wire type (insulation)	45	/	100	200	×	×	×	×	○	Max. 1ms
BL287SB-02F-2D820	2	/	DC input	NPN	3.4	11.2	4-wire type (insulation)	35	6.8	/	/	×	×	×	×	○	Max. 1ms
BL287SB-02FS-2D820	2	/	DC input	PNP	3.4	11.2	4-wire type (insulation)	35	6.8	/	/	×	×	×	×	○	Max. 1ms
BL287XB-02F-2D820	1	1	DC input / Tr output	NPN	3.5	8.0	4-wire type (insulation)	35	6.8	100	100	×	×	×	×	○	Max. 1ms
BL287XB-02FS-2D820	1	1	DC input / Tr output	PNP	3.6	8.0	4-wire type (insulation)	35	6.8	100	100	×	×	×	×	○	Max. 1ms
BL287SB-02F-2D720	2	/	DC input	NPN	3.4	11.2	4-wire type (insulation)	35	6.8	/	/	×	×	×	×	○	Max. 1ms
BL287SB-02FS-2D720	2	/	DC input	PNP	3.4	11.2	4-wire type (insulation)	35	6.8	/	/	×	×	×	×	○	Max. 1ms
BL287XB-02F-2D720	1	1	DC input / Tr output	NPN	3.5	8.0	4-wire type (insulation)	35	6.8	100	100	×	×	×	×	○	Max. 1ms
BL287XB-02FS-2D720	1	1	DC input / Tr output	PNP	3.6	8.0	4-wire type (insulation)	35	6.8	100	100	×	×	×	×	○	Max. 1ms
B281SB-02U-CC20	2	/	DC input	NPN	15.4	/	2-wire type (non-insulation)	15	6.8	/	/	×	×	○	×	○	Max. 1ms
B281SB-02US-CC20	2	/	DC input	PNP	13.5	/	2-wire type (non-insulation)	15	6.8	/	/	×	×	○	×	○	Max. 1ms
B281XB-02U-CC20	1	1	DC input / Tr output	NPN	10.5	/	2-wire type (non-insulation)	15	6.8	100	100	×	×	○	×	○	Max. 1ms
B281XB-02US-CC20	1	1	DC input / Tr output	PNP	10.1	/	2-wire type (non-insulation)	15	6.8	100	100	×	×	○	×	○	Max. 1ms
B281PB-02U-CC20	/	2	Tr output	NPN	5.5	/	2-wire type (non-insulation)	15	/	100	100	×	×	○	×	○	Max. 1ms
B281PB-02US-CC20	/	2	Tr output	PNP	6.5	/	2-wire type (non-insulation)	15	/	100	100	×	×	○	×	○	Max. 1ms
BL287SB-02F-CC20	2	/	DC input	NPN	3.4	11.2	4-wire type (insulation)	18	6.8	/	/	×	×	×	×	○	Max. 1ms
BL287SB-02FS-CC20	2	/	DC input	PNP	3.4	11.2	4-wire type (insulation)	18	6.8	/	/	×	×	×	×	○	Max. 1ms
BL287XB-02F-CC20	1	1	DC input / Tr output	NPN	3.5	8.0	4-wire type (insulation)	18	6.8	100	100	×	×	×	×	○	Max. 1ms
BL287XB-02FS-CC20	1	1	DC input / Tr output	PNP	3.6	8.0	4-wire type (insulation)	18	6.8	100	100	×	×	×	×	○	Max. 1ms
BL287PB-02F-CC20	/	2	Tr output	NPN	3.8	4.7	4-wire type (insulation)	18	/	100	200	×	×	×	×	○	Max. 1ms
BL287PB-02FS-CC20	/	2	Tr output	PNP	3.8	4.7	4-wire type (insulation)	18	/	100	200	×	×	×	×	○	Max. 1ms
B280SB-02U-C1220	2	/	DC input	NPN	15.4	/	2-wire type (non-insulation)	22	6.8	/	/	×	×	○*1	×	○	Max. 1ms
B280SB-02US-C1220	2	/	DC input	PNP	13.5	/	2-wire type (non-insulation)	22	6.8	/	/	×	×	○*1	×	○	Max. 1ms
B280XB-02U-C1220	1	1	DC input / Tr output	NPN	10.5	/	2-wire type (non-insulation)	22	6.8	100	100	×	×	×	×	○	Max. 1ms
B280XB-02US-C1220	1	1	DC input / Tr output	PNP	10.1	/	2-wire type (non-insulation)	22	6.8	100	100	×	×	×	×	○	Max. 1ms
B280PB-02U-C1220	/	2	Tr output	NPN	5.5	/	2-wire type (non-insulation)	22	/	100	100	×	×	○*1	×	○	Max. 1ms
B280PB-02US-C1220	/	2	Tr output	PNP	6.5	/	2-wire type (non-insulation)	22	/	100	100	×	×	○*1	×	○	Max. 1ms

*1: Impossible to simultaneously detect at two points

Model	Number of I/O points		Input/output specifications	Method	Consumption current (mA)		Connection	Mass (g)	Input resistance (1 point)(k Ω)	Output max. ON current (mA)		Sensing level monitoring	Sensor sensitivity setting read/write	Sensor cable disconnection detection	Interference measure unnecessary	RAS function	I/O response time
	Input	Output			Transmission side	I/O side				Per 1 point	Per 1 common						
BL296SB-08F-V50	8	/	DC input	NPN	6	40	4-wire type (insulation)	90	6.8	/	/	×	×	×	×	○	Max. 1ms
BL296SB-08FS-V50	8	/	DC input	PNP	6	40	4-wire type (insulation)	90	6.8	/	/	×	×	×	×	○	Max. 1ms
BL296XB-08F-V50	4	4	DC input / Tr output	NPN	6	26	4-wire type (insulation)	90	6.8	100	400	×	×	×	×	○	Max. 1ms
BL296XB-08FS-V50	4	4	DC input / Tr output	PNP	6	26	4-wire type (insulation)	90	6.8	100	400	×	×	×	×	○	Max. 1ms
BL296PB-08F-V50	/	8	Tr output	NPN	6	10	4-wire type (insulation)	90	/	100	800	×	×	×	×	○	Max. 1ms
BL296PB-08FS-V50	/	8	Tr output	PNP	6	10	4-wire type (insulation)	90	/	100	800	×	×	×	×	○	Max. 1ms
BL296SB-08F-3-V50	8	/	DC input	NPN	6	40	4-wire type (insulation)	85	6.8	/	/	×	×	×	×	○	Max. 1ms
BL296SB-08FS-3-V50	8	/	DC input	PNP	6	40	4-wire type (insulation)	85	6.8	/	/	×	×	×	×	○	Max. 1ms
BL296XB-08F-3-V50	4	4	DC input / Tr output	NPN	6	26	4-wire type (insulation)	85	6.8	100	400	×	×	×	×	○	Max. 1ms
BL296XB-08FS-3-V50	4	4	DC input / Tr output	PNP	6	26	4-wire type (insulation)	85	6.8	100	400	×	×	×	×	○	Max. 1ms
BL296PB-08F-3-V50	/	8	Tr output	NPN	6	10	4-wire type (insulation)	85	/	100	800	×	×	×	×	○	Max. 1ms
BL296PB-08FS-3-V50	/	8	Tr output	PNP	6	10	4-wire type (insulation)	85	/	100	800	×	×	×	×	○	Max. 1ms
BL296SB-08F-11-V50	8	/	DC input	NPN	6	40	4-wire type (insulation)	85	6.8	/	/	×	×	×	×	○	Max. 1ms
BL296SB-08FS-11-V50	8	/	DC input	PNP	6	40	4-wire type (insulation)	85	6.8	/	/	×	×	×	×	○	Max. 1ms
BL296XB-08F-11-V50	4	4	DC input / Tr output	NPN	6	26	4-wire type (insulation)	85	6.8	100	400	×	×	×	×	○	Max. 1ms
BL296XB-08FS-11-V50	4	4	DC input / Tr output	PNP	6	26	4-wire type (insulation)	85	6.8	100	400	×	×	×	×	○	Max. 1ms
BL296PB-08F-11-V50	/	8	Tr output	NPN	6	10	4-wire type (insulation)	85	/	100	800	×	×	×	×	○	Max. 1ms
BL296PB-08FS-11-V50	/	8	Tr output	PNP	6	10	4-wire type (insulation)	85	/	100	800	×	×	×	×	○	Max. 1ms
BL296SB-16F-V50	16	/	DC input	NPN	8	80	4-wire type (insulation)	150	6.8	/	/	×	×	×	×	○	Max. 1ms
BL296SB-16FS-V50	16	/	DC input	PNP	8	80	4-wire type (insulation)	150	6.8	/	/	×	×	×	×	○	Max. 1ms
BL296XB-16F-V50	8	8	DC input / Tr output	NPN	8	50	4-wire type (insulation)	150	6.8	100	800	×	×	×	×	○	Max. 1ms
BL296XB-16FS-V50	8	8	DC input / Tr output	PNP	8	50	4-wire type (insulation)	150	6.8	100	800	×	×	×	×	○	Max. 1ms
BL296PB-16F-V50	/	16	Tr output	NPN	8	15	4-wire type (insulation)	150	/	100	1600	×	×	×	×	○	Max. 1ms
BL296PB-16FS-V50	/	16	Tr output	PNP	8	15	4-wire type (insulation)	150	/	100	1600	×	×	×	×	○	Max. 1ms

< List of Specifications >

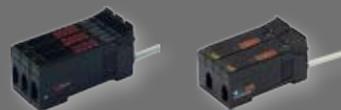
○: Mounted ×: Not mounted /: Not applicable - : Not determined

Model	Number of I/O points		Input/output specifications		Consumption current (mA)		Connection	Mass (g)	Input resistance/1 point(k Ω)	Output max. ON current (mA)		Sensing level monitoring	Sensor sensitivity setting read/write	Sensor cable disconnection detection	Interference measure unnecessary	RAS function	I/O response time
	Input	Output			Transmission side	I/O side				Per 1 point	Per 1 common						
BL296SB-16F-3-V50	16	/	DC input	NPN	8	80	4-wire type (insulation)	145	6.8	/	/	×	×	×	×	○	Max. 1ms
BL296SB-16FS-3-V50	16	/	DC input	PNP	8	80	4-wire type (insulation)	145	6.8	/	/	×	×	×	×	○	Max. 1ms
BL296XB-16F-3-V50	8	8	DC input / Tr output	NPN	8	50	4-wire type (insulation)	145	6.8	100	800	×	×	×	×	○	Max. 1ms
BL296XB-16FS-3-V50	8	8	DC input / Tr output	PNP	8	50	4-wire type (insulation)	145	6.8	100	800	×	×	×	×	○	Max. 1ms
BL296PB-16F-3-V50	/	16	Tr output	NPN	8	15	4-wire type (insulation)	145	/	100	1600	×	×	×	×	○	Max. 1ms
BL296PB-16FS-3-V50	/	16	Tr output	PNP	8	15	4-wire type (insulation)	145	/	100	1600	×	×	×	×	○	Max. 1ms
BL296SB-16F-11-V50	16	/	DC input	NPN	8	80	4-wire type (insulation)	140	6.8	/	/	×	×	×	×	○	Max. 1ms
BL296SB-16FS-11-V50	16	/	DC input	PNP	8	80	4-wire type (insulation)	140	6.8	/	/	×	×	×	×	○	Max. 1ms
BL296XB-16F-11-V50	8	8	DC input / Tr output	NPN	8	50	4-wire type (insulation)	140	6.8	100	800	×	×	×	×	○	Max. 1ms
BL296XB-16FS-11-V50	8	8	DC input / Tr output	PNP	8	50	4-wire type (insulation)	140	6.8	100	800	×	×	×	×	○	Max. 1ms
BL296PB-16F-11-V50	/	16	Tr output	NPN	8	15	4-wire type (insulation)	140	/	100	1600	×	×	×	×	○	Max. 1ms
BL296PB-16FS-11-V50	/	16	Tr output	PNP	8	15	4-wire type (insulation)	140	/	100	1600	×	×	×	×	○	Max. 1ms
BL296SB-08F	8	/	DC input	NPN	6	40	4-wire type (insulation)	75	6.8	/	/	×	×	×	×	○	Max. 1ms
BL296SB-08FS	8	/	DC input	PNP	6	40	4-wire type (insulation)	75	6.8	/	/	×	×	×	×	○	Max. 1ms
BL296XB-08F	4	4	DC input / Tr output	NPN	6	26	4-wire type (insulation)	75	6.8	100	400	×	×	×	×	○	Max. 1ms
BL296XB-08FS	4	4	DC input / Tr output	PNP	6	26	4-wire type (insulation)	75	6.8	100	400	×	×	×	×	○	Max. 1ms
BL296PB-08F	/	8	Tr output	NPN	6	10	4-wire type (insulation)	75	/	100	800	×	×	×	×	○	Max. 1ms
BL296PB-08FS	/	8	Tr output	PNP	6	10	4-wire type (insulation)	75	/	100	800	×	×	×	×	○	Max. 1ms
BL296SB-08F-3	8	/	DC input	NPN	6	40	4-wire type (insulation)	70	6.8	/	/	×	×	×	×	○	Max. 1ms
BL296SB-08FS-3	8	/	DC input	PNP	6	40	4-wire type (insulation)	70	6.8	/	/	×	×	×	×	○	Max. 1ms
BL296XB-08F-3	4	4	DC input / Tr output	NPN	6	26	4-wire type (insulation)	70	6.8	100	400	×	×	×	×	○	Max. 1ms
BL296XB-08FS-3	4	4	DC input / Tr output	PNP	6	26	4-wire type (insulation)	70	6.8	100	400	×	×	×	×	○	Max. 1ms
BL296PB-08F-3	/	8	Tr output	NPN	6	10	4-wire type (insulation)	70	/	100	800	×	×	×	×	○	Max. 1ms
BL296PB-08FS-3	/	8	Tr output	PNP	6	10	4-wire type (insulation)	70	/	100	800	×	×	×	×	○	Max. 1ms
BL296SB-08F-11	8	/	DC input	NPN	6	40	4-wire type (insulation)	65	6.8	/	/	×	×	×	×	○	Max. 1ms
BL296SB-08FS-11	8	/	DC input	PNP	6	40	4-wire type (insulation)	65	6.8	/	/	×	×	×	×	○	Max. 1ms
BL296XB-08F-11	4	4	DC input / Tr output	NPN	6	26	4-wire type (insulation)	65	6.8	100	400	×	×	×	×	○	Max. 1ms
BL296XB-08FS-11	4	4	DC input / Tr output	PNP	6	26	4-wire type (insulation)	65	6.8	100	400	×	×	×	×	○	Max. 1ms
BL296PB-08F-11	/	8	Tr output	NPN	6	10	4-wire type (insulation)	65	/	100	800	×	×	×	×	○	Max. 1ms
BL296PB-08FS-11	/	8	Tr output	PNP	6	10	4-wire type (insulation)	65	/	100	800	×	×	×	×	○	Max. 1ms
BL296SB-04F-4A-20	4	/	DC input	NPN	5	22	4-wire type (insulation)	35	6.8	/	/	×	×	×	×	○	Max. 1ms
BL296SB-04FS-4A-20	4	/	DC input	PNP	5	22	4-wire type (insulation)	35	6.8	/	/	×	×	×	×	○	Max. 1ms
BL296XB-04F-4A-20	2	2	DC input / Tr output	NPN	5	18	4-wire type (insulation)	35	6.8	100	200	×	×	×	×	○	Max. 1ms
BL296XB-04FS-4A-20	2	2	DC input / Tr output	PNP	5	18	4-wire type (insulation)	35	6.8	100	200	×	×	×	×	○	Max. 1ms
BL296PB-04F-4A-20	/	4	Tr output	NPN	5	8	4-wire type (insulation)	35	/	100	400	×	×	×	×	○	Max. 1ms
BL296PB-04FS-4A-20	/	4	Tr output	PNP	5	8	4-wire type (insulation)	35	/	100	400	×	×	×	×	○	Max. 1ms
BL296SB-08F-4-20	8	/	DC input	NPN	6	40	4-wire type (insulation)	40	6.8	/	/	×	×	×	×	○	Max. 1ms
BL296SB-08FS-4-20	8	/	DC input	PNP	6	40	4-wire type (insulation)	40	6.8	/	/	×	×	×	×	○	Max. 1ms
BL296XB-08F-4-20	4	4	DC input / Tr output	NPN	6	26	4-wire type (insulation)	40	6.8	100	400	×	×	×	×	○	Max. 1ms
BL296XB-08FS-4-20	4	4	DC input / Tr output	PNP	6	26	4-wire type (insulation)	40	6.8	100	400	×	×	×	×	○	Max. 1ms
BL296PB-08F-4-20	/	8	Tr output	NPN	6	10	4-wire type (insulation)	40	/	100	800	×	×	×	×	○	Max. 1ms
BL296PB-08FS-4-20	/	8	Tr output	PNP	6	10	4-wire type (insulation)	40	/	100	800	×	×	×	×	○	Max. 1ms
BL296SB-16F-4A-20	16	/	DC input	NPN	8	80	4-wire type (insulation)	60	6.8	/	/	×	×	×	×	○	Max. 1ms
BL296SB-16FS-4A-20	16	/	DC input	PNP	8	80	4-wire type (insulation)	60	6.8	/	/	×	×	×	×	○	Max. 1ms
BL296XB-16F-4A-20	8	8	DC input / Tr output	NPN	8	50	4-wire type (insulation)	60	6.8	100	800	×	×	×	×	○	Max. 1ms
BL296XB-16FS-4A-20	8	8	DC input / Tr output	PNP	8	50	4-wire type (insulation)	60	6.8	100	800	×	×	×	×	○	Max. 1ms
BL296PB-16F-4A-20	/	16	Tr output	NPN	8	15	4-wire type (insulation)	60	/	100	1600	×	×	×	×	○	Max. 1ms
BL296PB-16FS-4A-20	/	16	Tr output	PNP	8	15	4-wire type (insulation)	60	/	100	1600	×	×	×	×	○	Max. 1ms
BL296-04PW4	/	/	/	/	/	1	/	35	/	/	/	×	×	×	×	×	/
BL296-08PW4	/	/	/	/	/	1	/	45	/	/	/	×	×	×	×	×	/
BL296SB-08F-20	8	/	DC input	NPN	6	40	4-wire type (insulation)	15	6.8	/	/	×	×	×	×	○	Max. 1ms
BL296SB-08FS-20	8	/	DC input	PNP	6	40	4-wire type (insulation)	15	6.8	/	/	×	×	×	×	○	Max. 1ms
BL296XB-08F-20	4	4	DC input / Tr output	NPN	6	26	4-wire type (insulation)	15	6.8	100	400	×	×	×	×	○	Max. 1ms
BL296XB-08FS-20	4	4	DC input / Tr output	PNP	6	26	4-wire type (insulation)	15	6.8	100	400	×	×	×	×	○	Max. 1ms
BL296PB-08F-20	/	8	Tr output	NPN	6	6	4-wire type (insulation)	15	/	100	800	×	×	×	×	○	Max. 1ms
BL296PB-08FS-20	/	8	Tr output	PNP	6	6	4-wire type (insulation)	15	/	100	800	×	×	×	×	○	Max. 1ms
BL296PB-08RS	/	8	Relay output All points independent circuit	Relay	6	200	4-wire type (insulation)	365	/	3000	3000	×	×	×	×	○	Max. 1ms
BL296PB-08RSN	/	8	Relay output All points independent circuit	Relay	6	*	4-wire type (insulation)	205	/	3000	3000	×	×	×	×	○	Max. 1ms
BL264PB-16F-T5	/	16	Tr output	NPN	7	38	4-wire type (insulation)	55	/	100	/	×	×	×	×	○	Max. 1ms
BL264PB-16FS-T5	/	16	Tr output	PNP	7	38	4-wire type (insulation)	55	/	100	/	×	×	×	×	○	Max. 1ms

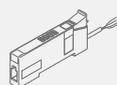
* This differs depending on the relay used.

- ASLINKER SmartLINKER
- ASLINKER M12/M12 Cable Type
- ASLINKER M12/M8 Cable Type
- ASLINKER Cable Type
- ASLINKER M12 Connector Type
- ASLINKTERMINAL Small Terminal Block Terminal
- ASLINKTERMINAL Integrated Small Terminal
- ASLINKTERMINAL Small 8-Point Terminal
- ASLINKTERMINAL Relay
- ASLINKTERMINAL Manifold Driver
- List of Specifications

Slave Units (Analog)



Analog (AD/DA) terminals compatible with general-purpose input/output equipment



ASLINKAMP
Analog Input Unit 75



ASLINKAMP
Power Supply Unit for Analog Input 78



ASLINKAMP
Analog Output Unit 79

List of Specifications 83

◆ **Analog Input Unit (With 7 segment display, non-insulation type between channels)**



A state in which the extension unit is added to the base unit (can be mounted on the DIN rail)

< Specifications >



Dimension A: 10×72×36.7

/: Not applicable -/: Not determined

Model	Number of I/O points		Input/output specifications	Method	Type	Consumption current (mA)		Connection	Dimension (mm)	Mass (g)	Input resistance/1 point (kΩ)	Output max. ON current (mA)		Response time	Standard price (¥)
	Input	Output				Transmission side	I/O side					Per 1 point	Per 1 common		
LA-A12W	1	6	Multi input (switched by setting)	0-10V, 0-5V, 1-5V, 0-20mA, 4-20mA	Base	10	/	2-wire type (non-insulation)	A	22	/	/	/	Max. 1ms	Open
LB-A12W	1	6			Extension	10	/	2-wire type (non-insulation)	A	17	/	/	/	Max. 1ms	Open

*The dimensions are values excluding the cable section and sensor head section.

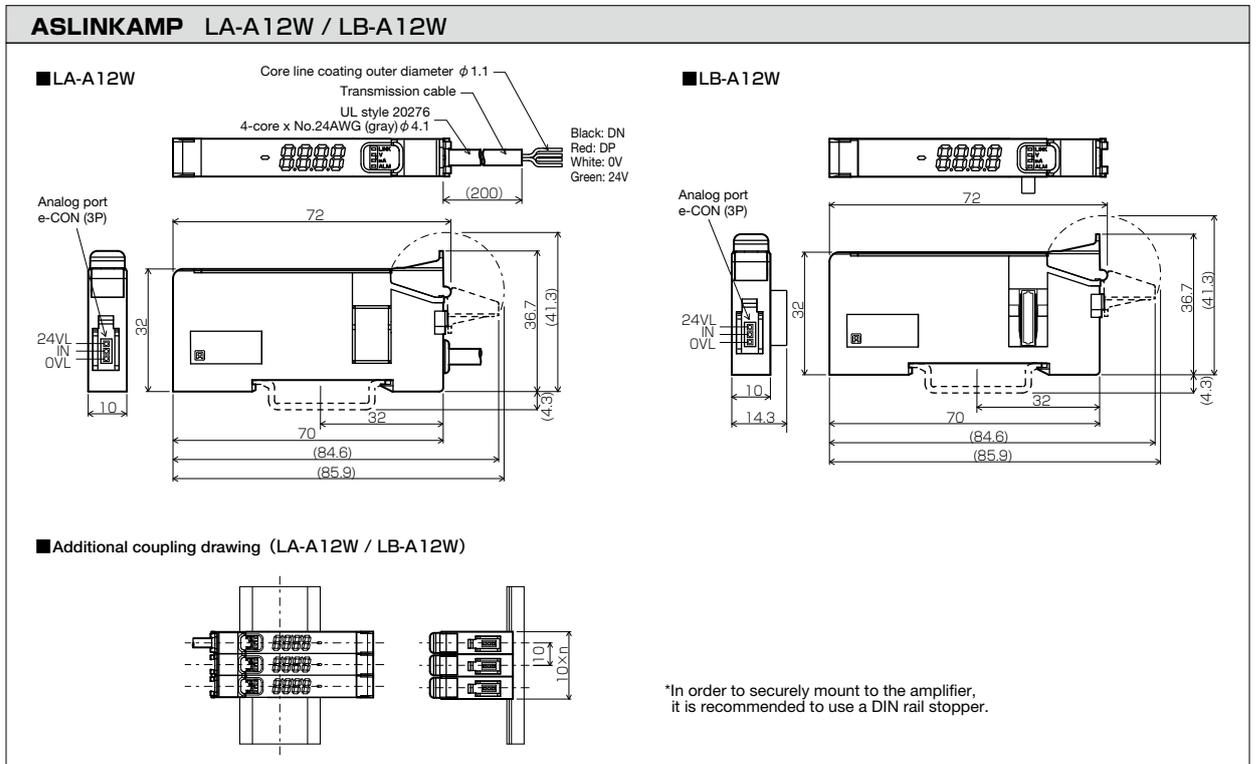
* Purchase connectors compatible with the analog side separately.

* The attached line for transmission connection is a 4-core line.

* Analog input of 1 channel for one unit is possible. (16 points are occupied.)

< Outline Dimensional Drawings >

Unit: mm



*In order to securely mount to the amplifier, it is recommended to use a DIN rail stopper.

Functional icon indication *See page 15 for details on function.	Sensing level monitoring	Reading/writing of sensor sensitivity setting	Sensor cable disconnection detection	Interference countermeasure for transmission line unnecessary	DP/DN disconnection Transmission line disconnection detection	DP/DN short-circuit Transmission line short-circuit detection	24V drop Transmission circuit drive power drop detection	ID (address) Duplicate/Not set	ID (address) redundant, non-setting detection
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< LED indication >

LED symbol	Indication status	Detailed status
LINK (Green)	On 	Transmission signal error
	Flashing 	Transmission signal reception
	Off 	No transmission signal <small>(including disconnection and reverse connection of DP and DN)</small>
ALM (Red)	Flashing 	Slave unit voltage decrease
	Off 	Normal
LINK ALM	Alternate flashing LINK  ALM 	When master unit detects that the ID (address) of this unit is duplicated or not set
V (Orange)	On 	When voltage input is set
	Off 	—
mA (Orange)	On 	When current input is set
	Off 	—

< Input/output characteristic, resolution >

Analog input range		Digital output value	Resolution
Voltage	0-10V	0-16000	625uV
	0-5V		312.5uV
	1-5V		250uV
Current	0-20mA	—	1250nA
	4-20mA		1000nA

ASLINKAMP
Analog Input Unit

ASLINKAMP
Power Supply Unit for Analog Input

ASLINKAMP
Analog Output Unit

List of Specifications

Functional icon indication
*See page 15 for details on function.



Sensing level monitoring



Reading/writing of sensor sensitivity setting



Sensor cable disconnection detection



Interference countermeasure for transmission line unnecessary



Transmission line disconnection detection



Transmission line short-circuit detection



Transmission circuit drive power drop detection



ID (address) redundant, non-setting detection

◆ **Analog Input Unit (With 7 segment display, insulation type between channels)**



A state in which the extension unit is added to the base unit (can be mounted on the DIN rail)

< Specifications >



Dimension A: 10×72×36.7

/: Not applicable -/: Not determined

Model	Number of I/O points		Input/output specifications	Method	Type	Consumption current (mA)		Connection	Dimension (mm)	Mass (g)	Input resistance/1 point (kΩ)		Output max. ON current (mA)		Response time	Standard price (¥)
	Input	Output				Transmission side	I/O side				Per 1 point	Per 1 common				
LA-A1AW	1	6	Multi input (switched by setting)	0-10V, 0-5V, 1-5V, 0-20mA, 4-20mA	Base	20	/	2-wire type (non-insulation)	A	22	/	/	/	/	Max. 5ms	Open
LB-A1AW	1	6			Extension	20	/	2-wire type (non-insulation)	A	17	/	/	/	/	Max. 5ms	Open

*The dimensions are values excluding the cable section and sensor head section.

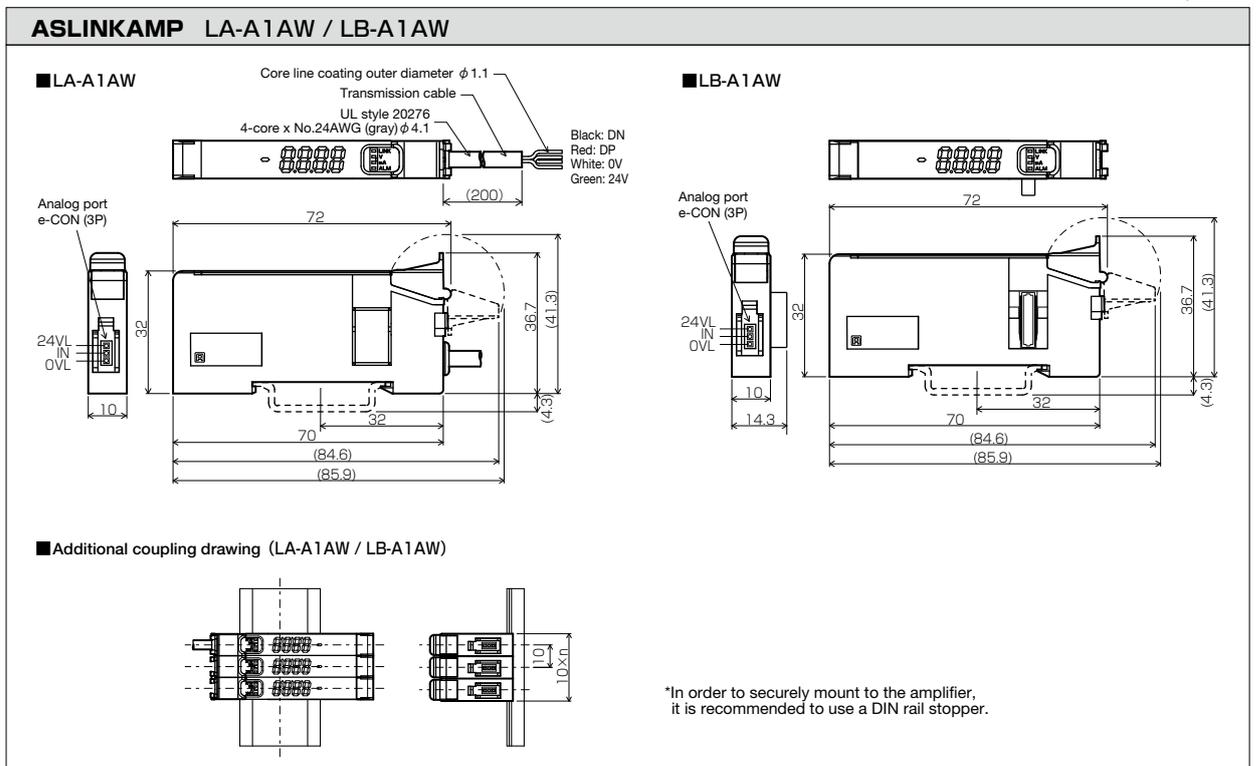
* Purchase connectors compatible with the analog side separately.

* The attached line for transmission connection is a 4-core line.

* Analog input of 1 channel for one unit is possible. (16 points are occupied.)

< Outline Dimensional Drawings >

Unit: mm



Functional icon indication *See page 15 for details on function.	Sensing level monitoring	Reading/writing of sensor sensitivity setting	Sensor cable disconnection detection	Interference countermeasure for transmission line unnecessary	DP/DN disconnection Transmission line disconnection detection	DP/DN short-circuit Transmission line short-circuit detection	24V drop Transmission circuit drive power drop detection	ID (address) Duplicate/Not set	ID (address) redundant, non-setting detection
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< LED indication >

LED symbol	Indication status	Detailed status
LINK (Green)	On	Transmission signal error
	Flashing	Transmission signal reception
	Off	No transmission signal <small>(including disconnection and reverse connection of DP and DN)</small>
ALM (Red)	Flashing	Slave unit voltage decrease
	Off	Normal
LINK ALM	Alternate flashing LINK ALM	When master unit detects that the ID (address) of this unit is duplicated or not set
V (Orange)	On	When voltage input is set
	Off	—
mA (Orange)	On	When current input is set
	Off	—

< Input/output characteristic, resolution >

Analog input range		Digital output value	Resolution
Voltage	0-10V	0-16000	625uV
	0-5V		312.5uV
	1-5V		250uV
Current	0-20mA	—	1250nA
	4-20mA		1000nA

◆ Power Supply Unit for Analog Input Unit

Used when 24V power supply is required for the analog output equipment connected to the analog input unit (only insulation type between channels) shown on page at left.



When connected to the master unit

Can be mounted on the DIN rail

< Specifications >

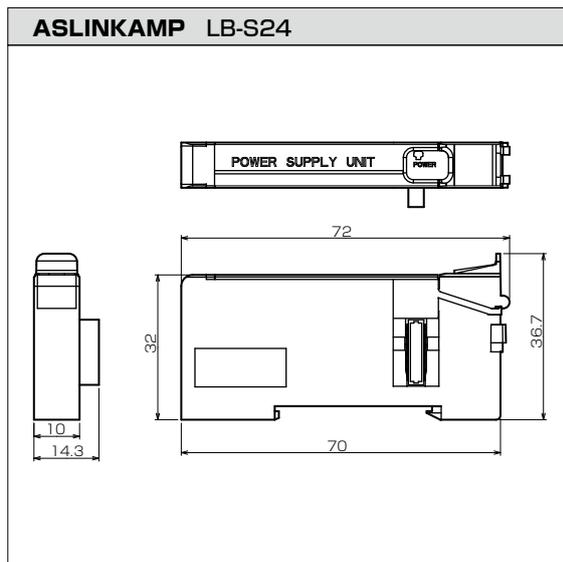
/: Not applicable —: Not determined

Type	Dimension (mm)	Model	Standard price (¥)
LB-S24	Power supply unit	10×72×36.7	Open

*Thoroughly check the specifications with the Product Guide.

< Outline Dimensional Drawings >

Unit: mm



Functional icon indication

*See page 15 for details on function.



Sensing level monitoring



Reading/writing of sensor sensitivity setting



Sensor cable disconnection detection



Interference countermeasure for transmission line unnecessary



Transmission line disconnection detection



Transmission line short-circuit detection



Transmission circuit drive power drop detection

ID (address) redundant, non-setting detection

◆ Analog Output Unit (With 7 segment display, non-insulation type between channels)



A state in which the extension unit is added to the base unit (can be mounted on the DIN rail)

< Specifications >



Dimension A: 10×72×36.7

/: Not applicable -/: Not determined

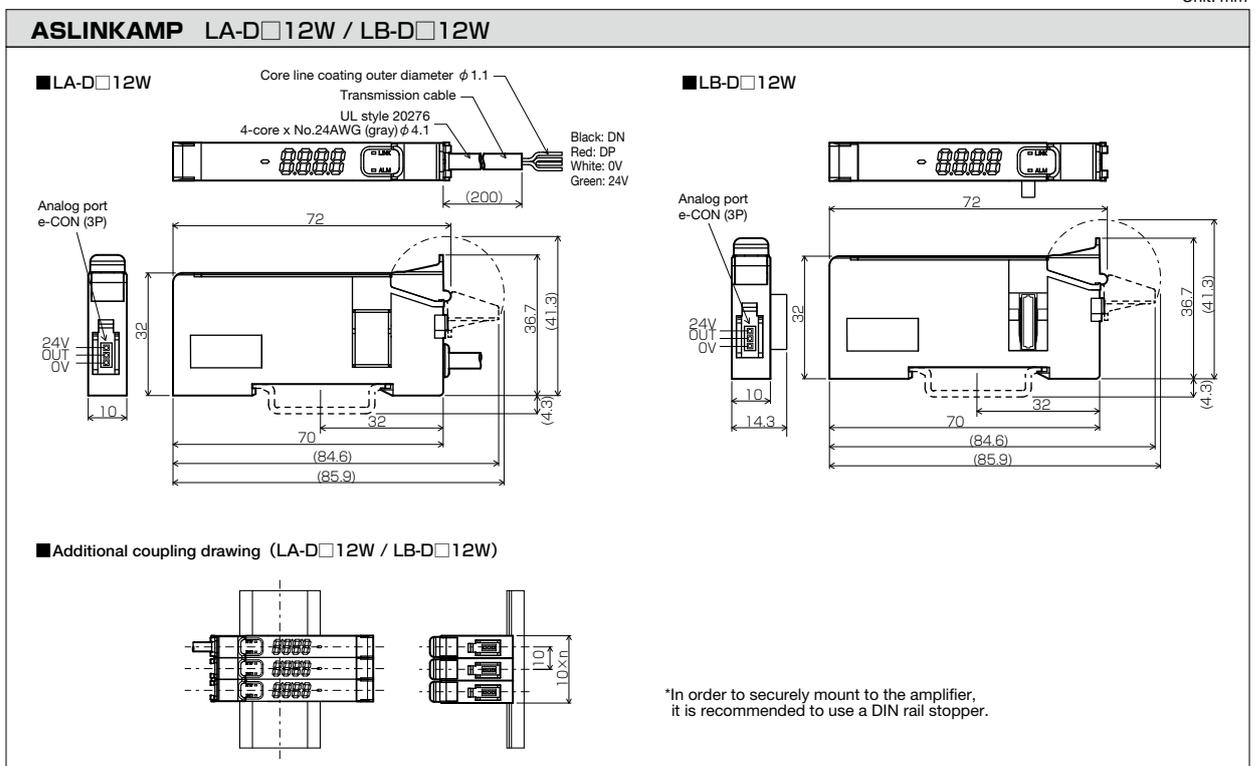
Model	Number of I/O points		Input/output specifications	Method	Type	Consumption current (mA)		Connection	Dimension (mm)	Mass (g)	Input resistance/1 point (kΩ)	Output max. ON current (mA)		Response time	Standard price (¥)
	Input	Output				Transmission side	I/O side					Per 1 point	Per 1 common		
LA-DA12W	/	16	Current	0-20mA, 4-20mA	Base	3.18	31.07	4-wire type (insulation)	A	22	/	/	/	Max. 4ms	Open
LB-DA12W	/	16			Extension	3.18	31.07	4-wire type (insulation)	A	13	/	/	/	Max. 4ms	Open
LA-DV12W	/	16	Voltage	0-10V, 0-5V, 1-5V	Base	3.18	13.8	4-wire type (insulation)	A	22	/	/	/	Max. 4ms	Open
LB-DV12W	/	16			Extension	3.18	13.8	4-wire type (insulation)	A	13	/	/	/	Max. 4ms	Open

*The dimensions are values excluding the cable section. * Purchase connectors compatible with the analog side separately.

* Analog output of 1 channel for one unit is possible. (16 points are occupied.)

< Outline Dimensional Drawings >

Unit: mm



Functional icon indication *See page 15 for details on function.	Sensing level monitoring	Reading/writing of sensor sensitivity setting	Sensor cable disconnection detection	Interference countermeasure for transmission line unnecessary	DP/DN disconnection	DP/DN short-circuit	24V drop	ID (address) Duplicate/Not set	ID (address) redundant, non-setting detection
--	--------------------------	---	--------------------------------------	---	---------------------	---------------------	----------	--------------------------------	---

< LED indication >

LED symbol	Indication status	Detailed status
LINK (Green)	On 	Transmission signal error
	Flashing 	Transmission signal and 24V power supply reception
	Off 	No power supply
ALM (Red)	On 	I/O power supply decrease
	Flashing 	Slave unit voltage decrease (including disconnection and reverse connection of DP and DN)
	Off 	Normal or no 24 V power supply
LINK ALM	Alternate flashing LINK  ALM 	When master unit detects that the ID (address) of this unit is duplicated or not set

ASLINKAMP
Analog Input Unit

ASLINKAMP
Power Supply Unit for Analog Input

ASLINKAMP
Analog Output Unit

List of Specifications

< Input/output characteristic, resolution >

Analog input range		Digital output value	Resolution
Voltage	0-10V	0-16000	625uV
	0-5V		312.5uV
	1-5V		250uV
Current	0-20mA		1250nA
	4-20mA		1000nA

Functional icon indication
*See page 15 for details on function.



Sensing level monitoring



Reading/writing of sensor sensitivity setting



Sensor cable disconnection detection



Interference countermeasure for transmission line unnecessary



Transmission line disconnection detection



Transmission line short-circuit detection



Transmission circuit drive power drop detection



ID (address) redundant, non-setting detection

◆ **Analog Output Unit (With 7 segment display, insulation type between channels)**



< Specifications >



Dimension A: 20×72×36.7

/: Not applicable -/: Not determined

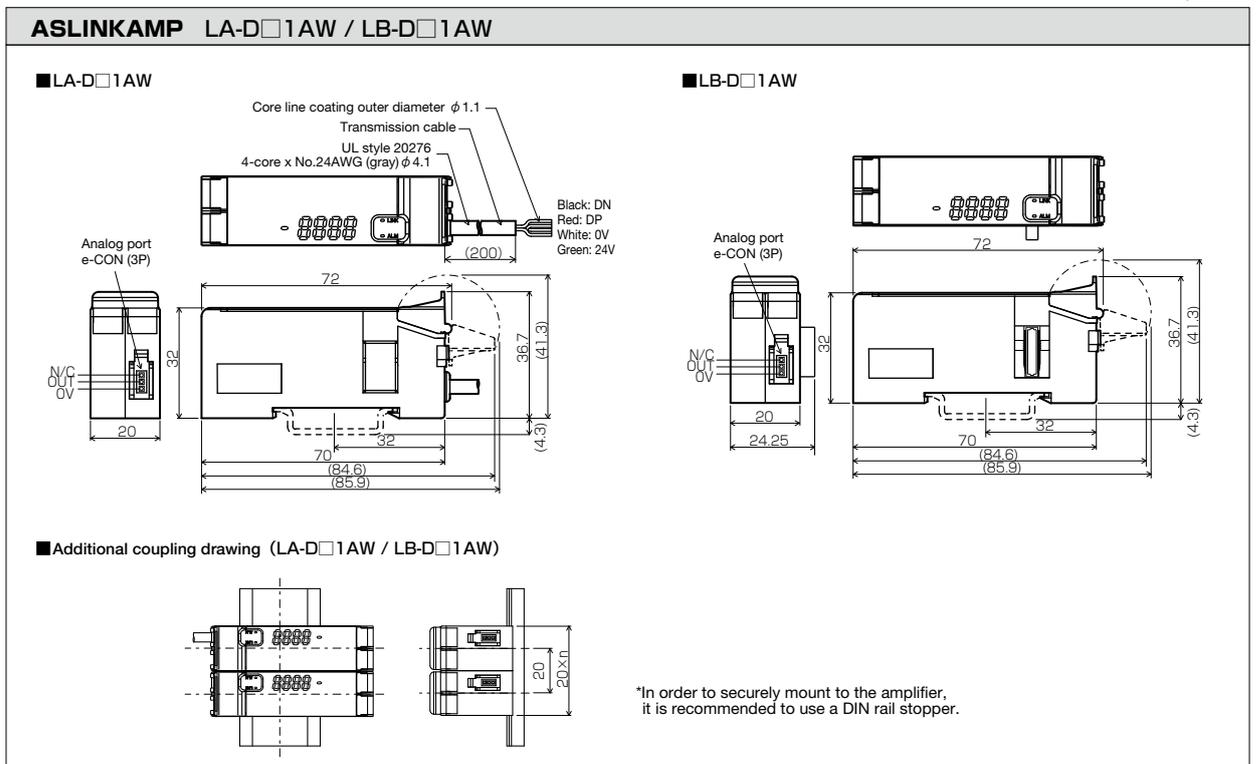
Model	Number of I/O points		Input/output specifications	Method	Type	Consumption current (mA)		Connection	Dimension (mm)	Mass (g)	Input resistance/1 point (kΩ)	Output max. ON current (mA)		Response time	Standard price (¥)
	Input	Output				Transmission side	I/O side					Per 1 point	Per 1 common		
LA-DA1AW	/	16	Current	0-20mA, 4-20mA	Base	3.18	56.67	4-wire type (insulation)	A	38	/	/	/	Max. 4ms	Open
LB-DA1AW	/	16			Extension	3.18	56.67	4-wire type (insulation)	A	29	/	/	/	Max. 4ms	Open
LA-DV1AW	/	16	Voltage	0-10V, 0-5V, 1-5V	Base	3.18	34.02	4-wire type (insulation)	A	38	/	/	/	Max. 4ms	Open
LB-DV1AW	/	16			Extension	3.18	34.02	4-wire type (insulation)	A	29	/	/	/	Max. 4ms	Open

*The dimensions are values excluding the cable section. * Purchase connectors compatible with the analog side separately.

