

**Anywire**

POKAYOKE Terminal series catalog

New Sensor Network Technology  
AnyWire for wiring saving



# POKAYOKE Sho-Haisen System

## POKAYOKE Terminal series

POKAYOKE

Terminal series catalog

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## What is the POKAYOKE terminal?

### “Picking” on assembly/production sites

“Picking” work to select parts from inventory according to instruction is carried out at production sites where parts are assembled. Increase in types of parts also increases risks to incorrectly pick parts of similar shape and approximate part name, which is a major problem at production sites.

### “POKA-YOKE” is a global common word

Control of human errors in picking work is an essential element for enhancement and improvement in production efficiency and product quality. Systems and devices to prevent such human-induced careless mistakes (poka) are called “POKA-YOKE,” and currently some overseas production sites have adopted the Japanese-derived term “POKA-YOKE,” to indicate the importance of this manufacturing challenge.

### “POKAYOKE” terminal of AnyWire

The “POKAYOKE system” comprising the AnyWire POKAYOKE terminal represents a solution to this problem simply and at low cost. There is no need to look for parts with a list in one hand, and no errors occur in parts and quantity.

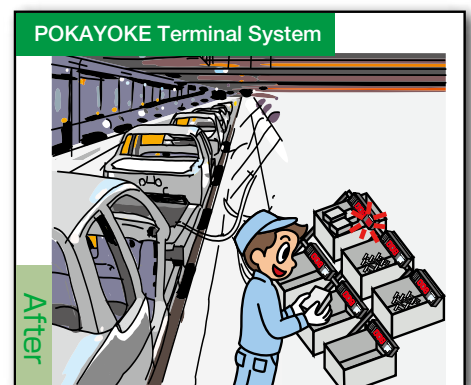
In addition, these POKAYOKE terminals into which AnyWire’s unique Sho-Haisen technology is integrated offer many advantages such as freedom of installation, easy wiring work, flexibility in change and remodeling, and difficulties in introduction can be lowered.

- ◇ As the location of parts is informed by LED lamps, parts can be clearly identified even in a dark warehouse.
- ◇ As only the door for location from which parts should be taken out opens, retrieval errors never occur.
- ◇ As the quantity of parts is clearly instructed by 7-segment indication, errors in quantity never occur.

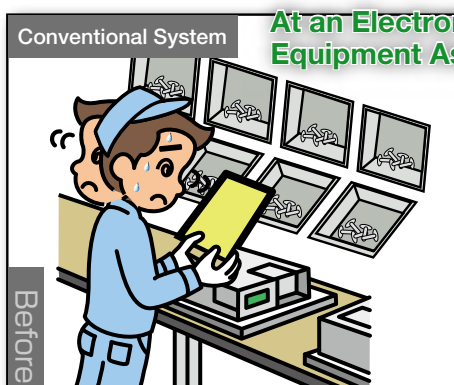
## Before & After



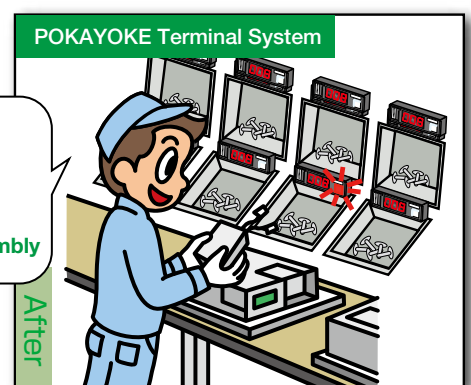
Time and effort required to read a list and instructions  
Do not know as to where actual parts are  
Becomes one-handed operation  
Time required to assemble  
Incorrect parts assembly occurs



When you install the POKAYOKE system,



No need to read a list or instructions  
Know where actual parts are at once  
Can operate with both hands  
Assembly time reduced  
Quality improved with correct parts assembly





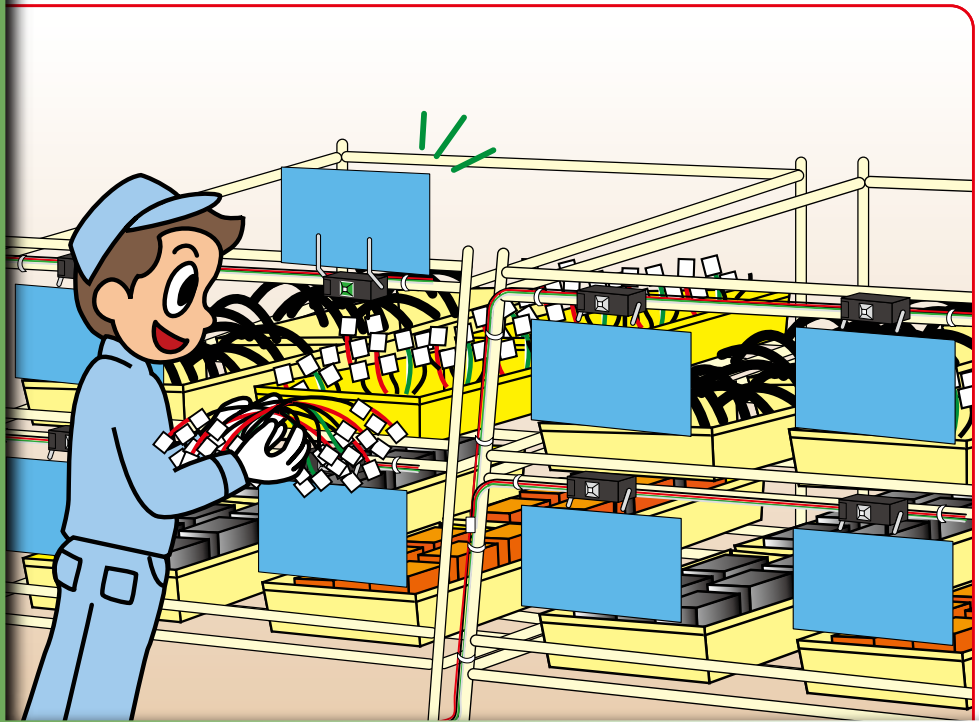
## Application 1

### <Take-out>

The first application is “take-out.”

“High-mix and low-volume production” is typically the case at current production sites, and “take-out” is inevitably a major point to increasing production efficiency and stabilizing product quality.

Adoption of the POKAYOKE terminal can significantly reduce work man-hours, eliminate errors in take-out of parts and also reduce worker stress.



POKAYOKE terminal for “Take-out” process

## Application 2

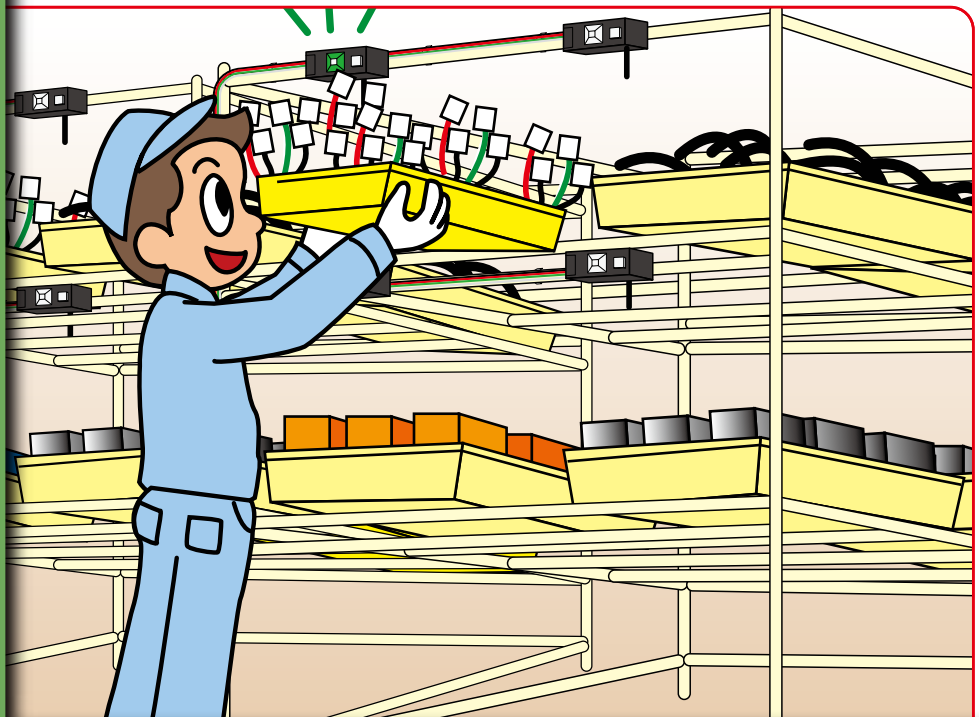
### <Throw-in>

The second application is “Throw-in.”

“Throw-in” always exists at production sites where “Take-out” exists.

The POKAYOKE terminal is also used to prevent errors in “Throw-in” of parts.

Adoption of the POKAYOKE terminal can secure confirmation of throw-in of parts. It is recommended to introduce the POKAYOKE terminal for “throw-in” in conjunction with “take-out.”



POKAYOKE terminal for “Throw-in” process

### Application 3

#### <Cell production>

The third application is “cell production.”

The “cell production” method has become more common at production sites of “High-mix and low-volume production.” In this method in which one worker is in charge of the initial to the end of the assembly process, there are multiple processes, and if the worker makes any mistake, it is hard to make up for it.

Very small type which can be installed at a narrow opening and the end surface of a column plate is available in the POKAYOKE terminal lineup, and is also most suitable for cell production.



POKAYOKE terminal for “Cell production”

### Application 4

#### <Kitting: Tray service>

The fourth application is “Kitting: Tray service.”

Work in which parts which are necessary for manufacturing of a certain product are collected in one box (kit box) as one kit is called “kitting.”

The ultimate objectives of the take-out process and kitting are the same, however, detailed work instructions such as quantity and sequence of take-out are required for kitting.

POKAYOKE terminal is also used at such kitting sites.



POKAYOKE terminal for “Kitting: Tray service” process

## Reason to select AnyWire 1

ADVANTAGE ①

wide lineup variety!

Total 60 or more models

Most standard POKAYOKE terminal

Standard type  
Lever switch method



Indication: LED  
(Green single color indication)  
Response: Lever switch

Variation in response and detection

Response: Pushbutton



Detection: Photoelectric reflection



Detection: Photoelectric transmission



Variation in indication and instruction

Indication: LED (7-color indication)



Indication: 7-segment indication



Instruction: Door opening/closing



Variation in downsizing

Standard compact type (Standard smallness)

Indication: LED display  
Response: Lever switch



Indication: 7-segment indication  
Response: Lever switch



Indication: LED display  
Response: Pushbutton



Indication: 7-segment indication  
Response: Pushbutton



\*For standard compact (standard smallness) type, products other than the above are also available. Refer to the pages of the product list for details.

Installation method also flexible!

Most POKAYOKE terminals can be installed on a 28mm diameter pipe rack as they are. Three types of pipe installation holders are available depending on workability at the time of installation (refer to the "Installation" at the right for details).

Depending on the product, there is also a type to drill at the installation location and directly install with screws or bolts, or a thin type to fix to the end surface of the column plate for a parts shelf with double-sided tape.



Pipe installation example



SUS pipe installation holder

**Reason to select AnyWire 1**

**Basic**



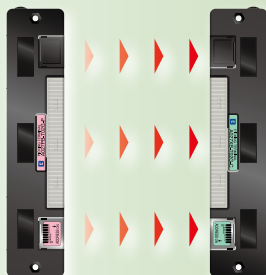
This is **the most standard POKAYOKE terminal** with “LED indication,” “Lever switch” and “Pipe installation.” This is our best seller due to its simplicity.

If you are considering which type to buy, select this type.



**7-segment**

This type uses the 7-segment for indication. Use **this product when you require indication of numerical values** such as the number of parts. Products of one digit indication and three digit indication are available and a lever switch and pushbuttons are available for a response, allowing you to select your preference.



When parts are long, and openings are wide or you wait to detect by take-out operation and eliminate response operation, “Photoelectric transmission type” is optimal.

**Photoelectric transmission**

POKAYOKE terminal instructs on the take-out location by opening/closing of door **block openings from which parts should not be taken out. This is most effective for prevention of mistake.**

Response is performed by lever switch.



**Opening/closing of door**

**Installation**

Holder for pipe installation product can be selected from the following three types.

Products which are **significantly downsized** compared with the conventional type have also been added to the lineup. Various types such as “LED only” type and “7-segment” type for indication and types equipped with a “buzzer,” and types such as a “lever switch” and “pushbutton” for response are available.



**Smallness**

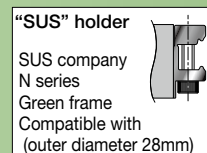
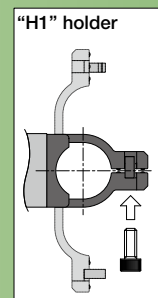
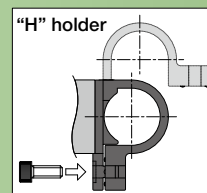
“H” is a **standard mounting holder**, and is the easiest installation type due to the installation bolts being tightened from the front. There is a protruding section to the structure at the bottom of the holder.

“H1” has no protrusion at the bottom of the holder, and is a type for which the bolt is tightened from the bottom (there is a protrusion on the back).

→Add “-H1” at the end of the standard model.

“SUS” is a dedicated holder installed on aluminum pipe of SUS company.

→Change the end of the standard model from “-P” to “-PS.”



“SUS” holder  
SUS company  
N series  
Green frame  
Compatible with  
(outer diameter 28mm)

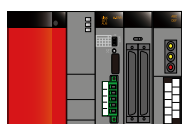


## Reason to select AnyWire 2

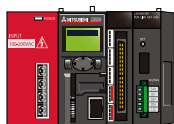
### ADVANTAGE ②

# Compatible with various controller networks!

Because the AnyWire POKAYOKE terminal compatible with PLCs of each company including the MELSEC sequencer of Mitsubishi Electric and many common industrial open networks can be used with general equipment, environments and tools, there are no concerns even with the initial introduction.



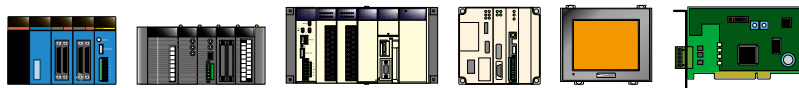
MELSEC-Q



MELSEC-L



MELSEC-F



Some products of the AnyWire POKAYOKE terminals are compatible with the “AnyWire DB A20 series” and some are compatible with the “AnyWire Bitty series.” There is no difference in the performance of the POKAYOKE terminals, however, there are master units and gateways compatible with each of them. Use the terminal of the corresponding combination based on the table below.

#### MELSEC sequencer manufactured by Mitsubishi Electric Corporation

- MELSEC-Q series
- MELSEC-L series
- MELSEC-F series

#### PLC, controller of each company

- Yokogawa Electric FA-M3 series
- OMRON CJ1 & CS1 series
- TOSHIBA S2T
- Fuji Electric SX
- Panasonic FPΣ
- Digital LT3000
- SHARP JW20/30/300
- YASKAWA Electric MP2000/3000

#### Various open networks, PC I/F

- CC-Link (Ver.1.10/Ver.2.00)
- DeviceNet
- MECHATROLINK I/II/III
- PCI Bus
- PC104
- RS-232C
- RS485Modbus

		DB A20 	Bitty 
Mitsubishi Electric	MELSEC-Qseries	○	—
	MELSEC-Lseries	○	—
	MELSEC-Fseries	—	○
Yokogawa Electric	FA-M3series	○	—
OMRON	CJ1/CJ2series	○	—
	CS1/CS2series	○	—
TOSHIBA	S2Tseries	○	—
Fuji Electric	SXseries	○	—
Panasonic	FPΣseries	○	—
Digital	LT3000series	○	—
SHARP	JW20/30/300series	○	—
YASKAWA Electric	MP2000/3000series	○	—
Open network	CC-Link Ver.1.10	○	○
	CC-Link Ver.2.00	○	—
	DeviceNet	○	○
	MECHATROLINK-I/II	—	○
	MECHATROLINK-III	—	○
PC I/F	PCI Bus	○	—
	PC104	○	—
	RS-232C	○	—
	RS485Modbus	○	—
AnyWire	DB A20series	—	○*

\*Transmission of “Bitty series” can be connected to a low order of transmission of the “DB A20 series” by using a bridge “AB07-A-V3.” → Refer to page 24.



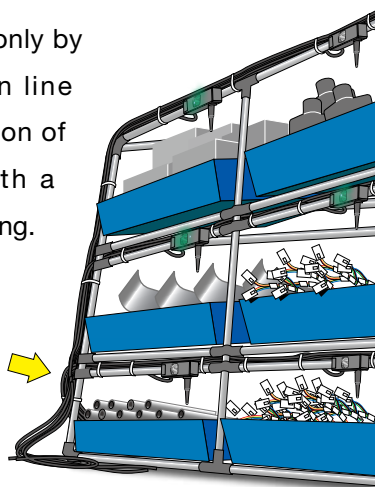
## Reason to select AnyWire 3

### ADVANTAGE ③ Of course, Sho-Haisen!

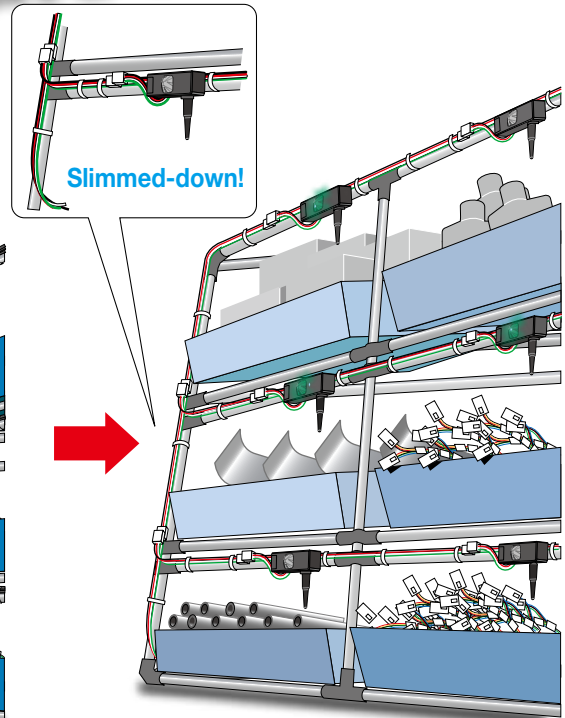
The POKAYOKE terminal which “AnyWire of Sho-Haisen” delivers is of course “**POKAYOKE [Sho-Haisen] terminal.**”

Connection can be made only by branching from the main line without requiring connection of individual terminals with a controller in one-to-one wiring.

Bundle of cables is on controller side...



Conventional method



Sho-Haisen method

### Easy branching!

Transmission line of the POKAYOKE terminal is equipped with a link connector (LP connector) as standard. The link connector **allows for branching and extension work without electric wire cutting and sheath stripping.** Work time can also be reduced, and no electric wire or sheath waste, etc., is produced.

- 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.**



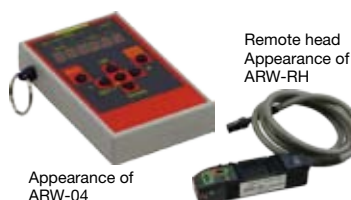
Step 1  
You can sandwich wire in a sleeve even in the middle or at the end of an electric wire.

Step 2  
Clamp with a dedicated tool to crimp. (See the accessory items.)

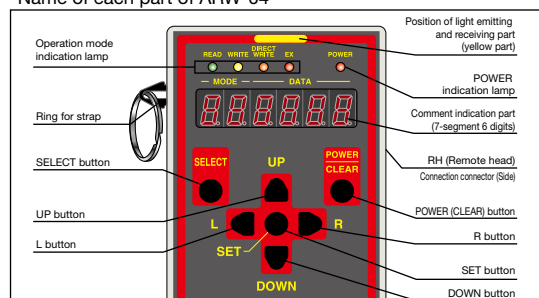
Step 3  
T-branch, 4-branch or extension is allowed. Working time is significantly reduced.

### Address setting!

To set the address of the POKAYOKE terminal, a DIP switch or address writer can be selected depending on the product. Refer to pages 25 and 26 for address setting. Refer to and confirm by the product instruction manual of each product for details of each product.



Name of each part of ARW-04



## Configuration of POKAYOKE system

Configuration of the POKAYOKE system requires a “Master unit” and “Terminator” in addition to the POKAYOKE terminal, and an “electric wire” and “connector” connecting them, and “24V DC stabilized power source.”

### Selection of master unit

Select the master unit to be used for your POKAYOKE system according to the sequencer and open network to be (schedule) used.

When the master unit has been determined, transmission protocol which you can use is also determined, then select the POKAYOKE terminal that corresponds to the protocol.

Although two types of transmission protocol are not compatible with each other, the transmission line of the Bitty series can be connected to the lower position of the transmission line of the DB A20 series via a bridge.

Reference: pages 07, 23, and 24

		DB A20	Bitty
Mitsubishi Electric	MELSEC-Qseries	○	—
	MELSEC-Lseries	○	—
	MELSEC-Fseries	—	○
Yokogawa Electric	FA-M3series	○	—
OMRON	CJ1/CJ2series	○	—
	CS1/CS2series	○	—
TOSHIBA	S2Tseries	○	—
Fuji Electric	SXseries	○	—
Panasonic	FPΣseries	○	—
Digital	LT3000series	○	—
SHARP	JW20/30/300series	○	—
YASKAWA Electric	MP2000/3000series	○	—
Open network	CC-Link Ver.1.10	○	○
	CC-Link Ver.2.00	○	—
	DeviceNet	○	○
	MECHATROLINK-I/II	—	○
PC I/F	MECHATROLINK-III	—	○
	PCI Bus	○	—
	PC104	○	—
	RS-232C	○	—
AnyWire	RS485Modbus	○	—
	DB A20series	—	○*

\*Transmission of “Bitty series” can be connected to a low order of transmission of the “DB A20 series” by using a bridge “AB07-A-V3.”

### Connector and cable

All POKAYOKE terminals are shipped with a link connector (LP connector) connected.

The LP connector is a crimp type connector with no distinction between female and male, and the branch point can be provided at any location without cutting the main line.

If a “4-core flat cable” which is the same as that used for the terminal is used, wiring work can be performed easily and quickly.

### Selection of terminal

Narrow down the POKAYOKE terminals you want to use with reference to features of individual products such as “indication, instruction,” “response, detection” and “how to install,” and site environment and purpose for introduction.

It is also necessary to pay attention to the “transmission protocol” and “address setting method” at that time.

\*Products of different protocols cannot be combined for use.

\*Even if products of different address setting methods are combined, operation can be performed. However, mistakes may result at the time of setting work, therefore, it is not recommended.

“Number of occupied points” and “consuming current” vary with each product, which causes the number of connectable units to vary.

Sufficiently confirm the specifications referring to the catalog and Product Guide (Product instruction manual) to determine the configuration.

\*A compatible lineup for every product feature can be confirmed in the product matrix diagram on pages 05 and 06, and page 11.