* Analog output of 1 channel per unit is possible (16 points are occupied).

< Outline Dimensional Drawings >

Unit: mm



Functional icon indication *See page 15 for details on function.	Sensing level monitoring	Reading/writing of sensor sensitivity setting	Sensor cable disconnection detection	Interference countermeasure for transmission line unnecessary	Transmission line disconnection detection	Transmission line short-circuit detection	Transmission circuit drive power drop detection	ID (address) redundant, non-setting detection
--	--------------------------	---	--------------------------------------	---	---	---	---	---

< LED indication >

LED symbol	Indication status	Detailed status
LINK (Green)	On 	Transmission signal error
	Flashing 	Transmission signal and 24V power supply reception
	Off 	No power supply
ALM (Red)	On 	I/O power supply decrease
	Flashing 	Slave unit voltage decrease (including disconnection and reverse connection of DP and DN)
	Off 	Normal or no 24 V power supply
LINK ALM	Alternate flashing LINK  ALM 	When master unit detects that the ID (address) of this unit is duplicated or not set

ASLINKAMP
Analog Input Unit

ASLINKAMP
Power Supply Unit for Analog Input

ASLINKAMP
Analog Output Unit

List of Specifications

< Input/output characteristic, resolution >

Analog input range		Digital output value	Resolution
Voltage	0-10V	0-16000	625uV
	0-5V		312.5uV
	1-5V		250uV
Current	0-20mA		1250nA
	4-20mA		1000nA

Functional icon indication
*See page 15 for details on function.



Sensing level monitoring



Reading/writing of sensor sensitivity setting



Sensor cable disconnection detection



Interference countermeasure for transmission line unnecessary



Transmission line disconnection detection



Transmission line short-circuit detection



Transmission circuit drive power drop detection



ID (address) redundant, non-setting detection

< List of Specifications >

○: Mounted ×: Not mounted /: Not applicable - : Not determined

Model	Number of I/O points		Input/output specifications	Type	Consumption current (mA)		Connection	Mass(g)	Input resistance 1 point (k Ω)	Output max. ON current (mA)		Sensing level monitoring	Sensor sensitivity setting read/write	Sensor cable disconnection detection	Interference measure unnecessary	RAS function	I/O response time	
	Input	Output			Transmission side	I/O side				Per 1 point	Per 1 common							
LA-A12W	16	/	Multi input (Switching by setting)	Base	10	/	2-wire type (non-insulation)	22	/	/	/	/	/	/	/	/	○	Max. 5ms
LB-A12W	16	/	Multi input (Switching by setting)	Extension	10	/	2-wire type (non-insulation)	17	/	/	/	/	/	/	/	/	○	Max. 5ms
LA-A1AW	16	/	Multi input (Switching by setting)	Base	20	/	2-wire type (non-insulation)	22	/	/	/	/	/	/	/	/	○	Max. 5ms
LB-A1AW	16	/	Multi input (Switching by setting)	Extension	20	/	2-wire type (non-insulation)	17	/	/	/	/	/	/	/	/	○	Max. 5ms
LA-DA12W	/	16	Current	Base	3.18	31.07	4-wire type (insulation)	22	/	/	/	/	/	/	/	/	○	Max. 4ms
LB-DA12W	/	16		Extension	3.18	31.07	4-wire type (insulation)	13	/	/	/	/	/	/	/	/	○	Max. 4ms
LA-DV12W	/	16	Voltage	Base	3.18	13.8	4-wire type (insulation)	22	/	/	/	/	/	/	/	/	○	Max. 4ms
LB-DV12W	/	16		Extension	3.18	13.8	4-wire type (insulation)	13	/	/	/	/	/	/	/	/	○	Max. 4ms
LA-DA1AW	/	16	Current	Base	3.18	56.67	4-wire type (insulation)	38	/	/	/	/	/	/	/	/	○	Max. 4ms
LB-DA1AW	/	16		Extension	3.18	56.67	4-wire type (insulation)	29	/	/	/	/	/	/	/	/	○	Max. 4ms
LA-DV1AW	/	16	Voltage	Base	3.18	34.02	4-wire type (insulation)	38	/	/	/	/	/	/	/	/	○	Max. 4ms
LB-DV1AW	/	16		Extension	3.18	34.02	4-wire type (insulation)	29	/	/	/	/	/	/	/	/	○	Max. 4ms

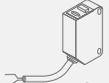
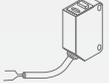
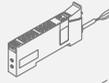
ASLINKAMP
Analog Input Unit
ASLINKAMP
Power Supply Unit for Analog Input
ASLINKAMP
Analog Output Unit

List of Specifications

Slave Units (Sensor/Amplifier)



Diagnosis of sensors/amplifiers directly coupled to Sho-Haisen network

	ASLINKSENSOR Photoelectric Type	· · · · · 89
	ASLINKSENSOR Laser Type	· · · · · 101
	ASLINKAMP Fiber Type	· · · · · 105
	ASLINKSENSOR Proximity Type	· · · · · 113
	ASLINKSENSOR Pressure Type	· · · · · 147
	ASLINKSENSOR Cylinder Type	· · · · · 149
	ASLINKSENSOR Photo Interrupter Type	· · · · · 151
	ASLINKMONITOR Line Monitor	· · · · · 152
	ASLINKMONITOR Small Display Unit	· · · · · 152
	List of Specifications	· · · · · 153

Photoelectric Type

Laser Type

Fiber Type

Detection of presence/absence of work by light such as visible light

Type of AMP	Input/output specifications	
Amplifier built-in	LED light source	Transmission
		Recurrent reflection
		Spread reflection
	Laser light source	Transmission
Recurrent reflection		
Amplifier-separated	LED light source	

Detection distance	Appearance	Protective structure	Model	Sensing level monitoring	Sensor sensitivity setting read/write	Interference measure unnecessary	RAS function		
 5000mm		IP67	BS-H0117-PC-SET						
			BS-H0117-PC12-SET						
		IP67 company standard oil resistance ^{*1}	BS-H0117G-PC-SET						
 3000mm		IP67	BS-H0217-1K						
			BS-H0217-3012						
		IP67 company standard oil resistance ^{*1}	BS-H0217G-1K						
 500mm		IP67	BS-H0317-1K	○	○	○			
			BS-H0317-3012						
		IP67 company standard oil resistance ^{*1}	BS-H0317G-1K						
 30m		IP67	BS-L0117-PC-SET				○	○	○
			BS-L0217-1K						
 0.3 ~ 10m		IP40	L□-F1011						
		IP66	BA-F116-□□						
		—	B289SB-01AF-CA□□□-V						
Depending on fiber head						○			

1 Oil resistance has been confirmed by using oil/cutting oil specified by us. The device is resistant to oil but there is no guarantee that breakdown will not occur. Do not use the device when it is constantly exposed to oil splashing or under oil jet flow.

* Cutting oil specified by us: Water-insoluble (YUSHIRON CUT KM557, KZ313S), Water-soluble (YUSHIROKEN EC50, AP-EX-E7, FGS700)---Immersion at an ambient temperature of 55°C

* Lubricating oil specified by us: (VELOCITY OIL No.3)---Immersion at an ambient temperature of 55°C

◆ Photoelectric transmission type (IP67, IP67 company standard oil resistance*)



BS-H0117-PC-SET (Cable)



BS-H0117G-PC-SET (Cable)



Smartclick
BS-H0117-PC12-SET
(Cable with M12 connector)

*Contact our sales division for attachment fittings.

< Specifications >



Dimension A: 11 × 20 × 33

/: Not applicable —: Not determined

Model	Number of I/O points		Input/output specifications	Type	Detection distance (mm)	Consumption current (mA)		Connection	Dimension (mm)	Mass (g)	Minimum detected object	Response time	Standard price (¥)
	Input	Output				Transmission side	I/O side						
Set model BS-H0117-PC-SET	/	1	Transmission light emitting (red light)	IP67	5000	10	/	2-wire type (non-insulation)	A	33	Opaque body of φ12mm	Max. 2 cycle times	Open
	1	/	Transmission light receiving (red light)			10	/	2-wire type (non-insulation)					
Set model BS-H0117-PC12-SET	/	1	Transmission light emitting (red light)	IP67	5000	10	/	2-wire type (non-insulation)	A	22	Opaque body of φ12mm	Max. 2 cycle times	Open
	1	/	Transmission light receiving (red light)			10	/	2-wire type (non-insulation)					
Set model BS-H0117G-PC-SET	/	1	Transmission light emitting (red light)	IP67 company standard oil resistance ^{*1}	5000	10	/	2-wire type (non-insulation)	A	33	Opaque body of φ12mm	Max. 2 cycle times	Open
	1	/	Transmission light receiving (red light)			10	/	2-wire type (non-insulation)					

* The dimensions are numerical values excluding the cable section.

* "BS-H0117-PC-SET" is a combination of photoelectric (transmission light emitting) "BS-H0117-1KP" and photoelectric (transmission light receiving) "BS-H0117-1KC."

* "BS-H0117-PC12-SET" is a combination of photoelectric (transmission light emitting) "BS-H0117-30P12" and photoelectric (transmission light receiving) "BS-H0117-30C12."

* "BS-H0117G-PC-SET" is a combination of photoelectric (transmission light emitting) "BS-H0117G-1KP" and photoelectric (transmission light receiving) "BS-H0117G-1KC."

^{*1} Oil resistance has been confirmed by using oil/cutting oil specified by us*. The device is resistant to oil but there is no guarantee that breakdown will not occur. Do not use the device when it is constantly exposed to oil splashing or under oil jet flow.
* Cutting oil specified by us: Water-insoluble (YUSHIRON CUT KM557, KZ313S), Water-soluble (YUSHIROKEN EC50, AP-EX-E7, FGS700)---Immersion at an ambient temperature of 55°C
* Lubricating oil specified by us: (VELOCITY OIL No.3)---Immersion at an ambient temperature of 55°C

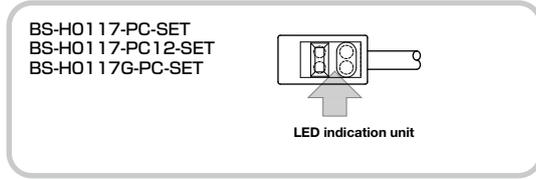
Functional icon indication *See page 15 for details on function.	Sensing level monitoring	Reading/writing of sensor sensitivity setting	Sensor cable disconnection detection	Interference countermeasure for transmission line unnecessary	DP/DN disconnection	DP/DN short-circuit	24V drop	ID (address) Duplicate/Not set
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* Smartclick is a registered trademark of OMRON Corporation.

< LED indication >

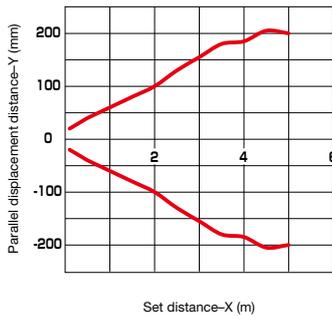
LED symbol	Indication status	Detailed status
LINK (Green)	On 	Transmission signal error
	Flashing 	Transmission signal reception
	Off 	No transmission signal <small>(including disconnection and reverse connection of DP and DN)</small>
ALM (Red)	On 	Sensing level decrease*1*2
	Flashing 	Slave unit voltage decrease
	Off 	Normal
LINK ALM	Alternate flashing LINK  ALM 	When master unit detects that the ID (address) of this unit is duplicated or not set
IN (Orange)	On 	Input ON
	Off 	Input OFF

*1 When alarm diagnosis function is enabled
*2 Not available on the transmission light emitting side

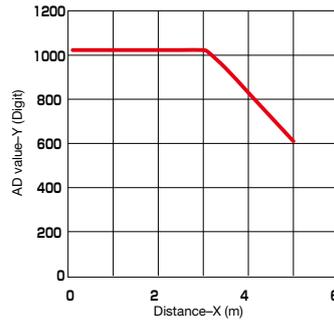


< Characteristic diagram > (Reference value)

• Parallel displacement characteristic



• Distance characteristic



Photoelectric Type

Laser Type

Fiber Type

Proximity Type

Pressure Type

Cylinder Type

Photo Interrupter Type

Line Monitor

Small Display Unit

List of Specifications

Functional icon indication

*See page 15 for details on function.



Sensing level monitoring



Reading/writing of sensor sensitivity setting



Sensor cable disconnection detection



Interference countermeasure unnecessary for transmission line unnecessary



Transmission line disconnection detection



Transmission line short-circuit detection



Transmission circuit drive power drop detection

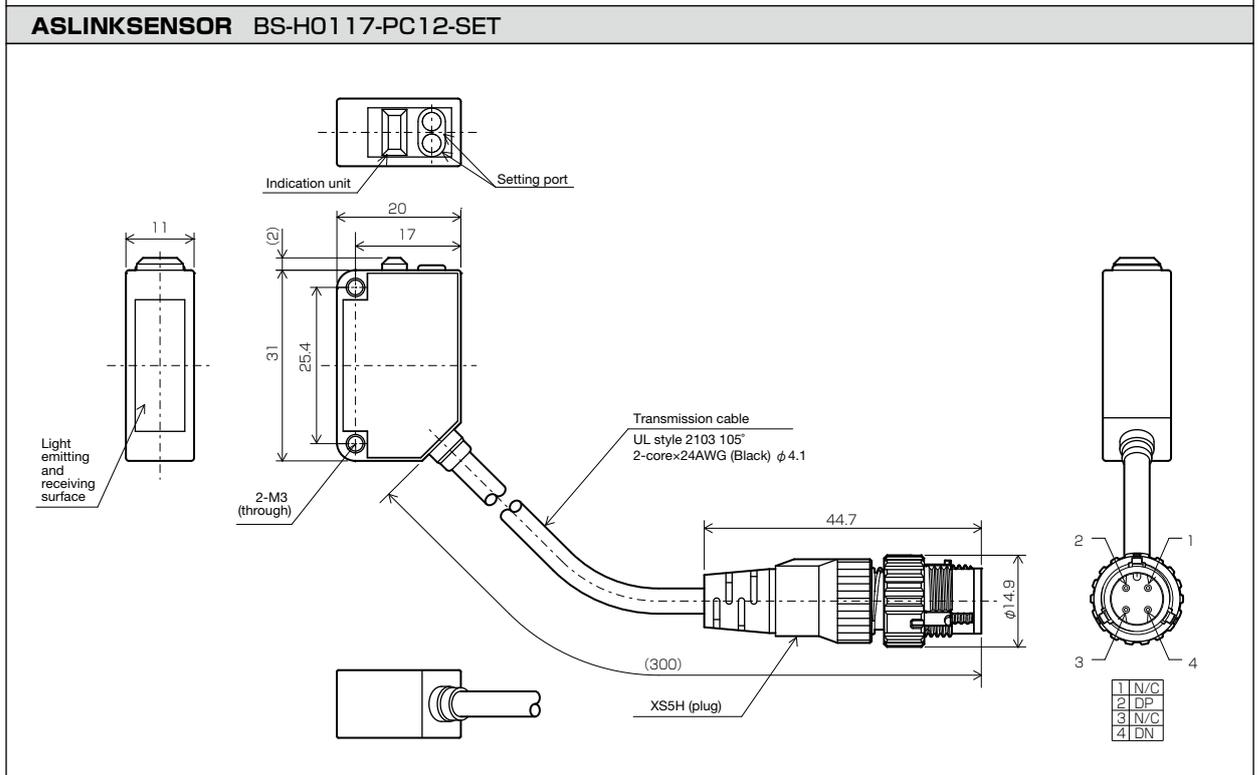
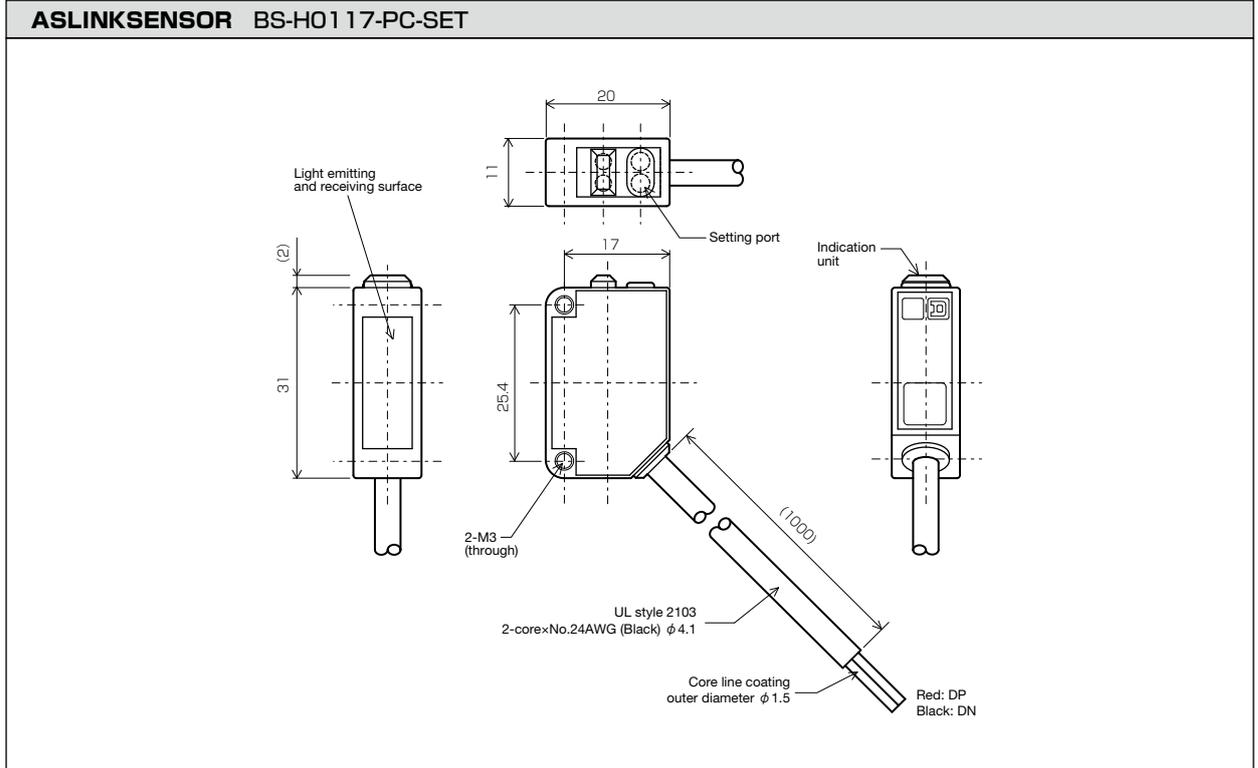


ID (address) redundant, non-setting detection

◆ Photoelectric transmission type (IP67, IP67 company standard oil resistance*)

< Outline Dimensional Drawings >

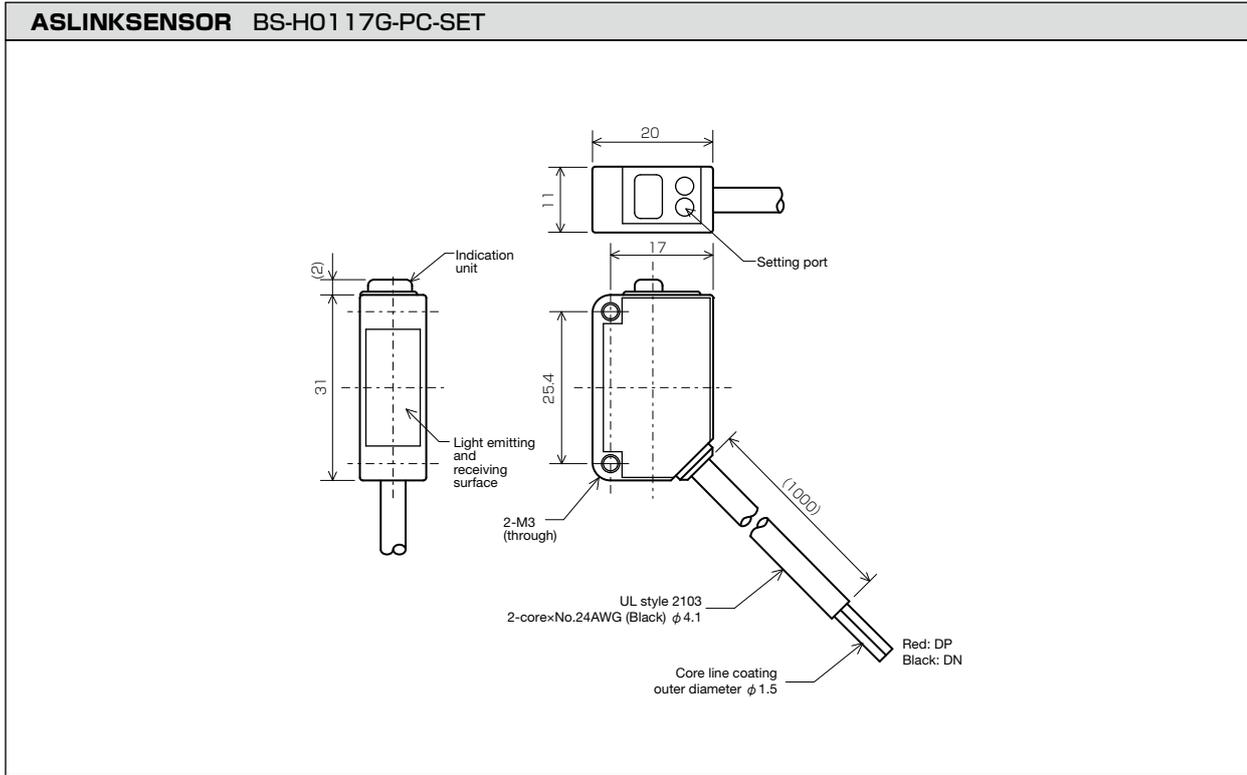
Unit: mm



Functional icon indication *See page 15 for details on function.	Sensing level monitoring	Reading/writing of sensor sensitivity setting	Sensor cable disconnection detection	Interference countermeasure for transmission line unnecessary	Transmission line disconnection detection	Transmission line short-circuit detection	Transmission circuit drive power drop detection	ID (address) redundant, non-setting detection
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< Outline Dimensional Drawings >

Unit: mm



Photoelectric Type

Laser Type

Fiber Type

Proximity Type

Pressure Type

Cylinder Type

Photo Interrupter Type

Line Monitor

Small Display Unit

List of Specifications

1 Oil resistance has been confirmed by using oil/cutting oil specified by us. The device is resistant to oil but there is no guarantee that breakdown will not occur. Do not use the device when it is constantly exposed to oil splashing or under oil jet flow.

* Cutting oil specified by us: Water-insoluble (YUSHIRON CUT KM557, KZ313S), Water-soluble (YUSHIROKEN EC50, AP-EX-E7, FGS700)---Immersion at an ambient temperature of 55°C

* Lubricating oil specified by us: (VELOCITY OIL No.3)---Immersion at an ambient temperature of 55°C

Functional icon indication

*See page 15 for details on function.

	Sensing level monitoring		Reading/writing of sensor sensitivity setting		Sensor cable disconnection detection		Interference countermeasure for transmission line unnecessary		Transmission line disconnection detection		Transmission line short-circuit detection		Transmission circuit drive power drop detection		ID (address) redundant, non-setting detection
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ASLINKSENSOR

◆Photoelectric recurrent reflection type (IP67, IP67 company standard oil resistance*1)



BS-H0217-1K (Cable)



BS-H0217G-1K (Cable)



Smartclick
BS-H0217-3012
(Cable with M12 connector)

*Contact our sales division for attachment fittings.

< Specifications >



Dimension A: 11 × 20 × 33

/: Not applicable --: Not determined

Model	Number of I/O points		Input/output specifications	Type	Detection distance (mm)	Consumption current (mA)		Connection	Dimension (mm)	Mass (g)	Minimum detected object	Response time	Standard price (¥)
	Input	Output				Transmission side	I/O side						
BS-H0217-1K	1	/	Recurrent reflection (red light)	IP67	3000	10	/	2-wire type (non-insulation)	A	33	Opaque body of φ12mm	Max. 2 cycle times	Open
BS-H0217-3012	1	/	Recurrent reflection (red light)	IP67	3000	10	/	2-wire type (non-insulation)	A	22	Opaque body of φ12mm	Max. 2 cycle times	Open
BS-H0217G-1K	1	/	Recurrent reflection (red light)	IP67 (company standard oil resistance*1)	3000	10	/	2-wire type (non-insulation)	A	33	Opaque body of φ12mm	Max. 2 cycle times	Open

*The dimensions are numerical values excluding the cable section.

1 Oil resistance has been confirmed by using oil/cutting oil specified by us. The device is resistant to oil but there is no guarantee that breakdown will not occur. Do not use the device when it is constantly exposed to oil splashing or under oil jet flow.
 * Cutting oil specified by us: Water-insoluble (YUSHIRON CUT KM557, KZ313S), Water-soluble (YUSHIROKEN EC50, AP-EX-E7, FGS700)---Immersion at an ambient temperature of 55°C
 * Lubricating oil specified by us: (VELOCITY OIL No.3)---Immersion at an ambient temperature of 55°C

◆Option • Reflection plate for photoelectric sensor

/: Not applicable --: Not determined



AKR-2

Model	Type	Dimensions (mm)	Standard price (¥)
AKR-1	Reflection plate	60.9×50.9	Open
AKR-2	Reflection plate	42×35	Open

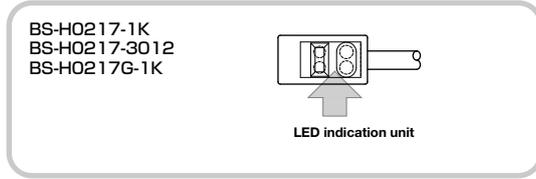
Functional icon indication *See page 15 for details on function.	Sensing level monitoring	Reading/writing of sensor sensitivity setting	Sensor cable disconnection detection	Interference countermeasure for transmission line unnecessary	Transmission line disconnection detection	Transmission line short-circuit detection	Transmission circuit drive power drop detection	ID (address) redundant, non-setting detection
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* Smartclick is a registered trademark of OMRON Corporation.

< LED indication >

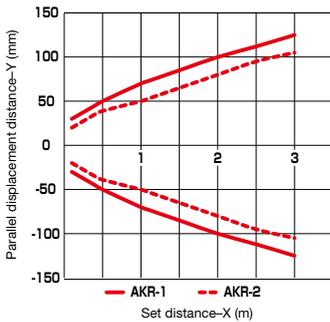
LED symbol	Indication status	Detailed status
LINK (Green)	On	Transmission signal error
	Flashing	Transmission signal reception
	Off	No transmission signal <small>(including disconnection and reverse connection of DP and DN)</small>
ALM (Red)	On	Sensing level decrease*1
	Flashing	Slave unit voltage decrease
	Off	Normal
LINK ALM	Alternate flashing LINK ALM	When master unit detects that the ID (address) of this unit is duplicated or not set
IN (Orange)	On	Input ON
	Off	Input OFF

*1: When alarm diagnosis function is enabled

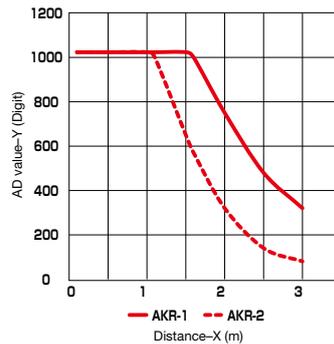


< Characteristic diagram > (Reference value)

• Parallel displacement characteristic



• Distance characteristic



Photoelectric Type

Laser Type

Fiber Type

Proximity Type

Pressure Type

Cylinder Type

Photo Interrupter Type

Line Monitor

Small Display Unit

List of Specifications

Functional icon indication

*See page 15 for details on function.



Sensing level monitoring



Reading/writing of sensor sensitivity setting



Sensor cable disconnection detection



Interference countermeasure for transmission line unnecessary



Transmission line disconnection detection



Transmission line short-circuit detection



Transmission circuit drive power drop detection

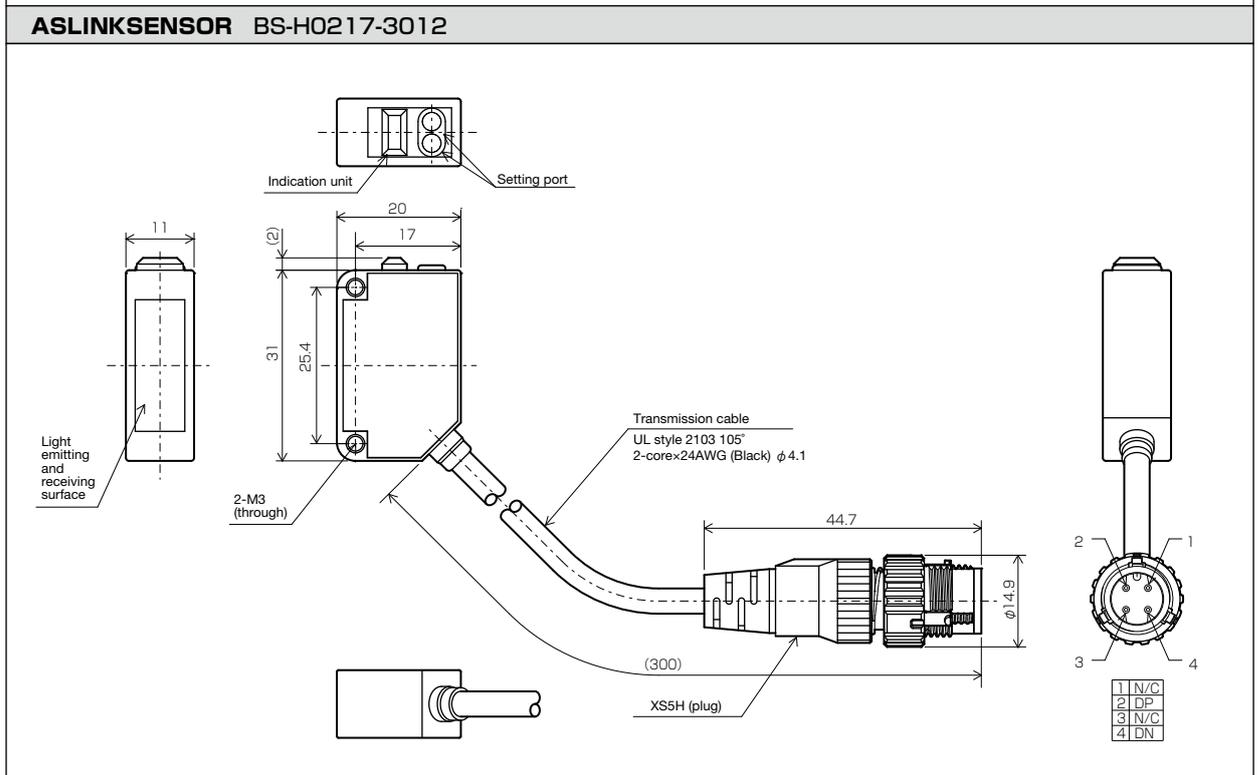
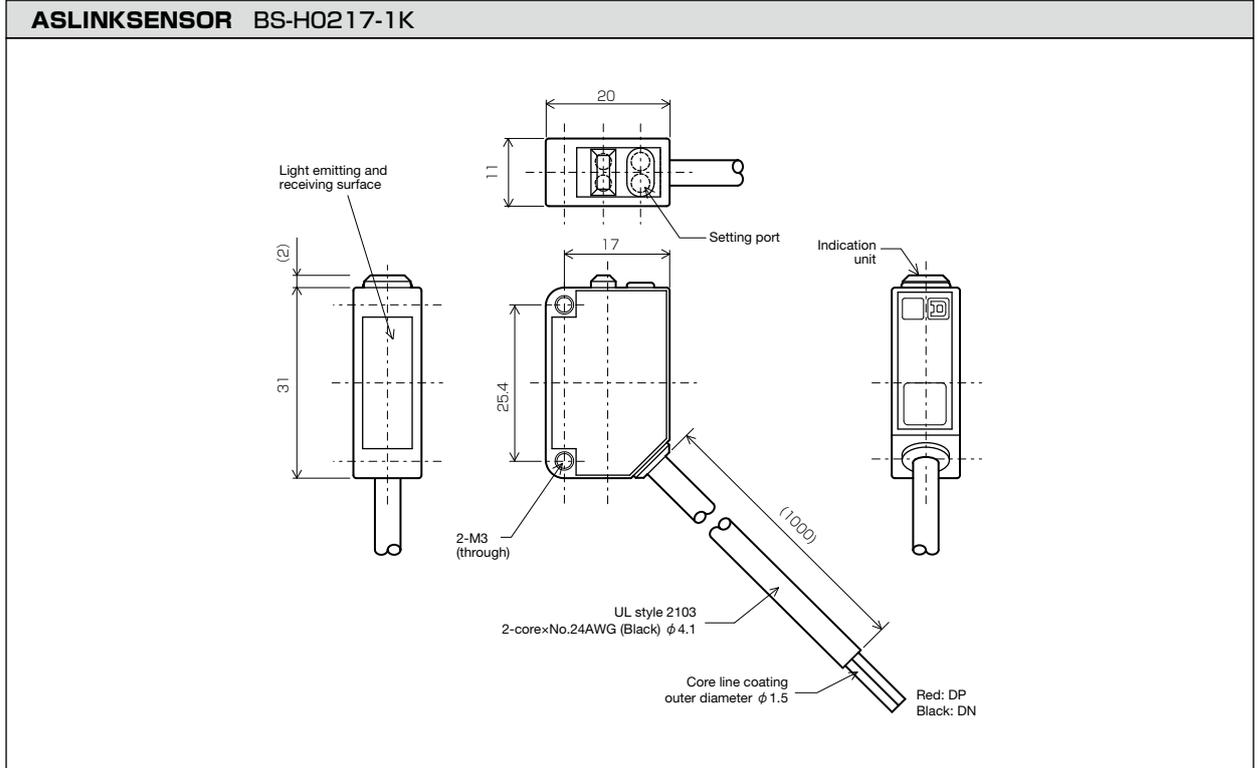


ID (address) redundant, non-setting detection

◆Photoelectric recurrent reflection type (IP67, IP67 company standard oil resistance*1)

< Outline Dimensional Drawings >

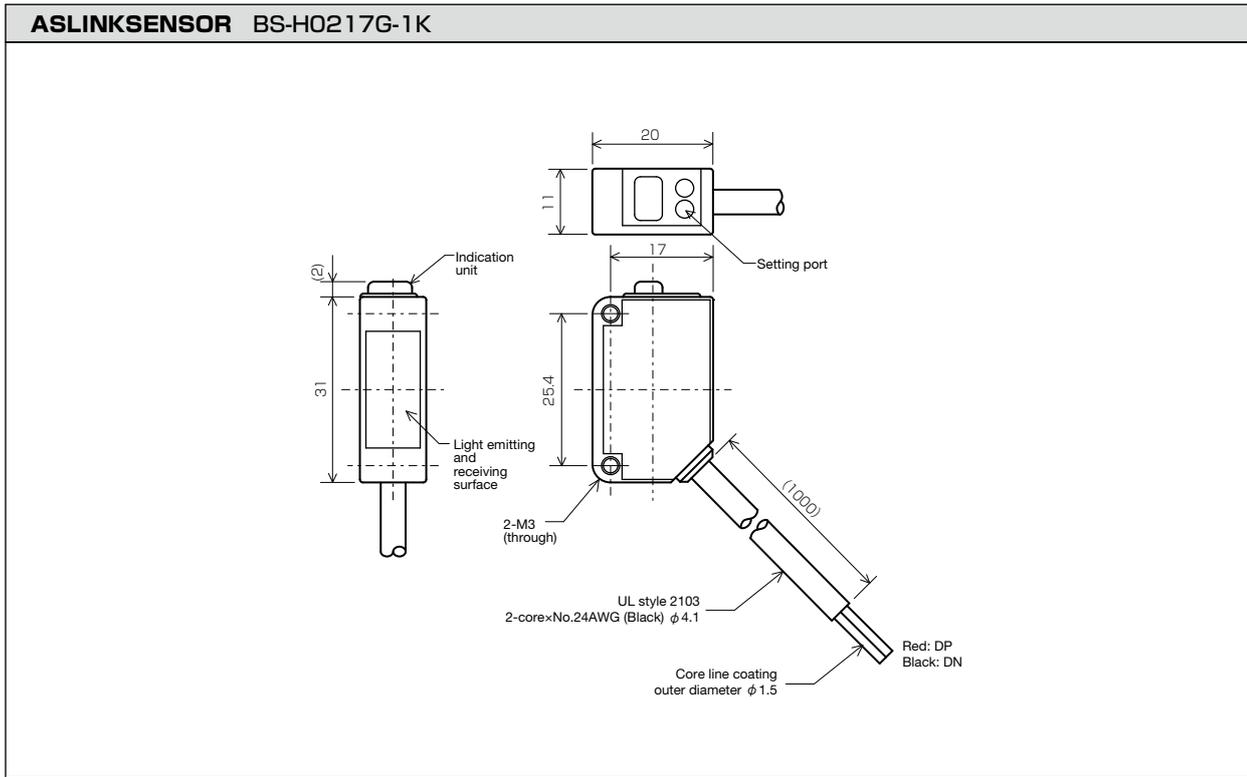
Unit: mm



Functional icon indication *See page 15 for details on function.	Sensing level monitoring	Reading/writing of sensor sensitivity setting	Sensor cable disconnection detection	Interference countermeasure for transmission line unnecessary	Transmission line disconnection detection	Transmission line short-circuit detection	Transmission circuit drive power drop detection	ID (address) redundant, non-setting detection
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< Outline Dimensional Drawings >

Unit: mm



Photoelectric Type

Laser Type

Fiber Type

Proximity Type

Pressure Type

Cylinder Type

Photo Interrupter Type

Line Monitor

Small Display Unit

List of Specifications

1 Oil resistance has been confirmed by using oil/cutting oil specified by us. The device is resistant to oil but there is no guarantee that breakdown will not occur. Do not use the device when it is constantly exposed to oil splashing or under oil jet flow.

* Cutting oil specified by us: Water-insoluble (YUSHIRON CUT KM557, KZ313S), Water-soluble (YUSHIROKEN EC50, AP-EX-E7, FGS700)---Immersion at an ambient temperature of 55°C

* Lubricating oil specified by us: (VELOCITY OIL No.3)---Immersion at an ambient temperature of 55°C

Functional icon indication

*See page 15 for details on function.

	Sensing level monitoring		Reading/writing of sensor sensitivity setting		Sensor cable disconnection detection		Interference countermeasure for transmission line unnecessary		Transmission line disconnection detection		Transmission line short-circuit detection		Transmission circuit drive power drop detection		ID (address) redundant, non-setting detection
--	--------------------------	--	---	--	--------------------------------------	--	---	--	---	--	---	--	---	--	---

ASLINKSENSOR

◆Photoelectric spread reflection type (IP67, IP67 company standard oil resistance*1)



BS-H0317-1K (Cable)



BS-H0317G-1K (Cable)



Smartclick
BS-H0317-3012
(Cable with M12 connector)

*Contact our sales division for attachment fittings.

< Specifications >



Dimension A: 11 × 20 × 33

∕: Not applicable —: Not determined

Model	Number of I/O points		Input/output specifications	Type	Detection distance (mm)	Consumption current (mA)		Connection	Dimension (mm)	Mass (g)	Input resistance/1 point (kΩ)	Output max. ON current (mA)		Response time	Standard price (¥)
	Input	Output				Transmission side	I/O side					Per 1 point	Per 1 common		
BS-H0317-1K	1	∕	Spread reflection (red light)	IP67	500	10	∕	2-wire type (non-insulation)	A	33	∕	∕	∕	Max. 2 cycle times	Open
BS-H0317-3012	1	∕	Spread reflection (red light)	IP67	500	10	∕	2-wire type (non-insulation)	A	22	∕	∕	∕	Max. 2 cycle times	Open
BS-H0317G-1K	1	∕	Spread reflection (red light)	IP67 (company standard oil resistance*1)	500	10	∕	2-wire type (non-insulation)	A	33	∕	∕	∕	Max. 2 cycle times	Open

*The dimensions are numerical values excluding the cable section.