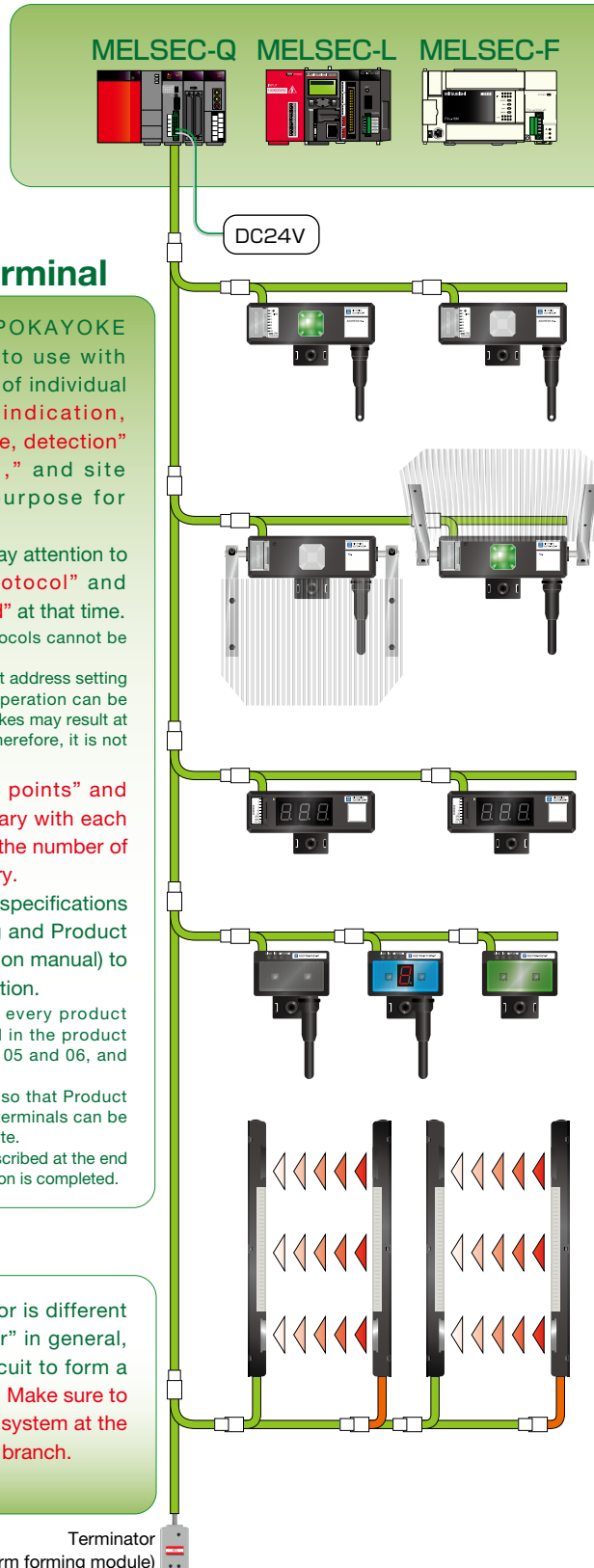
\*Preparation is under way so that Product Guide of the POKAYOKE terminals can be downloaded from our website.

Contact the support dial described at the end of the manual until preparation is completed.

### Terminator

The AnyWire Terminator is different from “Terminal resistor” in general, and incorporates a circuit to form a transmission waveform. Make sure to install one piece in one system at the most remote end of the branch.

Terminator  
(Waveform forming module)



## DB A20 series basic transmission specifications

\*Specifications of the DB A20 series when the POKAYOKE terminal is used. There are some limits relative to the specifications of the normal DB A20 series.

Item	Contents
Effective data transmission rate	59 kbps/1024 points (at transmission clock: 31.3kHz)
Transmission method	Double duplex total frame/cyclic system
Synchronization system	Frame/bit synchronization system
Data length/frame	1 bit – 512 bits
Connection mode	Bus type (multi-drop type, T-branch type, star type, tree type)
Transmission protocol	Exclusive protocol (AnyWire Bus protocol)
Error control	Double collation system
Maximum number of connecting I/O points <small>Note 1)</small>	1024 points (IN 512 points + OUT 512 points)
Maximum number of connected terminal blocks <small>Note 2)</small>	128 terminals
Maximum cycle time <small>Note 3)</small>	[0.7ms/128 points] [1.2ms/256 points] [2.2ms/512 points] [4.3ms/1024 points]
RAS function	Branch disconnection detection, transmission line short-circuit detection
Transmission distance (total length)	Max. 200m
Transmission cable	Exclusive flat cable 0.75mm <sup>2</sup> (D, G, 24V, 0V)

Note 1) Maximum number of transmittable points depends on the master unit. There is a limit to the range of the number of points used according to the specifications of the POKAYOKE terminal.

Note 2) There is a limit to the maximum number of connecting units according to the number of occupied points of POKAYOKE terminal used and consuming current value.

Note 3) The above described number of points is a representative example of IN, OUT total. The actual cycle time varies depending on the master unit.

## Bitty series basic transmission specifications

\*Specifications of the Bitty series when the POKAYOKE terminal is used. There are some limits relative to the specifications of the normal Bitty series.

Item	Contents
Effective data transmission rate	50 kbps/512 points (at transmission clock: 27kHz), 57 kbps/512 points (at transmission clock: 31.3kHz)
Transmission method	Double duplex total frame/cyclic system
Synchronization system	Frame/bit synchronization system
Data length/frame	1 bit – 256 bits
Connection mode	Bus type (multi-drop type, T-branch type, tree type)
Transmission protocol	Exclusive protocol (AnyWire Bus Bitty protocol)
Error control	Double collation system
Maximum number of connecting I/O points <small>Note 1)</small>	Open Terminal series 512 points (IN 256 points + OUT 256 points) Bitty Bridge 512 points (Bit-Bus IN 256 points + OUT 256 points)
Maximum number of connected terminal blocks <small>Note 2)</small>	128 terminals
Maximum cycle time <small>Note 3)</small>	[3.2ms/128 points] [5.5ms/256 points] [10.2ms/512 points] (at 31.3kHz)
RAS function	Transmission line disconnected position detection, Transmission line short-circuit detection
Transmission cable	Exclusive flat cable 0.75mm <sup>2</sup> (DP, DN, 24V, 0V)
Transmission distance (total length)	100m (Max)

Note 1) Maximum number of transmittable points depends on the master unit. There is a limit to the range of the number of points used according to the specifications of the POKAYOKE terminal.

Note 2) There is a limit to the maximum number of connecting units according to the number of occupied points of POKAYOKE terminal used and consuming current value.

Note 3) The above described number of points is a representative example of IN, OUT total. The actual cycle time varies depending on the master unit.

## List of POKAYOKE terminal products

		Response, detection method				
		Lever switch type	Pushbutton switch type	Photoelectric type		
				Reflection type (downward)	Transmission type	
LED indication only	Stationary type (Green)	A027XB-02G2-P #28 A027XB-02G3-P #28 A027XB-E02G3-P #28 A227XB-02G2-P #28 A227XB-02G3-P #28 →Refer to page 12 for details.	A027XB-02GN2-P #28 A027XB-02GN3-P #28 A227XB-02GN2-P #28 A227XB-02GN3-P #28 →Refer to page 13 for details.	A027XB-02GL2-P #28 A027XB-02GL3-P #28 A227XB-02GL2-P #28 A227XB-02GL3-P #28 →Refer to page 14 for details.	A027PB-T02G-P #M3     A227PB-T02G-P #M3 A027XB-T02G-C #M3     A227XB-T02G-C #M3 A027PB-T07P02D-P #M4     A227PB-T07P02D-P #M4 A027XB-T07P02D-C #M4     A227XB-T07P02D-C #M4 A027PB-T14P02D-P #M4     A227PB-T14P02D-P #M4 A027XB-T14P02D-C #M4     A227XB-T14P02D-C #M4 →Refer to page 15 for details.	
	Selection type	A027XB-K02V-P #28 A227XB-K02V-P #28 →Refer to page 12 for details.	A027XB-K02VN-P #28 A227XB-K02VN-P #28 →Refer to page 13 for details.			
	Combination type	A027XB-06M2-P #28 A027XB-K06M-P #28 A227XB-K06M-P #28 →Refer to page 12 for details.	A027XB-K06MN-P #28 A227XB-K06MN-P #28 →Refer to page 13 for details.			
	Door opening/closing + LED indication	A027XB-F02G3-P #28 A227XB-F02G3-P #28 →Refer to page 16 for details.				
7-segment indication + LED indication	Selection type	◇ 7-segment indication [one digit] A027XB-K71V-P #28 A227XB-K71V-P #28 →Refer to page 17 for details.	◇ 7-segment indication [one digit] A027XB-K71VN-P #28 A227XB-K71VN-P #28 →Refer to page 18 for details.			
	Combination type	◇ 7-segment indication [one digit] A027XB-K71M-P #28 A227XB-K71M-P #28 ◇ 7-segment indication [three digits] A227XB-73M2-P #28 →Refer to page 17 for details.	◇ 7-segment indication [one digit] A027XB-K71MN-P #28 A227XB-K71MN-P #28 ◇ 7-segment indication [three digits] A027XB-73MN-P #28 A227XB-73MN-P #28 →Refer to page 18 for details.			
	Buzzer + LED indication	A227XB-KB02V-P #28 →Refer to page 19 for details.	A227XB-KB02VN-P #28 →Refer to page 19 for details.	A227XB-KB02VL-P #28 →Refer to page 19 for details.		
		A227XB-KB08M-P #28 →Refer to page 19 for details.	A227XB-KB08MN-P #28 →Refer to page 19 for details.	A227XB-KB08ML-P #28 →Refer to page 19 for details.		
LED indication only	Stationary type (Green)	A092XB-02GL →Refer to page 20 for details.		A027PB-01G-P #28     *Indication only (no response) A227PB-01G-P #28     →Refer to page 21 for details.		
		Touch type		Special		

\*Specifications of each model are indicated by icon.

- ◆ Address setting method
  - DIP switch
  - Address writer
- ◆ AnyWire transmission method
  - AnyWire DB A20
  - AnyWire Bitty
- ◆ Installation method
  - φ28 pipe
  - M3 screw
  - M4 screw
  - Double-sided tape

◆ The color of LED indication

“Selection type” :  
The indication color of this terminal can be selected from seven colors.

“Combination type” :  
The indication color of this terminal can be set from 7 kinds of color by a combination of RGB.

- Green
- Red
- Blue
- Yellow\*
- Sky blue
- Purple
- White

\*The actual color is close to orange

◆ Model \*The following is a simplified description. Keep this in mind as a reference because there are some exceptions.











Model of **A027XB-02GN2-P** is classified as **A0:27:XB-:02:G:N2-P**, and can be used as a reference for confirmation of the specifications.

- AnyWire transmission method**  
A0: Bitty type  
A2: DB A20 type
- Shape/structure**  
No mark: Standard type  
K: Standard compact  
E: Dust-proof type  
F: Door opening/closing type
- Number of occupied points/number of 7-segment digits**  
-02: 2 points including input and output  
\*There are some points according to the number of points.  
-71: 7-segment one digit  
-73: 7-segment three digits
- LED indication**  
G: Green (mono-color)  
N: Selection of one color from seven colors  
M: RGB independent ON/OFF
- Response method**  
No mark: Lever switch  
V: Pushbutton switch  
L: Photoelectric downward reflection
- Address setting method**  
2: DIP switch  
3: Address writer  
\*Omitted because all are 3 for standard compact







## Indication: LED (stationary, selection, combination) Response: Lever switch







### ◆ LED indication: Stationery type Lever switch type

Indication, instruction	Response, detection	Number of I/O points		Consumption current (mA)	Installation	Page of dimensional outlines drawing	Setting	Transmission method	Model	Standard price (¥)
		Input	Output							
 LED Stationary type (Green)	Lever switch	1	1	20	φ28 pipe	27		Bitty	A027XB-02G2-P	Open
 LED Stationary type (Green)	Lever switch	1	1	20	φ28 pipe	27		Bitty	A027XB-02G3-P	Open <span style="color:red">△</span>
 LED Stationary type (Green)	Lever switch	1	1	20	φ28 pipe	27		Bitty	A027XB-E02G3-P	Open <span style="color:red">△</span>
 LED Stationary type (Green)	Lever switch	1	1	20	φ28 pipe	27		DB A20	A227XB-02G2-P	Open
 LED Stationary type (Green)	Lever switch	1	1	20	φ28 pipe	27		DB A20	A227XB-02G3-P	Open <span style="color:red">△</span>

### ◆ LED indication: Selection type Lever switch type

Indication, instruction	Response, detection	Number of I/O points		Consumption current (mA)	Installation	Page of dimensional outlines drawing	Setting	Transmission method	Model	Standard price (¥)
		Input	Output							
 LED One color selection type	Lever switch	1	1	12	φ28 pipe	27		Bitty	A027XB-K02V-P	Open
 LED One color selection type	Lever switch	1	1	12	φ28 pipe	27		DB A20	A227XB-K02V-P	Open

### ◆ LED indication: Combination type Lever switch type

Indication, instruction	Response, detection	Number of I/O points		Consumption current (mA)	Installation	Page of dimensional outlines drawing	Setting	Transmission method	Model	Standard price (¥)
		Input	Output							
 LED Combination type	Lever switch	1	3	20	φ28 pipe	27		Bitty	A027XB-06M2-P	Open
 LED Combination type	Lever switch	1	3	12	φ28 pipe	27		Bitty	A027XB-K06M-P	Open
 LED Combination type	Lever switch	1	3	12	φ28 pipe	27		DB A20	A227XB-K06M-P	Open

\*The above models are equipped with "H" holder as a standard.