1 Oil resistance has been confirmed by using oil/cutting oil specified by us. The device is resistant to oil but there is no guarantee that breakdown will not occur. Do not use the device when it is constantly exposed to oil splashing or under oil jet flow.

* Cutting oil specified by us: Water-insoluble (YUSHIRON CUT KM557, KZ313S), Water-soluble (YUSHIROKEN EC50, AP-EX-E7, FGS700)---Immersion at an ambient temperature of 55°C

* Lubricating oil specified by us: (VELOCITY OIL No.3)---Immersion at an ambient temperature of 55°C

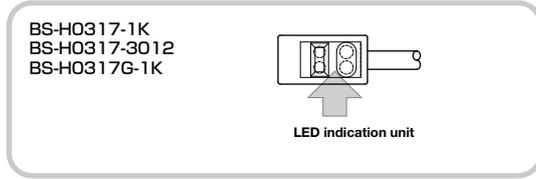
Functional icon indication *See page 15 for details on function.	Sensing level monitoring	Reading/writing of sensor sensitivity setting	Sensor cable disconnection detection	Interference countermeasure for transmission line unnecessary	Transmission line disconnection detection	Transmission line short-circuit detection	Transmission circuit drive power drop detection	ID (address) redundant, non-setting detection
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* Smartclick is a registered trademark of OMRON Corporation.

< LED indication >

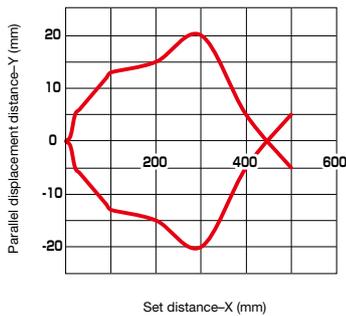
LED symbol	Indication status	Detailed status
LINK (Green)	On 	Transmission signal error
	Flashing 	Transmission signal reception
	Off 	No transmission signal <small>(including disconnection and reverse connection of DP and DN)</small>
ALM (Red)	On 	Sensing level decrease*1
	Flashing 	Slave unit voltage decrease
	Off 	Normal
LINK ALM	Alternate flashing LINK  ALM 	When master unit detects that the ID (address) of this unit is duplicated or not set
IN (Orange)	On 	Input ON
	Off 	Input OFF

*1: When alarm diagnosis function is enabled

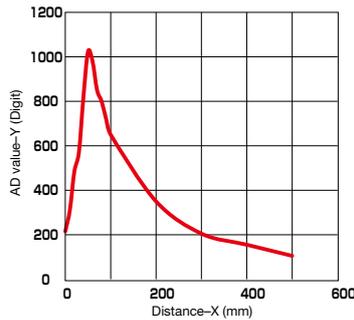


< Characteristic diagram > (Reference value)

• Parallel displacement characteristic



• Distance characteristic



Photoelectric Type

Laser Type

Fiber Type

Proximity Type

Pressure Type

Cylinder Type

Photo Interrupter Type

Line Monitor

Small Display Unit

List of Specifications

Functional icon indication

*See page 15 for details on function.

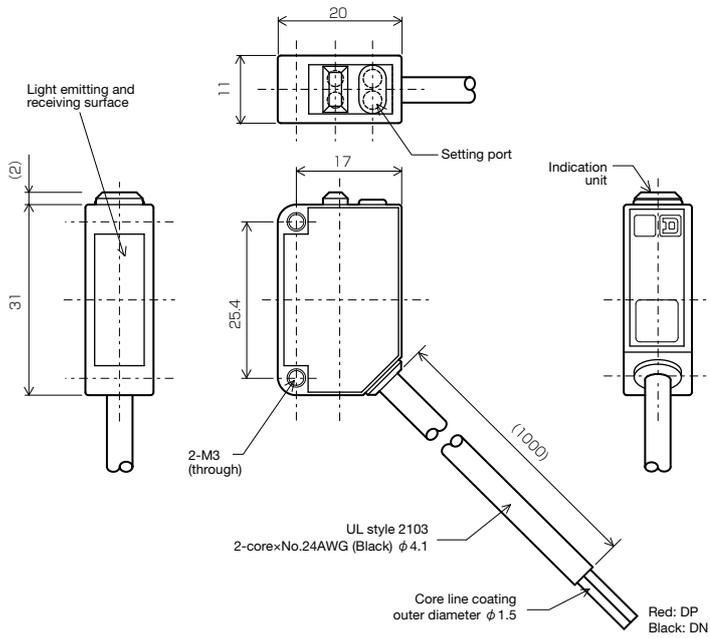
	Sensing level monitoring		Reading/writing of sensor sensitivity setting		Sensor cable disconnection detection		Interference countermeasure for transmission line unnecessary		Transmission line disconnection detection		Transmission line short-circuit detection		Transmission circuit drive power drop detection		ID (address) Duplicate/Not set		ID (address) redundant, non-setting detection
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◆ Photoelectric spread reflection type (IP67, IP67 company standard oil resistance*1)

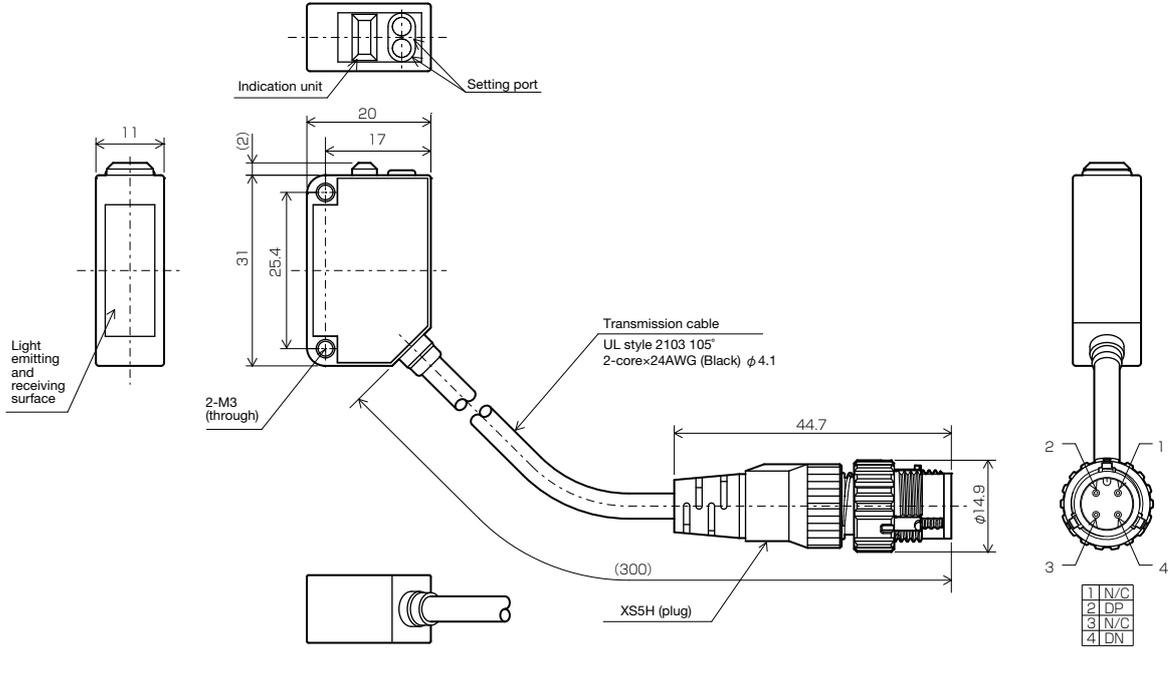
< Outline Dimensional Drawings >

Unit: mm

ASLINKSENSOR BS-H0317-1K



ASLINKSENSOR BS-H0317-3012

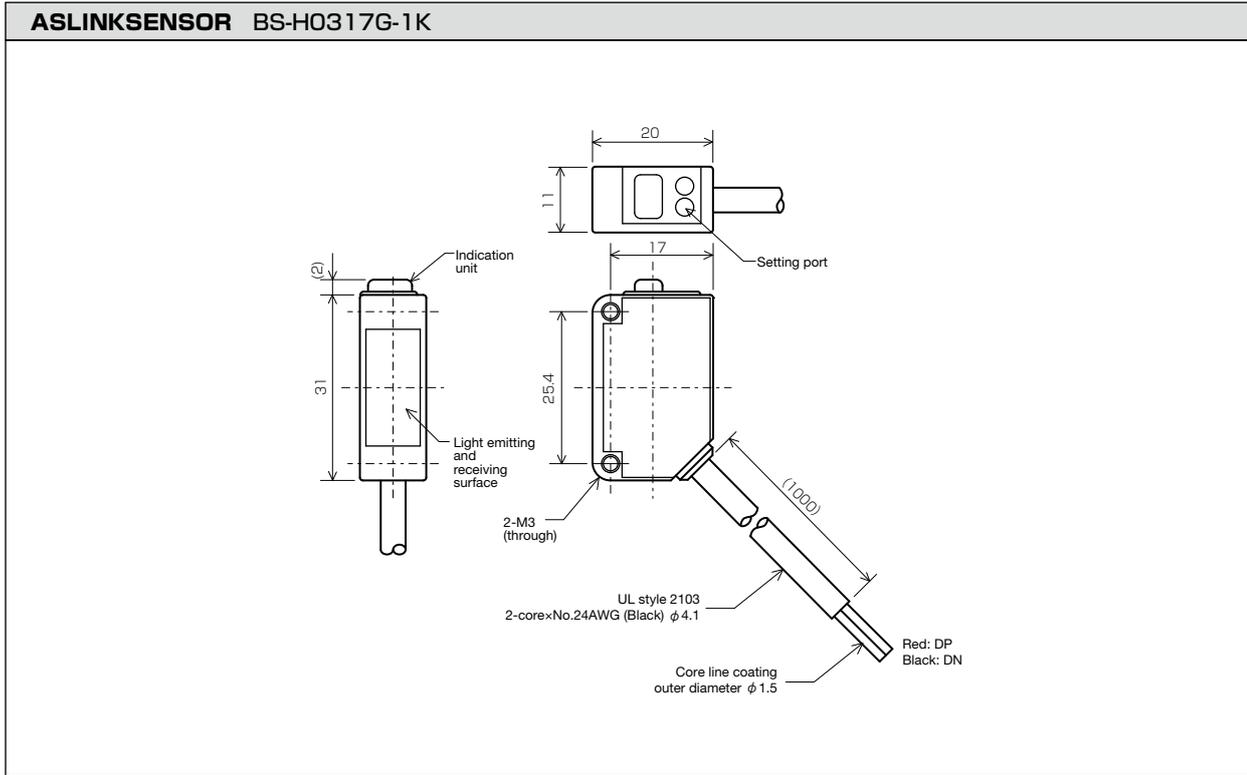


Functional icon indication
*See page 15 for details on function.

	Sensing level monitoring		Reading/writing of sensor sensitivity setting		Sensor cable disconnection detection		Interference countermeasure for transmission line unnecessary		Transmission line disconnection detection		Transmission line short-circuit detection		Transmission circuit drive power drop detection		ID (address) redundant, non-setting detection
--	--------------------------	--	---	--	--------------------------------------	--	---	--	---	--	---	--	---	--	---

< Outline Dimensional Drawings >

Unit: mm



Photoelectric Type

Laser Type

Fiber Type

Proximity Type

Pressure Type

Cylinder Type

Photoelectric Type

Line Monitor

Small Display Unit

List of Specifications

1 Oil resistance has been confirmed by using oil/cutting oil specified by us. The device is resistant to oil but there is no guarantee that breakdown will not occur. Do not use the device when it is constantly exposed to oil splashing or under oil jet flow.

* Cutting oil specified by us: Water-insoluble (YUSHIRON CUT KM557, KZ313S), Water-soluble (YUSHIROKEN EC50, AP-EX-E7, FGS700)---Immersion at an ambient temperature of 55°C

* Lubricating oil specified by us: (VELOCITY OIL No.3)---Immersion at an ambient temperature of 55°C

Functional icon indication

*See page 15 for details on function.

	Sensing level monitoring		Reading/writing of sensor sensitivity setting		Sensor cable disconnection detection		Interference countermeasure for transmission line unnecessary		Transmission line disconnection detection		Transmission line short-circuit detection		Transmission circuit drive power drop detection		ID (address) redundant, non-setting detection
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ASLINKSENSOR

- ◆ Laser spot transmission type (IP67)
- Recurrent reflection type (IP67)



BS-L0117-PC-SET



BS-L0217-1K

*Contact our sales division for attachment fittings.

< Specifications >



* With limitation

Dimension A: 11 × 20 × 33

/: Not applicable --: Not determined

Model	Number of I/O points		Input/output specifications	Type	Detection distance (m)	Consumption current (mA)		Connection	Dimension (mm)	Mass (g)	Input resistance/1 point (kΩ)		Output max. ON current (mA)		Response time	Standard price (¥)
	Input	Output				Transmission side	I/O side				Per 1 point	Per 1 common				
Set model BS-L0117-PC-SET		1	Transmission light emitting (red LD)	Laser spot IP67	30	7	/	2-wire type (non-insulation)	A	33	/	/	/	/	Max. 2 cycle times	Open
	1	/	Transmission light receiving (red LD)			8	/	2-wire type (non-insulation)	A	33	/	/	/	/	Max. 2 cycle times	
BS-L0217-1K	1	/	Recurrent reflection (red LD)		0.3~10	10	/	2-wire type (non-insulation)	A	33	/	/	/	/	Max. 2 cycle times	Open

* The dimensions are numerical values excluding the cable section.

* "BS-L0117-PC-SET" is a combination of transmission light emitting "BS-L0117-1KP" and transmission light receiving "BS-L0117-1KC."

* The detection distance by "BS-L0217-1K" is the value when using "AKR-1."

◆ Option

- Reflection plate for photoelectric sensor



AKR-2

/: Not applicable --: Not determined

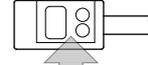
Model	Type	Dimensions (mm)	Standard price (¥)
AKR-1	Reflection plate	60.9×50.9	Open
AKR-2	Reflection plate	42×35	Open

Functional icon indication *See page 15 for details on function.	Sensing level monitoring	Reading/writing of sensor sensitivity setting	Sensor cable disconnection detection	Interference countermeasure for transmission line unnecessary	Transmission line disconnection detection	Transmission line short-circuit detection	Transmission circuit drive power drop detection	ID (address) redundant, non-setting detection
--	--------------------------	---	--------------------------------------	---	---	---	---	---

< LED indication >

LED symbol	Indication status	Detailed status
LINK (Green)	On	Transmission signal error
	Flashing	Transmission signal reception
	Off	No transmission signal <small>(including disconnection and reverse connection of DP and DN)</small>
ALM (Red)	On	Sensing level decrease*1*2
	Flashing	Slave unit voltage decrease
	Off	Normal
LINK ALM	Alternate flashing LINK ALM	When master unit detects that the ID (address) of this unit is duplicated or not set
IN ² / Optical axis check indication (Orange)	On	Input ON
	Off	Input OFF
	Flashing	Unstable operation area

BS-L0117-1KP
BS-L0117-1KC
BS-L0217-1K



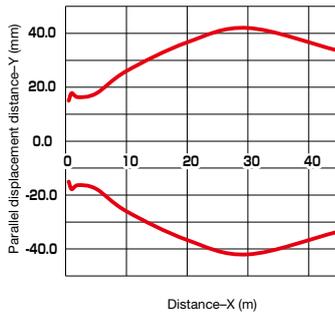
LED indication unit

*1 When alarm diagnosis function is enabled
*2 Not available on the transmission light emitting side

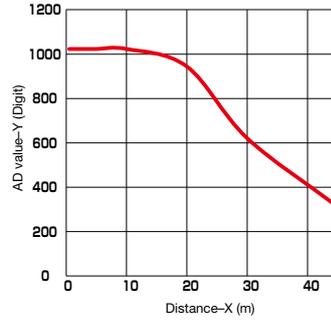
< Characteristic diagram > (Reference value)

◆BS-L0117-PC-SET

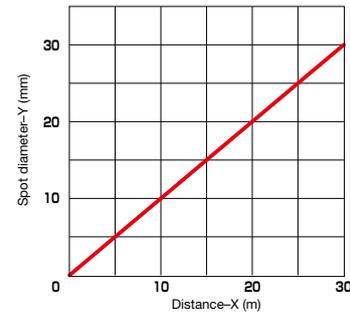
• Parallel displacement characteristic



• Distance characteristic

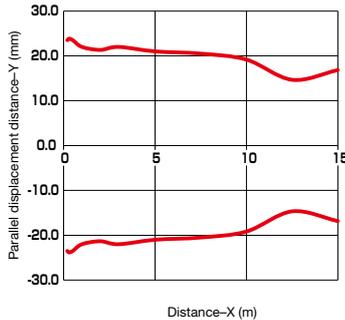


• Distance-spot diameter characteristic

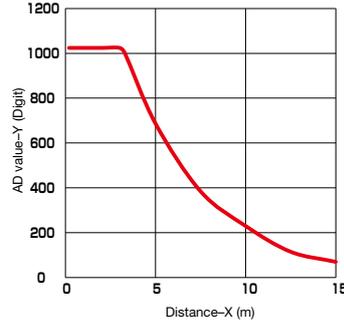


◆BS-L0217-1K * Data measured using "AKR-1"

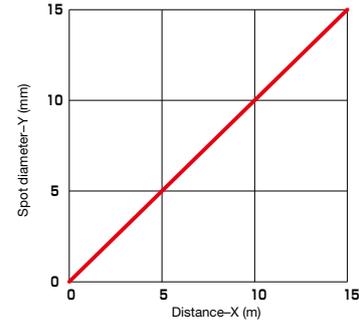
• Parallel displacement characteristic



• Distance characteristic



• Distance-spot diameter characteristic



Functional icon indication

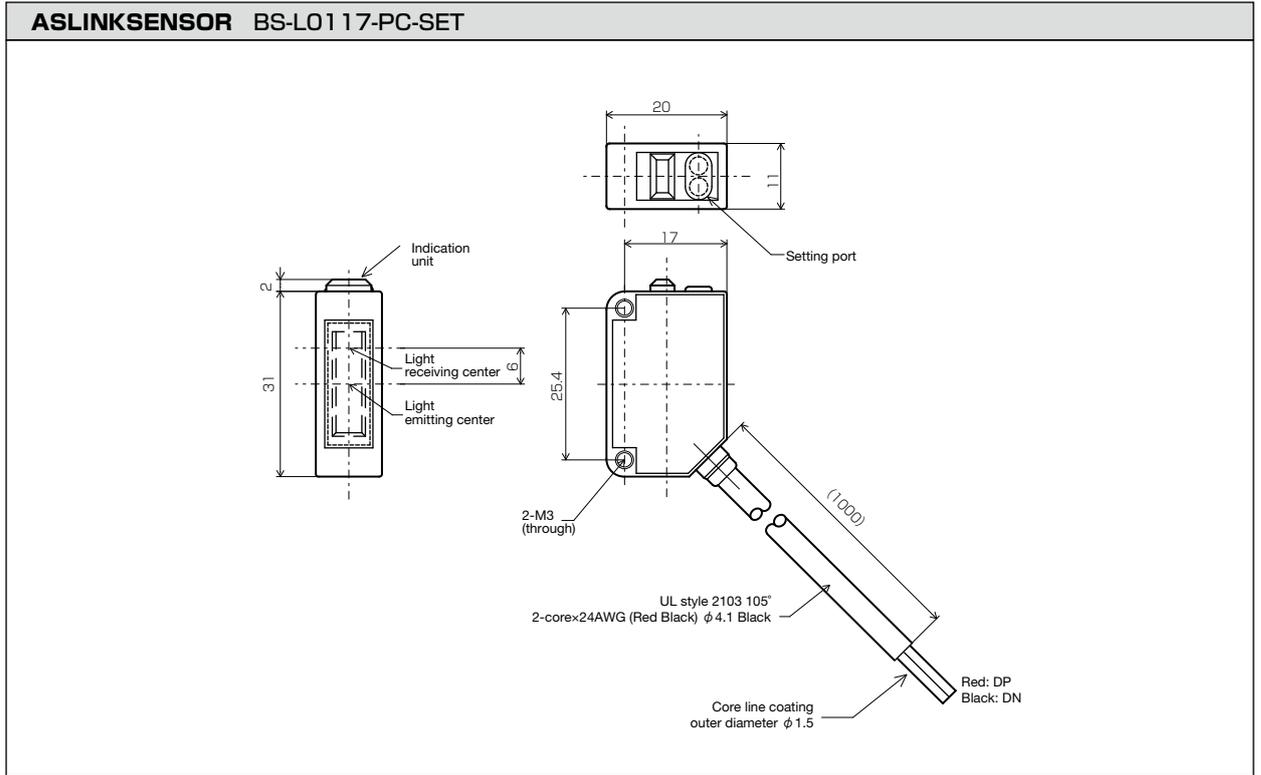
*See page 15 for details on function.

	Sensing level monitoring		Reading/writing of sensor sensitivity setting		Sensor cable disconnection detection		Interference countermeasure for transmission line unnecessary		Transmission line disconnection detection		Transmission line short-circuit detection		Transmission circuit drive power drop detection		ID (address) redundant, non-setting detection
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◆ Laser spot transmission type (IP67)

< Outline Dimensional Drawings >

Unit: mm



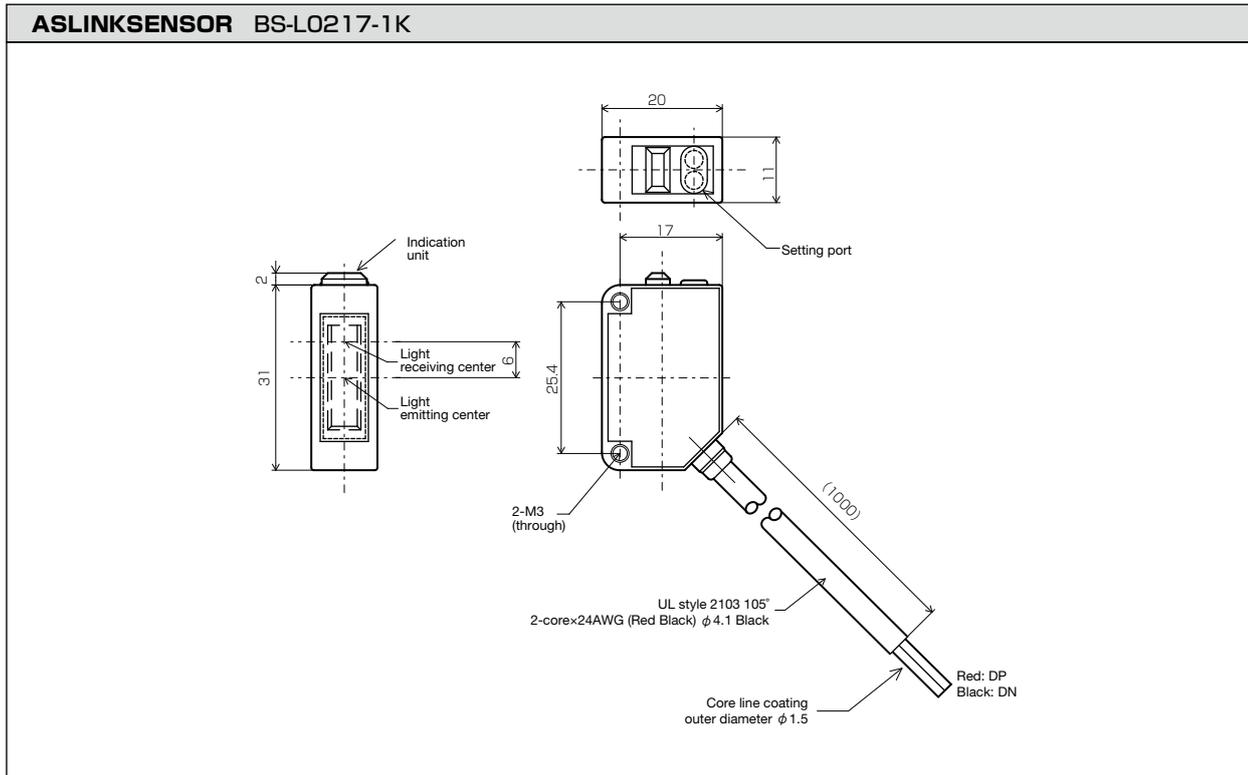
- Photoelectric Type
- Laser Type**
- Fiber Type
- Proximity Type
- Pressure Type
- Cylinder Type
- Photo Interrupter Type
- Line Monitor
- Small Display Unit
- List of Specifications

<p>Functional icon indication</p> <p>*See page 15 for details on function.</p>	Sensing level monitoring	Reading/writing of sensor sensitivity setting	Sensor cable disconnection detection	Interference countermeasure for transmission line unnecessary	Transmission line disconnection detection	Transmission line short-circuit detection	Transmission circuit drive power drop detection	ID (address) redundant, Duplicate/Not set detection
---	--------------------------	---	--------------------------------------	---	---	---	---	---

◆ Laser spot recurrent reflection type (IP67)

< Outline Dimensional Drawings >

Unit: mm



Photoelectric Type

Laser Type

Fiber Type

Proximity Type

Pressure Type

Cylinder Type

Photo Interrupter Type

Line Monitor

Small Display Unit

List of Specifications

Functional icon indication

*See page 15 for details on function.

	Sensing level monitoring		Reading/writing of sensor sensitivity setting		Sensor cable disconnection detection		Interference countermeasure for transmission line unnecessary		Transmission line disconnection detection		Transmission line short-circuit detection		Transmission circuit drive power drop detection		ID (address) redundant, Duplicate/Not set	ID (address) redundant, non-setting detection
--	--------------------------	--	---	--	--------------------------------------	--	---	--	---	--	---	--	---	--	---	---

◆Fiber type (With 7 segment display)



A state in which the extension unit is added to the base unit
(Can be mounted on the DIN rail)
Up to 32 units (including a base unit)
can be additionally coupled.

< Specifications >



Dimension A: 10×72×36.7

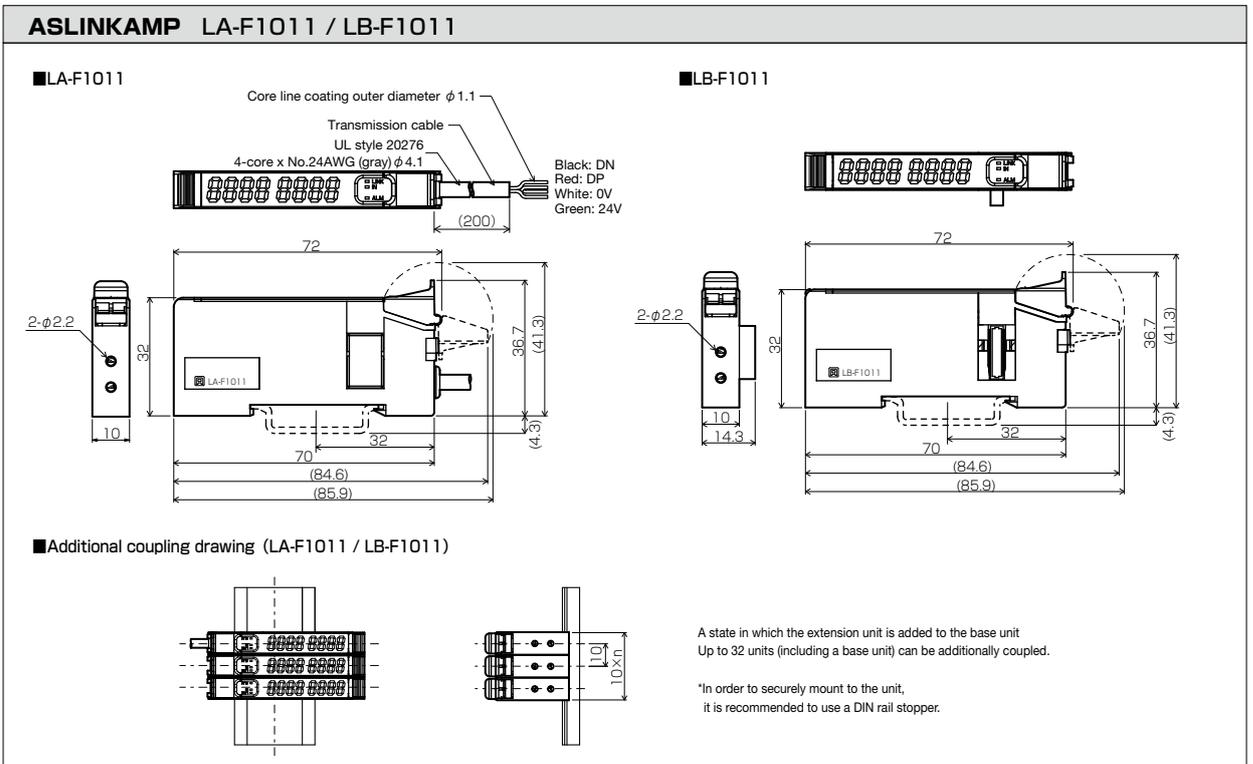
/: Not applicable -: Not determined

Model	Number of I/O points		Input/output specifications	Type	Consumption current (mA)		Connection	Dimension (mm)	Mass (g)	Input resistance/1 point (kΩ)		Output max. ON current (mA)		Response time	Standard price (¥)
	Input	Output			Transmission side	I/O side				Per 1 point	Per 1 common				
LA-F1011	1	/	Fiber head (red light)	Base	1.9	25	4-wire type (insulation)	A	21	/	/	/	/	Max. 2 cycle times	Open
LB-F1011	1	/	Fiber head (red light)	Extension	1.9	25	4-wire type (insulation)	A	17	/	/	/	/	Max. 2 cycle times	Open

*The dimensions are values excluding the cable section and sensor head section.
*Do not use a head which uses a fiber in which the number of cores is 217 or more.

< Outline Dimensional Drawings >

Unit: mm

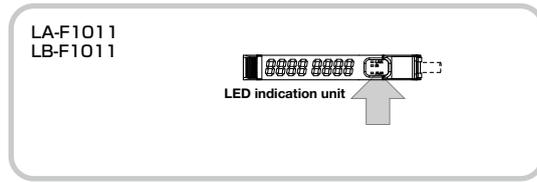


Functional icon indication *See page 15 for details on function.	Sensing level monitoring	Reading/writing of sensor sensitivity setting	Sensor cable disconnection detection	Interference countermeasure for transmission line unnecessary	Transmission line disconnection detection	Transmission line short-circuit detection	Transmission circuit drive power drop detection	ID (address) redundant, non-setting detection
--	--------------------------	---	--------------------------------------	---	---	---	---	---

< LED indication >

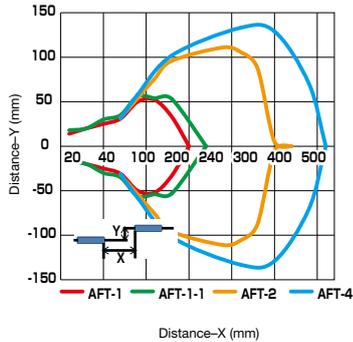
LED symbol	Indication status	Detailed status
LINK (Green)	On	Transmission signal error
	Flashing	Normal (transmission signal, 24V power are supplied)
	Off	No 24V power
ALM (Red)	On	Sensing level decrease* IO power reduction (turns off when without 24V power)
	Flashing	Slave unit voltage decrease (including disconnection and reverse connection of DP and DN)
	Off	Normal
LINK ALM	Alternate flashing LINK ALM	When master unit detects that the ID (address) of this unit is duplicated or not set
IN (Orange)	On	Input ON
	Off	Input OFF

*When alarm diagnosis function is enabled

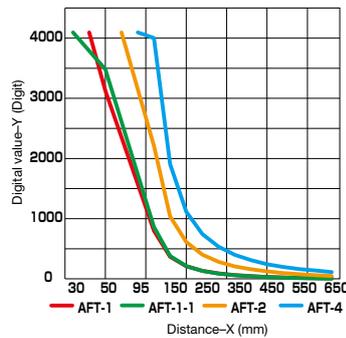


< Characteristic diagram > (Reference value)

• Parallel displacement characteristic



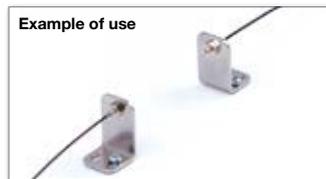
• Distance characteristic



◆ Option

• Fiber head

(Light emitting/receiving set
with one fiber cutter)



Model	Application	Detection method	View direction	Type	Bending radius	Cable diameter (mm)	Core specification (mm)	Cable length (mm)	Detection distance (mm)				Standard price (¥)
									Without 7 segment		With 7 segment		
									With diagnosis	No diagnosis	With diagnosis	No diagnosis	
AFT-4	General-purpose	Transmission type	Top view	Screw type M4	R30	φ2.2	Single core φ1.0	2000	480	820	410	600	Open
AFT-1	General-purpose	Transmission type	Top view	Screw type M3	R20	φ1.0	Single core φ0.5	2000	210	340	160	210	Open
AFT-2	General-purpose	Transmission type	Top view	Screw type M3	R25	φ1.0	Single core φ0.75	2000	490	800	300	420	Open
AFT-1-1	General-purpose	Transmission type	Top view	Screw type M3 (Heat resistance 100°C)	R20	φ1.0	Single core φ0.5	2000	260	430	170	240	Open

*With diagnosis: When sensing level monitoring function (O-100 mode) is used / Without diagnosis: When using only with ON/OFF

*Light emitting and receiving set, respectively free cut. *Mounting bracket not included.

*Contact our sales division for corresponding heads other than the above.

Functional icon indication

*See page 15 for details on function.

	Sensing level monitoring		Reading/writing of sensor sensitivity setting		Sensor cable disconnection detection		Interference countermeasure for transmission line unnecessary		Transmission line disconnection detection		Transmission line short-circuit detection		Transmission circuit drive power drop detection		ID (address) redundant, non-setting detection
--	--------------------------	--	---	--	--------------------------------------	--	---	--	---	--	---	--	---	--	---

◆Fiber type (IP66)



BA-F116-12
Cable with M12 connector



BA-F116
2-core cable

Can be mounted on the DIN rail

< Specifications >



Dimension A: 13×72.8×38.3

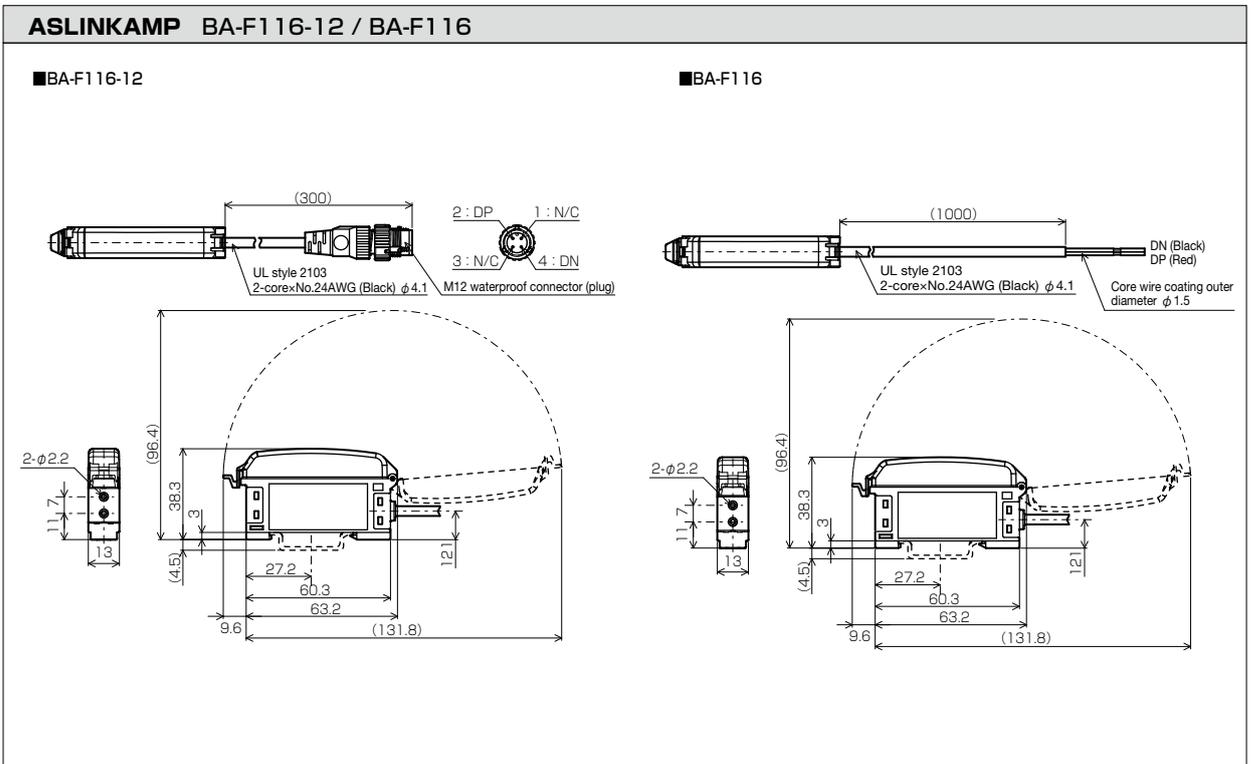
/: Not applicable —: Not determined

Model	Number of I/O points		Input/output specifications	Type	Consumption current (mA)		Connection	Dimension (mm)	Mass (g)	Input resistance/1 point (kΩ)		Output max. ON current (mA)		Response time	Standard price (¥)
	Input	Output			Transmission side	I/O side				Per 1 point	Per 1 common				
BA-F116-12	1	/	Fiber head (red light)	Base	11	/	2-wire type (non-insulation)	A	40	/	/	/	/	Max. 2 cycle times	Open
BA-F116	1	/	Fiber head (red light)	Base	11	/	2-wire type (non-insulation)	A	47	/	/	/	/	Max. 2 cycle times	Open

*The dimensions are values excluding the cable section and sensor head section.
*Do not use a head which uses a fiber in which the number of cores is 217 or more.

< Outline Dimensional Drawings >

Unit: mm



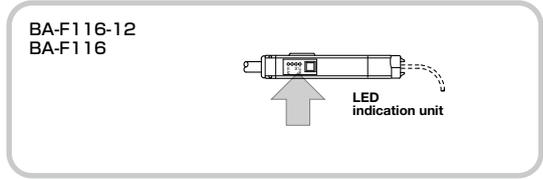
Functional icon indication *See page 15 for details on function.	Sensing level monitoring	Reading/writing of sensor sensitivity setting	Sensor cable disconnection detection	Interference countermeasure for transmission line unnecessary	Transmission line disconnection detection	Transmission line short-circuit detection	Transmission circuit drive power drop detection	ID (address) redundant, non-setting detection
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*Smartclick is a registered trademark of OMRON Corporation.

< LED indication >

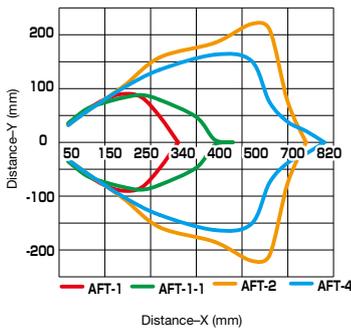
LED symbol	Indication status	Detailed status
LINK (Green)	On	Transmission signal error
	Flashing	Transmission signal reception
	Off	No transmission signal <small>(including disconnection and reverse connection of DP and DN)</small>
ALM (Red)	On	Sensing level decrease*
	Flashing	Slave unit voltage decrease
	Off	Normal
LINK ALM	Alternate flashing LINK ALM	When master unit detects that the ID (address) of this unit is duplicated or not set
IN (Orange)	On	Input ON
	Off	Input OFF

*When alarm diagnosis function is enabled

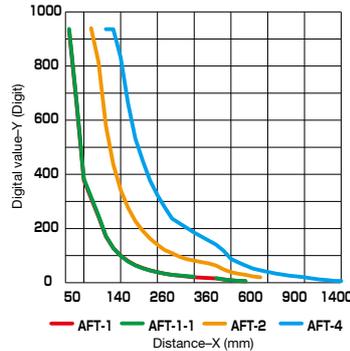


< Characteristic diagram > (Reference value)

• Parallel displacement characteristic



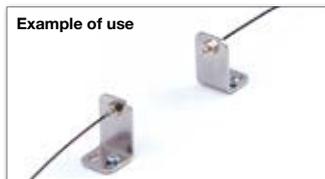
• Distance characteristic



◆ Option

• Fiber head

(Light emitting/receiving set with one fiber cutter)



Model	Application	Detection method	View direction	Type	Bending radius	Cable diameter (mm)	Core specification (mm)	Cable length (mm)	Detection distance (mm)				Standard price (¥)
									Without 7 segment	With 7 segment	With diagnosis	No diagnosis	
AFT-4	General-purpose	Transmission type	Top view	Screw type M4	R30	φ2.2	Single core φ1.0	2000	480	820	410	600	Open
AFT-1	General-purpose	Transmission type	Top view	Screw type M3	R20	φ1.0	Single core φ0.5	2000	210	340	160	210	Open
AFT-2	General-purpose	Transmission type	Top view	Screw type M3	R25	φ1.0	Single core φ0.75	2000	490	800	300	420	Open
AFT-1-1	General-purpose	Transmission type	Top view	Screw type M3 (Heat resistance 100°C)	R20	φ1.0	Single core φ0.5	2000	260	430	170	240	Open

*With diagnosis: When sensing level monitoring function (O-100 mode) is used / Without diagnosis: When using only with ON/OFF

*Light emitting and receiving set, respectively free cut. *Mounting bracket not included.

*Contact our sales division for corresponding heads other than the above.

Functional icon indication

*See page 15 for details on function.

	Sensing level monitoring		Reading/writing of sensor sensitivity setting		Sensor cable disconnection detection		Interference countermeasure for transmission line unnecessary		Transmission line disconnection detection		Transmission line short-circuit detection		Transmission circuit drive power drop detection		ID (address) redundant, non-setting detection
--	--------------------------	--	---	--	--------------------------------------	--	---	--	---	--	---	--	---	--	---

◆Fiber type

Base unit



A state in which the extension unit is added to the base unit
(Can be mounted on the DIN rail)
Up to 16 units (including a base unit)
can be additionally coupled.

< Specifications >



Dimension A: 9×54.1×27.5

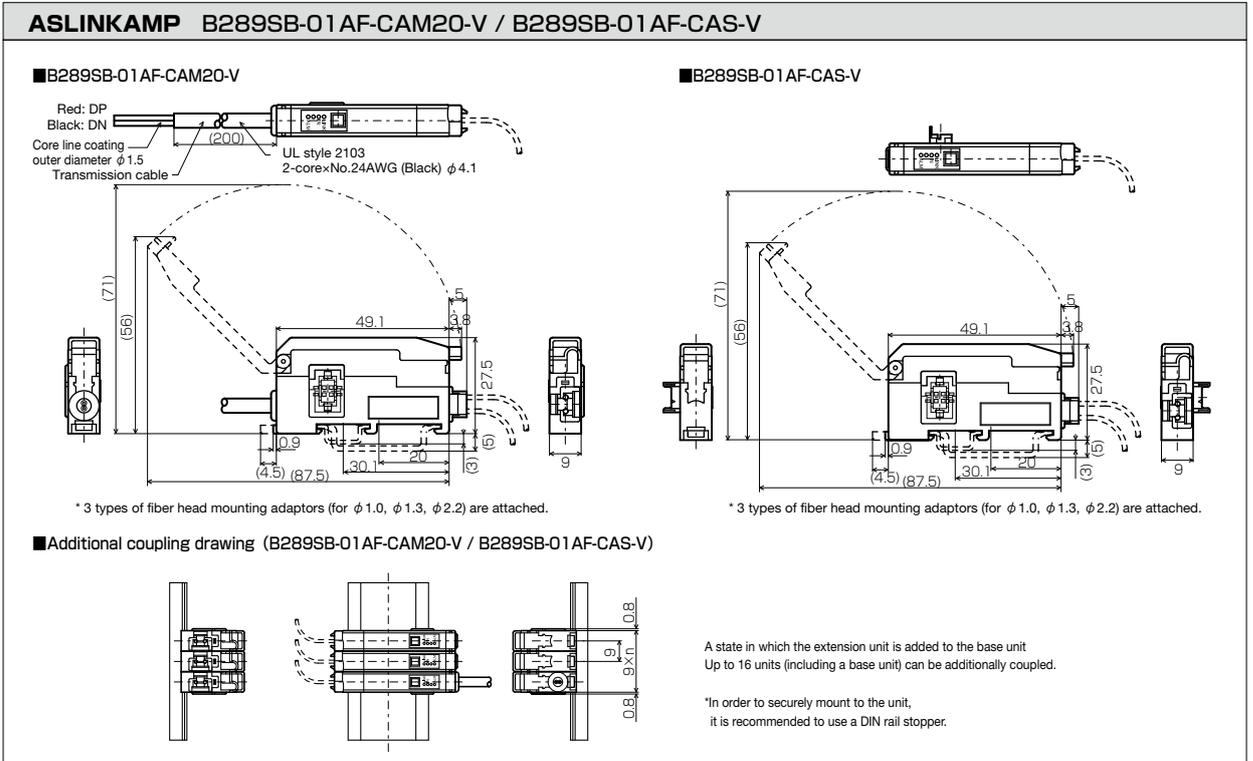
∕: Not applicable —: Not determined

Model	Number of I/O points		Input/output specifications	Type	Consumption current (mA)		Connection	Dimension (mm)	Mass (g)	Input resistance/1 point (kΩ)		Output max. ON current (mA)		Response time	Standard price (¥)
	Input	Output			Transmission side	I/O side				Per 1 point	Per 1 common				
B289SB-01AF-CAM20-V	1	∕	Fiber head (red light)	Base	11	∕	2-wire type (non-insulation)	A	14	∕	∕	∕	∕	Max. 2 cycle times	Open
B289SB-01AF-CAS-V	1	∕	Fiber head (red light)	Extension	11	∕	2-wire type (non-insulation)	A	9	∕	∕	∕	∕	Max. 2 cycle times	Open

*The dimensions are values excluding the cable section and sensor head section.
*3 types of fiber head mounting adaptors (for φ 1.0, φ 1.3, φ 2.2) are attached.
*Do not use a head which uses a fiber in which the number of cores is 217 or more.

< Outline Dimensional Drawings >

Unit: mm

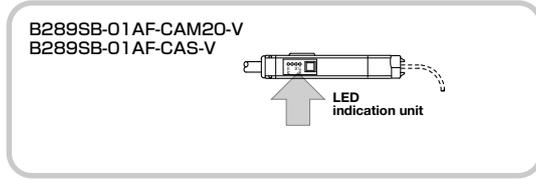


Functional icon indication *See page 15 for details on function.	Sensing level monitoring	Reading/writing of sensor sensitivity setting	Sensor cable disconnection detection	Inference countermeasure for transmission line unnecessary	Transmission line disconnection detection	Transmission line short-circuit detection	Transmission circuit drive power drop detection	ID (address) redundant, non-setting detection
--	--------------------------	---	--------------------------------------	--	---	---	---	---

< LED indication >

LED symbol	Indication status	Detailed status
LINK (Green)	On 	Transmission signal error
	Flashing 	Transmission signal reception
	Off 	No transmission signal <small>(including disconnection and reverse connection of DP and DN)</small>
ALM (Red)	On 	Sensing level decrease*
	Flashing 	Slave unit voltage decrease
	Off 	Normal
LINK ALM	Alternate flashing LINK  ALM 	When master unit detects that the ID (address) of this unit is duplicated or not set
IN (Orange)	On 	Input ON
	Off 	Input OFF

*When alarm diagnosis function is enabled



Photoelectric Type

Laser Type

Fiber Type

Proximity Type

Pressure Type

Cylinder Type

Photo Interrupter Type

Line Monitor

Small Display Unit

List of Specifications

◆ Option

• Fiber head

(Light emitting/receiving set with one fiber cutter)



Model	Application	Detection method	View direction	Type	Bending radius	Cable diameter (mm)	Core specification (mm)	Cable length (mm)	Detection distance (mm)				Standard price (¥)
									Without 7 segment		With 7 segment		
									With diagnosis	No diagnosis	With diagnosis	No diagnosis	
AFT-4	General-purpose	Transmission type	Top view	Screw type M4	R30	φ 2.2	Single core φ 1.0	2000	480	820	410	600	Open
AFT-1	General-purpose	Transmission type	Top view	Screw type M3	R20	φ 1.0	Single core φ 0.5	2000	210	340	160	210	Open
AFT-2	General-purpose	Transmission type	Top view	Screw type M3	R25	φ 1.0	Single core φ 0.75	2000	490	800	300	420	Open
AFT-1-1	General-purpose	Transmission type	Top view	Screw type M3 (Heat resistance 100°C)	R20	φ 1.0	Single core φ 0.5	2000	260	430	170	240	Open

*With diagnosis: When sensing level monitoring function (O-100 mode) is used / Without diagnosis: When using only with ON/OFF

*Light emitting and receiving set, respectively free cut. *Mounting bracket not included.

*Contact our sales division for corresponding heads other than the above.

Functional icon indication

*See page 15 for details on function.



Sensing level monitoring



Reading/writing of sensor sensitivity setting



Sensor cable disconnection detection



Interference countermeasure for transmission line unnecessary



Transmission line disconnection detection



Transmission line short-circuit detection



Transmission circuit drive power drop detection



ID (address) redundant, non-setting detection

Proximity Type

Sensors with excellent durability, performing non-contact detection of work such as metal

Type of AMP	
Amplifier built-in	Standard type
	Sputter ready type
	Non-shield type
	Full stainless steel body type
	Chemical-capable (fluorine resin body) type
	Polyarylate body type IP68
	All metal detection type
Amplifier relay	Amplifier relay type

Detection distance	Appearance	Protective structure	Model	Sensing level monitoring 	Sensor sensitivity setting read/write 	Interference measure unnecessary 	RAS function 
 0 ~ 1mm		IP67	BS-K1117-M08-□□□□	○	○	×	○
 0 ~ 2mm			BS-K1117-M12-□□□□				
 0 ~ 5mm			BS-K1117-M18-□□□□				
 0 ~ 10mm			BS-K1117-M30-□□□□				
 0 ~ 2mm		IP67	BS-K1117S-M12-□□□□				
 0 ~ 5mm			BS-K1117S-M18-□□□□				
 0 ~ 10mm			BS-K1117S-M30-□□□□				
 0 ~ 3.4mm		IP67	BS-K1217-M08-□□□□				
 0 ~ 6.8mm			BS-K1217-M12-□□□□				
 0 ~ 12mm			BS-K1217-M18-□□□□				
 0 ~ 20mm			BS-K1217-M30-□□□□				
 0 ~ 1.6mm		IP67	BS-K1117M-M12-□□□□				
 0 ~ 3.8mm			BS-K1117M-M18-□□□□				
 0 ~ 8mm			BS-K1117M-M30-□□□□				
 0 ~ 2mm		IP67 company standard oil resistance ^{*1}	BS-K1117C-M12-□□□□				
 0 ~ 5mm			BS-K1117C-M18-□□□□				
 0 ~ 10mm			BS-K1117C-M30-□□□□				
 0 ~ 2mm		IP68	BS-K1118-M12-□□□□				
 0 ~ 5mm			BS-K1118-M18-□□□□				
 0 ~ 10mm			BS-K1118-M30-□□□□				
 0 ~ 2mm		IP67	BS-K4117-M12-□□□□				
 0 ~ 5mm			BS-K4117-M18-□□□□				
 0 ~ 10mm			BS-K4117-M30-□□□□				
 0 ~ 0.8mm		IP67 company standard oil resistance ^{*1}	BM-K1117G-S04-□□□□				
 0 ~ 1mm			BM-K1117G-S05-□□□□				
 0 ~ 0.6mm		IP67 company standard oil resistance ^{*1}	BM-K1117G-M04-□□□□				
 0 ~ 1mm			BM-K1117G-M05-□□□□				

1 Oil resistance has been confirmed by using oil/cutting oil specified by us. The device is resistant to oil but there is no guarantee that breakdown will not occur. Do not use the device when it is constantly exposed to oil splashing or under oil jet flow.
* Cutting oil specified by us: Water-insoluble (YUSHIRON CUT KM557, KZ313S), Water-soluble (YUSHIROKEN EC50, AP-EX-E7, FGS700)---Immersion at an ambient temperature of 55°C
* Lubricating oil specified by us: (VELOCITY OIL No.3)---Immersion at an ambient temperature of 55°C

◆ Proximity type (standard type) (IP67) Cable with M12 connector/Cable



BS-K1117-M18-3012



BS-K1117-M18-1K

*Contact our sales division for attachment fittings.

< Specifications >



Dimension A: M8×51.8
 Dimension B: M12×50.9
 Dimension C: M18×50.5
 Dimension D: M30×60.6

/: Not applicable -: Not determined

Model	Number of I/O points		Input/output specifications	Type	Detection distance (mm)	Consumption current (mA)		Connection	Dimension (mm)	Mass (g)	Standard detected object	Response time	Standard price (¥)
	Input	Output				Transmission side	I/O side						
BS-K1117-M08-3012	1	/	Electromagnetic induction	Standard type M8	0~1	13.8	/	2-wire type (non-insulation)	A	21	Iron 8×8×1mm	Max. 10ms	Open
BS-K1117-M12-3012	1	/	Electromagnetic induction	Standard type M12	0~2	8.4	/	2-wire type (non-insulation)	B	31	Iron 12×12×1mm	Max. 10ms	Open
BS-K1117-M18-3012	1	/	Electromagnetic induction	Standard type M18	0~5	8	/	2-wire type (non-insulation)	C	44	Iron 18×18×1mm	Max. 10ms	Open
BS-K1117-M30-3012	1	/	Electromagnetic induction	Standard type M30	0~10	8.2	/	2-wire type (non-insulation)	D	107	Iron 30×30×1mm	Max. 10ms	Open
BS-K1117-M08-1K	1	/	Electromagnetic induction	Standard type M8	0~1	13.8	/	2-wire type (non-insulation)	A	28	Iron 8×8×1mm	Max. 10ms	Open
BS-K1117-M12-1K	1	/	Electromagnetic induction	Standard type M12	0~2	8.4	/	2-wire type (non-insulation)	B	41	Iron 12×12×1mm	Max. 10ms	Open
BS-K1117-M18-1K	1	/	Electromagnetic induction	Standard type M18	0~5	8	/	2-wire type (non-insulation)	C	54	Iron 18×18×1mm	Max. 10ms	Open
BS-K1117-M30-1K	1	/	Electromagnetic induction	Standard type M30	0~10	8.2	/	2-wire type (non-insulation)	D	117	Iron 30×30×1mm	Max. 10ms	Open

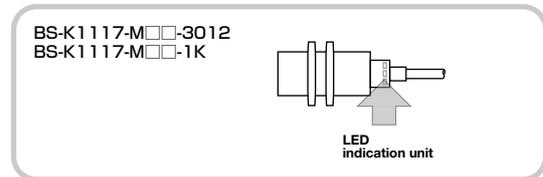
*The dimensions are numerical values excluding the cable section.

* Washers and nuts are included.

< LED indication >

LED symbol	Indication status	Detailed status
LINK (Green)	On	Transmission signal error
	Flashing	Transmission signal reception
	Off	No transmission signal (including disconnection and reverse connection of DP and DN)
ALM (Red)	On	Sensing level decrease*
	Flashing	Slave unit voltage decrease
	Off	Normal
LINK ALM	Alternate flashing	When master unit detects that the ID (address) of this unit is duplicated or not set
IN (Orange)	On	Input ON
	Off	Input OFF

*When alarm diagnosis function is enabled

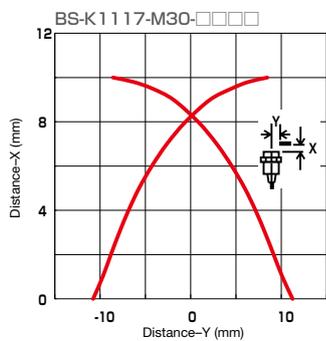
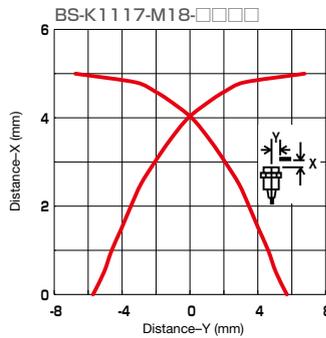
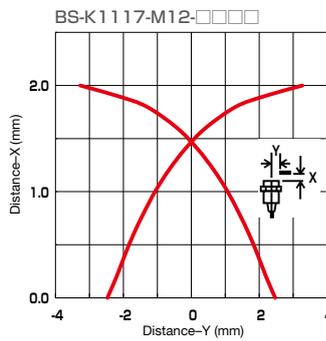
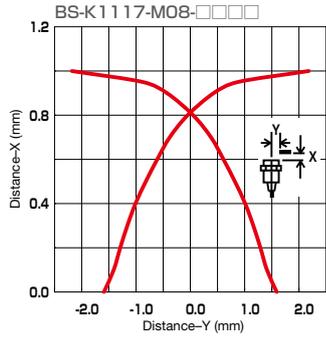


Functional icon indication *See page 15 for details on function.	Sensing level monitoring	Reading/writing of sensor sensitivity setting	Sensor cable disconnection detection	Interference countermeasure for transmission line unnecessary	Transmission line disconnection detection	Transmission line short-circuit detection	Transmission circuit drive power drop detection	ID (address) redundant, non-setting detection
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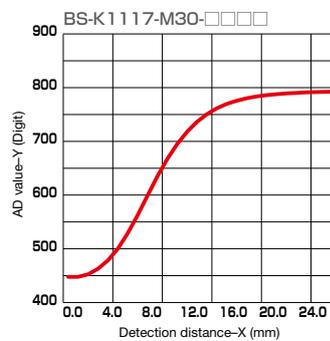
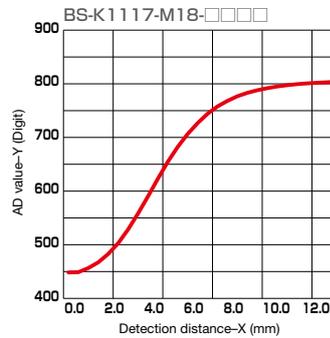
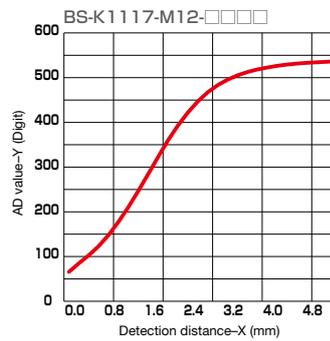
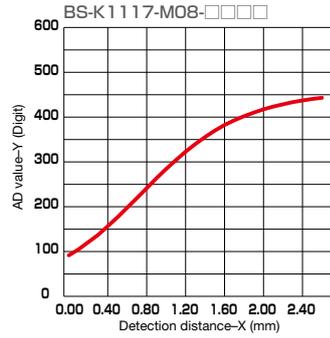
* Smartclick is a registered trademark of OMRON Corporation.

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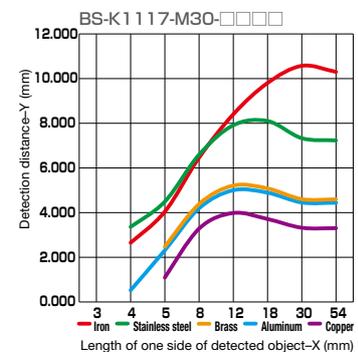
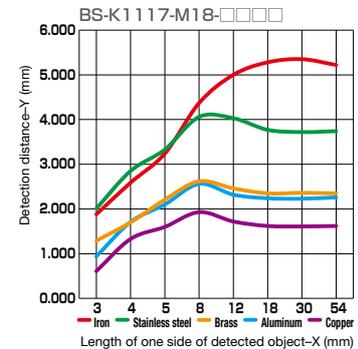
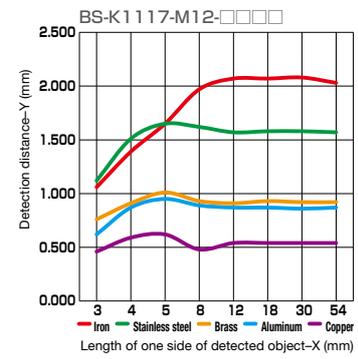
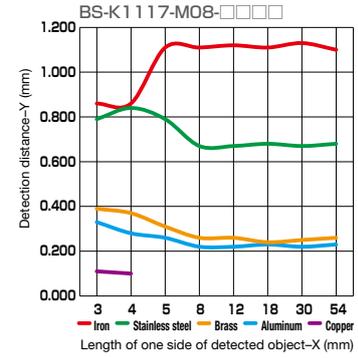
• Detection area



• AD value-detection distance



• Influence by size and material of detected object



Photoelectric Type

Laser Type

Fiber Type

Proximity Type

Pressure Type

Cylinder Type

Photo Interrupter Type

Line Monitor

Small Display Unit

List of Specifications

Functional icon indication

*See page 15 for details on function.



Sensing level monitoring



Reading/writing of sensor sensitivity setting



Sensor cable disconnection detection



Interference countermeasure for transmission line unnecessary



Transmission line disconnection detection



Transmission line short-circuit detection



Transmission circuit drive power drop detection



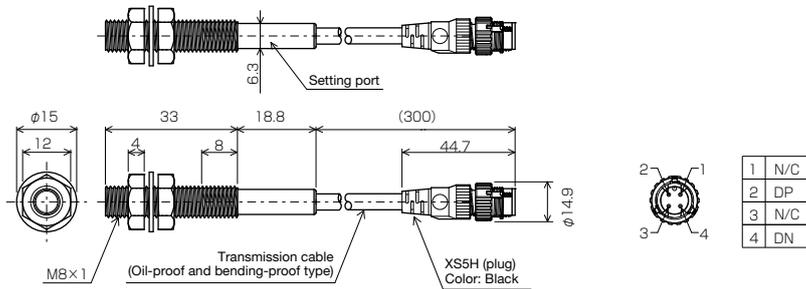
ID (address) redundant, non-setting detection

◆ Proximity type (standard type) (IP67) Cable with M12 connector

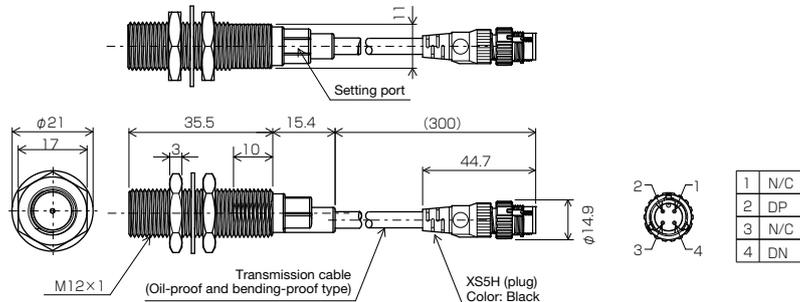
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Unit: mm

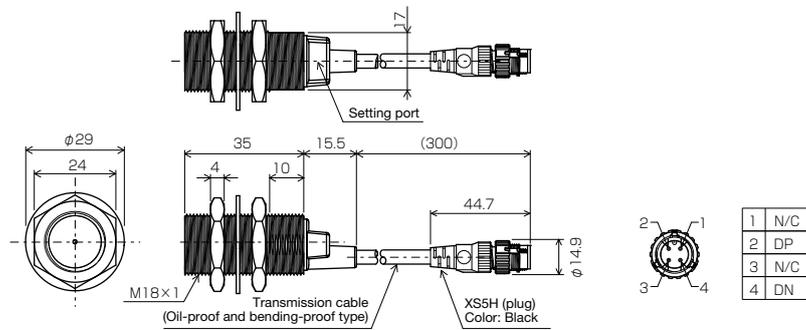
ASLINKSENSOR BS-K1117-M08-3012



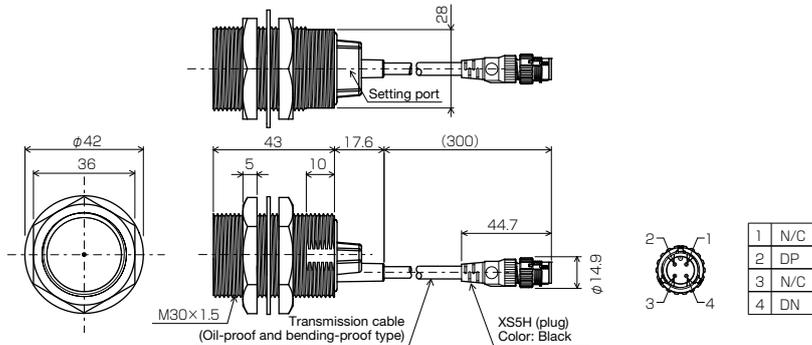
ASLINKSENSOR BS-K1117-M12-3012



ASLINKSENSOR BS-K1117-M18-3012



ASLINKSENSOR BS-K1117-M30-3012



Functional icon indication
*See page 15 for details on function.

Sensing level monitoring

Reading/writing of sensor sensitivity setting

Sensor cable disconnection detection

Interference countermeasure for transmission line unnecessary

Transmission line disconnection detection

Transmission line short-circuit detection

Transmission circuit drive power drop detection

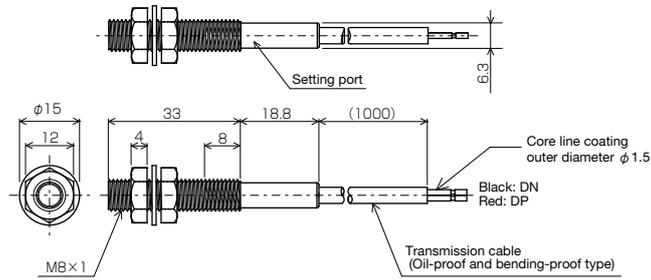
ID (address) redundant, non-setting detection

◆ Proximity type (standard type) (IP67) Cable

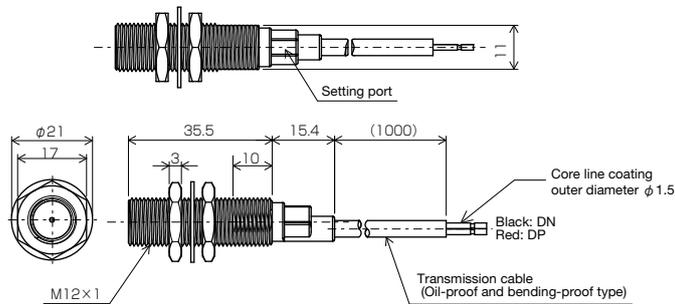
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Unit: mm

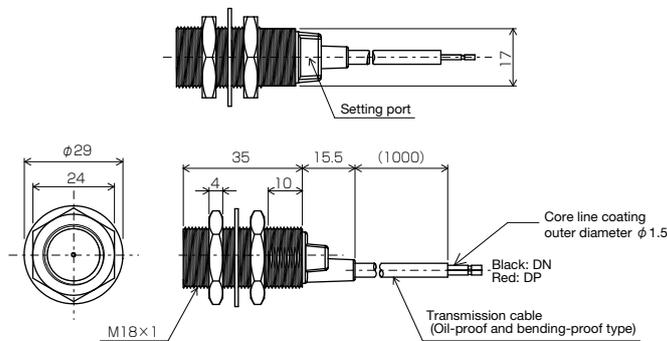
ASLINKSENSOR BS-K1117-M08-1K



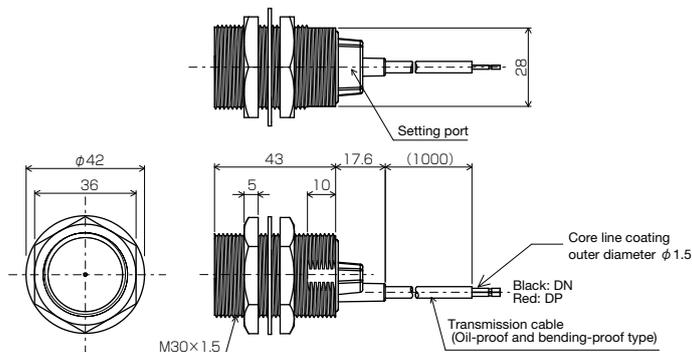
ASLINKSENSOR BS-K1117-M12-1K



ASLINKSENSOR BS-K1117-M18-1K



ASLINKSENSOR BS-K1117-M30-1K



Functional icon indication

*See page 15 for details on function.



Sensing level monitoring



Reading/writing of sensor sensitivity setting



Sensor cable disconnection detection



Interference countermeasure unnecessary for transmission line



DP/DN disconnection detection



DP/DN short-circuit detection



24V drop detection



ID (address) Duplicate/Not set

Photoelectric Type

Laser Type

Fiber Type

Proximity Type

Pressure Type

Cylinder Type

Photo Interrupter Type

Line Monitor

Small Display Unit

List of Specifications

◆ Proximity type (sputter ready type) (IP67) Cable with M12 connector/Cable



BS-K1117S-M30-3012



BS-K1117S-M18-1K

*Contact our sales division for attachment fittings.

< Specifications >



Dimension A: M12×50.9
Dimension B: M18×50.5
Dimension C: M30×60.6

/: Not applicable -: Not determined

Model	Number of I/O points		Input/output specifications	Type	Detection distance (mm)	Consumption current (mA)		Connection	Dimension (mm)	Mass (g)	Standard detected object	Response time	Standard price (¥)
	Input	Output				Transmission side	I/O side						
BS-K1117S-M12-3012	1	/	Electromagnetic induction	Sputter ready type M12	0~2	8.4	/	2-wire type (non-insulation)	A	31	Iron 12×12×1mm	Max. 10ms	Open
BS-K1117S-M18-3012	1	/	Electromagnetic induction	Sputter ready type M18	0~5	8	/	2-wire type (non-insulation)	B	44	Iron 18×18×1mm	Max. 10ms	Open
BS-K1117S-M30-3012	1	/	Electromagnetic induction	Sputter ready type M30	0~10	8.2	/	2-wire type (non-insulation)	C	107	Iron 30×30×1mm	Max. 10ms	Open
BS-K1117S-M12-1K	1	/	Electromagnetic induction	Sputter ready type M12	0~2	8.4	/	2-wire type (non-insulation)	A	41	Iron 12×12×1mm	Max. 10ms	Open
BS-K1117S-M18-1K	1	/	Electromagnetic induction	Sputter ready type M18	0~5	8	/	2-wire type (non-insulation)	B	54	Iron 18×18×1mm	Max. 10ms	Open
BS-K1117S-M30-1K	1	/	Electromagnetic induction	Sputter ready type M30	0~10	8.2	/	2-wire type (non-insulation)	C	117	Iron 30×30×1mm	Max. 10ms	Open

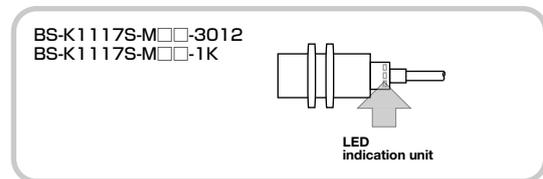
*The dimensions are numerical values excluding the cable section.

* Washers and nuts are included.

< LED indication >

LED symbol	Indication status	Detailed status
LINK (Green)	On	Transmission signal error
	Flashing	Transmission signal reception
	Off	No transmission signal (including disconnection and reverse connection of DP and DN)
ALM (Red)	On	Sensing level decrease*
	Flashing	Slave unit voltage decrease
	Off	Normal
LINK ALM	Alternate flashing	When master unit detects that the ID (address) of this unit is duplicated or not set
IN (Orange)	On	Input ON
	Off	Input OFF

*When alarm diagnosis function is enabled

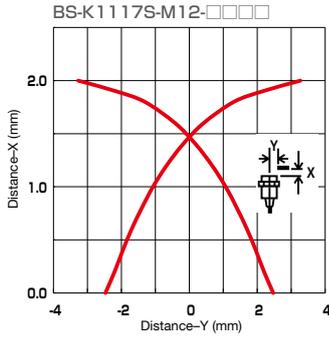


Functional icon indication *See page 15 for details on function.	Sensing level monitoring	Reading/writing of sensor sensitivity setting	Sensor cable disconnection detection	Interference countermeasure for transmission line unnecessary	Transmission line disconnection detection	Transmission line short-circuit detection	Transmission circuit drive power drop detection	ID (address) Duplicate/Not set	ID (address) redundant, non-setting detection
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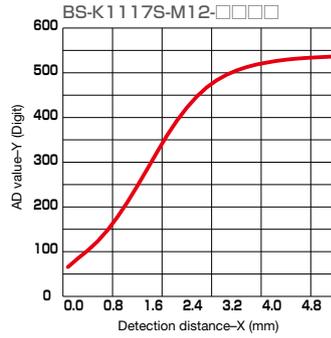
* Smartclick is a registered trademark of OMRON Corporation.

< Characteristic diagram > (Reference value)

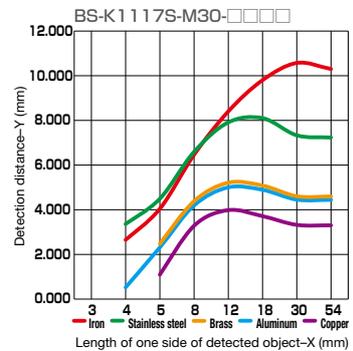
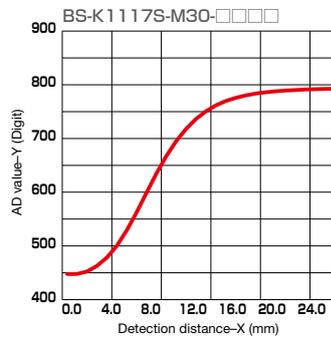
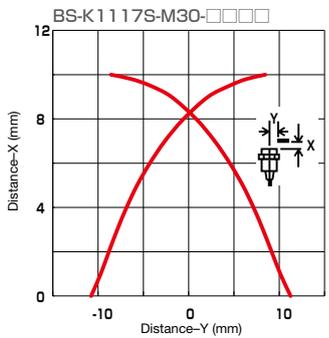
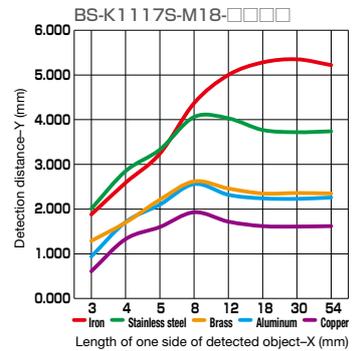
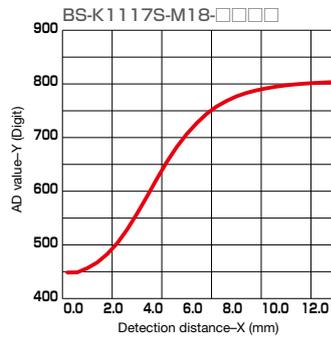
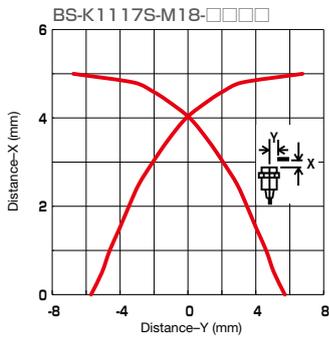
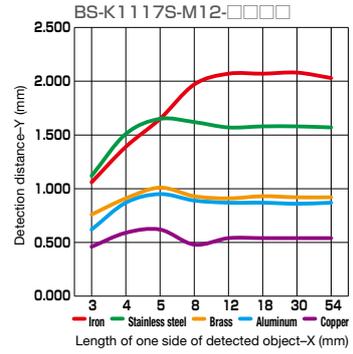
• Detection area



• AD value-detection distance



• Influence by size and material of detected object



Functional icon indication
*See page 15 for details on function.

Sensing level monitoring

Reading/writing of sensor sensitivity setting

Sensor cable disconnection detection

Interference countermeasure unnecessary

DP/DN disconnection

DP/DN short-circuit

24V drop

ID (address) redundant, Duplicate/Not set

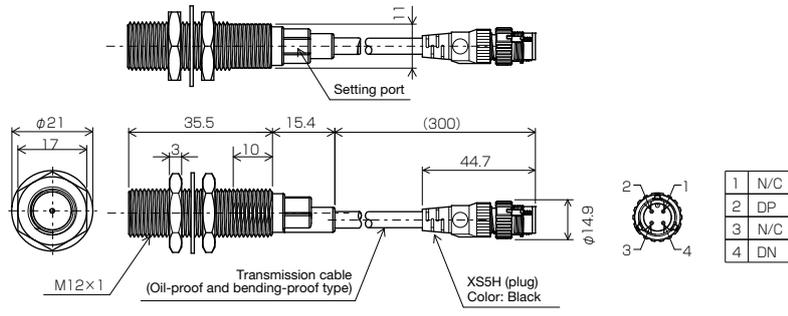
- Photoelectric Type
- Laser Type
- Fiber Type
- Proximity Type**
- Pressure Type
- Cylinder Type
- Photo Interrupter Type
- Line Monitor
- Small Display Unit
- List of Specifications

◆ Proximity type (sputter ready type) (IP67) Cable with M12 connector

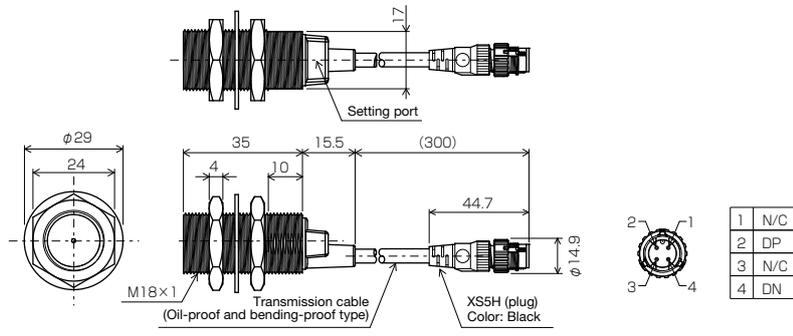
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Unit: mm

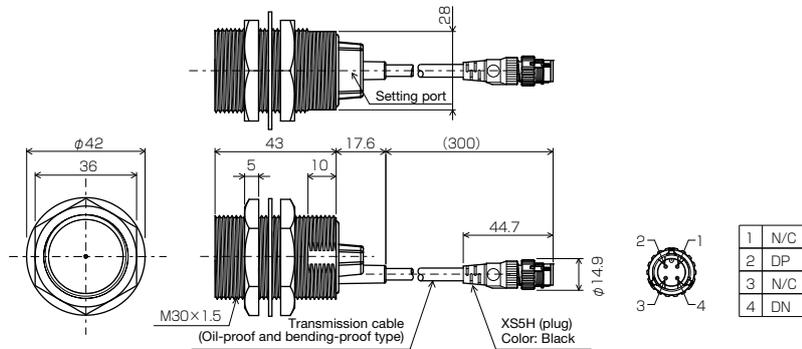
ASLINKSENSOR BS-K1117S-M12-3012



ASLINKSENSOR BS-K1117S-M18-3012



ASLINKSENSOR BS-K1117S-M30-3012



Functional icon indication
*See page 15 for details on function.



Sensing level monitoring



Reading/writing of sensor sensitivity setting



Sensor cable disconnection detection



Interference countermeasure for transmission line unnecessary



Transmission line disconnection detection



Transmission line short-circuit detection



Transmission circuit drive power drop detection

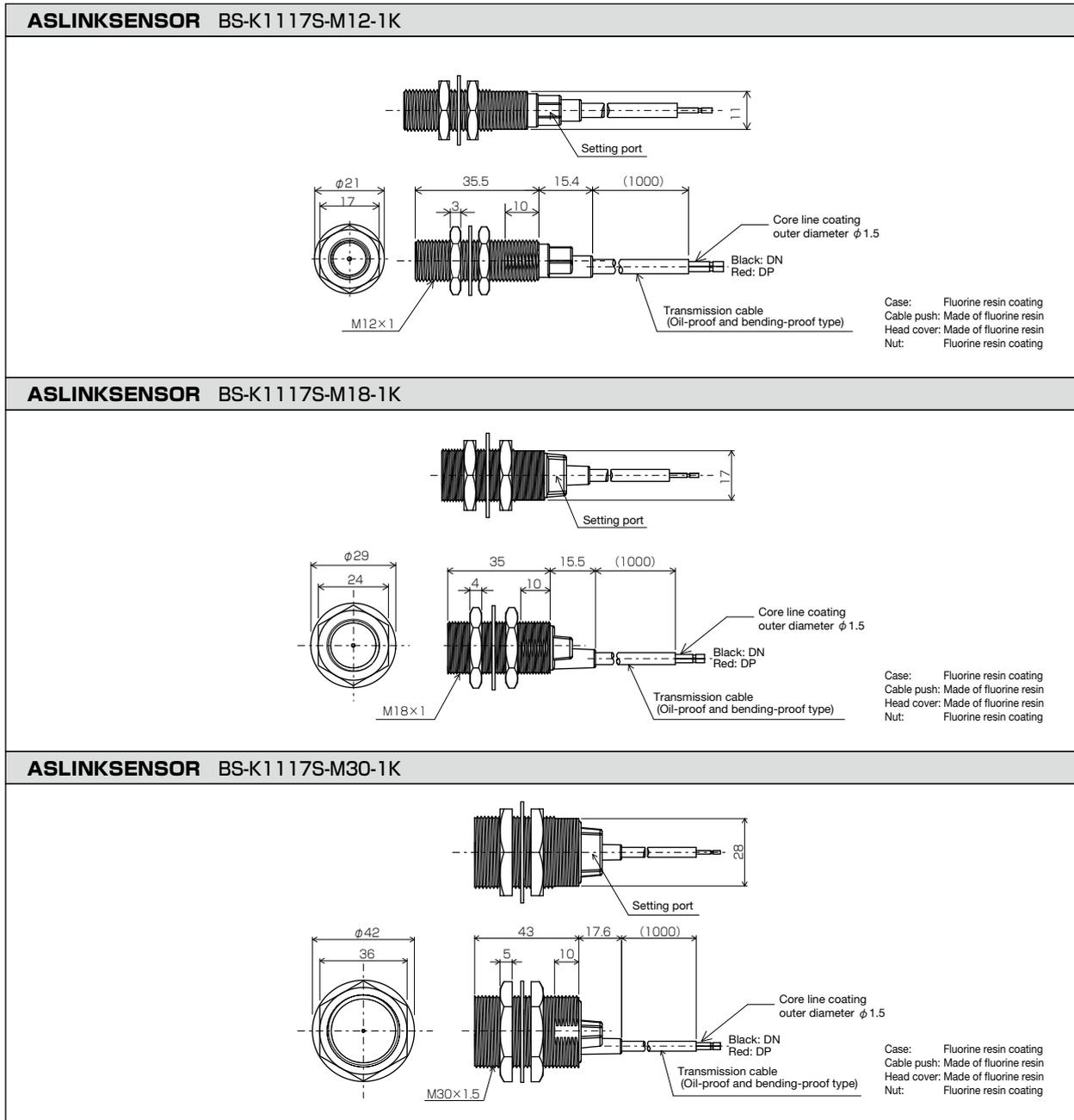


ID (address) redundant, non-setting detection

◆ Proximity type (sputter ready type) (IP67) Cable

< Outline Dimensional Drawings >

Unit: mm



Photoelectric Type

Laser Type

Fiber Type

Proximity Type

Pressure Type

Cylinder Type

Photo Interrupter Type

Line Monitor

Small Display Unit

List of Specifications

Functional icon indication

*See page 15 for details on function.

Sensing level monitoring	Reading/writing of sensor sensitivity setting	Sensor cable disconnection detection	Interference countermeasure for transmission line unnecessary	Transmission line disconnection detection	Transmission line short-circuit detection	Transmission circuit drive power drop detection	ID (address) redundant, Duplicate/Not set	ID (address) redundant, non-setting detection
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◆ Proximity type (Non-shield type) (IP67) Cable with M12 connector/Cable



BS-K1217-M18-3012



BS-K1217-M18-1K

*Contact our sales division for attachment fittings.