\*When installing "H1" holder, add "-H1" at the end of the standard model.

\*When installing "SUS" holder, change the end of the standard model from "-P" to "-PS."



A□27XB-0□□2-P  
A□27XB-0□□3-P  
A027XB-E02G3-P

Standard type



A□27XB-K02V-P  
A□27XB-K06M-P

Standard compact type

### ◆ Option

• Common

Product specifications	Installation	Page of dimensional outlines drawing	Model	Standard price (¥)
[H] holder φ28 pipe installation holder lower tightening type (including 5 holders)	φ28 pipe	30	A027-HP28-5P	Open
[H1] holder φ28 pipe installation holder back tightening type (including 5 holders)	φ28 pipe	30	A027-HP28-H1-5P	Open
[SUS] holder SUS pipe installation holder (including 1 holder)	SUS pipe	30	A027-HP-SUS2	Open <span style="color:red">△</span>
Replacement rubber lever set (including cover, lever, ring respectively 5 pieces)	Terminal	-	A027-LES-01-5P	Open

\*φ28 pipe installation holder is included with the POKAYOKE terminal (φ28 pipe installation type). Single part is an option for change of installation and repair.

• For standard type

Product specifications	Installation	Page of dimensional outlines drawing	Model	Standard price (¥)
Address switch cover (slide type, transparent) (including 5 pieces)	Slide	-	A027-KA2-5P	Open
Address switch cover (slide type, Black) (including 5 pieces)	Slide	-	A027-KA3-5P	Open

### ◆ Address writer



Product specifications	Type	Page of dimensional outlines drawing	Model	Standard price (¥)
Address writer (general-purpose)	Non-contact type	30	ARW-04	Open
Infrared ray remote head for address writer	Non-contact type	-	ARW-RH	Open
Address writer ARW-04 + Infrared ray remote head	Non-contact type	-	ARW-04-RH	Open

## Indication: LED (stationary, selection, combination) Response: Pushbutton switch

### ◆ LED indication: Stationery type Pushbutton switch type

Indication, instruction	Response, detection	Number of I/O points		Consumption current (mA)	Installation	Page of dimensional outlines drawing	Setting	Transmission method	Model	Standard price (¥)
		Input	Output							
LED Stationery type (Green)	Pushbutton	1	1	20	φ28 pipe	27		Bitty	A027XB-02GN2-P	Open
LED Stationery type (Green)	Pushbutton	1	1	20	φ28 pipe	27		Bitty	A027XB-02GN3-P	Open <span style="color:red">△</span>
LED Stationery type (Green)	Pushbutton	1	1	20	φ28 pipe	27		DB A20	A227XB-02GN2-P	Open
LED Stationery type (Green)	Pushbutton	1	1	20	φ28 pipe	27		DB A20	A227XB-02GN3-P	Open <span style="color:red">△</span>

### ◆ LED indication: Selection type Pushbutton switch type

Indication, instruction	Response, detection	Number of I/O points		Consumption current (mA)	Installation	Page of dimensional outlines drawing	Setting	Transmission method	Model	Standard price (¥)
		Input	Output							
LED One color selection type	Pushbutton	1	1	12	φ28 pipe	27		Bitty	A027XB-K02VN-P	Open
LED One color selection type	Pushbutton	1	1	12	φ28 pipe	27		DB A20	A227XB-K02VN-P	Open

### ◆ LED indication: Combination type Pushbutton switch type

Indication, instruction	Response, detection	Number of I/O points		Consumption current (mA)	Installation	Page of dimensional outlines drawing	Setting	Transmission method	Model	Standard price (¥)
		Input	Output							
LED Combination type	Pushbutton	1	3	12	φ28 pipe	27		Bitty	A027XB-K06MN-P	Open
LED Combination type	Pushbutton	1	3	12	φ28 pipe	27		DB A20	A227XB-K06MN-P	Open

\*The above models are equipped with "H" holder as a standard.  
 \*When installing "H1" holder, add "-H1" at the end of the standard model.  
 \*When installing "SUS" holder, change the end of the standard model from "-P" to "-PS."



A□27XB-02GN2-P  
A□27XB-02GN3-P

Standard type



A□27XB-K02VN-P  
A□27XB-K06MN-P

Standard compact type

### ◆ Option

·Common

Product specifications	Installation	Page of dimensional outlines drawing	Model	Standard price (¥)
[H] holder φ28 pipe installation holder lower tightening type (including 5 holders)	φ28 pipe	30	A027-HP28-5P	Open
[H1] holder φ28 pipe installation holder back tightening type (including 5 holders)	φ28 pipe	30	A027-HP28-H1-5P	Open
[SUS] holder SUS pipe installation holder (including 1 holder)	SUS pipe	30	A027-HP-SUS2	Open <span style="color:red">△</span>

\*φ28 pipe installation holder is included with the POKAYOKE terminal (φ28 pipe installation type). Single part is an option for change of installation and repair.

·For standard type

Product specifications	Installation	Page of dimensional outlines drawing	Model	Standard price (¥)
Address switch cover (slide type, transparent) (including 5 pieces)	Slide	-	A027-KA2-5P	Open
Address switch cover (slide type, Black) (including 5 pieces)	Slide	-	A027-KA3-5P	Open

### ◆ Address writer



Product specifications	Type	Page of dimensional outlines drawing	Model	Standard price (¥)
Address writer (general-purpose)	Non-contact type	30	ARW-04	Open
Infrared ray remote head for address writer	Non-contact type	-	ARW-RH	Open
Address writer ARW-04 + Infrared ray remote head	Non-contact type	-	ARW-04-RH	Open

## Indication: LED (stationary) Detection: Photoelectric downward reflection type

◆ LED indication:  
**Stationery type**  
Photoelectric  
downward reflection

DIP switch   
 Address writer

Indication, instruction	Response, detection	Number of I/O points		Consumption current (mA)	Installation	Page of dimensional outlines drawing	Setting	Transmission method	Model	Standard price (¥)
		Input	Output							
LED Stationary type (Green)	Downward reflection	1	1	35	φ28 pipe	27		Bitty	A027XB-02GL2-P	Open
LED Stationary type (Green)	Downward reflection	1	1	35	φ28 pipe	27		Bitty	A027XB-02GL3-P	Open <span style="color: red;">△</span>
LED Stationary type (Green)	Downward reflection	1	1	35	φ28 pipe	27		DB A20	A227XB-02GL2-P	Open <span style="color: red;">△</span>
LED Stationary type (Green)	Downward reflection	1	1	35	φ28 pipe	27		DB A20	A227XB-02GL3-P	Open <span style="color: red;">△</span>

\*The above models are equipped with "H" holder as a standard.

\*When installing "H1" holder, add "-H1" at the end of the standard model.

\*When installing "SUS" holder, change the end of the standard model from "-P" to "-PS."



A□27XB-02GL2-P  
A□27XB-02GL3-P

Standard type

### ◆ Option

· Common

Product specifications	Installation	Page of dimensional outlines drawing	Model	Standard price (¥)
[H] holder φ28 pipe installation holder lower tightening type (including 5 holders)	φ28 pipe	30	A027-HP28-5P	Open
[H1] holder φ28 pipe installation holder back tightening type (including 5 holders)	φ28 pipe	30	A027-HP28-H1-5P	Open
[SUS] holder SUS pipe installation holder (including 1 holder)	SUS pipe	30	A027-HP-SUS2	Open <span style="color: red;">△</span>

\*φ28 pipe installation holder is included with the POKAYOKE terminal (φ28 pipe installation type). Single part is an option for change of installation and repair.

· For standard type

Product specifications	Installation	Page of dimensional outlines drawing	Model	Standard price (¥)
Address switch cover (slide type, transparent) (including 5 pieces)	Slide	-	A027-KA2-5P	Open
Address switch cover (slide type, Black) (including 5 pieces)	Slide	-	A027-KA3-5P	Open

### ◆ Address writer



Product specifications	Type	Page of dimensional outlines drawing	Model	Standard price (¥)
Address writer (general-purpose)	Non-contact type	30	ARW-04	Open
Infrared ray remote head for address writer	Non-contact type	-	ARW-RH	Open
Address writer ARW-04 + Infrared ray remote head	Non-contact type	-	ARW-04-RH	Open

## Indication: LED (stationary) Detection: Photoelectric transmission type

### LED indication: Stationery type Photoelectric transmission type



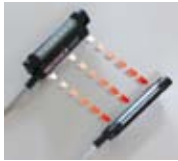
•Option

Indication, instruction	Response, detection	Number of I/O points		Light axis	Maximum detection distance (mm)	Consumption current (mA)	Installation	Page of dimensional outlines drawing	Setting	Transmission method	Model	Standard price (¥)
		Input	Output									
LED Stationery type (Green) Transmission (light emission)	Transmission (light emission)		1	3	1200	21	M3 screw	27		Bitty	A027PB-T02G-P	Open
LED Stationery type (Green) Transmission (light reception)	Transmission (light reception)	1	1	3	1200	25	M3 screw	27		Bitty	A027XB-T02G-C	Open
LED Stationery type (Green) Transmission (light emission)	Transmission (light emission)		1	3	1200	21	M3 screw	27		DB A20	A227PB-T02G-P	Open <span style="color:red">△</span>
LED Stationery type (Green) Transmission (light reception)	Transmission (light reception)	1	1	3	1200	25	M3 screw	27		DB A20	A227XB-T02G-C	Open <span style="color:red">△</span>

\*Consuming current (mA) in combination of light emission and light reception  
ex. For "A027PB-T02G-P" and "A027XB-T02G-C" → (40mA × [number of set units]) + 150mA

Product specifications	Installation	Page of dimensional outlines drawing	Model	Standard price (¥)
Protective bracket for transmission type terminal (including 1 piece)	M3 screw	27	A027-TPC	Open
Installation screw set for transmission type terminal (for product with no protective bracket) (including 5 pieces)	M3 screw	-	A027-TS-5P	Open
Installation screw set for transmission type terminal (for product with protective bracket) (including 5 pieces)	M3 screw	-	A027-TPS-5P	Open
φ28 pipe installation holder for transmission type terminal	φ 28 pipe	27	A027-THP28-H1	Open

### LED indication: Stationery type Photoelectric transmission type (Dust-proof: 70mm short)



Indication, instruction	Response, detection	Number of I/O points		Light axis	Maximum detection distance (mm)	Consumption current (mA)	Installation	Page of dimensional outlines drawing	Setting	Transmission method	Model	Standard price (¥)
		Input	Output									
LED Stationery type (orange) Transmission (light emission)	Transmission (light emission)		1	3	300	21	M4 screw	28		Bitty	A027PB-T07P02D-P	Open
LED Stationery type (orange) Transmission (light reception)	Transmission (light reception)	1	1	3	300	25	M4 screw	28		Bitty	A027XB-T07P02D-C	Open
LED Stationery type (orange) Transmission (light emission)	Transmission (light emission)		1	3	300	21	M4 screw	28		DB A20	A227PB-T07P02D-P	Open <span style="color:red">△</span>
LED Stationery type (orange) Transmission (light reception)	Transmission (light reception)	1	1	3	300	25	M4 screw	28		DB A20	A227XB-T07P02D-C	Open <span style="color:red">△</span>

### LED indication: Stationery type Photoelectric transmission type (Dust-proof: 140mm long)

LED Stationery type (orange) Transmission (light emission)	Transmission (light emission)		1	5	1000	21	M4 screw	28		Bitty	A027PB-T14P02D-P	Open
LED Stationery type (orange) Transmission (light reception)	Transmission (light reception)	1	1	5	1000	25	M4 screw	28		Bitty	A027XB-T14P02D-C	Open
LED Stationery type (orange) Transmission (light emission)	Transmission (light emission)		1	5	1000	21	M4 screw	28		DB A20	A227PB-T14P02D-P	Open <span style="color:red">△</span>
LED Stationery type (orange) Transmission (light reception)	Transmission (light reception)	1	1	5	1000	25	M4 screw	28		DB A20	A227XB-T14P02D-C	Open <span style="color:red">△</span>