< Specifications >



Dimension A: M8×51.8
Dimension B: M12×50.9
Dimension C: M18×50.5
Dimension D: M30×60.6

/: Not applicable -: Not determined

Model	Number of I/O points		Input/output specifications	Type	Detection distance (mm)	Consumption current (mA)		Connection	Dimension (mm)	Mass (g)	Standard detected object	Response time	Standard price (¥)
	Input	Output				Transmission side	I/O side						
BS-K1217-M08-3012	1	/	Electromagnetic induction	Non-shield type M8	0~3.4	14.3	/	2-wire type (non-insulation)	A	20	Iron 20×20×1mm	Max. 10ms	Open
BS-K1217-M12-3012	1	/	Electromagnetic induction	Non-shield type M12	0~6.8	6.8	/	2-wire type (non-insulation)	B	29	Iron 30×30×1mm	Max. 10ms	Open
BS-K1217-M18-3012	1	/	Electromagnetic induction	Non-shield type M18	0~12	6.7	/	2-wire type (non-insulation)	C	38	Iron 30×30×1mm	Max. 10ms	Open
BS-K1217-M30-3012	1	/	Electromagnetic induction	Non-shield type M30	0~20	6.5	/	2-wire type (non-insulation)	D	90	Iron 54×54×1mm	Max. 10ms	Open
BS-K1217-M08-1K	1	/	Electromagnetic induction	Non-shield type M8	0~3.4	14.3	/	2-wire type (non-insulation)	A	27	Iron 20×20×1mm	Max. 10ms	Open
BS-K1217-M12-1K	1	/	Electromagnetic induction	Non-shield type M12	0~6.8	6.8	/	2-wire type (non-insulation)	B	37	Iron 30×30×1mm	Max. 10ms	Open
BS-K1217-M18-1K	1	/	Electromagnetic induction	Non-shield type M18	0~12	6.7	/	2-wire type (non-insulation)	C	45	Iron 30×30×1mm	Max. 10ms	Open
BS-K1217-M30-1K	1	/	Electromagnetic induction	Non-shield type M30	0~20	6.5	/	2-wire type (non-insulation)	D	96	Iron 54×54×1mm	Max. 10ms	Open

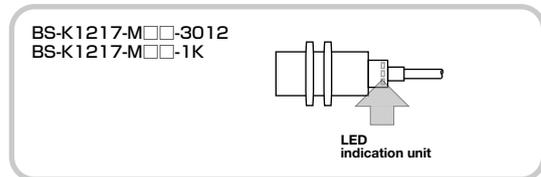
*The dimensions are numerical values excluding the cable section.

* Washers and nuts are included.

< LED indication >

LED symbol	Indication status	Detailed status
LINK (Green)	On	Transmission signal error
	Flashing	Transmission signal reception
	Off	No transmission signal (including disconnection and reverse connection of DP and DN)
ALM (Red)	On	Sensing level decrease*
	Flashing	Slave unit voltage decrease
	Off	Normal
LINK ALM	Alternate flashing	When master unit detects that the ID (address) of this unit is duplicated or not set
IN (Orange)	On	Input ON
	Off	Input OFF

*When alarm diagnosis function is enabled

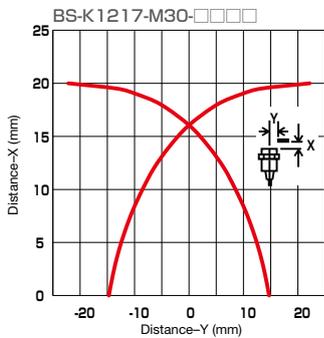
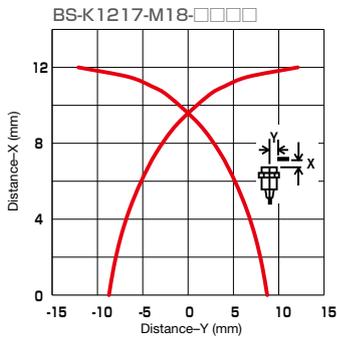
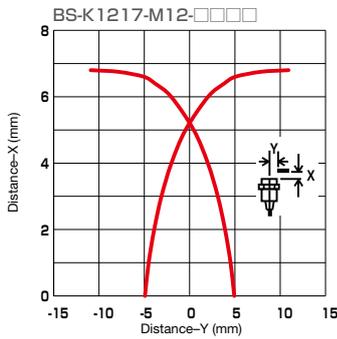
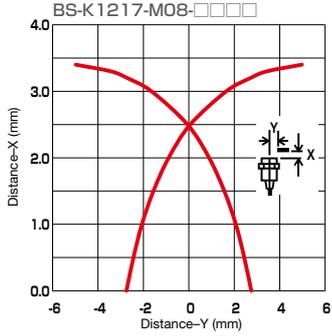


Functional icon indication *See page 15 for details on function.	Sensing level monitoring	Reading/writing of sensor sensitivity setting	Sensor cable disconnection detection	Interference countermeasure for transmission line unnecessary	Transmission line disconnection detection	Transmission line short-circuit detection	Transmission circuit drive power drop detection	ID (address) Duplicate/Not set	ID (address) redundant, non-setting detection
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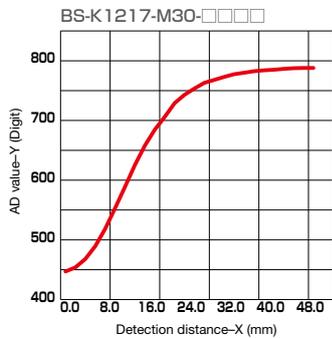
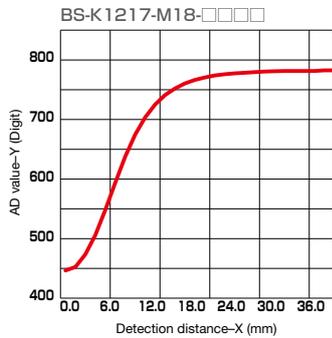
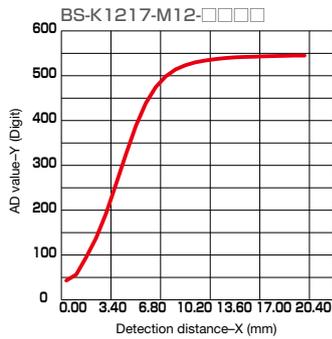
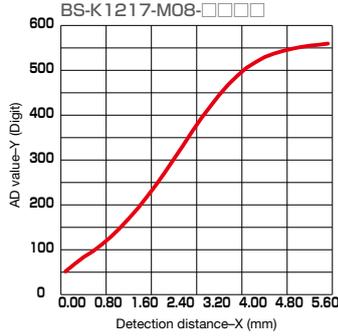
* Smartclick is a registered trademark of OMRON Corporation.

< Characteristic diagram > (Reference value)

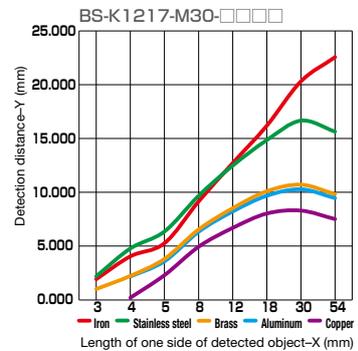
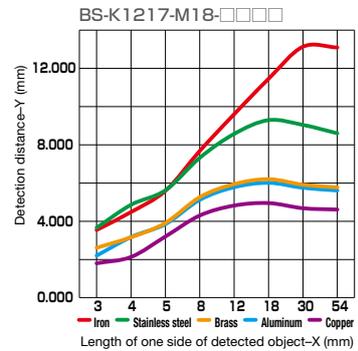
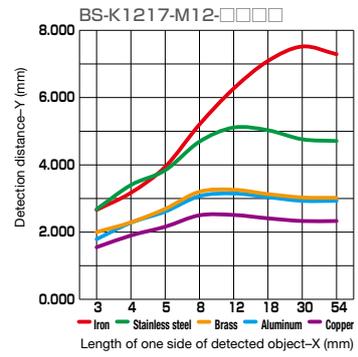
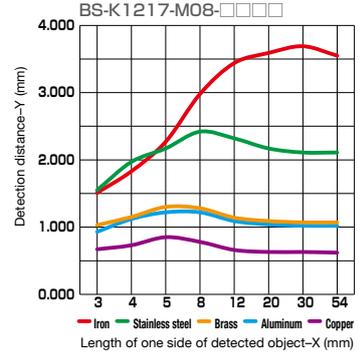
• Detection area



• AD value-detection distance



• Influence by size and material of detected object



- Photoelectric Type
- Laser Type
- Fiber Type
- Proximity Type**
- Pressure Type
- Cylinder Type
- Photo Interrupter Type
- Line Monitor
- Small Display Unit
- List of Specifications

Functional icon indication
*See page 15 for details on function.

Sensing level monitoring

Reading/writing of sensor sensitivity setting

Sensor cable disconnection detection

Interference countermeasure for transmission line unnecessary

DP/DN disconnection detection

DP/DN short-circuit detection

24V drop detection

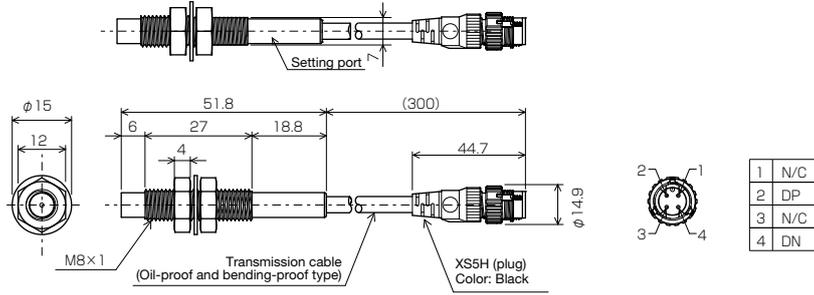
ID (address) redundant, non-setting detection

◆ Proximity type (Non-shield type) (IP67) Cable with M12 connector

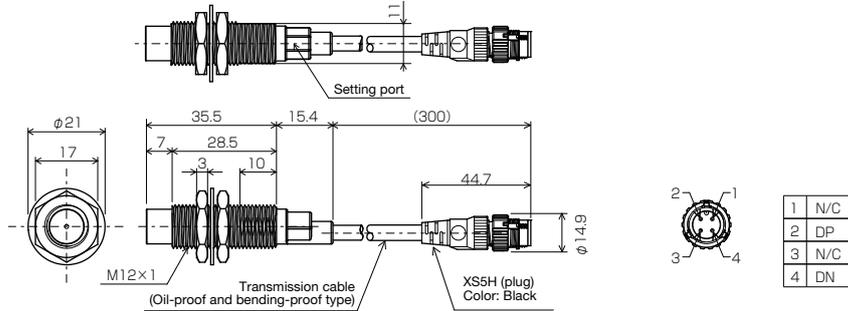
< Outline Dimensional Drawings >

Unit: mm

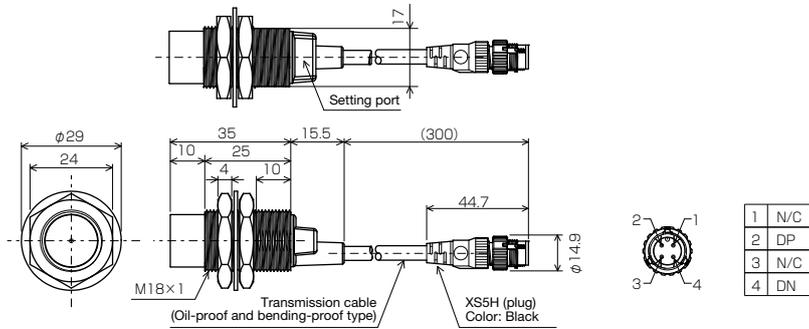
ASLINKSENSOR BS-K1217-M08-3012



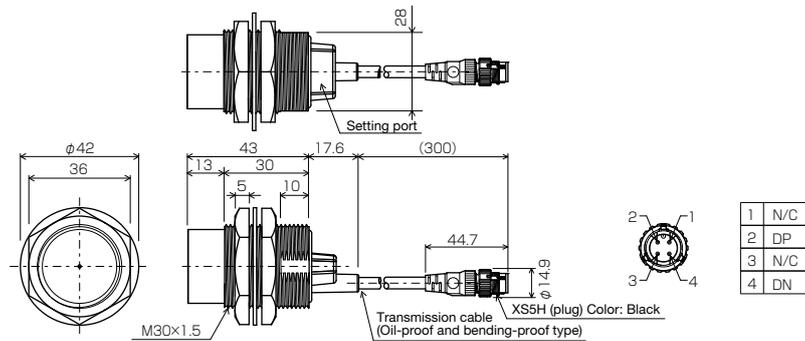
ASLINKSENSOR BS-K1217-M12-3012



ASLINKSENSOR BS-K1217-M18-3012



ASLINKSENSOR BS-K1217-M30-3012



Functional icon indication
*See page 15 for details on function.

Sensing level monitoring

Reading/writing of sensor sensitivity setting

Sensor cable disconnection detection

Interference countermeasure unnecessary

Transmission line disconnection detection

Transmission line short-circuit detection

Transmission circuit drive power drop detection

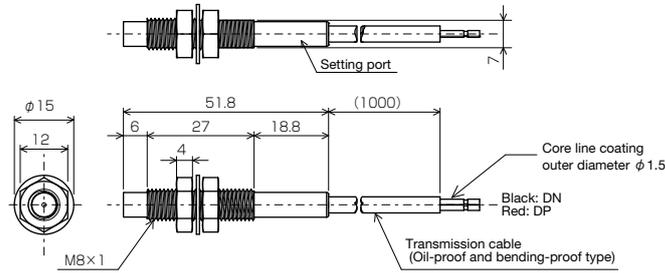
ID (address) Duplicate/Not set

◆ Proximity type (Non-shield type) (IP67) Cable

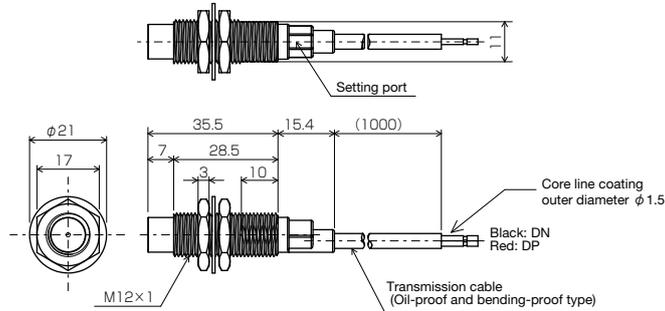
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Unit: mm

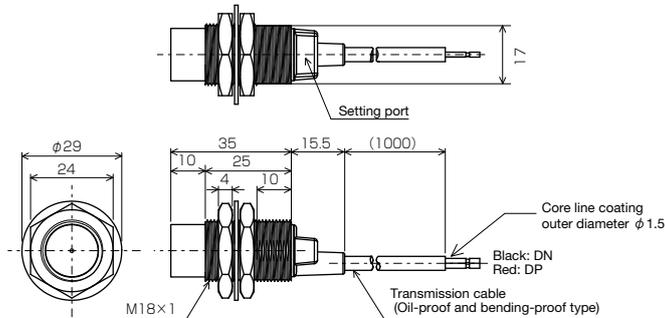
ASLINKSENSOR BS-K1217-M08-1K



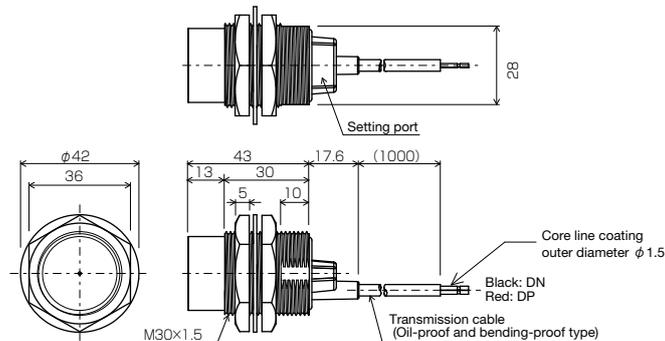
ASLINKSENSOR BS-K1217-M12-1K



ASLINKSENSOR BS-K1217-M18-1K



ASLINKSENSOR BS-K1217-M30-1K



Functional icon indication
*See page 15 for details on function.



Sensing level monitoring



Reading/writing of sensor sensitivity setting



Sensor cable disconnection detection



Interference countermeasure unnecessary for transmission line



Transmission line disconnection detection



Transmission line short-circuit detection



Transmission circuit drive power drop detection



ID (address) redundant, non-setting detection

Photoelectric Type

Laser Type

Fiber Type

Proximity Type

Pressure Type

Cylinder Type

Photo Interrupter Type

Line Monitor

Small Display Unit

List of Specifications

ASLINKSENSOR

◆ Proximity type (Full stainless steel body type) (IP67)

Cable with M12 connector/Cable



BS-K1117M-M18-3012



BS-K1117M-M18-1K

*Contact our sales division for attachment fittings.

< Specifications >



Dimension A: M12×54.6
Dimension B: M18×52.4
Dimension C: M30×61.7

/: Not applicable -: Not determined

Model	Number of I/O points		Input/output specifications	Type	Detection distance (mm)	Consumption current (mA)		Connection	Dimension (mm)	Mass (g)	Standard detected object	Response time	Standard price (¥)
	Input	Output				Transmission side	I/O side						
BS-K1117M-M12-3012	1	/	Electromagnetic induction	Full stainless steel body type M12	0~1.6	4.7	/	2-wire type (non-insulation)	A	32	Iron 12×12×1mm	Max. 10ms	Open
BS-K1117M-M18-3012	1	/	Electromagnetic induction	Full stainless steel body type M18	0~3.8	4.7	/	2-wire type (non-insulation)	B	47	Iron 30×30×1mm	Max. 10ms	Open
BS-K1117M-M30-3012	1	/	Electromagnetic induction	Full stainless steel body type M30	0~8	4.7	/	2-wire type (non-insulation)	C	107	Iron 54×54×1mm	Max. 10ms	Open
BS-K1117M-M12-1K	1	/	Electromagnetic induction	Full stainless steel body type M12	0~1.6	4.7	/	2-wire type (non-insulation)	A	39	Iron 12×12×1mm	Max. 10ms	Open
BS-K1117M-M18-1K	1	/	Electromagnetic induction	Full stainless steel body type M18	0~3.8	4.7	/	2-wire type (non-insulation)	B	55	Iron 30×30×1mm	Max. 10ms	Open
BS-K1117M-M30-1K	1	/	Electromagnetic induction	Full stainless steel body type M30	0~8	4.7	/	2-wire type (non-insulation)	C	115	Iron 54×54×1mm	Max. 10ms	Open

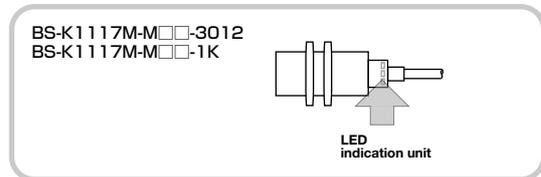
*The dimensions are numerical values excluding the cable section.

* Washers and nuts are included.

< LED indication >

LED symbol	Indication status	Detailed status
LINK (Green)	On	Transmission signal error
	Flashing	Transmission signal reception
	Off	No transmission signal (including disconnection and reverse connection of DP and DN)
ALM (Red)	On	Sensing level decrease*
	Flashing	Slave unit voltage decrease
	Off	Normal
LINK ALM	Alternate flashing	When master unit detects that the ID (address) of this unit is duplicated or not set
IN (Orange)	On	Input ON
	Off	Input OFF

*When alarm diagnosis function is enabled

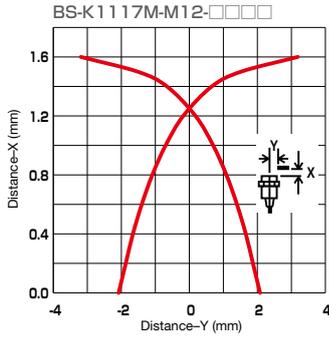


Functional icon indication *See page 15 for details on function.	Sensing level monitoring	Reading/writing of sensor sensitivity setting	Sensor cable disconnection detection	Interference countermeasure for transmission line unnecessary	Transmission line disconnection detection	Transmission line short-circuit detection	Transmission circuit drive power drop detection	ID (address) redundant, non-setting detection
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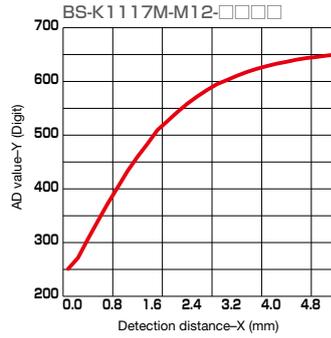
* Smartclick is a registered trademark of OMRON Corporation.

< Characteristic diagram > (Reference value)

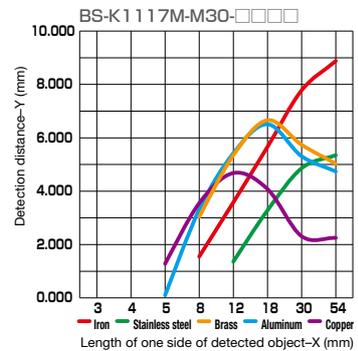
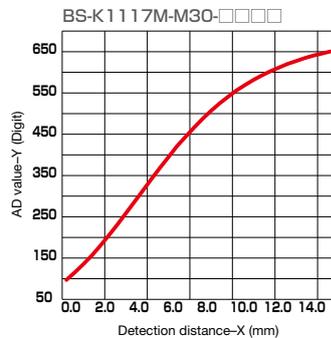
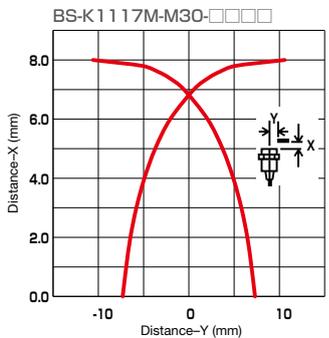
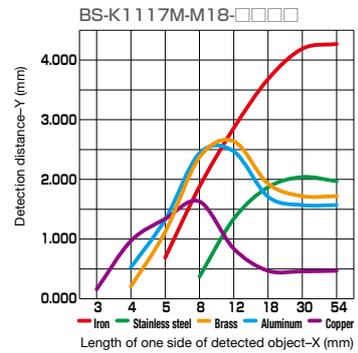
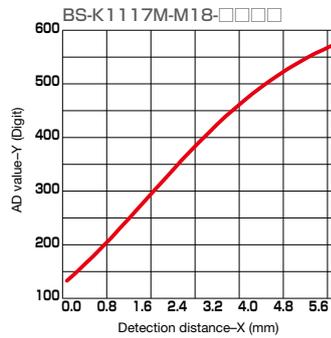
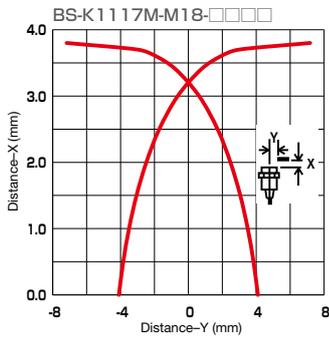
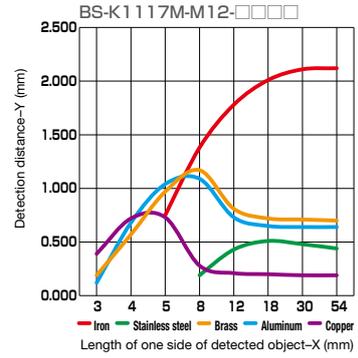
• Detection area



• AD value-detection distance



• Influence by size and material of detected object



Functional icon indication
*See page 15 for details on function.

Sensing level monitoring

Reading/writing of sensor sensitivity setting

Sensor cable disconnection detection

Interference countermeasure for transmission line unnecessary

DP/DN disconnection detection

DP/DN short-circuit detection

24V drop detection

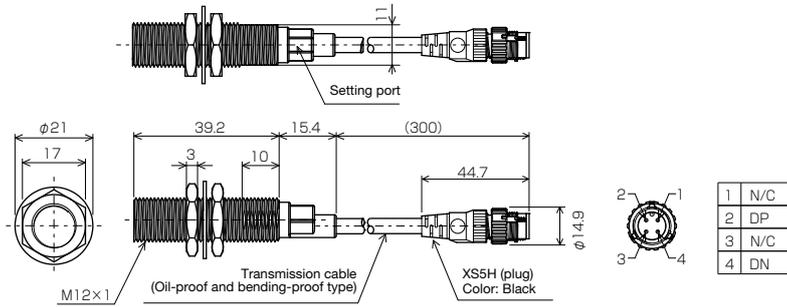
ID (address) redundant, Duplicate/Not set detection

◆ Proximity type (Full stainless steel body type) (IP67) Cable with M12 connector

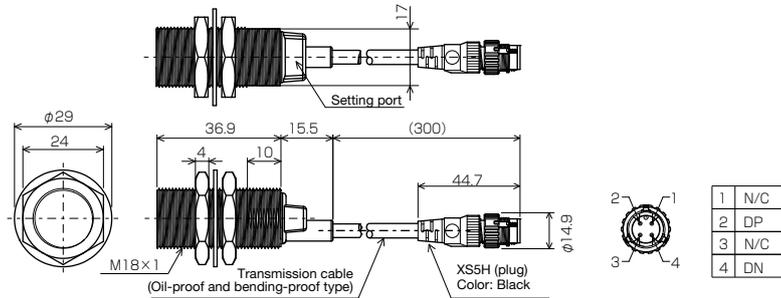
< Outline Dimensional Drawings >

Unit: mm

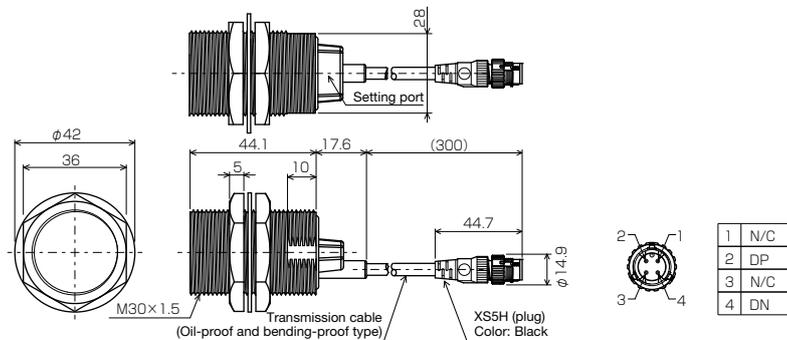
ASLINKSENSOR BS-K1117M-M12-3012



ASLINKSENSOR BS-K1117M-M18-3012



ASLINKSENSOR BS-K1117M-M30-3012



Functional icon indication
*See page 15 for details on function.

Sensing level monitoring

Reading/writing of sensor sensitivity setting

Sensor cable disconnection detection

Interference countermeasure for transmission line unnecessary

Transmission line disconnection detection

Transmission line short-circuit detection

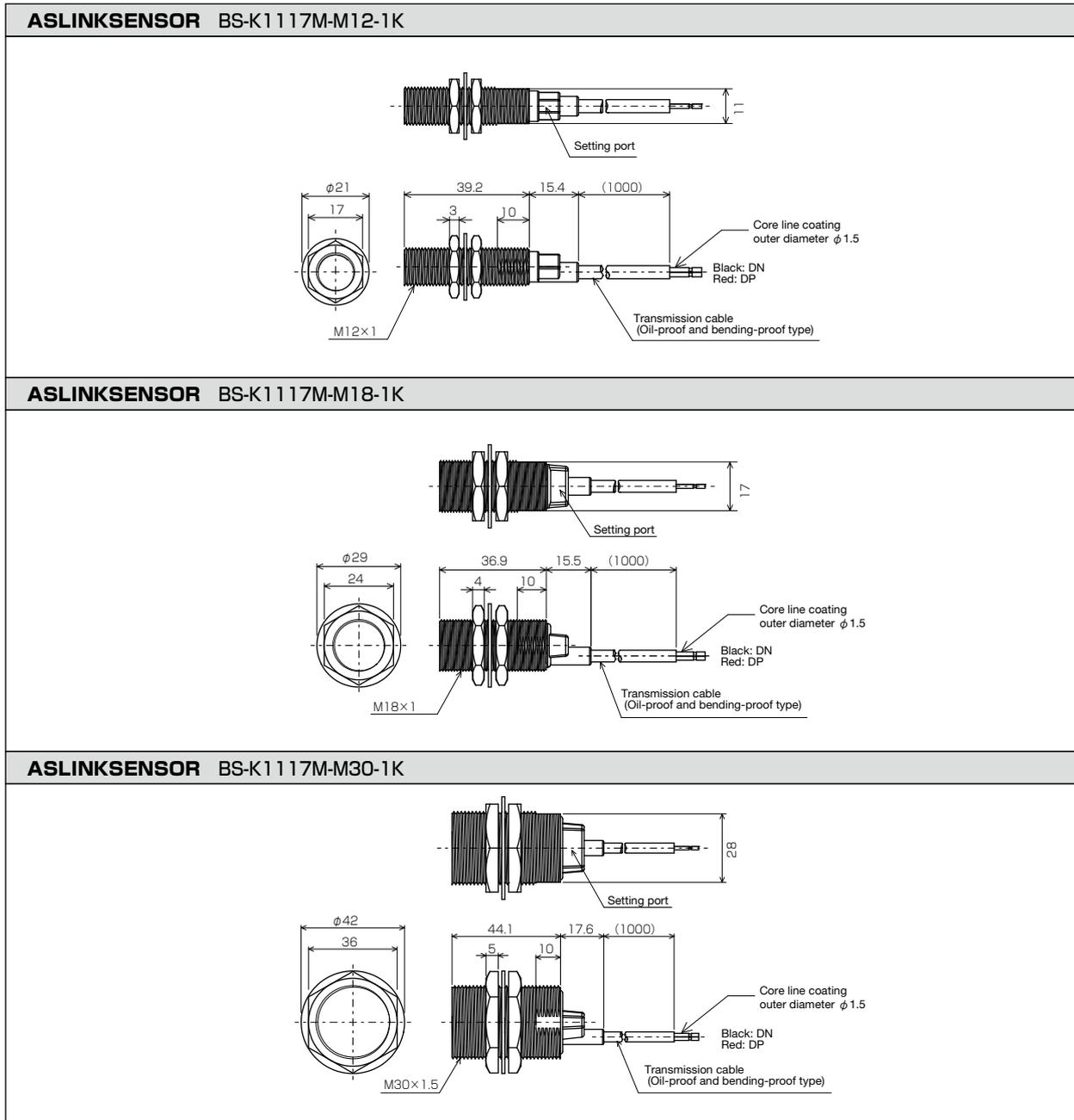
Transmission circuit drive power drop detection

ID (address) Duplicate/Not set

◆ Proximity type (Full stainless steel body type) (IP67) Cable

< Outline Dimensional Drawings >

Unit: mm



Photoelectric Type

Laser Type

Fiber Type

Proximity Type

Pressure Type

Cylinder Type

Photo Interrupter Type

Line Monitor

Small Display Unit

List of Specifications

Functional icon indication

*See page 15 for details on function.

 Sensing level monitoring	 Reading/writing of sensor sensitivity setting	 Sensor cable disconnection detection	 Interference countermeasure for transmission line unnecessary	 Transmission line disconnection detection	 Transmission line short-circuit detection	 Transmission circuit drive power drop detection	 ID (address) redundant, Duplicate/Not set	 ID (address) redundant, non-setting detection
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◆ Proximity type (chemical-capable (fluorine resin body) type) (IP67 company standard oil resistance*1) Cable with M12 connector/Cable



BS-K1117C-M18-3012



BS-K1117C-M18-1K

*Contact our sales division for attachment fittings.

< Specifications >



Dimension A: M12×50.9
Dimension B: M18×51.5
Dimension C: M30×60.6

∕: Not applicable -∕: Not determined

Model	Number of I/O points		Input/output specifications	Type	Detection distance (mm)	Consumption current (mA)		Connection	Dimension (mm)	Mass (g)	Standard detected object	Response time	Standard price (¥)
	Input	Output				Transmission side	I/O side						
BS-K1117C-M12-3012	1	∕	Electromagnetic induction	Chemical-capable type M12	0~2	6.9	∕	2-wire type (non-insulation)	A	24	Iron 12×12×1mm	Max. 10ms	Open
BS-K1117C-M18-3012	1	∕	Electromagnetic induction	Chemical-capable type M18	0~5	7.0	∕	2-wire type (non-insulation)	B	34	Iron 18×18×1mm	Max. 10ms	Open
BS-K1117C-M30-3012	1	∕	Electromagnetic induction	Chemical-capable type M30	0~10	7.0	∕	2-wire type (non-insulation)	C	68	Iron 30×30×1mm	Max. 10ms	Open
BS-K1117C-M12-1K	1	∕	Electromagnetic induction	Chemical-capable type M12	0~2	6.9	∕	2-wire type (non-insulation)	A	31	Iron 12×12×1mm	Max. 10ms	Open
BS-K1117C-M18-1K	1	∕	Electromagnetic induction	Chemical-capable type M18	0~5	7.0	∕	2-wire type (non-insulation)	B	40	Iron 18×18×1mm	Max. 10ms	Open
BS-K1117C-M30-1K	1	∕	Electromagnetic induction	Chemical-capable type M30	0~10	7.0	∕	2-wire type (non-insulation)	C	76	Iron 30×30×1mm	Max. 10ms	Open

*The dimensions are numerical values excluding the cable section.

◆ Option

• SUS washers

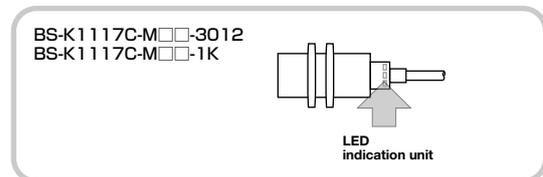
Washers sold separately for the proximity type (chemical-capable type).
No washer is included for the proximity type because both the body and included nuts are made of fluorine resin, which can be easily damaged. However, since the tightening torque is set to a small value, washers are offered as an option to firmly lock the nuts. Purchase them as necessary.
(There is no optional washer for the M30 type, as it can be firmly tightened without a washer.)

Model	Product specifications	Standard price (¥)
BS-K-M12-SW	SUS washer for M12 (one washer)	Open
BS-K-M18-SW	SUS washer for M18 (one washer)	Open

< LED indication >

LED symbol	Indication status	Detailed status
LINK (Green)	On	Transmission signal error
	Flashing	Transmission signal reception
	Off	No transmission signal (including disconnection and reverse connection of DP and DN)
ALM (Red)	On	Sensing level decrease*
	Flashing	Slave unit voltage decrease
	Off	Normal
LINK ALM	Alternate flashing	When master unit detects that the ID (address) of this unit is duplicated or not set
IN (Orange)	On	Input ON
	Off	Input OFF

*When alarm diagnosis function is enabled

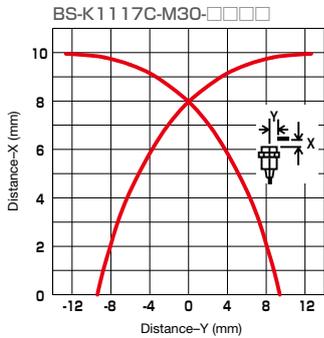
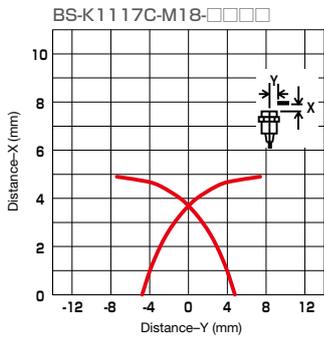
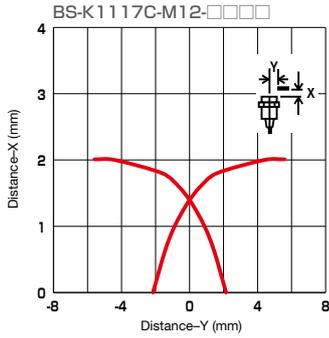


Functional icon indication *See page 15 for details on function.	Sensing level monitoring	Reading/writing of sensor sensitivity setting	Sensor cable disconnection detection	Interference countermeasure for transmission line unnecessary	Transmission line disconnection detection	Transmission line short-circuit detection	Transmission circuit drive power drop detection	ID (address) redundant, non-setting detection
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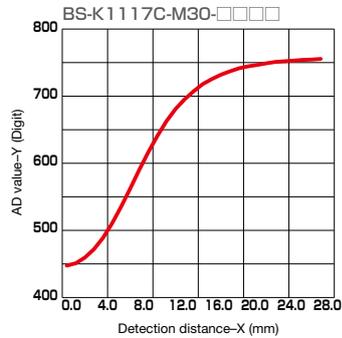
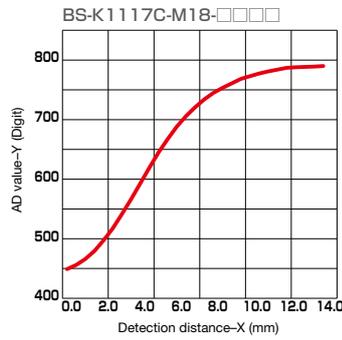
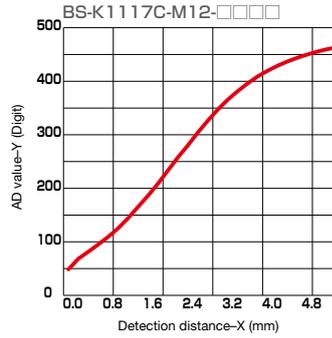
* Smartclick is a registered trademark of OMRON Corporation.

< Characteristic diagram > (Reference value)

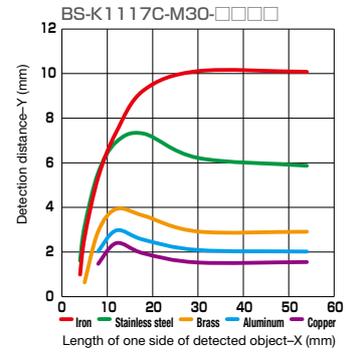
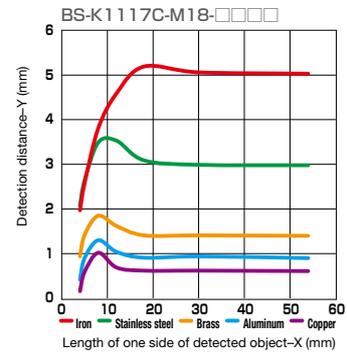
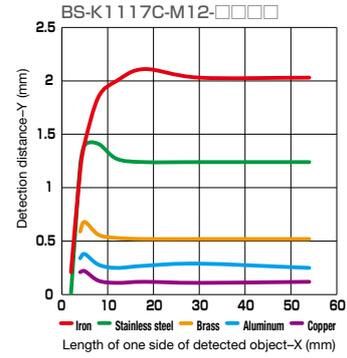
• Detection area



• AD value-detection distance



• Influence by size and material of detected object



- Photoelectric Type
- Laser Type
- Fiber Type
- Proximity Type**
- Pressure Type
- Cylinder Type
- Photo Interrupter Type
- Line Monitor
- Small Display Unit
- List of Specifications

1 Oil resistance has been confirmed by using oil/cutting oil specified by us. The device is resistant to oil but there is no guarantee that breakdown will not occur. Do not use the device when it is constantly exposed to oil splashing or under oil jet flow.
 * Cutting oil specified by us: Water-insoluble (YUSHIRON CUT KM557, KZ313S), Water-soluble (YUSHIROKEN EC50, AP-EX-E7, FGS700)---Immersion at an ambient temperature of 55°C
 * Lubricating oil specified by us: (VELOCITY OIL No.3)---Immersion at an ambient temperature of 55°C

Functional icon indication *See page 15 for details on function.	Sensing level monitoring	Reading/writing of sensor sensitivity setting	Sensor cable disconnection detection	Interference countermeasure for transmission line unnecessary	Transmission line disconnection detection	Transmission line short-circuit detection	Transmission circuit drive power drop detection	ID (address) redundant, non-setting detection
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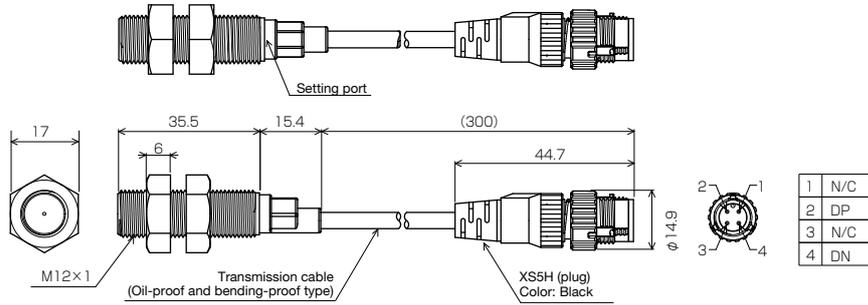
ASLINKSENSOR

◆ Proximity type (chemical-capable (fluorine resin body) type)
(IP67 company standard oil resistance^{*1}) Cable with M12 connector

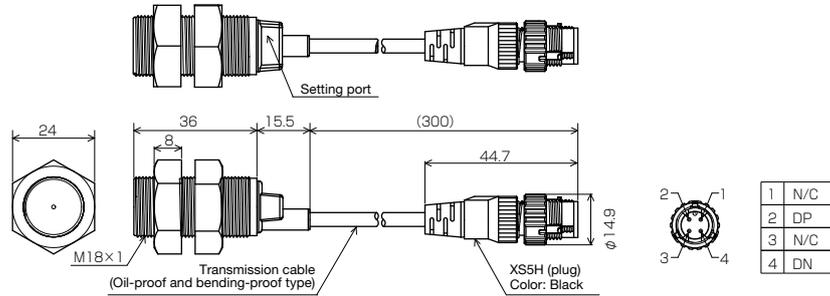
< Outline Dimensional Drawings >

Unit: mm

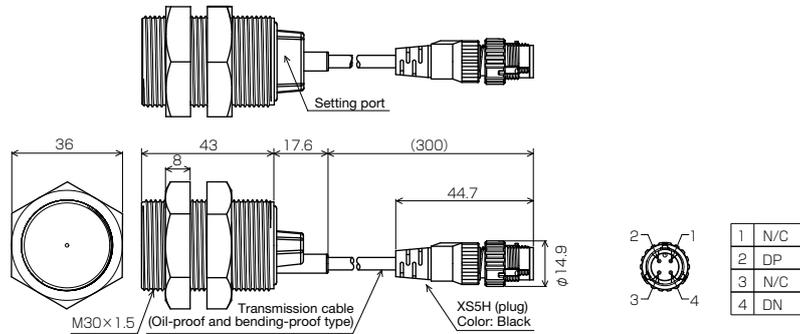
ASLINKSENSOR BS-K1117C-M12-3012



ASLINKSENSOR BS-K1117C-M18-3012



ASLINKSENSOR BS-K1117C-M30-3012



Functional icon indication
*See page 15 for details on function.

Sensing level monitoring

Reading/writing of sensor sensitivity setting

Sensor cable disconnection detection

Interference countermeasure unnecessary

DP/DN disconnection

DP/DN short-circuit

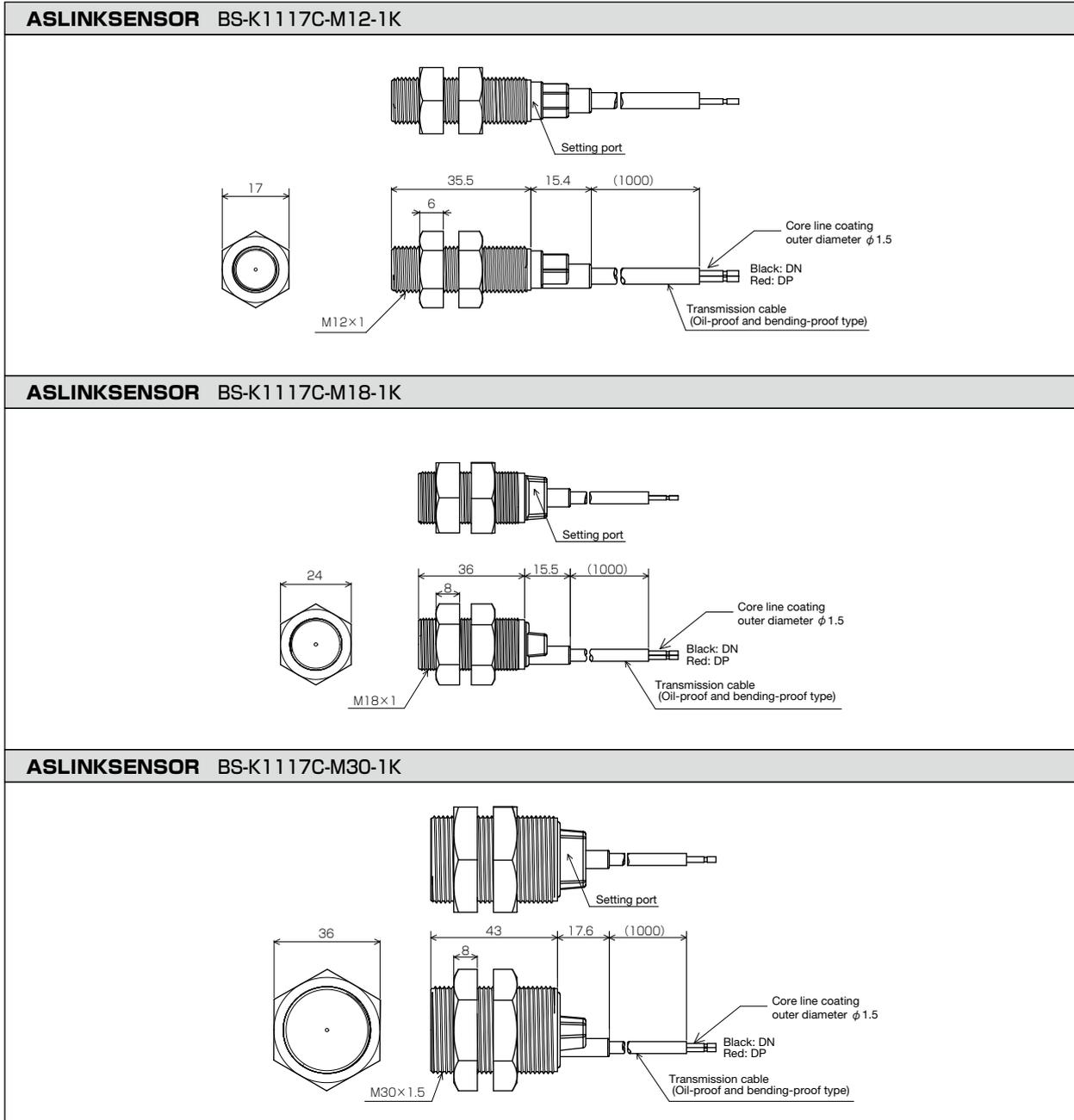
24V drop

ID (address) Duplicate/Not set

◆ Proximity type (chemical-capable (fluorine resin body) type) (IP67 company standard oil resistance*) Cable

< Outline Dimensional Drawings >

Unit: mm



- Photoelectric Type
- Laser Type
- Fiber Type
- Proximity Type**
- Pressure Type
- Cylinder Type
- Photo Interrupter Type
- Line Monitor
- Small Display Unit
- List of Specifications

1 Oil resistance has been confirmed by using oil/cutting oil specified by us. The device is resistant to oil but there is no guarantee that breakdown will not occur. Do not use the device when it is constantly exposed to oil splashing or under oil jet flow.
 * Cutting oil specified by us: Water-insoluble (YUSHIRON CUT KM557, KZ313S), Water-soluble (YUSHIROKEN EC50, AP-EX-E7, FGS700)---Immersion at an ambient temperature of 55°C
 * Lubricating oil specified by us: (VELOCITY OIL No.3)---Immersion at an ambient temperature of 55°C

Functional icon indication *See page 15 for details on function.	Sensing level monitoring	Reading/writing of sensor sensitivity setting	Sensor cable disconnection detection	Interference countermeasure for transmission line unnecessary	Transmission line disconnection detection	Transmission line short-circuit detection	Transmission circuit drive power drop detection	ID (address) redundant, non-setting detection

ASLINKSENSOR

◆ Proximity type (polyarylate body type, IP68) Cable with M12 connector/Cable



BS-K1118-M18-3012



BS-K1118-M18-1K

*Contact our sales division for attachment fittings.

< Specifications >



Dimension A: M12×51.6
Dimension B: M18×52.1
Dimension C: M30×61.3

/: Not applicable -: Not determined

Model	Number of I/O points		Input/output specifications	Type	Detection distance (mm)	Consumption current (mA)		Connection	Dimension (mm)	Mass (g)	Standard detected object	Response time	Standard price (¥)
	Input	Output				Transmission side	I/O side						
BS-K1118-M12-3012	1	/	Electromagnetic induction	Polyarylate body type M12	0~2	6.9	/	2-wire type (non-insulation)	A	23	Iron 12×12×1mm	Max. 10ms	Open
BS-K1118-M18-3012	1	/	Electromagnetic induction	Polyarylate body type M18	0~5	7.0	/	2-wire type (non-insulation)	B	30	Iron 18×18×1mm	Max. 10ms	Open
BS-K1118-M30-3012	1	/	Electromagnetic induction	Polyarylate body type M30	0~10	7.0	/	2-wire type (non-insulation)	C	62	Iron 30×30×1mm	Max. 10ms	Open
BS-K1118-M12-1K	1	/	Electromagnetic induction	Polyarylate body type M12	0~2	6.9	/	2-wire type (non-insulation)	A	30	Iron 12×12×1mm	Max. 10ms	Open
BS-K1118-M18-1K	1	/	Electromagnetic induction	Polyarylate body type M18	0~5	7.0	/	2-wire type (non-insulation)	B	38	Iron 18×18×1mm	Max. 10ms	Open
BS-K1118-M30-1K	1	/	Electromagnetic induction	Polyarylate body type M30	0~10	7.0	/	2-wire type (non-insulation)	C	70	Iron 30×30×1mm	Max. 10ms	Open

*The dimensions are numerical values excluding the cable section.

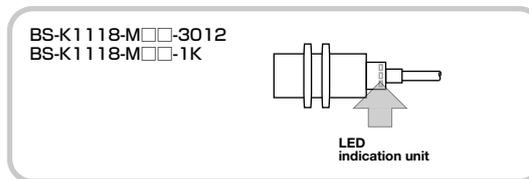
No washer is included because the device is made of polyarylate resin, which can be easily damaged.

Since the tightening torque is set to a larger value than that for the chemical-capable type (p. 129), SUS washers (p.129) are not offered as an option. However, they can be used as necessary.

< LED indication >

LED symbol	Indication status	Detailed status
LINK (Green)	On	Transmission signal error
	Flashing	Transmission signal reception
	Off	No transmission signal (including disconnection and reverse connection of DP and DN)
ALM (Red)	On	Sensing level decrease*
	Flashing	Slave unit voltage decrease
	Off	Normal
LINK ALM	Alternate flashing	When master unit detects that the ID (address) of this unit is duplicated or not set
IN (Orange)	On	Input ON
	Off	Input OFF

*When alarm diagnosis function is enabled

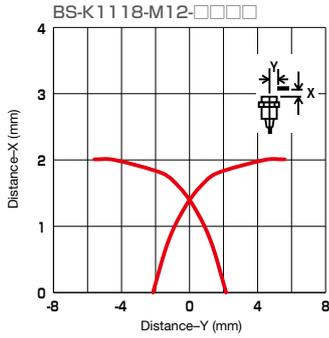


Functional icon indication *See page 15 for details on function.	Sensing level monitoring	Reading/writing of sensor sensitivity setting	Sensor cable disconnection detection	Interference countermeasure for transmission line unnecessary	Transmission line disconnection detection	Transmission line short-circuit detection	Transmission circuit drive power drop detection	ID (address) Duplicate/Not set
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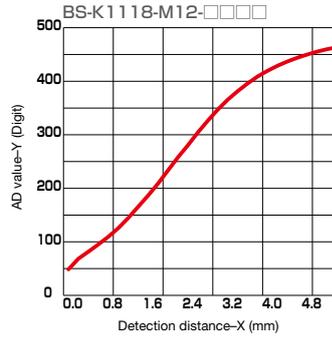
*Smartclick is a registered trademark of OMRON Corporation.

< Characteristic diagram > (Reference value)

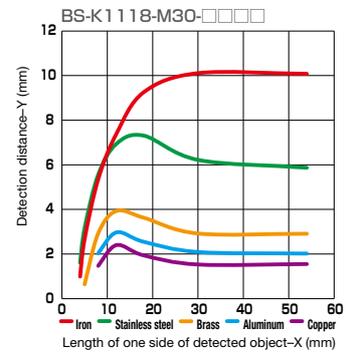
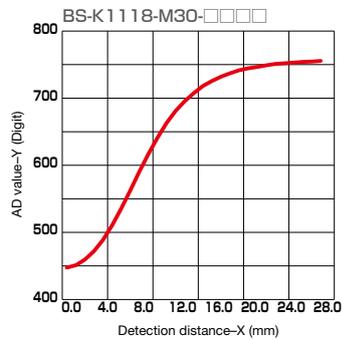
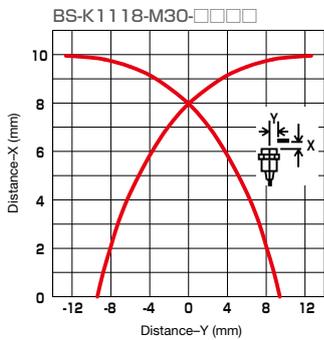
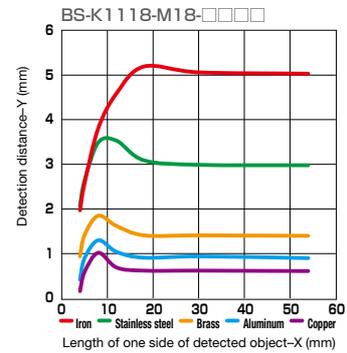
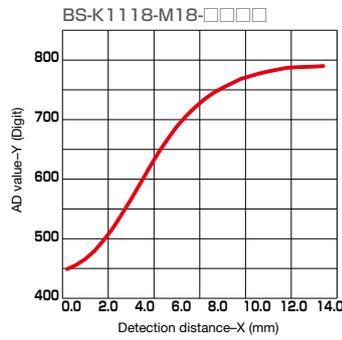
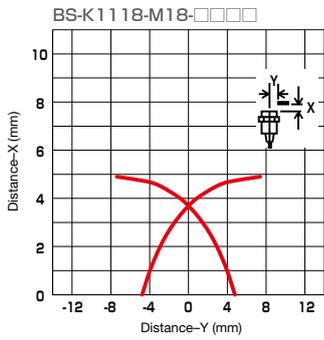
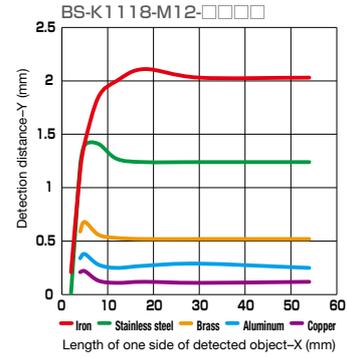
• Detection area



• AD value-detection distance



• Influence by size and material of detected object



Photoelectric Type

Laser Type

Fiber Type

Proximity Type

Pressure Type

Cylinder Type

Photo Interrupter Type

Line Monitor

Small Display Unit

List of Specifications

Functional icon indication
*See page 15 for details on function.

Sensing level monitoring

Reading/writing of sensor sensitivity setting

Sensor cable disconnection detection

Interference countermeasure for transmission line unnecessary

DP/DN disconnection
Transmission line disconnection detection

DP/DN short-circuit
Transmission line short-circuit detection

24V drop
Transmission circuit drive power drop detection

ID (address) Duplicate/Not set
ID (address) redundant, non-setting detection

◆ Proximity type (polyarylate body type, IP68) Cable with M12 connector

< Outline Dimensional Drawings >

Unit: mm

ASLINKSENSOR BS-K1118-M12-3012									
	<table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td>1</td><td>N/C</td></tr> <tr><td>2</td><td>DP</td></tr> <tr><td>3</td><td>N/C</td></tr> <tr><td>4</td><td>DN</td></tr> </table>	1	N/C	2	DP	3	N/C	4	DN
1	N/C								
2	DP								
3	N/C								
4	DN								
ASLINKSENSOR BS-K1118-M18-3012									
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1	N/C								
2	DP								
3	N/C								
4	DN								
ASLINKSENSOR BS-K1118-M30-3012									
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1	N/C								
2	DP								
3	N/C								
4	DN								

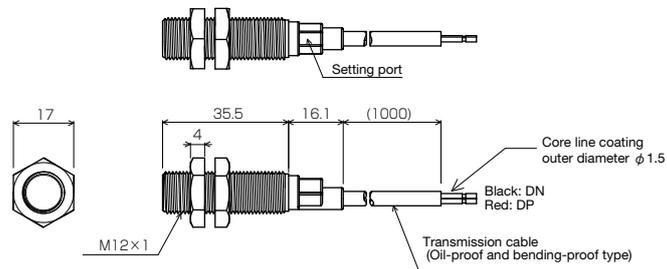
Functional icon indication *See page 15 for details on function.		Sensing level monitoring		Reading/writing of sensor sensitivity setting		Sensor cable disconnection detection		Interference countermeasure for transmission line unnecessary		Transmission line disconnection detection		Transmission line short-circuit detection		Transmission circuit drive power drop detection		ID (address) Duplicate/Not set		ID (address) redundant, non-setting detection
--	--	--------------------------	--	---	--	--------------------------------------	--	---	--	---	--	---	--	---	--	--------------------------------	--	---

◆ Proximity type (polyarylate body type, IP68) Cable

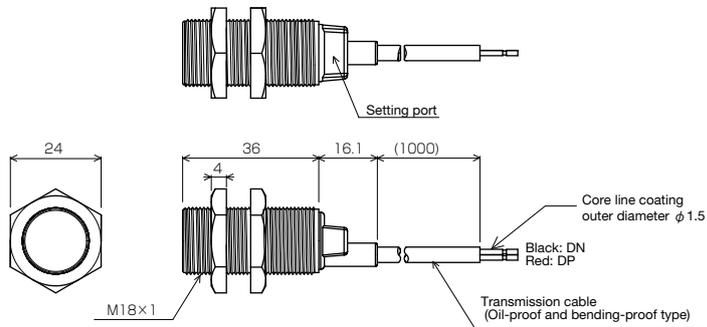
< Outline Dimensional Drawings >

Unit: mm

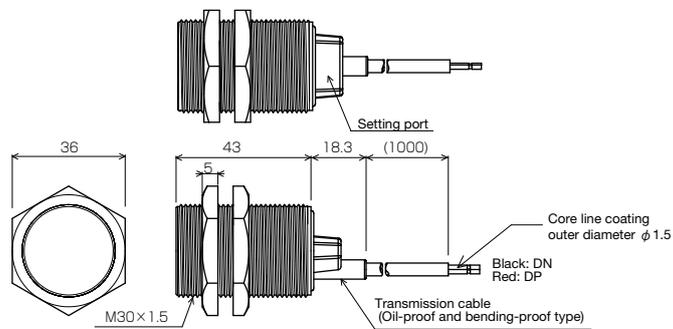
ASLINKSENSOR BS-K1118-M12-1K



ASLINKSENSOR BS-K1118-M18-1K



ASLINKSENSOR BS-K1118-M30-1K



Photoelectric Type

Laser Type

Fiber Type

Proximity Type

Pressure Type

Cylinder Type

Photo Interrupter Type

Line Monitor

Small Display Unit

List of Specifications

Functional icon indication

*See page 15 for details on function.



Sensing level monitoring



Reading/writing of sensor sensitivity setting



Sensor cable disconnection detection



Interference countermeasure for transmission line unnecessary



DP/DN disconnection detection



DP/DN short-circuit detection



24V drop detection



ID (address) redundant, non-setting detection

ASLINKSENSOR

◆ Proximity type (all metal detection type) (IP67) Cable with M12 connector/Cable



BS-K4117-M18-3012



BS-K4117-M18-1K

*Contact our sales division for attachment fittings.

< Specifications >



Dimension A: M12×50.9
Dimension B: M18×50.5
Dimension C: M30×60.6

/: Not applicable -: Not determined

Model	Number of I/O points		Input/output specifications	Type	Detection distance (mm)	Consumption current (mA)		Connection	Dimension (mm)	Mass (g)	Standard detected object	Response time	Standard price (¥)
	Input	Output				Transmission side	I/O side						
BS-K4117-M12-3012	1	/	Electromagnetic induction	All metal detection type M12	0~2	13	/	2-wire type (non-insulation)	A	31	Aluminum 12×12×3mm	Max. 10ms	Open
BS-K4117-M18-3012	1	/	Electromagnetic induction	All metal detection type M18	0~5	13	/	2-wire type (non-insulation)	B	42	Aluminum 18×18×3mm	Max. 10ms	Open
BS-K4117-M30-3012	1	/	Electromagnetic induction	All metal detection type M30	0~10	13	/	2-wire type (non-insulation)	C	98	Aluminum 30×30×3mm	Max. 10ms	Open
BS-K4117-M12-1K	1	/	Electromagnetic induction	All metal detection type M12	0~2	13	/	2-wire type (non-insulation)	A	37	Aluminum 12×12×3mm	Max. 10ms	Open
BS-K4117-M18-1K	1	/	Electromagnetic induction	All metal detection type M18	0~5	13	/	2-wire type (non-insulation)	B	49	Aluminum 18×18×3mm	Max. 10ms	Open
BS-K4117-M30-1K	1	/	Electromagnetic induction	All metal detection type M30	0~10	13	/	2-wire type (non-insulation)	C	105	Aluminum 30×30×3mm	Max. 10ms	Open

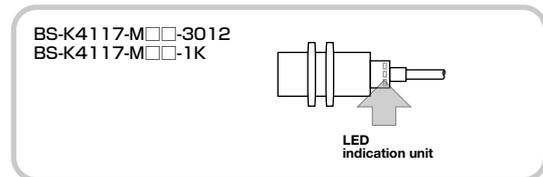
*The dimensions are numerical values excluding the cable section.

* Washers and nuts are included.

< LED indication >

LED symbol	Indication status	Detailed status
LINK (Green)	On	Transmission signal error
	Flashing	Transmission signal reception
	Off	No transmission signal (including disconnection and reverse connection of DP and DN)
ALM (Red)	On	Sensing level decrease*
	Flashing (ON for 0.2 seconds, OFF for 1.0 second)	Slave unit voltage decrease
	Flashing (Flashing every 0.1 second)	Teaching error
	Off	Normal
LINK ALM	Alternate flashing LINK ALM	When master unit detects that the ID (address) of this unit is duplicated or not set
IN (Orange)	On	Input ON
	Off	Input OFF

*When alarm diagnosis function is enabled

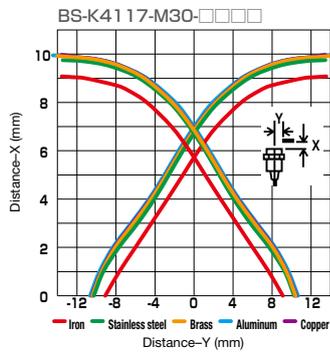
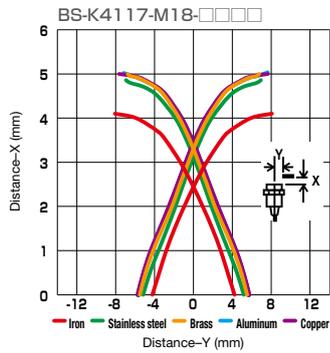
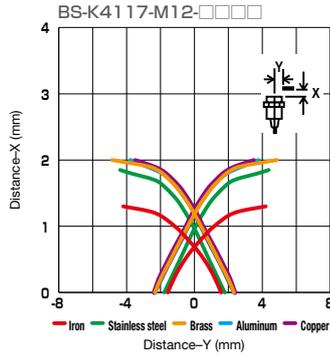


Functional icon indication *See page 15 for details on function.	Sensing level monitoring	Reading/writing of sensor sensitivity setting	Sensor cable disconnection detection	Interference countermeasure for transmission line unnecessary	Transmission line disconnection detection	Transmission line short-circuit detection	Transmission circuit drive power drop detection	ID (address) redundant, non-setting detection
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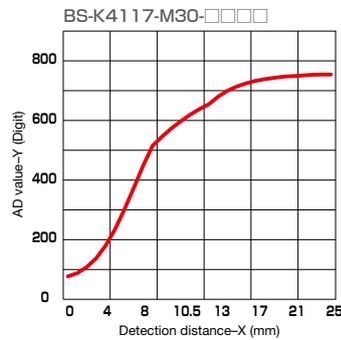
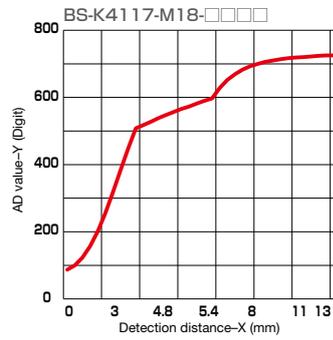
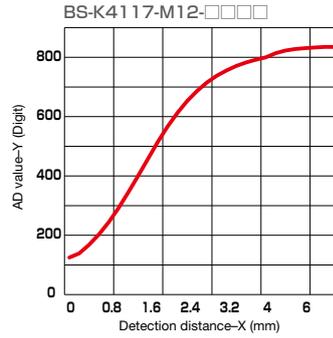
* Smartclick is a registered trademark of OMRON Corporation.

< Characteristic diagram > (Reference value)

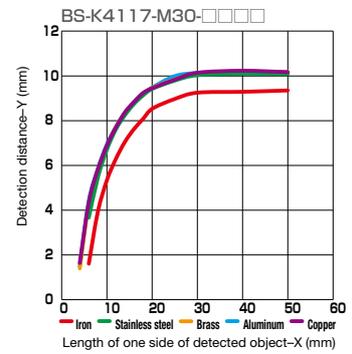
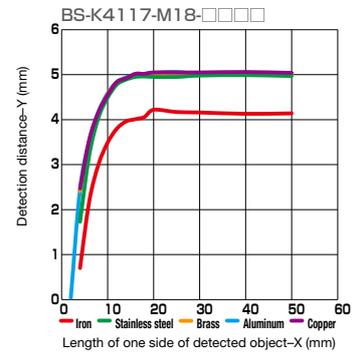
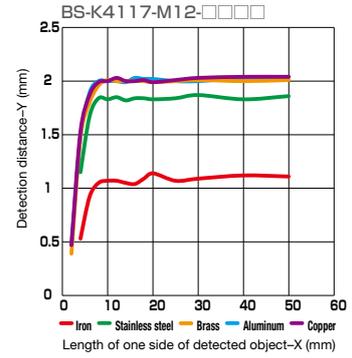
• Detection area



• AD value-detection distance



• Influence by size and material of detected object



Functional icon indication
*See page 15 for details on function.

Sensing level monitoring

Reading/writing of sensor sensitivity setting

Sensor cable disconnection detection

Interference countermeasure for transmission line unnecessary

DP/DN disconnection
Transmission line disconnection detection

DP/DN short-circuit
Transmission line short-circuit detection

24V drop
Transmission circuit drive power drop detection

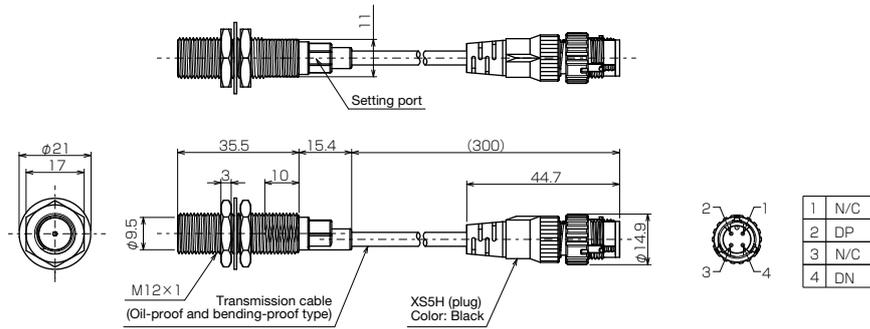
ID (address) Duplicate/Not set
ID (address) redundant, non-setting detection

◆ Proximity type (all metal detection type) (IP67) Cable with M12 connector

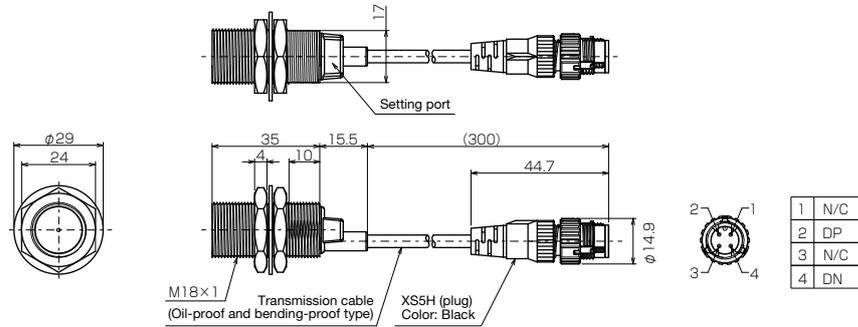
< Outline Dimensional Drawings >

Unit: mm

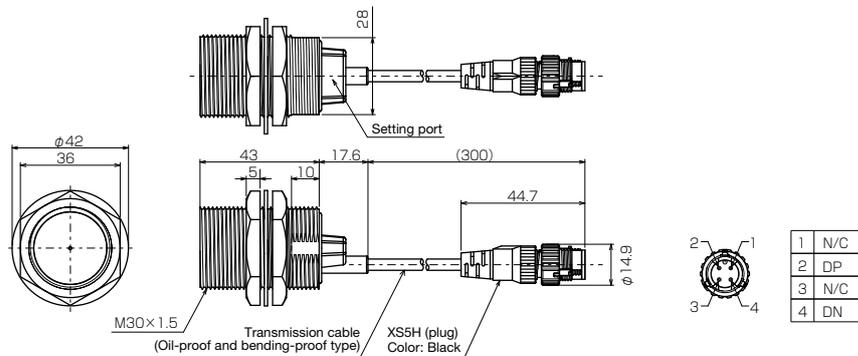
ASLINKSENSOR BS-K4117-M12-3012



ASLINKSENSOR BS-K4117-M18-3012



ASLINKSENSOR BS-K4117-M30-3012



Functional icon indication
*See page 15 for details on function.

Sensing level monitoring

Reading/writing of sensor sensitivity setting

Sensor cable disconnection detection

Interference countermeasure for transmission line unnecessary

Transmission line disconnection detection

Transmission line short-circuit detection

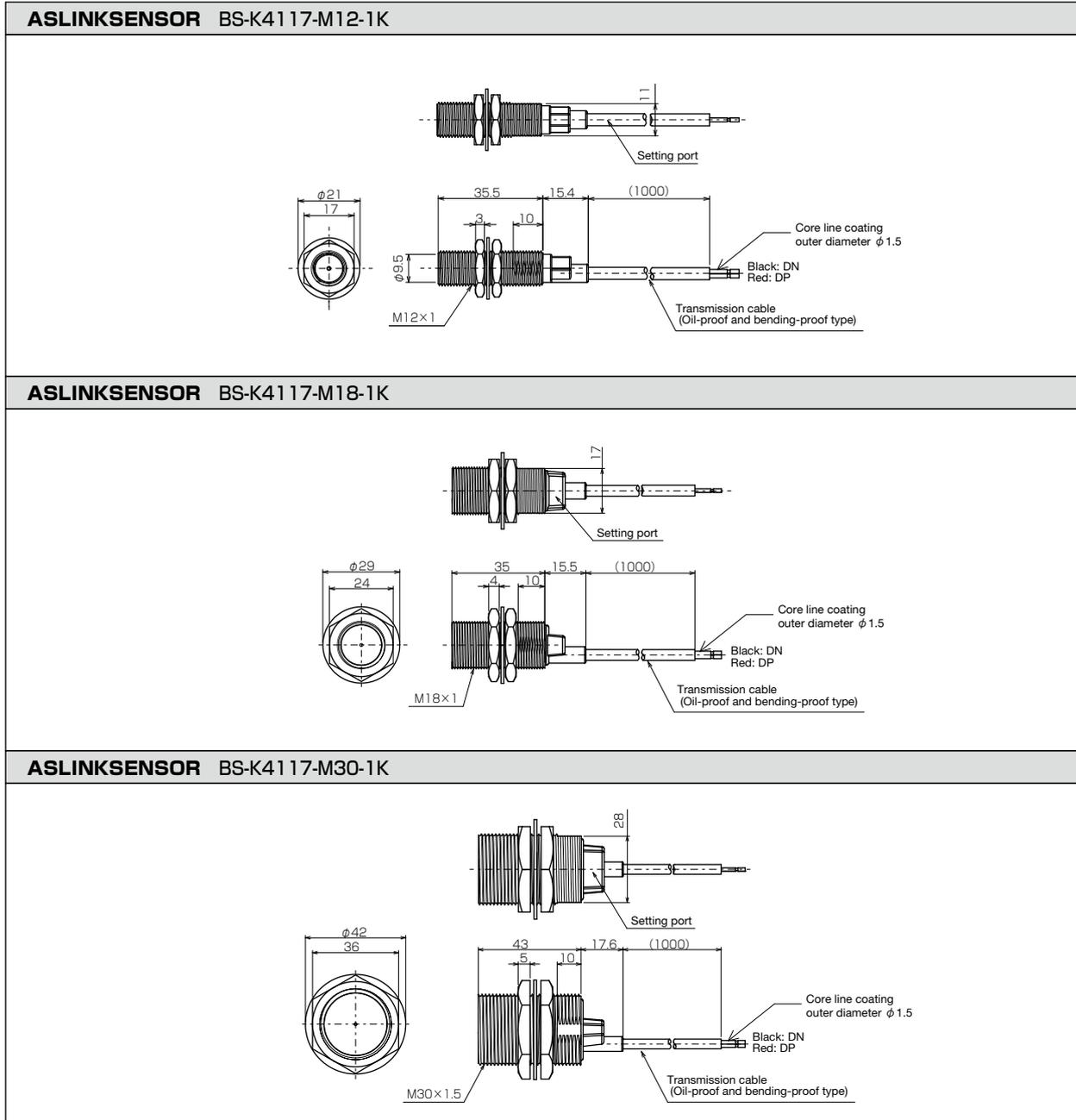
Transmission circuit drive power drop detection

ID (address) Duplicate/Not set
ID (address) redundant, non-setting detection

◆ Proximity type (all metal detection type) (IP67) Cable

< Outline Dimensional Drawings >

Unit: mm



Photoelectric Type

Laser Type

Fiber Type

Proximity Type

Pressure Type

Cylinder Type

Photo Interrupter Type

Line Monitor

Small Display Unit

List of Specifications

Functional icon indication

*See page 15 for details on function.



Sensing level monitoring



Reading/writing of sensor sensitivity setting



Sensor cable disconnection detection



Interference countermeasure for transmission line unnecessary



Transmission line disconnection detection



Transmission line short-circuit detection



Transmission circuit drive power drop detection



ID (address) redundant, non-setting detection

◆ Proximity type (amplifier relay type) (IP67 company standard oil resistance*)

Cable with M12 connector/Cable



BM-K1117G-M05-3012



BM-K1117G-S04-1K

*Contact our sales division for attachment fittings.

< Specifications >



Amplifier Dimension A,B,C,D
Common: 14×38×7.5

Head Dimension A: φ4×16 Dimension B: φ5.4×16
Dimension C: M4×16 Dimension D: M5×16

/: Not applicable -: Not determined

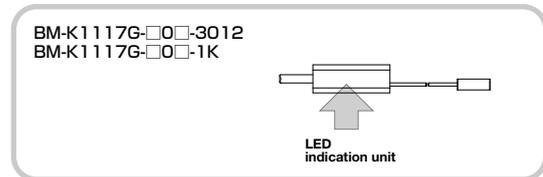
Model	Number of I/O points		Input/output specifications	Type	Detection distance (mm)	Consumption current (mA)		Connection	Dimension (mm)	Mass (g)	Standard detected object	Response time	Standard price (¥)
	Input	Output				Transmission side	I/O side						
BM-K1117G-S04-3012	1	/	Electromagnetic induction	Amplifier relay type φ4	0~0.8	6.3	/	2-wire type (non-insulation)	A	22	Iron 5×5×1mm (The detection distance is shorter for non-magnetic metal.)	Max. 10ms	Open
BM-K1117G-S05-3012	1	/	Electromagnetic induction	Amplifier relay type φ5.4	0~1	6.5	/	2-wire type (non-insulation)	B	23		Max. 10ms	Open
BM-K1117G-M04-3012	1	/	Electromagnetic induction	Amplifier relay type φ4	0~0.6	5.9	/	2-wire type (non-insulation)	C	22		Max. 10ms	Open
BM-K1117G-M05-3012	1	/	Electromagnetic induction	Amplifier relay type φ5	0~1	6.4	/	2-wire type (non-insulation)	D	23		Max. 10ms	Open
BM-K1117G-S04-1K	1	/	Electromagnetic induction	Amplifier relay type φ4	0~0.8	6.3	/	2-wire type (non-insulation)	A	30		Max. 10ms	Open
BM-K1117G-S05-1K	1	/	Electromagnetic induction	Amplifier relay type φ5.4	0~1	6.5	/	2-wire type (non-insulation)	B	31		Max. 10ms	Open
BM-K1117G-M04-1K	1	/	Electromagnetic induction	Amplifier relay type M4	0~0.6	5.9	/	2-wire type (non-insulation)	C	30		Max. 10ms	Open
BM-K1117G-M05-1K	1	/	Electromagnetic induction	Amplifier relay type M5	0~1	6.4	/	2-wire type (non-insulation)	D	31		Max. 10ms	Open

*The dimensions are numerical values excluding the cable section.

< LED indication >

LED symbol	Indication status	Detailed status
LINK (Green)	On	Transmission signal error
	Flashing	Transmission signal reception
	Off	No transmission signal (including disconnection and reverse connection of DP and DN)
ALM (Red)	On	Sensing level decrease*
	Flashing	Slave unit voltage decrease
	Off	Normal
LINK ALM	Alternate flashing	When master unit detects that the ID (address) of this unit is duplicated or not set
IN (Orange)	On	Input ON
	Off	Input OFF

*When alarm diagnosis function is enabled

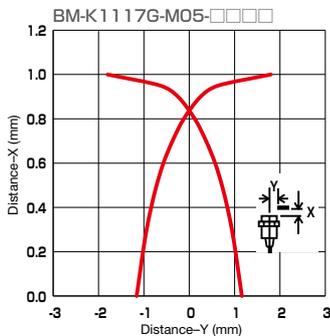
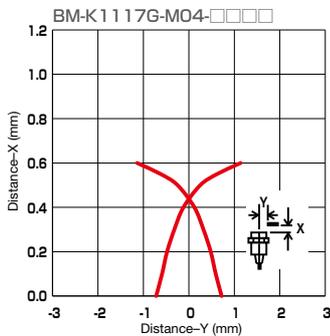
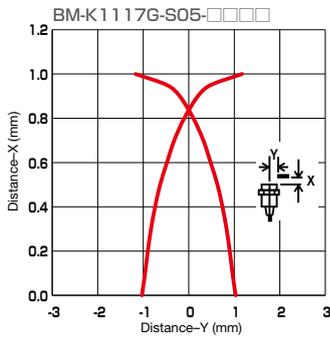
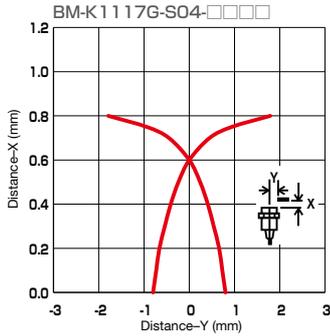


Functional icon indication *See page 15 for details on function.	Sensing level monitoring	Reading/writing of sensor sensitivity setting	Sensor cable disconnection detection	Interference countermeasure for transmission line unnecessary	Transmission line disconnection detection	Transmission line short-circuit detection	Transmission circuit drive power drop detection	ID (address) Duplicate/Not set	ID (address) redundant, non-setting detection
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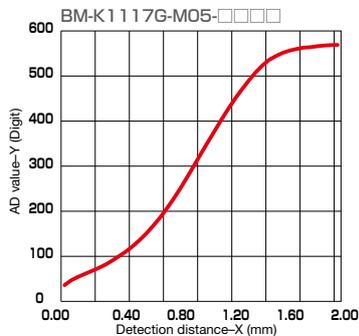
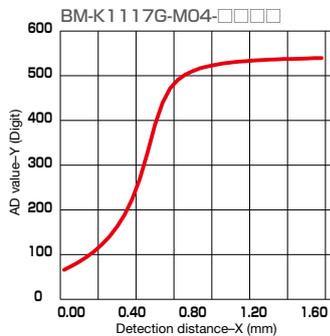
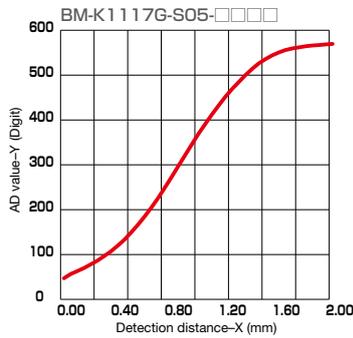
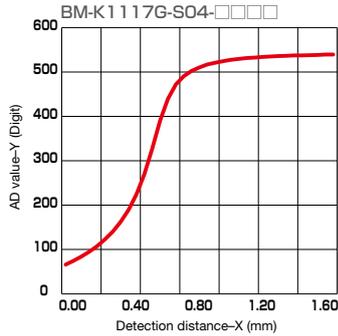
*Smartclick is a registered trademark of OMRON Corporation.

< Characteristic diagram > (Reference value)

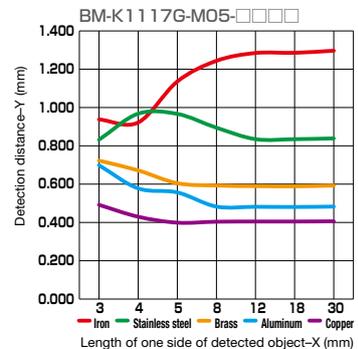
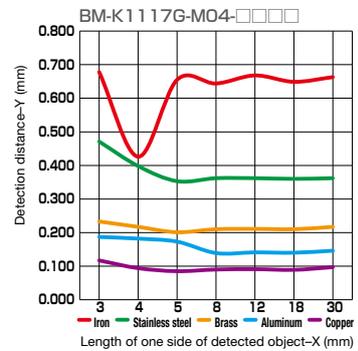
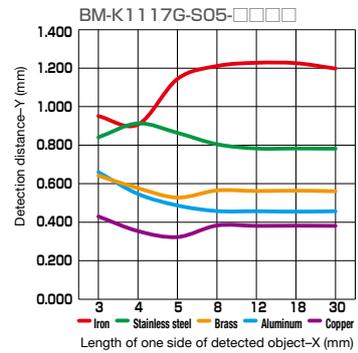
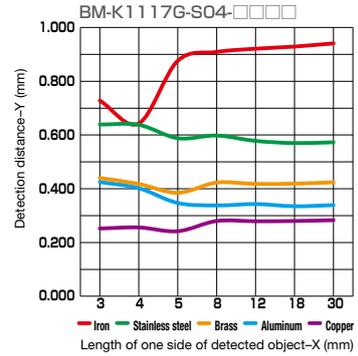
• Detection area



• AD value-detection distance



• Influence by size and material of detected object



- Photoelectric Type
- Laser Type
- Fiber Type
- Proximity Type**
- Pressure Type
- Cylinder Type
- Photo Interrupter Type
- Line Monitor
- Small Display Unit
- List of Specifications

1 Oil resistance has been confirmed by using oil/cutting oil specified by us. The device is resistant to oil but there is no guarantee that breakdown will not occur. Do not use the device when it is constantly exposed to oil splashing or under oil jet flow.

* Cutting oil specified by us: Water-insoluble (YUSHIRON CUT KM557, KZ313S), Water-soluble (YUSHIROKEN EC50, AP-EX-E7, FGS700)---Immersion at an ambient temperature of 55°C

* Lubricating oil specified by us: (VELOCITY OIL No.3)---Immersion at an ambient temperature of 55°C

Functional icon indication

*See page 15 for details on function.