\*Consuming current (mA) in combination of light emission and light reception  
ex. For "A027PB-T07P02D-P" and "A027XB-T07P02D-C" → (40mA × [number of set units]) + 150mA

•Option

Product specifications	Installation	Page of dimensional outlines drawing	Model	Standard price (¥)
Protective bracket for transmission type terminal (Dust-proof: 70mm) (including 1 piece)	M4 screw	28	A027-T07PC	Open
Protective bracket for transmission type terminal (Dust-proof: 140mm) (including 1 piece)	M4 screw	28	A027-T14PC	Open
Installation screw set for transmission type terminal (for product with no protective bracket) (including 5 pieces)	M4 screw	-	A027-TSM4-5P	Open
Installation screw set for transmission type terminal (for product with protective bracket) (including 5 pieces)	M4 screw	-	A027-TPSM4-5P	Open
φ 28 pipe installation holder for transmission type terminal (Dust-proof: 70mm) (including 1 piece)	φ 28 pipe	28	A027-T07PHP28-H1	Open
φ 28 pipe installation holder for transmission type terminal (Dust-proof: 140mm) (including 1 piece)	φ 28 pipe	28	A027-T14PHP28-H1	Open
4-core flat cable (oil resistance) (AWG18 (0.75sq) × 4-core Insulation sheath outer diameter φ 2.5±0.1mm)	-	-	FK4-P075-100	Open

### Address writer



Product specifications	Type	Page of dimensional outlines drawing	Model	Standard price (¥)
Address writer (general-purpose)	Non-contact type	30	ARW-04	Open
Infrared ray remote head for address writer	Non-contact type	-	ARW-RH	Open
Address writer ARW-04 + Infrared ray remote head	Non-contact type	-	ARW-04-RH	Open



## Instruction: Door opening/closing + LED (Stationary) Response: Lever switch type

### ◆ Door opening/closing + LED indication: Stationary type Lever switch type



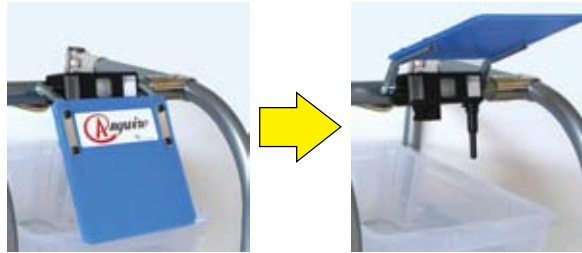
DIP switch Address writer

Indication, instruction	Response, detection	Number of I/O points		Consumption current (mA)	Installation	Page of dimensional outlines drawing	Setting	Transmission method	Model	Standard price (¥)
		Input	Output							
Door+LED (stationary type) (Green)	Lever switch	1	1	Standby 19 Motion 522	φ 28 pipe	28		Bitty	A027XB-F02G3-P	Open
Door+LED (stationary type) (Green)	Lever switch	1	1	Standby 19 Motion 522	φ 28 pipe	28		DB A20	A227XB-F02G3-P	Open

\*The above models are equipped with "H" holder as a standard.

\*When installing "H1" holder, add "-H1" at the end of the standard model.

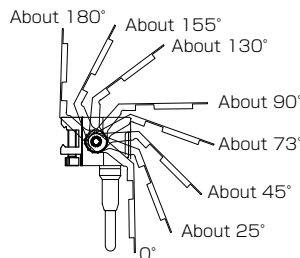
\*When installing "SUS" holder, change the end of the standard model from "-P" to "-PS."



"Address," "Door arm raising and lowering angle" and "door arm lowering motion delay time" can be set by address writer.

\*"Door arm raising and lowering motion speed setting" cannot be performed.

#### □ Arm vertical motion angle



Arm vertical motion angle can be set at seven stages up to approximately 180°. Adjustment can be made when the door collides with the shelf or work. Write No. of approximate position where you want to stop the door in angle setting mode of the address writer.

\*The angle is an approximate one, and the angle cannot be strictly designated.

#### □ Arm lowering delay time

Set value	Delay time (Second)
0	0.7
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10

When the unloading indication lamp is lit (output is turned ON), the arm is raised in conjunction with the lamp, and when the lamp is unlit (output is turned OFF), the arm is automatically lowered after a certain time.

This delay time until the arm is lowered can be set at 11 stages.

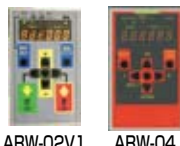
### ◆ Option

· Common

Product specifications		Installation	Page of dimensional outlines drawing	Model	Standard price (¥)
[H] holder	φ28 pipe installation holder lower tightening type (including 5 holders)	φ 28 pipe	30	A027-HP28-5P	Open
[H1] holder	φ28 pipe installation holder back tightening type (including 5 holders)	φ 28 pipe	30	A027-HP28-H1-5P	Open
[SUS] holder	SUS pipe installation holder (including 1 holder)	SUS pipe	30	A027-HP-SUS2	Open <span style="color: red;">△</span>
Replacement rubber lever set (including cover, lever, ring respectively 5 pieces)		Terminal	-	A027-LES-01-5P	Open
Address switch cover (slide type, transparent) (including 5 pieces)		Slide	-	A027-KA2-5P	Open
Address switch cover (slide type, Black) (including 5 pieces)		Slide	-	A027-KA3-5P	Open

\*φ28 pipe installation holder is included with the POKAYOKE terminal (φ 28 pipe installation type). Single part is an option for change of installation and repair.

### ◆ Address writer



ARW-02V1

ARW-04

Product specifications	Type	Page of dimensional outlines drawing	Model	Standard price (¥)
Address writer (Door opening/closing POKAYOKE recommended)	Non-contact type	30	ARW-02V1	Open
Address writer (general-purpose)	Non-contact type	30	ARW-04	Open
Infrared ray remote head for address writer	Non-contact type	-	ARW-RH	Open
Address writer ARW-04 + Infrared ray remote head	Non-contact type	-	ARW-04-RH	Open

## Indication: 7-segment + LED (selection, combination) Response: Lever switch type

- ◆ 7-segment + LED indication: Selection type Lever switch type

Indication, instruction	Response, detection	Number of I/O points		Consumption current (mA)	Installation	Page of dimensional outlines drawing	Setting	Transmission method	Model	Standard price (¥)
		Input	Output							
7-segment + LED selection type	Lever switch	1	5	18	φ28 pipe	28		Bitty	A027XB-K71V-P	Open
7-segment + LED combination type	Lever switch	1	5	18	φ28 pipe	28		DB A20	A227XB-K71V-P	Open

- ◆ 7-segment + LED indication: Combination type Lever switch type

Indication, instruction	Response, detection	Number of I/O points		Consumption current (mA)	Installation	Page of dimensional outlines drawing	Setting	Transmission method	Model	Standard price (¥)
		Input	Output							
7-segment + LED combination type	Lever switch	1	7	18	φ28 pipe	28		Bitty	A027XB-K71M-P	Open
7-segment + LED combination type	Lever switch	1	7	18	φ28 pipe	28		DB A20	A227XB-K71M-P	Open
7-segment + LED combination type	Lever switch	1	16	20	φ28 pipe	29		DB A20	A227XB-73M2-P	Open

\*The above models are equipped with "H" holder as a standard.

\*When installing "H1" holder, add "-H1" at the end of the standard model.

\*When installing "SUS" holder, change the end of the standard model from "-P" to "-PS."



A227XB-73M2-P

Standard type



A027XB-K71V-P  
A027XB-K71M-P

Standard compact type

### ◆ Option

·Common

Product specifications	Installation	Page of dimensional outlines drawing	Model	Standard price (¥)
[H] holder φ28 pipe installation holder lower tightening type (including 5 holders)	φ28 pipe	30	A027-HP28-5P	Open
[H1] holder φ28 pipe installation holder back tightening type (including 5 holders)	φ28 pipe	30	A027-HP28-H1-5P	Open
[SUS] holder SUS pipe installation holder (including 1 holder)	SUS pipe	30	A027-HP-SUS2	Open <span style="color: red;">△</span>
Replacement rubber lever set (including cover, lever, ring respectively 5 pieces)	Terminal	-	A027-LES-01-5P	Open

\*φ28 pipe installation holder is included with the POKAYOKE terminal (φ28 pipe installation type). Single part is an option for change of installation and repair.

·For standard type

Product specifications	Installation	Page of dimensional outlines drawing	Model	Standard price (¥)
Address switch cover (slide type, transparent) (including 5 pieces)	Slide	-	A027-KA2-5P	Open
Address switch cover (slide type, Black) (including 5 pieces)	Slide	-	A027-KA3-5P	Open

### ◆ Address writer



Product specifications	Type	Page of dimensional outlines drawing	Model	Standard price (¥)
Address writer (general-purpose)	Non-contact type	30	ARW-04	Open
Infrared ray remote head for address writer	Non-contact type	-	ARW-RH	Open
Address writer ARW-04 + Infrared ray remote head	Non-contact type	-	ARW-04-RH	Open

## Indication: 7-segment + LED (selection, combination) Response: Pushbutton switch

- ◆ 7-segment + LED indication: Selection type Pushbutton switch type

Indication, instruction	Response, detection	Number of I/O points		Consumption current (mA)	Installation	Page of dimensional outlines drawing	Setting	Transmission method	Model	Standard price (¥)
		Input	Output							
7-segment + LED selection type	Pushbutton	1	5	18	φ28 pipe	29		Bitty	A027XB-K71 VN-P	Open
7-segment + LED combination type	Pushbutton	1	5	18	φ28 pipe	29		DB A20	A227XB-K71 VN-P	Open <span style="color:red">△</span>

- ◆ 7-segment + LED indication: Combination type Pushbutton switch type

Indication, instruction	Response, detection	Number of I/O points		Consumption current (mA)	Installation	Page of dimensional outlines drawing	Setting	Transmission method	Model	Standard price (¥)
		Input	Output							
7-segment + LED selection type	Pushbutton	1	7	18	φ28 pipe	29		Bitty	A027XB-K71 MN-P	Open
7-segment + LED combination type	Pushbutton	1	7	18	φ28 pipe	29		DB A20	A227XB-K71 MN-P	Open
7-segment + LED selection type	Pushbutton	1	16	20	φ28 pipe	29		Bitty	A027XB-73MN-P	Open <span style="color:red">△</span>
7-segment + LED combination type	Pushbutton	1	16	20	φ28 pipe	29		DB A20	A227XB-73MN-P	Open

\*The above models are equipped with "H" holder as a standard.

\*When installing "H1" holder, add "-H1" at the end of the standard model.

\*When installing "SUS" holder, change the end of the standard model from "-P" to "-PS."



A027XB-73MN-P  
A227XB-73MN-P

Standard type



A027XB-K71 VN-P  
A027XB-K71 MN-P

Standard compact type

- ◆ Option

• Common

Product specifications	Installation	Page of dimensional outlines drawing	Model	Standard price (¥)
[H] holder φ28 pipe installation holder lower tightening type (including 5 holders)	φ28 pipe	30	A027-HP28-5P	Open
[H1] holder φ28 pipe installation holder back tightening type (including 5 holders)	φ28 pipe	30	A027-HP28-H1-5P	Open
[SUS] holder SUS pipe installation holder (including 1 holder)	SUS pipe	30	A027-HP-SUS2	Open <span style="color:red">△</span>

\*φ28 pipe installation holder is included with the POKAYOKE terminal (φ28 pipe installation type). Single part is an option for change of installation and repair.

• For standard type

Product specifications	Installation	Page of dimensional outlines drawing	Model	Standard price (¥)
Address switch cover (slide type, transparent) (including 5 pieces)	Slide	-	A027-KA2-5P	Open
Address switch cover (slide type, Black) (including 5 pieces)	Slide	-	A027-KA3-5P	Open

- ◆ Address writer



Product specifications	Type	Page of dimensional outlines drawing	Model	Standard price (¥)
Address writer (general-purpose)	Non-contact type	30	ARW-04	Open
Infrared ray remote head for address writer	Non-contact type	-	ARW-RH	Open
Address writer ARW-04 + Infrared ray remote head	Non-contact type	-	ARW-04-RH	Open

## Instruction: Buzzer + LED (selection, combination) Response: Lever switch type, pushbutton type, photoelectric downward reflection type

- ◆ **Buzzer**  
+ LED indication:  
Selection type, combination type  
Pushbutton switch type

Indication, instruction	Response, detection	Number of I/O points		Consumption current (mA)	Installation	Page of dimensional outlines drawing	Setting	Transmission method	Model	Standard price (¥)
		Input	Output							
Buzzer + LED one color selection type	Lever switch	1	1	10	φ28 pipe	29		DB A20	A227XB-KB02V-P	Open <span style="color:red">△</span>
Buzzer + LED combination type	Lever switch	1	4	14	φ28 pipe	29		DB A20	A227XB-KB08M-P	Open <span style="color:red">△</span>

- ◆ **Buzzer**  
+ LED indication:  
Selection type, combination type  
Lever switch type

Indication, instruction	Response, detection	Number of I/O points		Consumption current (mA)	Installation	Page of dimensional outlines drawing	Setting	Transmission method	Model	Standard price (¥)
		Input	Output							
Buzzer + LED one color selection type	Pushbutton	1	1	10	φ28 pipe	29		DB A20	A227XB-KB02VN-P	Open <span style="color:red">△</span>
Buzzer + LED combination type	Pushbutton	1	4	14	φ28 pipe	29		DB A20	A227XB-KB08MN-P	Open <span style="color:red">△</span>

- ◆ **Buzzer**  
+ LED indication:  
Selection type, combination type  
Photoelectric downward reflection

Indication, instruction	Response, detection	Number of I/O points		Consumption current (mA)	Installation	Page of dimensional outlines drawing	Setting	Transmission method	Model	Standard price (¥)
		Input	Output							
Buzzer + LED one color selection type	Downward reflection	1	1	10	φ28 pipe	29		DB A20	A227XB-KB02VL-P	Open <span style="color:red">△</span>
Buzzer + LED combination type	Downward reflection	1	4	14	φ28 pipe	29		DB A20	A227XB-KB08ML-P	Open <span style="color:red">△</span>

\*The above models are equipped with "H" holder as a standard.  
\*When installing "H1" holder, add "-H1" at the end of the standard model.  
\*When installing "SUS" holder, change the end of the standard model from "-P" to "-PS."



A227XB-KB02V-P  
A227XB-KB08M-P  
Lever switch type  
Standard compact type



A227XB-KB02VN-P  
A227XB-KB08MN-P  
Pushbutton switch type  
Standard compact type



A227XB-KB02VL-P  
A227XB-KB08ML-P  
Photoelectric downward reflection type  
Standard compact type

### ◆ Option

•Common

Product specifications	Installation	Page of dimensional outlines drawing	Model	Standard price (¥)
[H] holder φ28 pipe installation holder lower tightening type (including 5 holders)	φ28 pipe	30	A027-HP28-5P	Open
[H1] holder φ28 pipe installation holder back tightening type (including 5 holders)	φ28 pipe	30	A027-HP28-H1-5P	Open
[SUS] holder SUS pipe installation holder (including 1 holder)	SUS pipe	30	A027-HP-SUS2	Open <span style="color:red">△</span>

\*φ28 pipe installation holder is included with the POKAYOKE terminal (φ28 pipe installation type). Single part is an option for change of installation and repair.

•For lever switch type

Product specifications	Installation	Page of dimensional outlines drawing	Model	Standard price (¥)
Replacement rubber lever set (including cover, lever, ring respectively 5 pieces)	Terminal	-	A027-LES-01-5P	Open

### ◆ Address writer



Product specifications	Type	Page of dimensional outlines drawing	Model	Standard price (¥)
Address writer (general-purpose)	Non-contact type	30	ARW-04	Open
Infrared ray remote head for address writer	Non-contact type	-	ARW-RH	Open
Address writer ARW-04 + Infrared ray remote head	Non-contact type	-	ARW-04-RH	Open



## Indication: LED (stationary) Detection: Touch type (photoelectric reflection type)

### ◆ LED indication: Stationery type

Touch type (photoelectric reflection type)

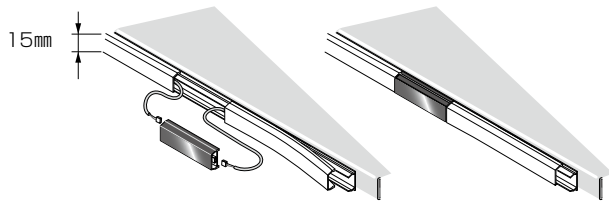
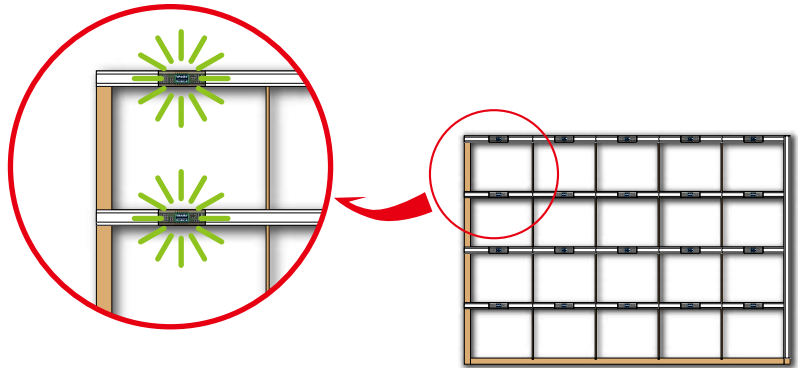


This is best suited for the POKAYOKE terminal when there are many small openings installed on shelves for small parts and electronic components, etc.

This can be installed if the thickness of the shelf plate, etc., is 15mm or more. Therefore, it is commonly used in many situations. This indicates with green LED, and the input method is a touch type (photoelectric reflection type). This reacts only by tapping the body by hand.

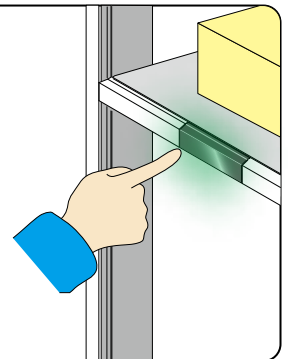
Because there are no movable parts, it is a hard-to-break structure.

Indication, instruction	Response, detection	Number of I/O points		Consumption current (mA)	Installation	Page of dimensional outlines drawing	Setting	Transmission method	Model	Standard price (¥)
		Input	Output							
LED Stationary type (Green)	Touch	1	1	14	Double-sided tape	29	Bitty	DIP switch  Address writer	A092XB-02GL	Open



The POKAYOKE module of the same shape has a wire duct width of 15mm. This can be installed on the side of a shelf plate of which the thickness is 15mm or more, and work time is simplified due to installation only by double-sided tape.

When parts on a shelf where an unloading indication lamp is lit are unloaded and the indication lamp is touched by a finger, "unloading completed" is set.



### ◆ Option

Product specifications	Installation	Page of dimensional outlines drawing	Model	Standard price (¥)
Wiring duct (1m)	Wiring molding	29	A092-DM	Open
Cable with connectors on both ends (0.3sq × 2-core 5cm)	Wiring molding	30	A092-CND-05	Open
Cable with connectors on both ends (0.3sq × 2-core 10cm)	Wiring molding	30	A092-CND-10	Open
Cable with connectors on both ends (0.3sq × 2-core 15cm)	Wiring molding	30	A092-CND-15	Open
Cable with connectors on both ends (0.3sq × 2-core 20cm)	Wiring molding	30	A092-CND-20	Open

### ◆ Address writer



Product specifications	Type	Page of dimensional outlines drawing	Model	Standard price (¥)
Address writer (general-purpose)	Non-contact type	30	ARW-04	Open
Infrared ray remote head for address writer	Non-contact type	-	ARW-RH	Open
Address writer ARW-04 + Infrared ray remote head	Non-contact type	-	ARW-04-RH	Open

## Indication: LED (stationary) Response: None

DIP switch Address writer

◆ LED indication:  
Stationery type  
Special type  
(No response)

Indication, instruction	Response, detection	Number of I/O points		Consumption current (mA)	Installation	Page of dimensional outlines drawing	Setting	Transmission method	Model	Standard price (¥)
		Input	Output							
LED Stationery type (Green)	None		1	20	φ28 pipe	30		Bitty	A027PB-01G-P	Open
LED Stationery type (Green)	None		1	20	φ28 pipe	30		DB A20	A227PB-01G-P	Open

\*The above models are equipped with "H" holder as a standard.

\*When installing "H1" holder, add "-H1" at the end of the standard model.

\*When installing "SUS" holder, change the end of the standard model from "-P" to "-PS."



A027PB-01G-P  
A227PB-01G-P

Standard type

### ◆ Option

• Common

	Product specifications	Installation	Page of dimensional outlines drawing	Model	Standard price (¥)
[H] holder	φ28 pipe installation holder lower tightening type (including 5 holders)	φ28 pipe	30	A027-HP28-5P	Open
[H1] holder	φ28 pipe installation holder back tightening type (including 5 holders)	φ28 pipe	30	A027-HP28-H1-5P	Open
[SUS] holder	SUS pipe installation holder (including 1 holder)	SUS pipe	30	A027-HP-SUS2	Open
	Address switch cover (slide type, transparent) (including 5 pieces)	Slide	-	A027-KA2-5P	Open
	Address switch cover (slide type, Black) (including 5 pieces)	Slide	-	A027-KA3-5P	Open

\*φ28 pipe installation holder is included with the POKAYOKE terminal (φ28 pipe installation type). Single part is an option for change of installation and repair.

## Accessories

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

Product specifications	Details	Model	Standard price (¥)	
Flat cable (100m winding) (Conductor resistance 0.027Ω/m·Allowable current 5A)	4-core flat cable (AWG16 (1.25sq) × 4-core Insulating coating outer diameter φ 2.5±0.1mm)	FK4-125-100	Open	
	4-core flat cable (AWG18 (0.75sq) × 4-core Insulating coating outer diameter φ 2.5±0.1mm)	FK4-075-100	Open	
LP connector (10 connectors included) *Crimp type link connector (Allowable current 5A)  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	4-pole	For 4-core flat cable (1.25sq) (coating outer diameter φ 2.54mm Cover: White Body: Red) Pin protector type	LP4-WR-10P	Open
		For 4-core flat cable (0.75sq) (coating outer diameter φ 2.54mm Cover: Black Body: Black)	LP4-BK-10P	Open
		For 4-core flat cable (0.75sq) (coating outer diameter φ 2.54mm Cover: White Body: Black) Pin protector type	LP4-WH-10P	Open
		For cabtire cable (Coating outer diameter φ 1.1 to 1.4mm Cover: White Body: White)	LP4-WW-10P	Open
		For cabtire cable (Coating outer diameter φ 2.1 to 2.4mm Cover: Orange Body: Black)	LP4-OR-10P	Open
		For cabtire cable (Coating outer diameter φ 1.8 to 2.1mm Cover: Yellow Body: Black)	LP4-YE-10P	Open
		For cabtire cable (Coating outer diameter φ 2.1 to 2.4mm Cover: Orange Body: Gray)	LP4-ORG-10P	Open
		For cabtire cable (Coating outer diameter φ 1.8 to 2.1mm Cover: Yellow Body: Gray)	LP4-YEG-10P	Open
Crimping tool for LP connector	Crimping tool dedicated to LP connector (The connector can be crimped by pliers, etc., however, a dedicated tool is recommended)	LP-TOOL	Open	

#### ◇Flat cable appearance photo



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)



When using in combination with 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 body as shown in the photo.

## Master Units

### ◆PLC Interface



Product specifications	Support I/O points		Consumption current (mA)	Dimensions (mm)	Transmission method	Model	Standard price (¥)
	Input	Output					
I/F for Mitsubishi Electric MELSEC Q series	512	512	500	98x27.4x90	DB A20	QJ51AW12D2	Sold by Mitsubishi Electric
I/F for Mitsubishi Electric MELSEC L series	512	512	500	90x28.5x95	DB A20	LJ51AW12D2	Sold by Mitsubishi Electric
I/F for Mitsubishi Electric MELSEC F series	128 <small>(Note 1)</small>	128 <small>(Note 1)</small>	100	90x43x87	Bitty	FX3U-128BTY-M	Sold by Mitsubishi Electric
Master I/F for Yokogawa Electric FA-M3 series	512	512	500	100x29x92.7	DB A20	AFSR01-D2	Open
Master I/F for OMRON CJ1 series	512	512	500	65x31x90	DB A20	AFCJ01-D2	Open
Master I/F for OMRON CS1 series	512	512	500	130x34.5x110.5	DB A20	AFCS01-D2	Open
Master I/F for Toshiba S2T	512	512	500	130x35x113	DB A20	AF611-D2	Open
Master I/F for Fuji Electric SX	512	512	500	105x34.8x97.3	DB A20	NP1L-AW1-D2	Open
Master I/F for PANASONIC FPΣ	512	512	500	60x30x90	DB A20	AFSP01-D2	Open

Note 1: Number of input points + number of output points ≤ 128 (if number of input points + number of output points ≥ 128, number of input points is prioritized.)

\*Master I/F for Sharp JW20/30/300 series, master I/F for Yaskawa Electric MP2000 series also available. For details, contact our sales representative.

\*Consumption current is external supply part only. For details, refer to the operation manual.

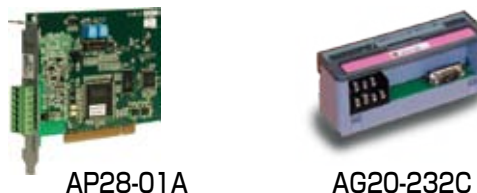
### ◆Touch Panel Interface



Product specifications	Support I/O points		Consumption current (mA)	Dimensions (mm)	Transmission method	Model	Standard price (¥)
	Input	Output					
Master I/F for digital LT 3000 series	448	448	200	90x71x23.5	DB A20	AFLT01-D2	Open

\*Consumption current is external supply part only. For details, refer to the operation manual.

### ◆PC Interface



Product specifications	Support I/O points		Consumption current (mA)	Dimensions (mm)	Transmission method	Model	Standard price (¥)
	Input	Output					
Master I/F for PCI bus	512	512	500	150x106.7x21.5	DB A20	AP28-01A	Open
Master I/F for PC104 bus	512	512	500	96x90x15.2	DB A20	APC28-104	Open
RS-232C gateway <small>(Note 2)</small>	512	512	500	140x40x60	DB A20	AG20-232C	Open
RS485 Modbus serial I/F	512	512	500	140x40x60	DB A20	AG20-485MD	Open

Note 2: Driver development is required because protocol specifications differ depending on the connected equipment. For details, contact our sales representative.

\*Consumption current is external supply part only. For details, refer to the operation manual.



## Master Units

### ◆Open FieldBus Gateway



NZ2AW1C2D2

AG22-C1

AG22-D1

Product specifications	Support I/O points		Consumption current (mA)	Dimensions (mm)	Transmission method	Model	Standard price (¥)
	Input	Output					
CC-Link—AnyWire DB A20 Bridge unit for CC-Link ver 2.00	512	512	400	140x57x54.5	DB A20	NZ2AW1C2D2	Sold by Mitsubishi Electric
Gateway for CC-Link ver 1.10	256	256	400	140x57x54.5	DB A20	AG22-C1	Open
Gateway for DeviceNet	512	512	400	140x57x54.5	DB A20	AG22-D1	Open

### ◆Bit dispersion I/O terminal Open Terminal



NZ2AW1C1BY

AB023-D1

AB023-M1

AB023-M2

Product specifications	Connection specifications	Support I/O points		Consumption current	Dimensions (mm)	Transmission method	Model	Standard price (¥)
		Input	Output					
CC-Link—AnyWire Bitty Bridge unit for CC-Link ver 1.10	Remote device station (1 to 4 stations are selectable)	256 (When 4 stations are occupied)	256 (When 4 stations are occupied)	Approx. 200mA (When 128 terminals are connected) (Not including load current)	40x100x66 (Excluding connector part)	Bitty	NZ2AW1C1BY	Sold by Mitsubishi Electric
Bit dispersion I/O terminal for DeviceNet	Group 2 only server	256	256	Approx. 200mA (When 128 terminals are connected) (Not including load current)	40x100x66 (Excluding connector part)	Bitty	AB023-D1	Open
Bit dispersion I/O terminal for MECHATROLINK-I/II	Intelligent I/O	216	216	Approx. 200mA (When 128 terminals are connected) (Not including load current)	40x100x73	Bitty	AB023-M1	Open
Bit dispersion I/O terminal for MECHATROLINK-III	Intelligent I/O	256	256	Approx. 200mA (When 128 terminals are connected) (Not including load current)	40x100x66	Bitty	AB023-M2	Open

## Terminator

### ◆Terminator (Waveform forming module)



ATO

Product specifications	Dimensions (mm)	Transmission method	Model	Standard price (¥)
For DB A20 Line terminal, with polarity (attachment holder included)	44x24.5x12	DB A20	AT2	Open
Bitty Line terminal, with polarity (attachment holder included)	44x24.5x12	Bitty	ATO	Open

## Bitty bridge

### ◆Bitty bridge (DB A20 - Bitty bridge)



AnyWire DB A20

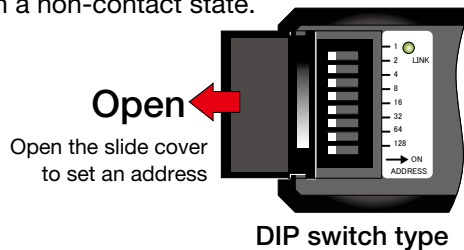
Product specifications	Connection specifications	Support I/O points		Consumption current	Dimensions (mm)	Transmission method	Model	Standard price (¥)
		Input	Output					
Bitty bridge Power combination unit	AnyWire DB A20 ⇕ AnyWire Bitty	256	256	104mA or less (When 128 terminals are connected) (Not including load current)	100x48x40	Bitty	AB07-A-V3	Open

\*Transmission of "Bitty series" can be connected at the lower position of transmission of the "DB A20 series" by using Bitty bridge.

### Two types of address setting methods

There are two types of address setting methods for the AnyWire POKAYOKE terminal, and the type depends on the terminal.

One is a type to use a DIP switch for setting, and the other is a type to use an address writer to read and write address in a non-contact state.



DIP switch type



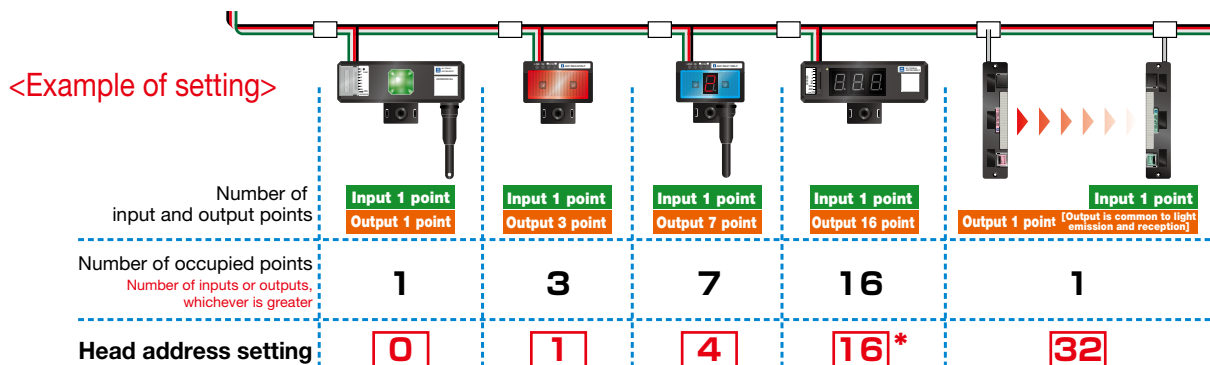
Address writer type

Unless the address is mistakenly set even if POKAYOKE terminals of two types of address setting methods are combined, it will operate without any problem. However, combining these may result in an address setting error at the time of installation, maintenance or expansion. Therefore, it is not recommended.

“Structure of address” common to all AnyWire POKAYOKE terminals is explained before operation of respective address setting types and setting methods are described.

### Structure of address

AnyWire POKAYOKE terminals inform of the existence of terminals to a controller on the upper order by setting the head address of individual terminals. The address is represented by a decimal number, and can be set in units of 1 bit or 16 bits (it differs by product). \*Maximum number of points varies with the system configuration. Contact us for details. Examples of setting in the case that some types of POKAYOKE terminals are combined are shown below.



\*For a terminal of 7-segment 3 digits, address is set in units of 16 points (16 bits).  
The value is set every 16 points regardless of the number of occupied points of immediately previous terminals.

The address of the first address is “0.” Then, the address of the next terminal is, as a rule,

**“address set value of immediately previous terminal” +  
“number of occupied points of immediately previous terminal (Number of inputs or outputs, whichever is greater),**

and values for the number of occupied points are sequentially added. As the number of occupied points differs with each terminal, refer to and confirm by the introduction page of each product. And because the address can be set only in units of 16 points for some terminals, it is necessary to set it to a value larger than the above calculated value and multiples of 16.

It is not necessary that the address set values are in connecting order. If addresses are set without duplication even when the connecting orders are exchanged by remodeling or expansion, operation can be made. And it is not necessary to always set without a margin. If there are number of points to spare and expansion, etc., is expected in the future, skip some addresses when setting.

## Address setting by DIP switch

Set an address by DIP switch with the slide cover of the POKAYOKE terminal body opened. Be careful of the following points when setting an address.

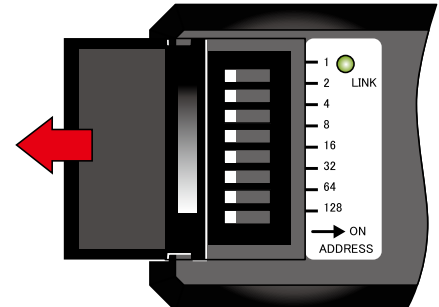
◇ Operate the DIP switch with the power for the POKAYOKE terminal turned off.

Change in a power-on state may cause unexpected motion, which is very dangerous.

◇ Use a non-conductive rod with a thin tip, etc., and make sure to perform ON/OFF operation of the DIP switch.

\*There are some products of which the DIP switch is very small and difficult to operate by finger.

◇ Confirm that there is no mixture of foreign matter in the cover after setting, and make sure to completely close the slide cover.



DIP switch type

## Address setting by address writer

To set an address by address writer, it is necessary to use an address writer compatible with your POKAYOKE terminal. There are the following two types of address writers.



### Address writer ARW-04

This writer can be used for all POKAYOKE terminals.

When it is difficult to hold ARW-04 at narrow locations, use an optional remote head. (Model: ARW-RH)



ARW-RH



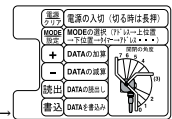
### Address writer ARW-02V1

This address writer is dedicated to the POKAYOKE terminal of door opening/closing type.

This is more convenient only for door opening/closing type because indication of motion mode, etc., is suitable for door opening/closing type.

\*This can be used for all POKAYOKE terminals if used only for address setting.

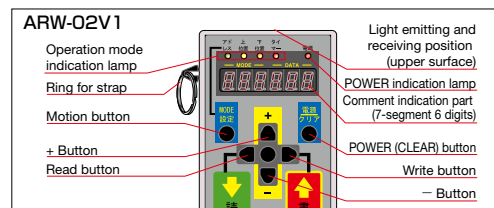
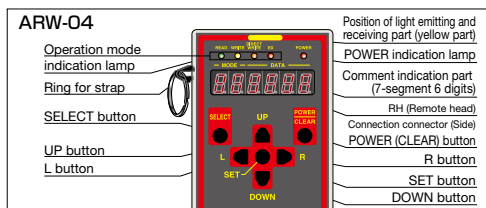
Operation explanatory diagram on the back of the address writer



\*Japanese only

Model	Address setting	Setting of door opening/closing type terminal	Setting of LED indication (selection type) and buzzer type
ARW-04	○	○*Setting method is described in the manual	○*Setting method is described in the manual
ARW-02V1	○	◎*Setting method is described on the back of the body	×

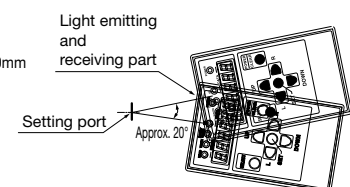
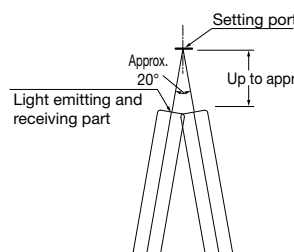
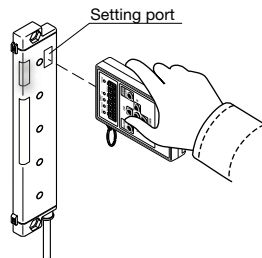
### ■ Name of each part



### ■ Reference of approach when address is set and confirmed

(Image of operation)

\*Example: ARW-04 and POKAYOKE terminal of photoelectric transmission type



When setting an address, be careful of the following.

◇ Perform operations of address setting by the address writer with power fed to the POKAYOKE terminal, and reset the power after completion of setting to reflect the setting.

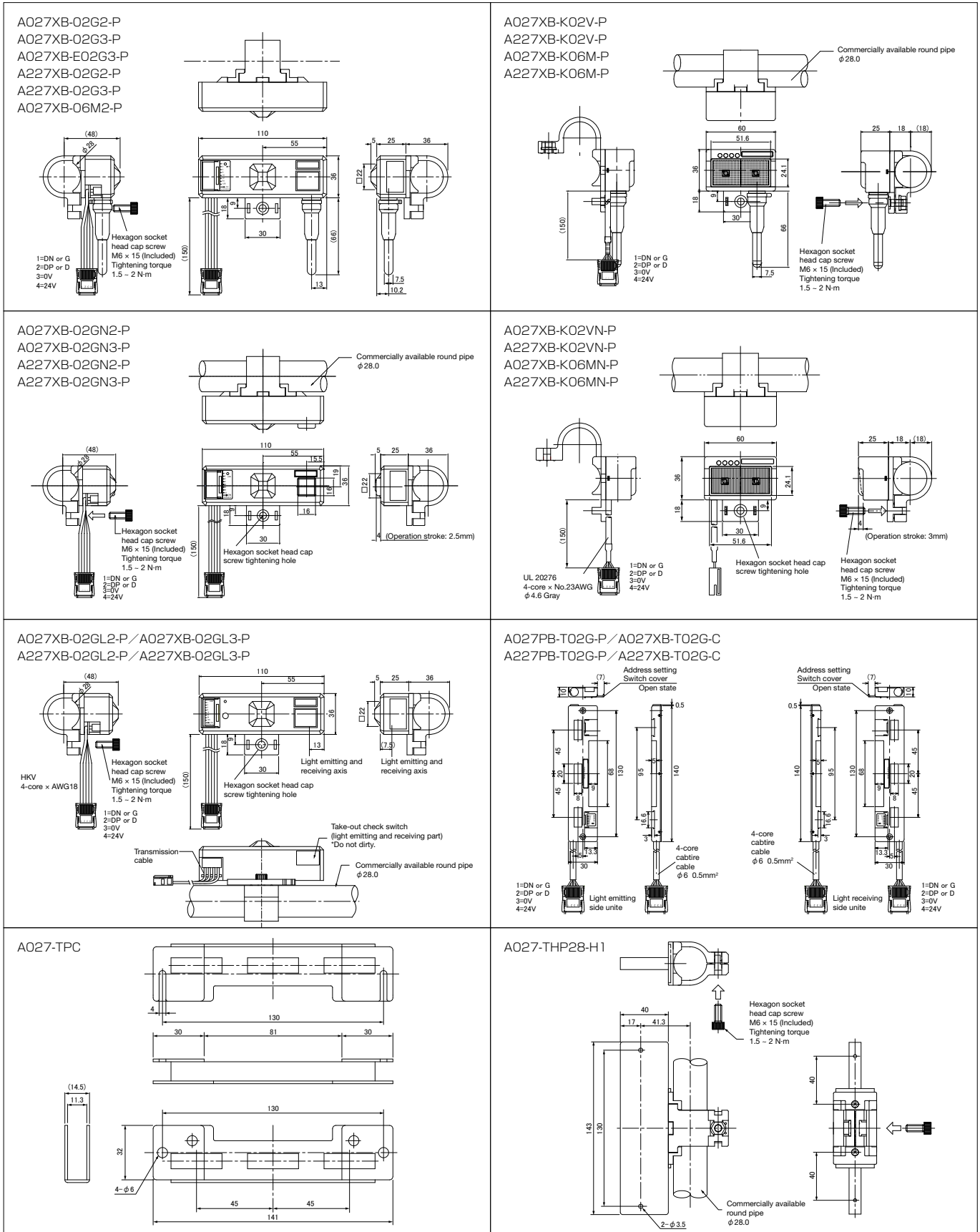
When any change is made in direct mode, the changed content will be immediately reflected.

Please keep in mind that when a change is made unexpected movement may occur, and this can be dangerous.

◇ Refer to and confirm by the manual for details.

## Dimensional outlines drawing

Unit: mm



\*Refer to page 30 for dimensional outlines drawings of φ28 pipe installation holder, SUS pipe installation holder and address writer excluding those for transmission type.



# Dimensional outlines drawing

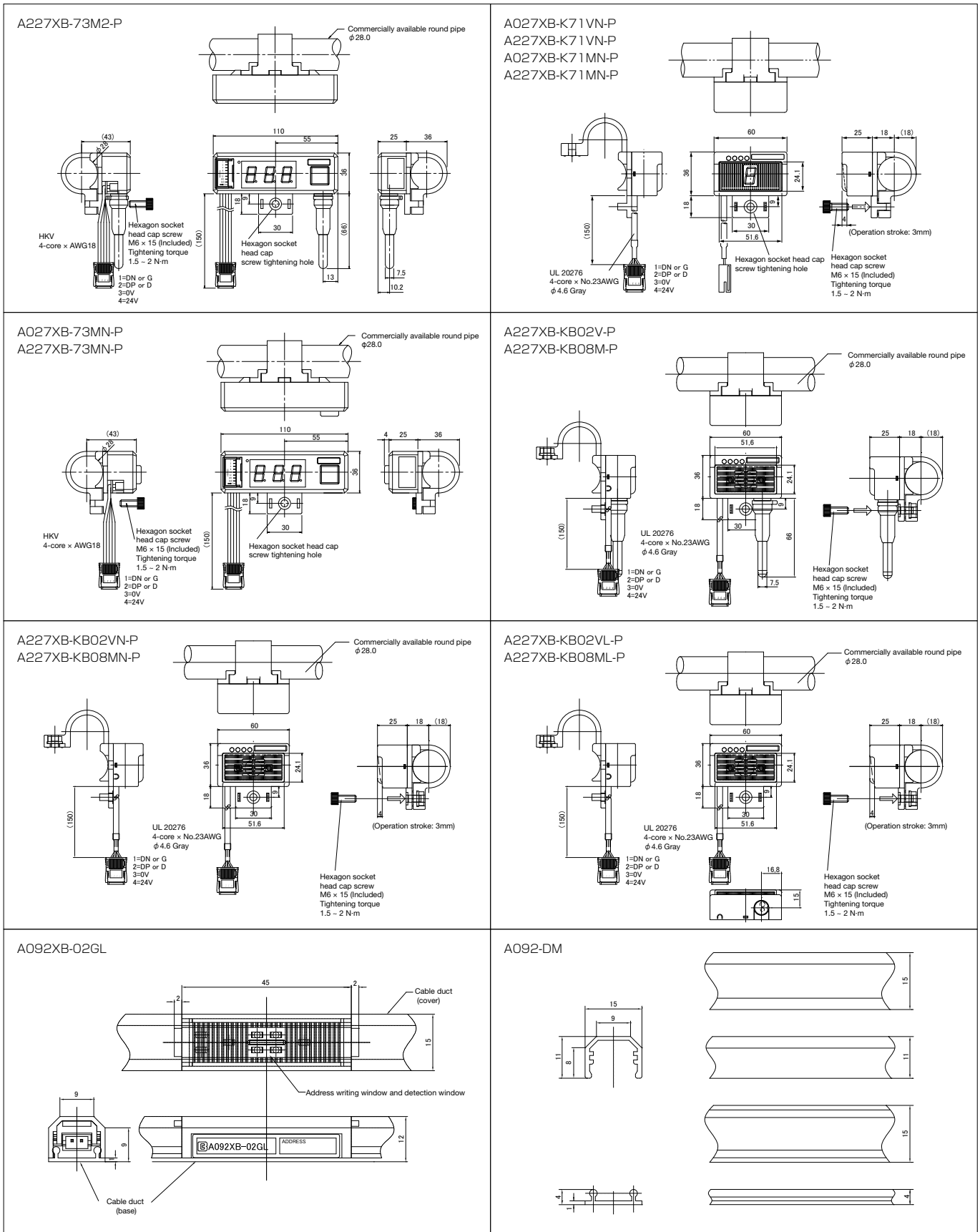
Unit: mm

<p>A027PB-T07P02D-P / A027XB-T07P02D-C A227PB-T07P02D-P / A227XB-T07P02D-C</p> <p>Light emitting side unite</p> <p>Light receiving side unite</p>	<p>A027PB-T14P02D-P / A027XB-T14P02D-C A227PB-T14P02D-P / A227XB-T14P02D-C</p> <p>Light emitting side unite</p> <p>Light receiving side unite</p>
<p>A027-T07PC</p>	<p>A027-T14PC</p>
<p>A027-T07PHP28-H1</p>	<p>A027-T14PHP28-H1</p>
<p>A027XB-F02G3-P A227XB-F02G3-P</p>	<p>A027XB-K71V-P A227XB-K71V-P A027XB-K71M-P A227XB-K71M-P</p>

\*Refer to page 30 for dimensional outlines drawings of φ28 pipe installation holder, SUS pipe installation holder and address writer excluding those for transmission type.

## Dimensional outlines drawing

Unit: mm

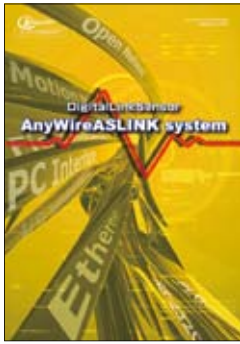


\*Refer to page 30 for dimensional outlines drawings of  $\phi 28$  pipe installation holder, SUS pipe installation holder and address writer excluding those for transmission type.

## Dimensional outlines drawing

Unit: mm

<p>A092-CND-05 A092-CND-10 A092-CND-15 A092-CND-20</p> <p>Housing: EHR-2 manufactured by JST Contact: SEH-001T-P0.6 manufactured by JST AWG22 UL1007 gray is used</p> <p>50±0.6 100±0.6 150±0.6 200±0.6</p>	<p>A027PB-01G-P A227PB-01G-P</p> <p>Commercially available round pipe φ28.0</p> <p>HKV 4-core x AWG18</p> <p>Hexagon socket head cap screw M6 x 15 (Included) Tightening torque 1.5 - 2 N·m</p> <p>1=DN or G 2=DP or D 3=0V 4=24V</p> <p>Hexagon socket head cap screw tightening hole</p> <p>(48) 110 55 25 38 D22 30 (150)</p>
<p>ARW-04</p> <p>61 19 100</p>	<p>ARW-02V1</p> <p>61 19 100</p>
<p>A027-HP28-5P</p> <p>Commercially available round pipe φ28.0</p> <p>60 18 (18) 18 15 36 1.5 1.5 30 40 2-φ4</p> <p>Hexagon socket head cap screw M6 x 15 (Included) Tightening torque 1.5 - 2 N·m</p>	<p>A027-HP28-H1-5P</p> <p>Commercially available round pipe φ28.0</p> <p>60 18 (32) 18 15 36 40 2-φ4</p> <p>M6 flange nut</p> <p>Hexagon socket head cap screw M6 x 15 (Included) Tightening torque 1.5 - 2 N·m</p>
<p>A027-HP-SUS2</p> <p>7.3 60 40 16 15.35 18 2-φ1.5 36 M6x25 Hexagon socket head cap screw</p> <p>7.3</p>	