Sensing level monitoring



Reading/writing of sensor sensitivity setting



Sensor cable disconnection detection



Interference countermeasure unnecessary for transmission line



Transmission line disconnection detection



Transmission line short-circuit detection



Transmission circuit drive power drop detection



ID (address) redundant, non-setting detection

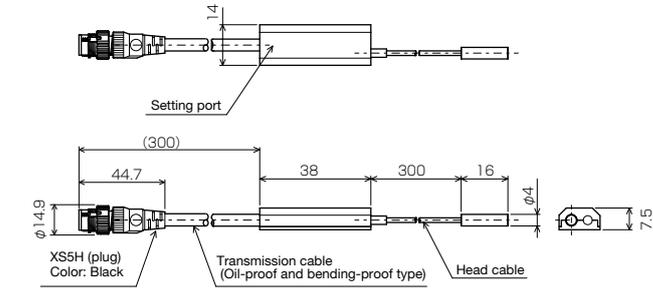
◆ Proximity type (amplifier relay type) (IP67 company standard oil resistance¹⁾) Cable with M12 connector

< Outline Dimensional Drawings >

Unit: mm

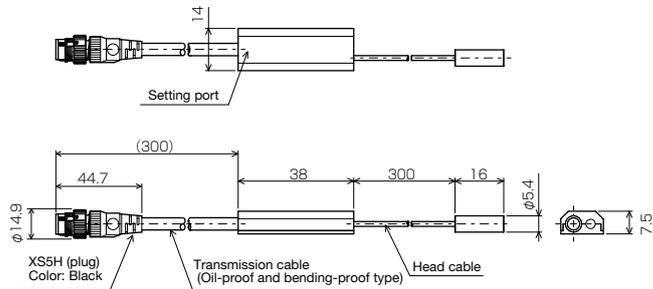
ASLINKSENSOR BM-K1117G-S04-3012

1	N/C
2	DP
3	N/C
4	DN



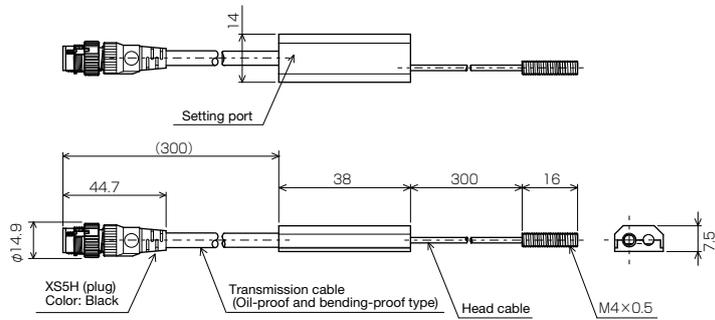
ASLINKSENSOR BM-K1117G-S05-3012

1	N/C
2	DP
3	N/C
4	DN



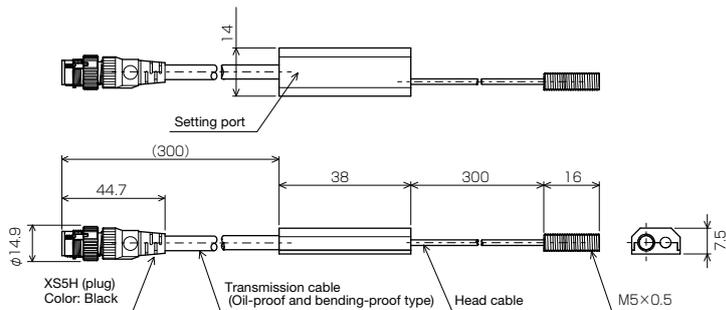
ASLINKSENSOR BM-K1117G-M04-3012

1	N/C
2	DP
3	N/C
4	DN



ASLINKSENSOR BM-K1117G-M05-3012

1	N/C
2	DP
3	N/C
4	DN



Functional icon indication
*See page 15 for details on function.



Sensing level monitoring



Reading/writing of sensor sensitivity setting



Sensor cable disconnection detection



Interference countermeasure for transmission line unnecessary



Transmission line disconnection detection



Transmission line short-circuit detection



Transmission circuit drive power drop detection



ID (address) redundant, non-setting detection

◆ Proximity type (amplifier relay type) (IP67 company standard oil resistance*) Cable

< Outline Dimensional Drawings >

Unit: mm

ASLINKSENSOR BM-K1117G-S04-1K
ASLINKSENSOR BM-K1117G-S05-1K
ASLINKSENSOR BM-K1117G-M04-1K
ASLINKSENSOR BM-K1117G-M05-1K

See "1" on page 142.

Functional icon indication *See page 15 for details on function.	Sensing level monitoring	Reading/writing of sensor sensitivity setting	Sensor cable disconnection detection	Interference countermeasure for transmission line unnecessary	Transmission line disconnection detection	Transmission line short-circuit detection	Transmission circuit drive power drop detection	ID (address) redundant, non-setting detection
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Pressure Type

Source pressure for equipment or adsorption pressure can be detected by detection of pressure of gas such as air.

Type of AMP	Type	
Amplifier built-in	Pressure	

Cylinder Type

Piston position is monitored by detection of magnetic force in the cylinder piston.

Type of AMP		
Amplifier relay	Cylinder	
Amplifier built-in		

Photo Interrupter Type

Sensor consisting of light emitting/receiving elements which detects an object when it blocks light

Type of AMP	Type	
Amplifier built-in	Photo interrupter	

Gauge pressure	Appearance	Model	Sensing level monitoring	Sensor sensitivity setting read/write	Interference measure unnecessary	RAS function
Low positive pressure: 0~100kPa		B284SB-□□-1KLP30	○	○	/	○
Positive pressure: 0~1000kPa		B284SB-□□-1KPP30				
Negative pressure: 0~ -100kPa		B284SB-□□-1KNP30				
Compound pressure: -100~100kPa		B284SB-□□-1KLP30				

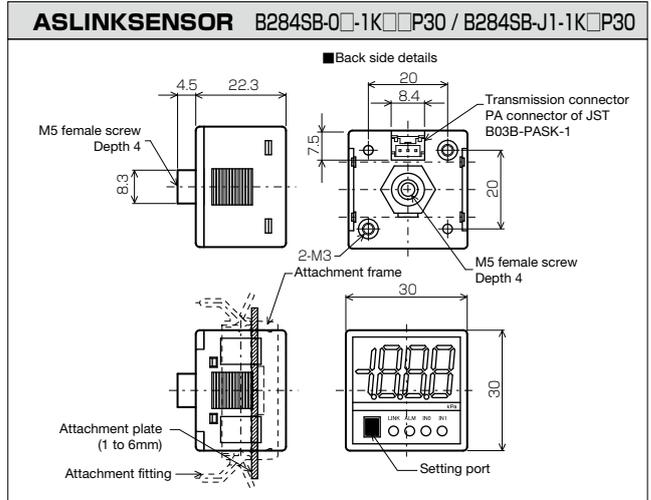
Type	Appearance	Model	Sensing level monitoring	Sensor sensitivity setting read/write	Interference measure unnecessary	RAS function
Corresponding to cylinder round groove manufactured by SMC		BM-C27-DM9-□□-5050	○	○	/	○
		B285SB-01-1K1				

Detection distance	Appearance	Model	Sensing level monitoring	Sensor sensitivity setting read/write	Interference measure unnecessary	RAS function
5mm (groove width)		B297SB-01-1K40	○	×	/	○

◆ Pressure type

< Outline Dimensional Drawings >

Unit: mm



< Specifications >



Dimension A: 30×30×26.8

/: Not applicable -/: Not determined

Model	Number of I/O points		Input/output specifications	Type	Gauge pressure (kPa)	Consumption current (mA)		Connection	Dimension (mm)	Mass (g)	Setting of operation mode	Response time	Standard price (¥)
	Input	Output				Transmission side	I/O side						
B284SB-01-1KPLP30	1	/	Pressure sensitive	Pressure	Low positive pressure 0 ~ 100	20	/	2-wire type (non-insulation)	A	25	· Hysteresis mode · Window comparator mode	Max. 10ms	Open
B284SB-02-1KPLP30	2	/	Pressure sensitive	Pressure	Low positive pressure 0 ~ 100	20	/	2-wire type (non-insulation)	A	25		Max. 10ms	Open
B284SB-01-1KPP30	1	/	Pressure sensitive	Pressure	Positive pressure 0 ~ 1000	20	/	2-wire type (non-insulation)	A	25		Max. 10ms	Open
B284SB-02-1KPP30	2	/	Pressure sensitive	Pressure	Positive pressure 0 ~ 1000	20	/	2-wire type (non-insulation)	A	25		Max. 10ms	Open
B284SB-01-1KNP30	1	/	Pressure sensitive	Pressure	Negative pressure 0 ~ -100	20	/	2-wire type (non-insulation)	A	25		Max. 10ms	Open
B284SB-02-1KNP30	2	/	Pressure sensitive	Pressure	Negative pressure 0 ~ -100	20	/	2-wire type (non-insulation)	A	25		Max. 10ms	Open
B284SB-01-1KLP30	1	/	Pressure sensitive	Pressure	Compound pressure -100 ~ 100	20	/	2-wire type (non-insulation)	A	25		Max. 10ms	Open
B284SB-02-1KLP30	2	/	Pressure sensitive	Pressure	Compound pressure -100 ~ 100	20	/	2-wire type (non-insulation)	A	25		Max. 10ms	Open
B284SB-J1-1KPLP30	16	/	Pressure sensitive	Pressure	Low positive pressure 0 ~ 100	20	/	2-wire type (non-insulation)	A	25		Max. 10ms	Open
B284SB-J1-1KPP30	16	/	Pressure sensitive	Pressure	Positive pressure 0 ~ 1000	20	/	2-wire type (non-insulation)	A	25		Max. 10ms	Open
B284SB-J1-1KNP30	16	/	Pressure sensitive	Pressure	Negative pressure 0 ~ -100	20	/	2-wire type (non-insulation)	A	25		Max. 10ms	Open
B284SB-J1-1KLP30	16	/	Pressure sensitive	Pressure	Compound pressure -100 ~ 100	20	/	2-wire type (non-insulation)	A	25		Max. 10ms	Open

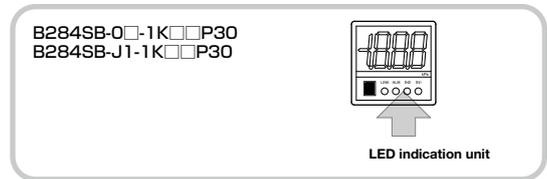
* The dimensions are values only for the body.

**B284SB-J1-1K□P30 are types that occupy 16 points of input and output analog values in 10 bit binary.

< LED indication >

LED symbol	Indication status	Detailed status
LINK (Green)	On	Transmission signal error
	Flashing	Transmission signal reception
	Off	No transmission signal (including disconnection and reverse connection of DP and DN)
ALM (Red)	On	Sensing level decrease*1
	Flashing	Slave unit voltage decrease
	Off	Normal
LINK ALM	Alternate flashing	When master unit detects that the ID (address) of this unit is duplicated or not set
IN (Orange) *2	On(IN0)	B284SB-01-1K□P30 Input ON B284SB-02-1K□P30 Input ON
	On(IN1)	B284SB-02-1K□P30 Input ON
	Off	Input OFF

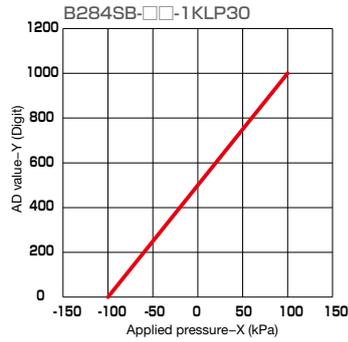
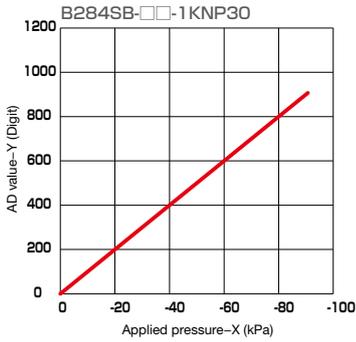
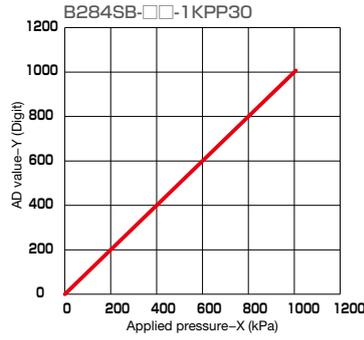
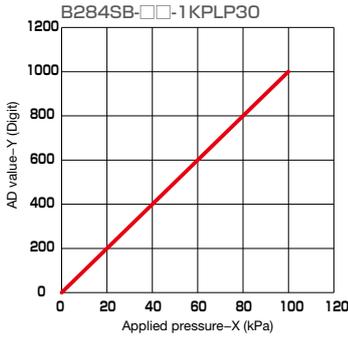
*1: When alarm diagnosis function is enabled *2: B284SB-J1-1K□P30 does not have LED indication for IN.



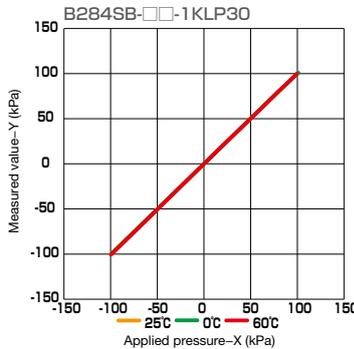
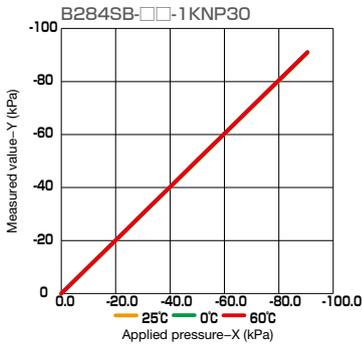
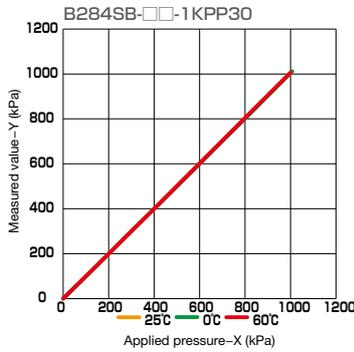
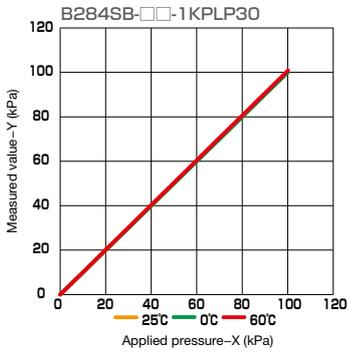
Functional icon indication *See page 15 for details on function.	Sensing level monitoring	Reading/writing of sensor sensitivity setting	Sensor cable disconnection detection	Interference countermeasure for transmission line unnecessary	Transmission line disconnection detection	Transmission line short-circuit detection	Transmission circuit drive power drop detection	ID (address) redundant, non-setting detection
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< Characteristic diagram > (Reference value)

• Pressure-AD value



• Pressure value-temperature characteristic



Functional icon indication
*See page 15 for details on function.

Sensing level monitoring

Reading/writing of sensor sensitivity setting

Sensor cable disconnection detection

Interference countermeasure for transmission line unnecessary

Transmission line disconnection detection

Transmission line short-circuit detection

Transmission circuit drive power drop detection

ID (address) redundant, non-setting detection

ASLINKSENSOR

◆Cylinder type (amplifier relay type) (IP67) Cable with M12 connector/Cable, cylinder type



BM-C27-DM9-3012-5050



BM-C27-DM9-50-5050



B285SB-01-1K1

Corresponding to cylinder round groove manufactured by SMC

< Specifications >



Dimension A: **Amplifier** 14×38×7.5

Head 20×4.5×4

Dimension B: 10.4×22×11.3

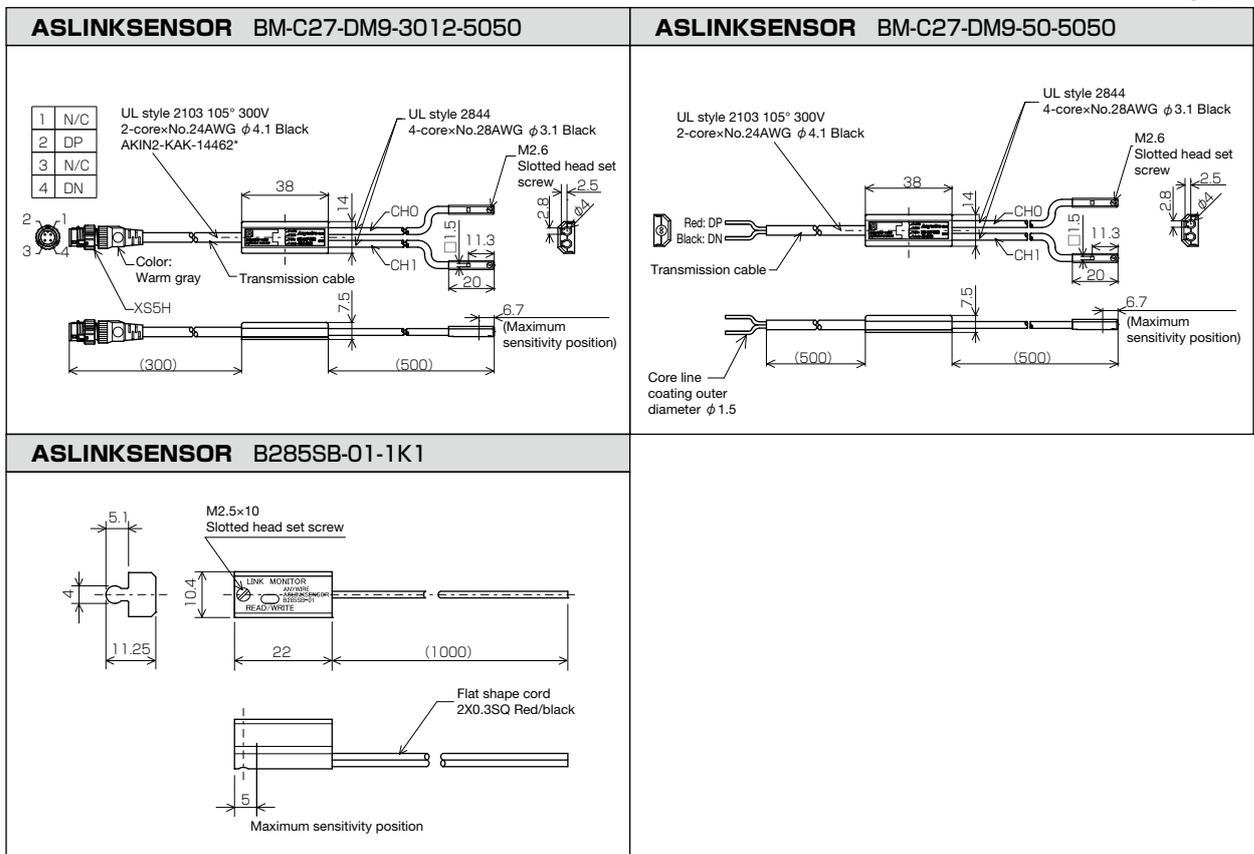
/: Not applicable -/: Not determined

Model	Number of I/O points		Input/output specifications	Type	Consumption current (mA)		Connection	Dimension (mm)	Mass (g)	Input resistance/1 point (kΩ)	Output max. ON current (mA)		Response time	Standard price (¥)
	Input	Output			Transmission side	I/O side					Per 1 point	Per 1 common		
BM-C27-DM9-3012-5050	2	2	Magnetic	Cylinder amplifier relay type	8	8	2-wire type (non-insulation)	A	45	/	/	/	Max. 1.2ms	Open
BM-C27-DM9-50-5050	2	2	Magnetic	Cylinder amplifier relay type	8	8	2-wire type (non-insulation)	A	40	/	/	/	Max. 1.2ms	Open
B285SB-01-1K1	1	1	Magnetic	Cylinder	13	13	2-wire type (non-insulation)	B	13	/	/	/	Max. 1.2ms	Open

*The dimensions are numerical values excluding the cable section.

< Outline Dimensional Drawings >

Unit: mm



Functional icon indication *See page 15 for details on function.	Sensing level monitoring	Reading/writing of sensor sensitivity setting	Sensor cable disconnection detection	Interference countermeasure for transmission line unnecessary	Transmission line disconnection detection	Transmission line short-circuit detection	Transmission circuit drive power drop detection	ID (address) redundant, non-setting detection
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*Smartclick is a registered trademark of OMRON Corporation.

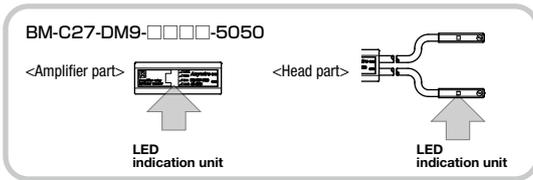
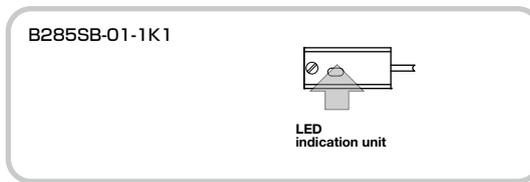
< LED indication >

Target model		BM-C27-DM9-□□□□-5050	
LED symbol	Indication status	Detailed status	
LINK (Green)	On	Transmission signal error	
	Flashing	Transmission signal reception	
	Off	No transmission signal (including disconnection and reverse connection of DP and DN)	
ALM (Red)	On	When input is ON: Sensing level decrease*	
	Flashing	When input is OFF: Sensor cable disconnection or short-circuit	
	Off	Slave unit voltage decrease	
LINK ALM	Alternate flashing	When master unit detects that the ID (address) of this unit is duplicated or not set	
	On	Input ON (Rod detected)	
	Off	Input OFF (No rod detected)	
CHO, 1 (Green)	On	Input ON* (Rod detected, unstable area)	
	Off	Input OFF (No rod detected)	
CHO, 1 (Red)	On	Rod detected	
	Off	No rod detected	

*When alarm diagnosis function is enabled

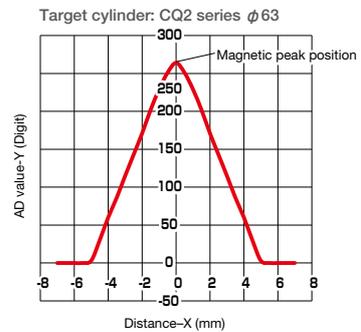
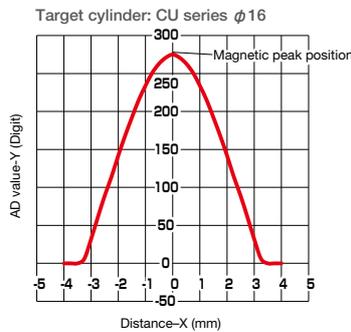
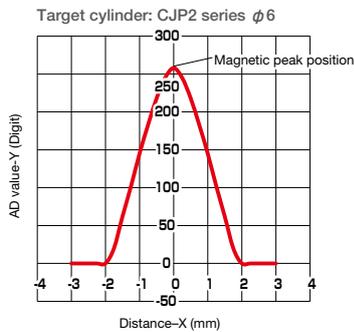
Target model		B285SB-01-1K1	
LED symbol	Indication status	Detailed status	
LINK (Green)	On	Transmission signal error	
	Flashing	Transmission signal reception	
	Off	No transmission signal (including disconnection and reverse connection of DP and DN)	
ALM (Red)	On	Sensing level decrease*	
	Flashing	Slave unit voltage decrease	
	Off	Normal	
LINK ALM	Alternate flashing	When master unit detects that the ID (address) of this unit is duplicated or not set	
	On	Input ON	
IN (Orange)	On	Input ON	
	Off	Input OFF	

*When alarm diagnosis function is enabled



< Characteristic diagram > (Reference value) *Data of BM-C27-DM9-□□□□-5050

• Detection distance characteristic



Functional icon indication *See page 15 for details on function.	Sensing level monitoring	Reading/writing of sensor sensitivity setting	Sensor cable disconnection detection	Interference countermeasure for transmission line unnecessary	DP/DN disconnection detection	DP/DN short-circuit detection	24V drop detection	ID (address) redundant, non-setting detection
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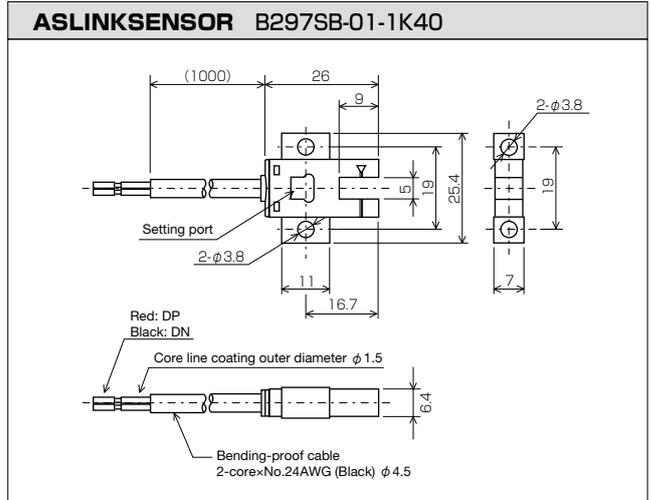
◆Photo Interrupter Type



*Contact our sales division for attachment fittings.

< Outline Dimensional Drawings >

Unit: mm



< Specifications >



Dimension A: 25.4×7×26

△: Not applicable -: Not determined

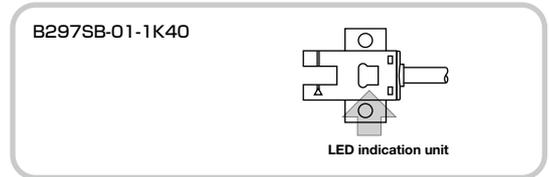
Model	Number of I/O points		Input/output specifications	Type	Detection distance (mm)	Consumption current (mA)		Connection	Dimension (mm)	Mass (g)	Input resistance/1 point (kΩ)		Output max. ON current (mA)		Response time	Standard price (¥)
	Input	Output				Transmission side	I/O side				Per 1 point	Per 1 common				
B297SB-01-1K40	1		Transmission	Photo interrupter	5 (Groove width)	11		2-wire type (non-insulation)	A	27					Max. 1 cycle time	Open

*The dimensions are numerical values excluding the cable section.

< LED indication >

LED symbol	Indication status	Detailed status
LINK (Green)	On	Transmission signal error
	Flashing	Transmission signal reception
	Off	No transmission signal (including disconnection and reverse connection of DP and DN)
ALM (Yellow)	On	Sensing level decrease* 1
	Flashing	Slave unit voltage decrease
	Off	Normal
LINK ALM	Alternate flashing	When master unit detects that the ID (address) of this unit is duplicated or not set
IN (Orange)	On	Input ON
	Off	Input OFF

*1 When alarm diagnosis function is enabled



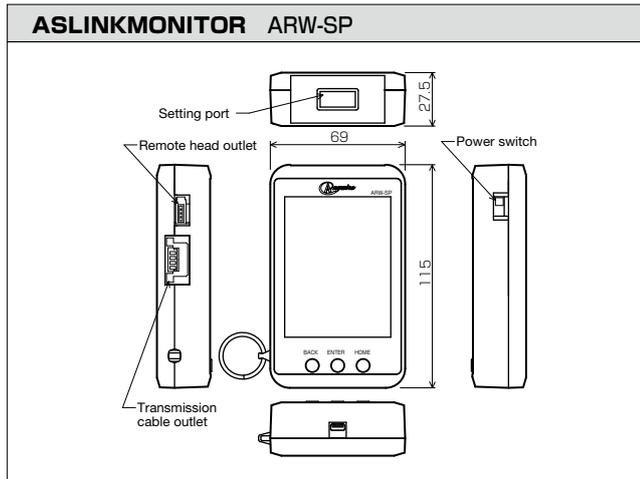
Functional icon indication *See page 15 for details on function.	Sensing level monitoring	Reading/writing of sensor sensitivity setting	Sensor cable disconnection detection	Interference countermeasure for transmission line unnecessary	Transmission line disconnection detection	Transmission line short-circuit detection	Transmission circuit drive power drop detection	ID (address) redundant, non-setting detection
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◆Line monitor handy type



< Outline Dimensional Drawings >

Unit: mm



< Specifications >



Dimension A: 115×69×27.5

∕: Not applicable -: Not determined

Model	Product specifications	Consumption current (mA)		Connection	Dimension (mm)	Mass (g)	Standard price (¥)
		Transmission side	24V side				
ARW-SP	Touch screen type line monitor Infrared data communications: Address, parameter setting Transmission line / monitor, parameter setting	5	40*	4-wire type (insulation)	A	150	Open

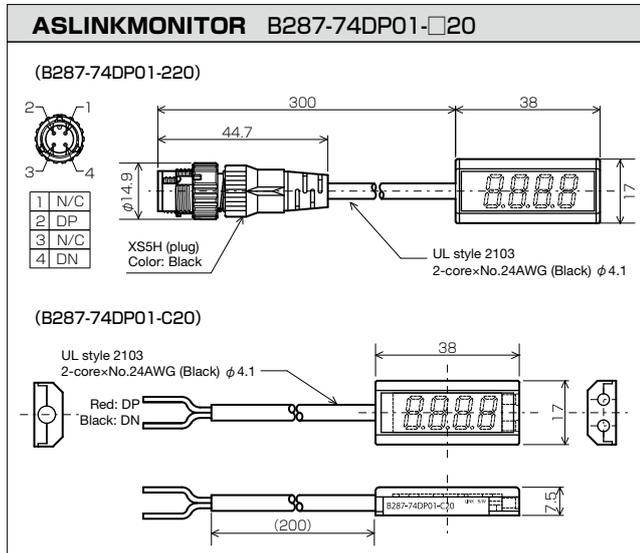
*Automatic switching between external supply DC24V power and AAA (cell) battery drive.

◆Small display unit Cable with M12 connector (IP67) / Cable



< Outline Dimensional Drawings >

Unit: mm



< Specifications >



Dimension A: 17×38×7.5

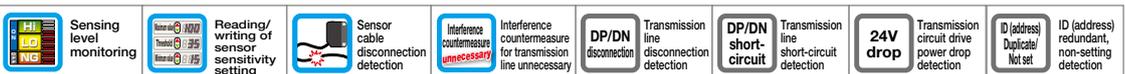
∕: Not applicable -: Not determined

Model	Product specifications	Consumption current (mA)		Connection	Dimension (mm)	Mass (g)	Standard price (¥)
		Transmission side	24V side				
B287-74DP01-220	Optional address sensing level Display unit	6	∕	2-wire type (non-insulation)	A	21	Open
B287-74DP01-C20	Optional address sensing level Display unit	6	∕	2-wire type (non-insulation)	A	10	Open

*The dimensions are numerical values excluding the cable section.

Functional icon indication

*See page 15 for details on function.



*Smartclick is a registered trademark of OMRON Corporation.

< List of Specifications >

○: Mounted ×: Not mounted /: Not applicable - : Not determined

Model	Number of I/O points		Input/output specifications	Type	Consumption current (mA)		Connection	Mass (g)	Input resistance/ Output max. ON current (mA)			Sensing level monitoring	Sensor sensitivity setting read/write	Sensor cable disconnection detection	Interference measure unnecessary	RAS function	Response time
	Input	Output			Transmission side	I/O side			Per 1 point	Per 1 common							
Set model BS-H0117-PC-SET	1	1	Transmission light emitting (red light)	Photoelectric (IP67)	10	10	2-wire type (non-insulation)	33	/	/	/	○	○	/	○	○	Max. 2 cycle times
	1	/	Transmission light receiving (red light)	Photoelectric (IP67)	10	10	2-wire type (non-insulation)	33	/	/	/	○	○	/	○	○	Max. 2 cycle times
Set model BS-H0317-PC12-SET	1	1	Transmission light emitting (red light)	Photoelectric (IP67)	10	10	2-wire type (non-insulation)	22	/	/	/	○	○	/	○	○	Max. 2 cycle times
	1	/	Transmission light receiving (red light)	Photoelectric (IP67)	10	10	2-wire type (non-insulation)	22	/	/	/	○	○	/	○	○	Max. 2 cycle times
Set model BS-H0117G-PC-SET	1	1	Transmission light emitting (red light)	Photoelectric (compartament of resistance IP67)	10	10	2-wire type (non-insulation)	33	/	/	/	○	○	/	○	○	Max. 2 cycle times
	1	/	Transmission light receiving (red light)	Photoelectric (compartament of resistance IP67)	10	10	2-wire type (non-insulation)	33	/	/	/	○	○	/	○	○	Max. 2 cycle times
BS-H0217-1K	1	/	Recurrent reflection (red light)	Photoelectric (IP67)	10	10	2-wire type (non-insulation)	33	/	/	/	○	○	/	○	○	Max. 2 cycle times
BS-H0217-3012	1	/	Recurrent reflection (red light)	Photoelectric (IP67)	10	10	2-wire type (non-insulation)	22	/	/	/	○	○	/	○	○	Max. 2 cycle times
BS-H0217G-1K	1	/	Recurrent reflection (red light)	Photoelectric (compartament of resistance IP67)	10	10	2-wire type (non-insulation)	33	/	/	/	○	○	/	○	○	Max. 2 cycle times
BS-H0317-1K	1	/	Spread reflection (red light)	Photoelectric (IP67)	10	10	2-wire type (non-insulation)	33	/	/	/	○	○	/	○	○	Max. 2 cycle times
BS-H0317-3012	1	/	Spread reflection (red light)	Photoelectric (IP67)	10	10	2-wire type (non-insulation)	22	/	/	/	○	○	/	○	○	Max. 2 cycle times
BS-H0317G-1K	1	/	Spread reflection (red light)	Photoelectric (compartament of resistance IP67)	10	10	2-wire type (non-insulation)	33	/	/	/	○	○	/	○	○	Max. 2 cycle times
Set model BS-L0117-PC-SET	1	1	Transmission light emitting (red LD)	Laser spot	7	7	2-wire type (non-insulation)	33	/	/	/	○	○	/	○-1	○	Max. 2 cycle times
	1	/	Transmission light receiving (red LD)	Laser spot	8	8	2-wire type (non-insulation)	33	/	/	/	○	○	/	○-1	○	Max. 2 cycle times
BS-L0217-1K	1	/	Recurrent reflection (red LD)	Laser spot	10	10	2-wire type (non-insulation)	33	/	/	/	○	○	/	○-1	○	Max. 2 cycle times

*1 With limitation

Model	Number of I/O points		Input/output specifications	Type	Consumption current (mA)		Connection	Mass (g)	Input resistance/ Output max. ON current (mA)			Sensing level monitoring	Sensor sensitivity setting read/write	Sensor cable disconnection detection	Interference measure unnecessary	RAS function	Response time
	Input	Output			Transmission side	I/O side			Per 1 point	Per 1 common							
LA-F1011	1	/	Fiber head (red light)	Base	1.9	25	4-wire type (insulation)	21	/	/	/	○	○	/	○	○	Max. 2 cycle times
LB-F1011	1	/	Fiber head (red light)	Extension	1.9	25	4-wire type (insulation)	17	/	/	/	○	○	/	○	○	Max. 2 cycle times
BA-F116-12	1	/	Fiber head (red light)	Base	11	11	2-wire type (non-insulation)	40	/	/	/	○	○	/	○	○	Max. 2 cycle times
BA-F116	1	/	Fiber head (red light)	Base	11	11	2-wire type (non-insulation)	47	/	/	/	○	○	/	○	○	Max. 2 cycle times
B289SB-01AF-CAM20-V	1	/	Fiber head (red light)	Base	11	11	2-wire type (non-insulation)	14	/	/	/	○	○	/	○	○	Max. 2 cycle times
B289SB-01AF-CAS-V	1	/	Fiber head (red light)	Extension	11	11	2-wire type (non-insulation)	9	/	/	/	○	○	/	○	○	Max. 2 cycle times

Model	Number of I/O points		Input/output specifications	Type	Consumption current (mA)		Connection	Mass (g)	Input resistance/ Output max. ON current (mA)			Sensing level monitoring	Sensor sensitivity setting read/write	Sensor cable disconnection detection	Interference measure unnecessary	RAS function	Response time
	Input	Output			Transmission side	I/O side			Per 1 point	Per 1 common							
BS-K1117-M08-3012	1	/	Electromagnetic induction	Proximity M8 Standard type	13.8	8	2-wire type (non-insulation)	21	/	/	/	○	○	/	○	○	Max. 10ms
BS-K1117-M12-3012	1	/	Electromagnetic induction	Proximity M12 Standard type	8.4	8	2-wire type (non-insulation)	31	/	/	/	○	○	/	○	○	Max. 10ms
BS-K1117-M18-3012	1	/	Electromagnetic induction	Proximity M18 Standard type	8	8	2-wire type (non-insulation)	44	/	/	/	○	○	/	○	○	Max. 10ms
BS-K1117-M30-3012	1	/	Electromagnetic induction	Proximity M30 Standard type	8.2	8	2-wire type (non-insulation)	107	/	/	/	○	○	/	○	○	Max. 10ms
BS-K1117-M08-1K	1	/	Electromagnetic induction	Proximity M8 Standard type	13.8	8	2-wire type (non-insulation)	28	/	/	/	○	○	/	○	○	Max. 10ms
BS-K1117-M12-1K	1	/	Electromagnetic induction	Proximity M12 Standard type	8.4	8	2-wire type (non-insulation)	41	/	/	/	○	○	/	○	○	Max. 10ms
BS-K1117-M18-1K	1	/	Electromagnetic induction	Proximity M18 Standard type	8	8	2-wire type (non-insulation)	54	/	/	/	○	○	/	○	○	Max. 10ms
BS-K1117-M30-1K	1	/	Electromagnetic induction	Proximity M30 Standard type	8.2	8	2-wire type (non-insulation)	117	/	/	/	○	○	/	○	○	Max. 10ms
BS-K1117S-M12-3012	1	/	Electromagnetic induction	Proximity M12 Sputter ready type	8.4	8	2-wire type (non-insulation)	31	/	/	/	○	○	/	○	○	Max. 10ms
BS-K1117S-M18-3012	1	/	Electromagnetic induction	Proximity M18 Sputter ready type	8	8	2-wire type (non-insulation)	44	/	/	/	○	○	/	○	○	Max. 10ms
BS-K1117S-M30-3012	1	/	Electromagnetic induction	Proximity M30 Sputter ready type	8.2	8	2-wire type (non-insulation)	107	/	/	/	○	○	/	○	○	Max. 10ms
BS-K1117S-M12-1K	1	/	Electromagnetic induction	Proximity M12 Sputter ready type	8.4	8	2-wire type (non-insulation)	41	/	/	/	○	○	/	○	○	Max. 10ms
BS-K1117S-M18-1K	1	/	Electromagnetic induction	Proximity M18 Sputter ready type	8	8	2-wire type (non-insulation)	54	/	/	/	○	○	/	○	○	Max. 10ms
BS-K1117S-M30-1K	1	/	Electromagnetic induction	Proximity M30 Sputter ready type	8.2	8	2-wire type (non-insulation)	117	/	/	/	○	○	/	○	○	Max. 10ms
BS-K1217-M08-3012	1	/	Electromagnetic induction	Proximity M8 Non-shield type	14.3	8	2-wire type (non-insulation)	20	/	/	/	○	○	/	○	○	Max. 10ms
BS-K1217-M12-3012	1	/	Electromagnetic induction	Proximity M12 Non-shield type	6.8	8	2-wire type (non-insulation)	29	/	/	/	○	○	/	○	○	Max. 10ms
BS-K1217-M18-3012	1	/	Electromagnetic induction	Proximity M18 Non-shield type	6.7	8	2-wire type (non-insulation)	38	/	/	/	○	○	/	○	○	Max. 10ms
BS-K1217-M30-3012	1	/	Electromagnetic induction	Proximity M30 Non-shield type	6.5	8	2-wire type (non-insulation)	90	/	/	/	○	○	/	○	○	Max. 10ms
BS-K1217-M08-1K	1	/	Electromagnetic induction	Proximity M8 Non-shield type	14.3	8	2-wire type (non-insulation)	27	/	/	/	○	○	/	○	○	Max. 10ms
BS-K1217-M12-1K	1	/	Electromagnetic induction	Proximity M12 Non-shield type	6.8	8	2-wire type (non-insulation)	37	/	/	/	○	○	/	○	○	Max. 10ms
BS-K1217-M18-1K	1	/	Electromagnetic induction	Proximity M18 Non-shield type	6.7	8	2-wire type (non-insulation)	45	/	/	/	○	○	/	○	○	Max. 10ms
BS-K1217-M30-1K	1	/	Electromagnetic induction	Proximity M30 Non-shield type	6.5	8	2-wire type (non-insulation)	96	/	/	/	○	○	/	○	○	Max. 10ms

< List of Specifications >

○: Mounted ×: Not mounted /: Not applicable - : Not determined

Model	Number of I/O points		Input/output specifications	Type	Consumption current (mA)		Connection	Mass (g)	Input resistance/1 point (kΩ)	Output max. ON current (mA)		Sensing level monitoring	Sensor sensitivity setting read/write	Sensor cable disconnection detection	Interference measure unnecessary	RAS function	Response time
	Input	Output			Load side	I/O side				Per 1 point	Per 1 common						
BS-K1117M-M12-3012	1	/	Electromagnetic induction	Proximity M12 Full stainless steel body type	4.7	/	2-wire type (non-insulation)	32	/	/	/	○	/	/	×	○	Max. 10ms
BS-K1117M-M18-3012	1	/	Electromagnetic induction	Proximity M18 Full stainless steel body type	4.7	/	2-wire type (non-insulation)	47	/	/	/	○	/	/	×	○	Max. 10ms
BS-K1117M-M30-3012	1	/	Electromagnetic induction	Proximity M30 Full stainless steel body type	4.7	/	2-wire type (non-insulation)	107	/	/	/	○	/	/	×	○	Max. 10ms
BS-K1117M-M12-1K	1	/	Electromagnetic induction	Proximity M12 Full stainless steel body type	4.7	/	2-wire type (non-insulation)	39	/	/	/	○	/	/	×	○	Max. 10ms
BS-K1117M-M18-1K	1	/	Electromagnetic induction	Proximity M18 Full stainless steel body type	4.7	/	2-wire type (non-insulation)	55	/	/	/	○	/	/	×	○	Max. 10ms
BS-K1117M-M30-1K	1	/	Electromagnetic induction	Proximity M30 Full stainless steel body type	4.7	/	2-wire type (non-insulation)	115	/	/	/	○	/	/	×	○	Max. 10ms
BS-K1117C-M12-3012	1	/	Electromagnetic induction	Proximity M12 Chemical-capable type	6.9	/	2-wire type (non-insulation)	24	/	/	/	○	/	/	×	○	Max. 10ms
BS-K1117C-M18-3012	1	/	Electromagnetic induction	Proximity M18 Chemical-capable type	7.0	/	2-wire type (non-insulation)	34	/	/	/	○	/	/	×	○	Max. 10ms
BS-K1117C-M30-3012	1	/	Electromagnetic induction	Proximity M30 Chemical-capable type	7.0	/	2-wire type (non-insulation)	68	/	/	/	○	/	/	×	○	Max. 10ms
BS-K1117C-M12-1K	1	/	Electromagnetic induction	Proximity M12 Chemical-capable type	6.9	/	2-wire type (non-insulation)	31	/	/	/	○	/	/	×	○	Max. 10ms
BS-K1117C-M18-1K	1	/	Electromagnetic induction	Proximity M18 Chemical-capable type	7.0	/	2-wire type (non-insulation)	40	/	/	/	○	/	/	×	○	Max. 10ms
BS-K1117C-M30-1K	1	/	Electromagnetic induction	Proximity M30 Chemical-capable type	7.0	/	2-wire type (non-insulation)	76	/	/	/	○	/	/	×	○	Max. 10ms
BS-K1118-M12-3012	1	/	Electromagnetic induction	Proximity M12 Polyarylate body type	6.9	/	2-wire type (non-insulation)	23	/	/	/	○	/	/	×	○	Max. 10ms
BS-K1118-M18-3012	1	/	Electromagnetic induction	Proximity M18 Polyarylate body type	7.0	/	2-wire type (non-insulation)	30	/	/	/	○	/	/	×	○	Max. 10ms
BS-K1118-M30-3012	1	/	Electromagnetic induction	Proximity M30 Polyarylate body type	7.0	/	2-wire type (non-insulation)	62	/	/	/	○	/	/	×	○	Max. 10ms
BS-K1118-M12-1K	1	/	Electromagnetic induction	Proximity M12 Polyarylate body type	6.9	/	2-wire type (non-insulation)	30	/	/	/	○	/	/	×	○	Max. 10ms
BS-K1118-M18-1K	1	/	Electromagnetic induction	Proximity M18 Polyarylate body type	7.0	/	2-wire type (non-insulation)	38	/	/	/	○	/	/	×	○	Max. 10ms
BS-K1118-M30-1K	1	/	Electromagnetic induction	Proximity M30 Polyarylate body type	7.0	/	2-wire type (non-insulation)	70	/	/	/	○	/	/	×	○	Max. 10ms
BS-K4117-M12-3012	1	/	Electromagnetic induction	Proximity M12 All metal detection type	6.9	/	2-wire type (non-insulation)	31	/	/	/	○	/	/	×	○	Max. 10ms
BS-K4117-M18-3012	1	/	Electromagnetic induction	Proximity M18 All metal detection type	7.0	/	2-wire type (non-insulation)	42	/	/	/	○	/	/	×	○	Max. 10ms
BS-K4117-M30-3012	1	/	Electromagnetic induction	Proximity M30 All metal detection type	7.0	/	2-wire type (non-insulation)	98	/	/	/	○	/	/	×	○	Max. 10ms
BS-K4117-M12-1K	1	/	Electromagnetic induction	Proximity M12 All metal detection type	6.9	/	2-wire type (non-insulation)	37	/	/	/	○	/	/	×	○	Max. 10ms
BS-K4117-M18-1K	1	/	Electromagnetic induction	Proximity M18 All metal detection type	7.0	/	2-wire type (non-insulation)	49	/	/	/	○	/	/	×	○	Max. 10ms
BS-K4117-M30-1K	1	/	Electromagnetic induction	Proximity M30 All metal detection type	7.0	/	2-wire type (non-insulation)	105	/	/	/	○	/	/	×	○	Max. 10ms
BM-K1117G-S04-3012	1	/	Electromagnetic induction	Proximity φ4 Amplifier relay type	6.3	/	2-wire type (non-insulation)	22	/	/	/	○	/	/	×	○	Max. 10ms
BM-K1117G-S05-3012	1	/	Electromagnetic induction	Proximity φ5.4 Amplifier relay type	6.5	/	2-wire type (non-insulation)	23	/	/	/	○	/	/	×	○	Max. 10ms
BM-K1117G-M04-3012	1	/	Electromagnetic induction	Proximity M4 Amplifier relay type	5.9	/	2-wire type (non-insulation)	22	/	/	/	○	/	/	×	○	Max. 10ms
BM-K1117G-M05-3012	1	/	Electromagnetic induction	Proximity M5 Amplifier relay type	6.4	/	2-wire type (non-insulation)	23	/	/	/	○	/	/	×	○	Max. 10ms
BM-K1117G-S04-1K	1	/	Electromagnetic induction	Proximity φ4 Amplifier relay type	6.3	/	2-wire type (non-insulation)	30	/	/	/	○	/	/	×	○	Max. 10ms
BM-K1117G-S05-1K	1	/	Electromagnetic induction	Proximity φ5.4 Amplifier relay type	6.5	/	2-wire type (non-insulation)	31	/	/	/	○	/	/	×	○	Max. 10ms
BM-K1117G-M04-1K	1	/	Electromagnetic induction	Proximity M4 Amplifier relay type	5.9	/	2-wire type (non-insulation)	30	/	/	/	○	/	/	×	○	Max. 10ms
BM-K1117G-M05-1K	1	/	Electromagnetic induction	Proximity M5 Amplifier relay type	6.4	/	2-wire type (non-insulation)	31	/	/	/	○	/	/	×	○	Max. 10ms
B284SB-01-1KPLP30	1	/	Pressure sensitive	Pressure (Low positive pressure)	20	/	2-wire type (non-insulation)	25	/	/	/	○	/	/	/	○	Max. 10ms
B284SB-02-1KPLP30	2	/	Pressure sensitive	Pressure (Low positive pressure)	20	/	2-wire type (non-insulation)	25	/	/	/	○	/	/	/	○	Max. 10ms
B284SB-01-1KPP30	1	/	Pressure sensitive	Pressure (Positive pressure)	20	/	2-wire type (non-insulation)	25	/	/	/	○	/	/	/	○	Max. 10ms
B284SB-02-1KPP30	2	/	Pressure sensitive	Pressure (Positive pressure)	20	/	2-wire type (non-insulation)	25	/	/	/	○	/	/	/	○	Max. 10ms
B284SB-01-1KNP30	1	/	Pressure sensitive	Pressure (Negative pressure)	20	/	2-wire type (non-insulation)	25	/	/	/	○	/	/	/	○	Max. 10ms
B284SB-02-1KNP30	2	/	Pressure sensitive	Pressure (Negative pressure)	20	/	2-wire type (non-insulation)	25	/	/	/	○	/	/	/	○	Max. 10ms
B284SB-01-1KLP30	1	/	Pressure sensitive	Pressure (Compound pressure)	20	/	2-wire type (non-insulation)	25	/	/	/	○	/	/	/	○	Max. 10ms
B284SB-02-1KLP30	2	/	Pressure sensitive	Pressure (Compound pressure)	20	/	2-wire type (non-insulation)	25	/	/	/	○	/	/	/	○	Max. 10ms
B284SB-J-1KPLP30	16	/	Pressure sensitive	Pressure (Low positive pressure)	20	/	2-wire type (non-insulation)	25	/	/	/	○	/	/	/	○	Max. 10ms
B284SB-J-1KPP30	16	/	Pressure sensitive	Pressure (Positive pressure)	20	/	2-wire type (non-insulation)	25	/	/	/	○	/	/	/	○	Max. 10ms
B284SB-J-1KNP30	16	/	Pressure sensitive	Pressure (Negative pressure)	20	/	2-wire type (non-insulation)	25	/	/	/	○	/	/	/	○	Max. 10ms
B284SB-J-1KLP30	16	/	Pressure sensitive	Pressure (Compound pressure)	20	/	2-wire type (non-insulation)	25	/	/	/	○	/	/	/	○	Max. 10ms
BM-C27-DM9-3012-5050	2	/	Magnetic	Cylinder amplifier relay type	8	/	2-wire type (non-insulation)	45	/	/	/	○	/	/	/	○	Max. 1.2ms
BM-C27-DM9-50-5050	2	/	Magnetic	Cylinder amplifier relay type	8	/	2-wire type (non-insulation)	40	/	/	/	○	/	/	/	○	Max. 1.2ms
B285SB-01-1K1	1	/	Magnetic	Cylinder	13	/	2-wire type (non-insulation)	13	/	/	/	○	/	/	/	○	Max. 1.2ms
B297SB-01-1K40	1	/	Transmission	Photo interrupter	11	/	2-wire type (non-insulation)	27	/	/	/	○	×	/	/	○	Max. 1 cycle times

- Photoelectric Type
- Laser Type
- Fiber Type
- Proximity Type
- Pressure Type
- Cylinder Type
- Photo Interrupter Type
- Line Monitor
- Small Display Unit

List of Specifications

Third Party



Third party products with AnyWireASLINK functions built-in



Manifold driver compatible
with AnyWireASLINK manufactured by SMC . . . 157



FA equipment-linked
screwdriver manufactured by NITTO KOHKI . . . 158

◆EX180-SAW1-X237



< Overview >

Valve manifold (SI unit) that can be connected to AnyWireASLINK

- ◇Functions as AnyWireASLINK 4-wire type (insulation) slave unit
- ◇Number of output points: 32 points
- ◇Output type : NPN open collector
- ◇Applicable valve series : SJ series, S0700 series

<Features of SJ series>

- Body width of 7.5 mm (SJ2000) and 10 mm (SJ3000) is available and various kinds of valves can be mounted.
- Vacuum breaker with throttle valve is available and vacuum adsorption and vacuum break can be controlled.
- Easy to add or remove by connecting valves with a connector.
- The reducing valve block located inside the manifold reduces supplied pressure, enabling two different pressures to be used by one manifold.



SJ series

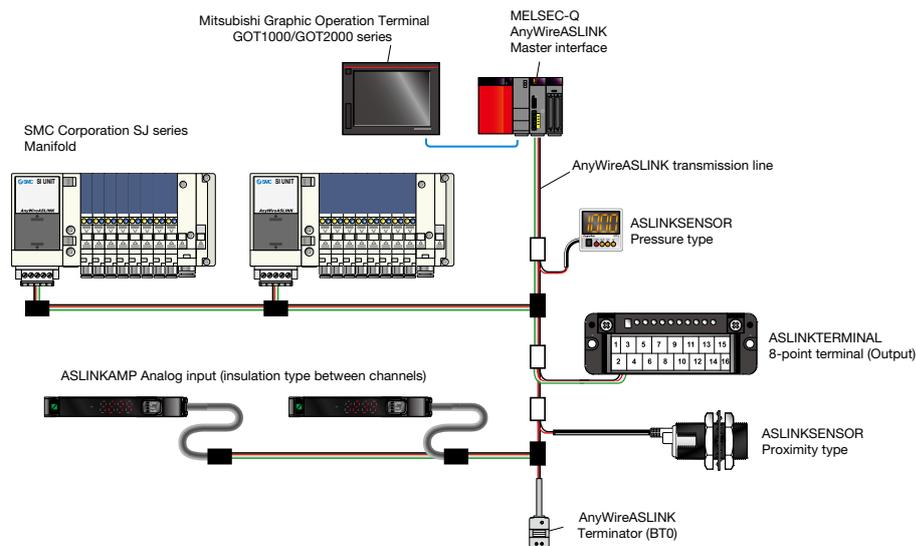
< Specifications >

/: Not applicable --: Not determined

Model	Number of I/O points		Input/output specifications	Method	Consumption current (mA)		Connection	Mass (g)	Standard price (¥)
	Input	Output			Transmission side	I/O side			
EX180-SAW1-X237	/	32	Tr output	NPN	13	*1	4-wire type (insulation)	100	Sold by SMC

*1 This differs depending on the load to be connected.

< Example of configuration >



For product details and purchase, contact the following:

[Contact] SMC Corporation Akihabara UDX15F, 4-14-1, Sotokanda, Chiyoda-ku, Tokyo 101-0021 JAPAN

Customer service Toll-free number 0120-837-838 / <http://www.smcworld.com>

FA equipment-linked screwdriver manufactured by NITTO KOHKI (Electric screwdriver compatible with AnyWireASLINK)

◆ Electric screwdriver compatible with AnyWireASLINK delvo

< Application >

Using screwdrivers with different torques to tighten multiple kinds of screws for production

- ◇ Prompt recovery from disconnection between sequencer and screwdriver
(Prompt identification of disconnection using AnyWireASLINK disconnection detection function)
- ◇ Easy to expand or change equipment
(Easy to perform additional works using AnyWireASLINK Sho-Haisen function)
- ◇ Prevention of incorrect screwdriver selection
(Using electric screwdrivers equipped with selection LED display)
- ◇ Prevention of incorrect screw selection
(Screws selected by POKAYOKE terminal)
- ◇ Managing traceability of length/tightening completion of each screw
- ◇ Prompt analysis of each worker's error and prompt improvement
- ◇ Easy to connect to other equipment
(Expansion is possible by using various sequencer units)



DLV7000/8000
-ASL series

DLV7100/7200/8100/8200
-ASL series



DLV30/45/70
-ASL series

< Specifications >

- ◇ Various models different in starting method, torque and number of times of rotations are available for selection.

delvo[®]

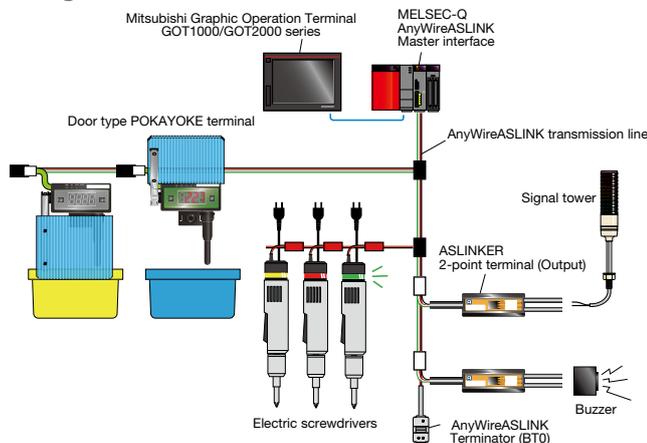
		Model			
DLV30 series	Lever start	DLV30LL-ASL(DJE)	DLV30SL-ASL(DJE)	DLV30HL-ASL(DJE)	
	Push start	DLV30LP-ASL(DJE)	DLV30SP-ASL(DJE)	DLV30HP-ASL(DJE)	
DLV45/70 series	Lever start	DLV45LL-ASL(DKE)	DLV45SL-ASL(DKE)	DLV70LL-ASL(DKE)	
	Push start	DLV45LP-ASL(DKE)	DLV45SP-ASL(DKE)	DLV70LP-ASL(DKE)	

DLV7100 series	Lever start	DLV7120-ASL(EJN)	DLV7130-ASL(EJN)	DLV7140-ASL(EJN)	—
DLV8100 series	Push start	DLV8120-ASL(EJN)	DLV8130-ASL(EJN)	DLV8140-ASL(EJN)	DLV8150-ASL(EKN)
DLV7200 series	Lever start	DLV7220-ASL(EJN)	DLV7231-ASL(EJN)	DLV7241-ASL(EJN)	DLV7251-ASL(EKN)
DLV8200 series	Push start	DLV8220-ASL(EJN)	DLV8231-ASL(EJN)	DLV8241-ASL(EJN)	DLV8251-ASL(EKN)

DLV7000 series	Lever start	DLV7020-ASL(EMN)	DLV7030-ASL(EMN)	DLV7031-ASL(EMN)
DLV8000 series	Push start	DLV8020-ASL(EMN)	DLV8030-ASL(EMN)	DLV8031-ASL(EMN)

* All models are sold by NITTO KOHKI.

< Example of configuration >



For product details and purchase, contact the following:

[Contact] NITTO KOHKI CO., LTD. 2-9-4, Nakaikagami, Ohta-ku, Tokyo 146-8555 JAPAN

TEL 03-3755-1111 / <http://www.nitto-kohki.co.jp>

Appendix

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Consumption current calculation for AnyWireASLINK (How to calculate number of connectable units)

Power supply to AnyWireASLINK system

(1) How to supply power to slave unit

Connect 24V DC external supply power to the master unit.

Consumption current of the internal control circuits of all slave units and the external load current connected to the slave unit of the 2-wire (non-insulation) type are completely supplied from 24V DC external supply power connected to the master unit.

(2) Applicable range of power supply by transmission line (DP/DN)

Consumption current of the system necessarily meets all conditions of the following ① to ③ for one master unit.

Condition	Calculating formula	Contents
①	$I(A) = (I_{hin} \times m) + (I_{ho} \times n) + (I_{zdin} \times p) + (I_{zdo} \times q)$ $\leq \text{Maximum value of transmission line supply current}$	I _{hin} : Consumption current of input unit of 2-wire (non-insulation) type I _{ho} : Consumption current of output unit of 2-wire (non-insulation) type I _{zdin} : Consumption current of input unit of 4-wire (insulation) type I _{zdo} : Consumption current of output unit of 4-wire (insulation) type m: Number of connected input units of 2-wire (non-insulation) type n: Number of connected output units of 2-wire (non-insulation) type p: Number of connected input units of 4-wire (insulation) type q: Number of connected output units of 4-wire (insulation) type
②	$V_m(V) - \Delta V(V) \geq 20V$	V _m : Power supplied to master unit
③	$V_m(V) - \Delta V(V) \geq \text{Lower limit of connected load allowable voltage range}$	

(a) Explanation of condition ① * Internal consumption current of each unit means "transmission side consumption current."

- Constants related to slave unit of 2-wire (non-insulation) type (I_{hin}, I_{ho})

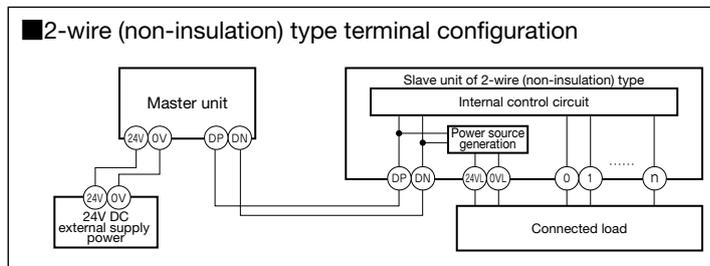
In the slave unit of the 2-wire (non-insulation) type, current necessary for the internal control circuit and connected load is supplied from the transmission line (DP/DN).

I_{hin}(A) = Consumption current of input unit of 2-wire (non-insulation) type

= Internal consumption current of input unit of 2-wire (non-insulation) type + connected load (3-wire type sensor) consumption current × number of points

I_{ho}(A) = Consumption current of output unit of 2-wire (non-insulation) type

= Internal consumption current of output unit of 2-wire (non-insulation) type + connected load consumption current × number of points



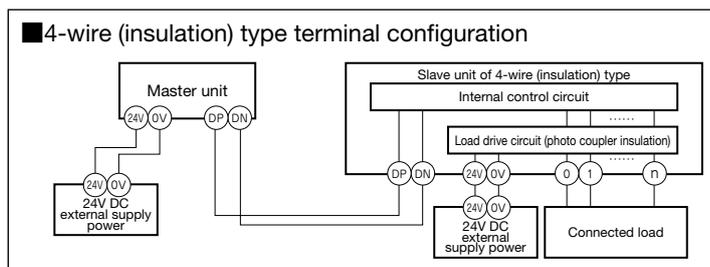
- Terminals for 24VL, 0VL of the slave unit of 2-wire (non-insulation) type are terminals for power supply of connected load.
- See the manual of each slave unit for consumption current of the slave unit of 2-wire (non-insulation) type.

- Constants related to slave unit of 4-wire (insulation) type (I_{zdin}, I_{zdo})

In the slave unit of the 4-wire (insulation) type, only current necessary for internal control circuit is supplied from the transmission line (DP/DN) and current necessary for connected load is supplied from 24V DC external supply power.

I_{zdin}(A) = Internal consumption current of input unit of 4-wire (insulation) type

I_{zdo}(A) = Internal consumption current of output unit of 4-wire (insulation) type



- In the slave unit of 4-wire (insulation) type, consumption current of connected load is not a current limit condition of the AnyWireASLINK system.
- See the manual of each slave unit for consumption current of the slave unit of 4-wire (insulation) type.

*Master unit = ASLINKMASTER, Slave unit = various terminals (ASLINKER, ASLINKTERMINAL, ASLINKMAP, ASLINKSENSOR)

Consumption current calculation for AnyWireASLINK (How to calculate number of connectable units)

- Transmission line supply current (I(A))

Transmission line supply current of AnyWireASLINK system is obtained by the following formula.

$$I(A) = (I_{hin} \times m) + (I_{ho} \times n) + (I_{zdin} \times p) + (I_{zdo} \times q)$$

Number of connected units: m, n, p, q (units)

- Maximum value of transmission line supply current

See the “DP-DN allowable supply current” on page 14 for the maximum value of the transmission line supply current.

(b) Explanation of conditions ②, ③

- Vm: Voltage supplied to master unit

Voltage: 21.6 to 27.6V DC (24V DC -10 to +15%), ripple voltage 0.5Vp-p or less

Recommended voltage: 26.4V DC (24V DC+10%)

- ΔV(V): Voltage drop between lines

- ΔV(V) = Transmission line supply current I(A) × line path resistance R(Ω)

Line path resistance R(Ω) = Electric wire length (m) × conductor resistance (Ω/m) × 2

- Size 1.25mm² → Conductor resistance 0.015Ω/m

- Size 0.75mm² → Conductor resistance 0.025Ω/m

(c) Example of calculation

An example of confirming whether a system under the following condition can be built at a total length 100m is shown below.

[Condition]

- Slave unit of 2-wire (non-insulation) type (input ASLINKER)

Number of input/output points: 2 points

Unit consumption current: 15.4mA

Number of units: 24 units

- Connected load (3-wire type sensor)

Sensor consumption current: 13mA

Number: 2 / unit

Power voltage: 24V DC±10%

- Size of transmission line (DP/DN)

Size: 1.25mm²

- Supply power of master unit

Power voltage: 24V DC

[Calculation result]

Condition ① $(I_{hin} (A) \times m) = I(A) \leq \text{Maximum value of transmission line supply current}$

$$(0.0154 + (0.013 \times 2)) \times 24 = 0.9936A \leq 1A \quad \rightarrow \text{This meets the condition.}$$

Condition ② $V_m(V) - \Delta(V) \geq 20V$

$$24 - (0.9936 \times 100 \times 0.015 \times 2) \doteq 24 - 2.981 = 21.019V \geq 20V \quad \rightarrow \text{This meets the condition.}$$

Condition ③ $V_m(V) - \Delta(V) \geq \text{Lower limit of connected load allowable voltage range}$

$$\text{Lower limit of connected load allowable voltage range} = 24 - 24 \times 0.1 = 21.6V$$

$$21.019V < 21.6V \quad \rightarrow \text{This does not meet the condition.}$$

It is confirmed that no system can be built according to the calculation results of the above ① to ③.

If the supply power voltage to the master unit is adjusted to be higher, the allowable voltage 1A will be exceeded. Therefore, consider rebuilding such as increasing the system to diversify the power load or replacing with a slave unit (input ASLINKER) of a 4-wire type (insulation) to diversify the power.

*Master unit = ASLINKMASTER, Slave unit = various terminals (ASLINKER, ASLINKTERMINAL, ASLINKMAP, ASLINKSENSOR)

Address Writer

The address writer “ARW-04” is a tool for setting and checking ID (address) No. and sensitivities of various sensors by infrared ray communication. Fits comfortably in the palm of a hand making it very convenient on-site. Strap, etc., to prevent drop can be installed on the ring on the side.

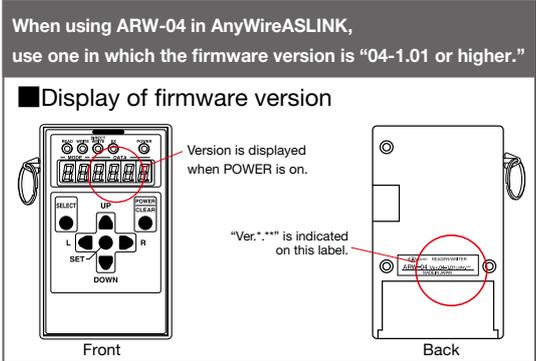
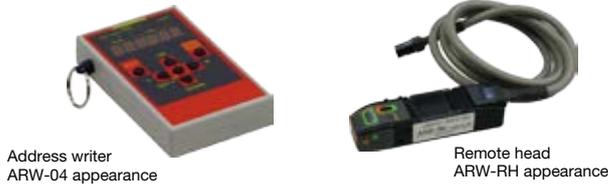
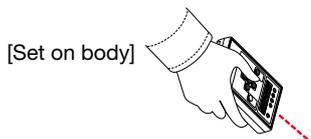
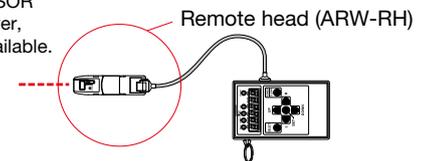


Image of setting



[Setting on narrow locations]

If a fitting place for ASLINKER and ASLINKSENSOR is crowded, and it is difficult to pass ARW-04 over, a remote head (ARW-RH: Separately sold) is available.

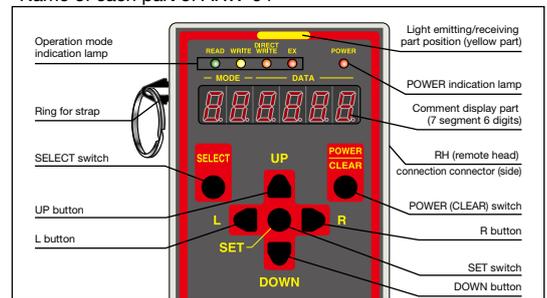


Address writer operation items

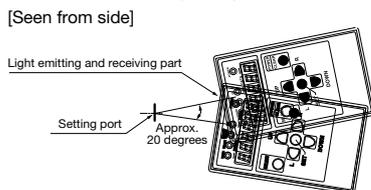
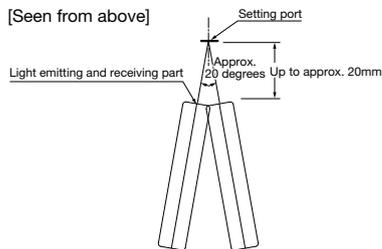
Modes which can be set by ARW-04 as follows.

Purpose	Procedure	Mode selected (function)
ARW-04 initial setting	Press POWER switch while pressing SELECT switch	Maximum point number setting mode
		Maximum parameter number setting mode
		Decimal number or hexadecimal number display setting mode
		Parameter set value automatic carry presence/absence setting mode
		Address writer mode
Teaching	Direct update	EX mode
Address reading	Direct reading	READ mode
Address writing	Power reset update	WRITE mode
	Direct update	DIRECT WRITE mode
Parameter reading	Direct reading	READ mode
Parameter writing	Power reset update	WRITE mode
	Direct update	DIRECT WRITE mode

Name of each part of ARW-04

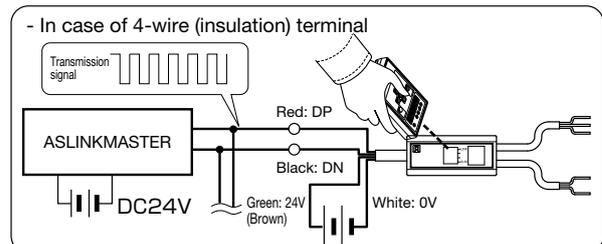
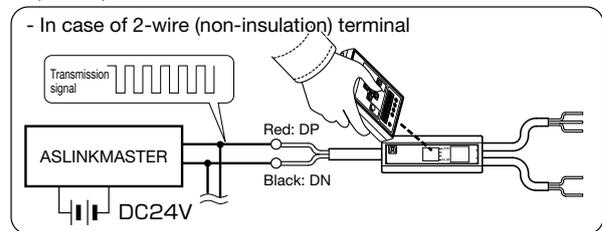


Positioning guideline at time of reading and writing



How to write, read

Transmission signal is required for sensor sensitivity setting, address writing and reading. Set them with transmission signal supplied to the transmission line (DP, DN) of the terminal.

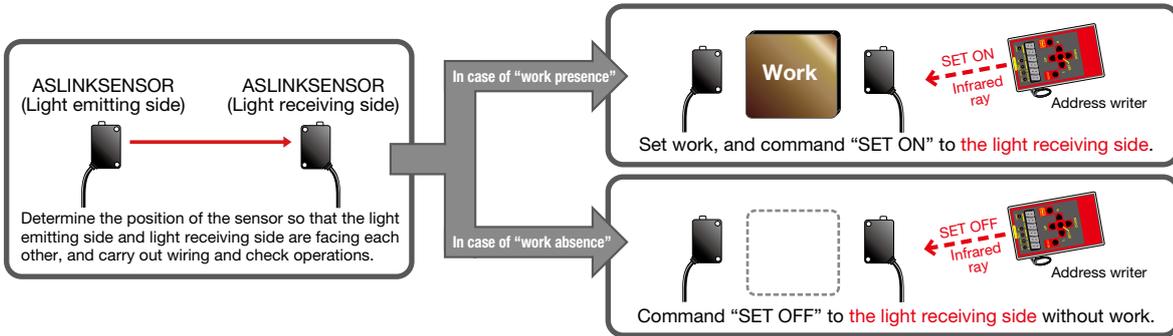


When writing, confirm that power (transmission signal in case of 2-wire (non-insulation) type) is supplied to the target unit. In addition, after writing all, confirm safety and reset the power (same as above) of the target unit, and then update the writing result. If written outside of the setting range, an error message “E-0303” is displayed.

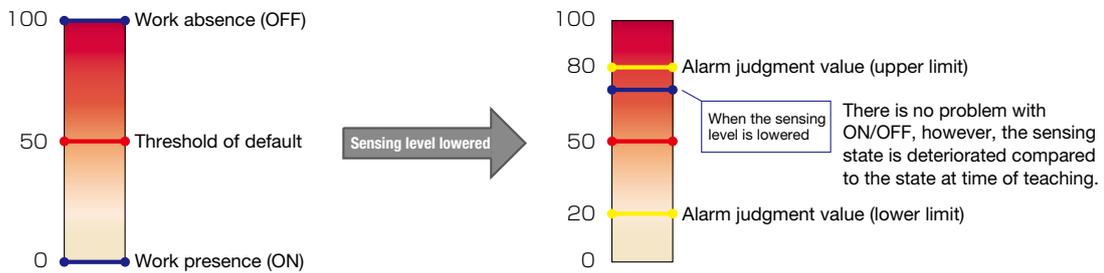
Teaching by address writer

* This is a case example of ASLINKSENSOR (photoelectric transmission type), however, ASLINKAMP is also similarly equipped with the teaching function.

① States of "SET ON (work presence)" and "SET OFF (work absence)" can be indicated by the teaching function of the address writer (ARW-04).



② The sensing level range is determined by the taught value, and drop of sensing level can be detected by setting an alarm value for the range.



Numerical expression is optimized by teaching, and the sensing level and threshold are automatically set.

When the sensor axis (optical axis) is deviated by vibration or it is within the range of alarm judgment value for a certain time due to contamination, it is regarded as "sensing level drop."

Desktop address writer

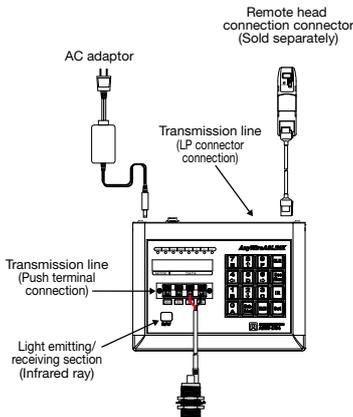
Addresses and parameters can be set to the terminal, teaching operation can be performed and the set contents can be confirmed even in an environment without a controller (address setting and teaching are possible only when infrared communication is used). Two types (LP connector connection and push terminal) of transmission signal output and power supply terminals are provided, and various settings are possible just by connecting the terminal to a desktop address writer.

In addition, the same head connection connector as ARW-04 is also equipped, which allows reading and writing by infrared communications using the remote head.



External appearance of desktop address writer ARW-D04

[Connection example]



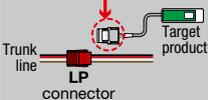
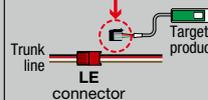
[Difference between address writer ARW-04 and desktop address writer ARW-D04]

	Address setting Parameter setting Teaching	Infrared communications	Compatible with remote head	Master-less setting of address, etc.	Reading and writing of parameters using transmission line	Button operation when specifying numerical value	Writing timing	Drive power source	Portability
ARW-04	○	○	○	×	×	Cycle values by direction button	Writing after power is reset/ immediate writing	Dry batteries (Two AAA batteries)	◎
ARW-D04	○	○	○	○	○	Mechanical numerical keypad	Immediate writing	AC adaptor Dry batteries (Four AA batteries)	△ (When driving by dry batteries)

See the separate Product Manuals for the details of ARW-04 and ARW-D04 to understand the functions for use.

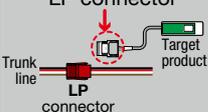
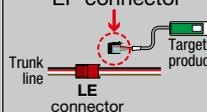
Correspondence table of AnyWireASLINK and applicable connectors

/: Not applicable

Product	Model	Listing page	Transmission side connection	Transmission side AWG	Transmission side core line coat outline	<When connected to LP connector> Transmission side LP connector 	<When connected to LE connector> Transmission side EP connector 	I/O side core line coat outline
ASLINKER (SmartLINKER)	B2N87SB-02D□-CC20	37	2-wire	24	φ 1.5	When connecting to 2-wire LP2-PWH-10P When connecting to 4-wire LP4-WW-10P	EP4-OR-8P	φ 1.0
	BL2LN87SB-02D□-CC20		4-wire		φ 1.1			
ASLINKER (Cable type)	B281□B-02U□-CC20	43	2-wire	24	φ 1.5	When connecting to 2-wire LP2-PWH-10P When connecting to 4-wire LP4-WW-10P	EP4-OR-8P	φ 1.0
	BL287□B-02F□-CC20	45	4-wire	23	φ 1.4			
ASLINKER (M12 connector type)	B280□B-02U□-C1220	47	2-wire	24	φ 1.5	When connecting to 2-wire LP2-PWH-10P When connecting to 4-wire LP4-WW-10P		
ASLINKTERMINAL (Small terminal block terminal, compatible with cable type 3-wire type sensor)	BL296□B-□□F□-V50	49 53	4-wire	23	φ 1.4	LP4-WW-10P	EP4-OR-8P	φ 1.0
	BL296□B-□□F□-3-V50 BL296□B-□□F□-11-V50							
ASLINKTERMINAL (Integrated small 4-point terminal)	BL296□B-04F□-4A-20	61	4-wire	23	φ 1.4	LP4-WW-10P	EP4-OR-8P	φ 1.0
ASLINKTERMINAL (Integrated small 8-point terminal)	BL296□B-08F□-4-20							
ASLINKTERMINAL (Integrated small 16-point terminal)	BL296□B-16F□-4A-20							
ASLINKTERMINAL (Power distribution unit)	BL296-0□PW4	64						
ASLINKTERMINAL (Small 8-point terminal)	BL296□B-08F□-20	65	4-wire	23	φ 1.4	LP4-WW-10P		
ASLINKAMP (Fiber type (with 7 segment display))	LA-F1011	105	4-wire	24	φ 1.1	When connecting to 2-wire LP2-PWH-10P When connecting to 4-wire LP4-WW-10P	EP4-YE-8P	φ 1.0
ASLINKAMP (Fiber type)	BA-F116 B289SB-01AF-CAM20-V	107 109	2-wire		φ 1.5		EP4-OR-8P	
	ASLINKAMP (Analog input unit (7 segment display equipped type))	LA-A12W	75		4-wire		φ 1.1	
LA-A1AW		77	EP4-YE-8P					
ASLINKAMP (Analog output unit (7 segment display equipped type))	LA-D□12W	79	4-wire	φ 1.1	EP4-YE-8P			
	LA-D□1AW	81						

Correspondence table of AnyWireASLINK and applicable connectors

/: Not applicable

Product	Model	Listing page	Transmission side connection	Transmission side AWG	Transmission side core line coat outline	<When connected to LP connector> Transmission side LP connector 	<When connected to LE connector> Transmission side EP connector 	I/O side core line coat outline	
ASLINKSENSOR (Photoelectric type)	BS-H0□17-1K□ BS-H0□17G-1K□	89 93 97	2-wire	24	φ 1.5	When connecting to 2-wire LP2-PWH-10P When connecting to 4-wire LP4-WW-10P	EP4-OR-8P		
ASLINKSENSOR (Laser spot type)	BS-LO□17-1K	101							
ASLINKSENSOR (Proximity type)	BS-K1117□-M□-1K	113 117 125							
ASLINKSENSOR (Proximity type)	BS-K1217-M□-1K	121							
ASLINKSENSOR (Proximity type)	BS-K1117C-M□-1K	129							
ASLINKSENSOR (Proximity type)	BS-K1118-M□-1K	133							
ASLINKSENSOR (Proximity type)	BS-K4117-M□-1K	137							
ASLINKSENSOR (Proximity type)	BM-K1117G-□□-1K	141							
ASLINKSENSOR (Pressure type)	B284SB-0□-1K□P30 B284SB-J1-1K□P30 B284SB-0□-1KPLP30	147							24
ASLINKSENSOR (Cylinder type)	BM-C27-DM9-50-5050	149							24
ASLINKSENSOR (Cylinder type)	B285SB-01-1K1								22
ASLINKSENSOR (Photo interrupter type)	B297SB-01-1K40	151							24
ASLINKMONITOR (Small display unit)	B287-74DP01-C20	152	2-wire	24	φ 1.5	When connecting to 2-wire LP2-PWH-10P When connecting to 4-wire LP4-WW-10P	EP4-OR-8P		
Terminator for AnyWireASLINK	BTO	22	2-wire	19	φ 2.3	When connecting to 2-wire LP2-BK-10P When connecting to 4-wire LP4-OR-10P	EP4-OR-8P		
	BTO-C			24	φ 1.5	When connecting to 2-wire LP2-PWH-10P When connecting to 4-wire LP4-WW-10P			

Consumption current calculation

Address Writer

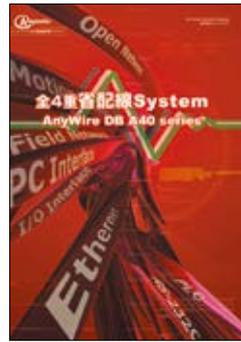
Applicable Connectors



Bitty series catalog



DB A20 series catalog



DB A40 series catalog



Energy monitoring energy saving support catalog



ASLINKPOKAYOKE catalog

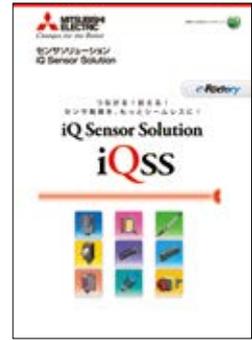


POKAYOKE catalog

Mitsubishi Electric Corporation Product catalog



MITSUBISHI & Anywire L (NA) 08198



Sensor solution iQ Sensor Solution L (NA) 08253

Contact

Contact by mail

info_e@anywire.jp

Contact by website

http://www.anywire.jp

Price, specifications and design may be subject to change without notice.

<Warranty>

Warranty period: The warranty on the delivered Product shall continue to be effective for one (1) year after the delivery thereof to a location designated by the original owner. Scope of warranty: Should a defect occur in any part of the Product during the foregoing warranty period when it is used normally in accordance with the specifications described in this User's Manual, the Company shall replace or repair the defect free of charge, except when it arises as a result of: (1) Misuse or abuse of the Product by the owner; (2) Fault caused by reason of other than the delivered Product; (3) The unauthorized modification or repair of the Product by any person other than the Company's personnel; (4) Any unusual force of nature, disaster or other cause beyond the Company's control. The term "warranty," as used herein, refers to the warranty applicable to the delivered product alone. The Company shall not be liable for consequential or incidental damage resulting from any malfunction. Repair at cost: After the expiration of the warranty period, the owner shall be responsible for all costs and expenses incurred for the troubleshooting and repair of the Product. Even during the warranty term, the Company shall repair any defects arising from causes other than within the scope of the warranty as specified above, at the owner's cost.

<Notes on Safety>

System Safety: This system is intended for general industrial applications. It does not include functions for supporting applications requiring higher levels of safety such as safety-related devices or accident prevention systems. Product must not be used for these purposes. Always turn off the power before attempting to mount or replace. System power supply: Use a stable, 24V DC power supply. Use of an unstable power supply may cause problems with the system. Separately route high-voltage and power cables. Although the AnyWireASLINK system has a high noise margin, keep the transmission line and I/O cables away from high-voltage and power cables. Connector and terminal connection: Pay careful attention to the length and installation of cable wiring to ensure that connectors and cables are neither overloaded nor disconnected. Make sure to prevent any metal objects from getting inside the connectors or the terminal blocks. Short-circuits caused by metal objects or mis-wiring are likely to damage the device. Do not impose any external loads on the units. Doing so may cause a failure. Do not disconnect or reconnect between the transmission line and slave units. A malfunction may occur. Use the AnyWireASLINK system within the range of the specifications and conditions shown below.

●: WARNING ○: CAUTION



ISO9001 / 1400 Certification

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http://www.anywire.jp

ISO9001 Applicable scope: Headquarters, East Japan Office, Kyoto Factory
ISO14001 Applicable scope: Headquarters, Kyoto Factory

Comments/suggestions about AnyWire products: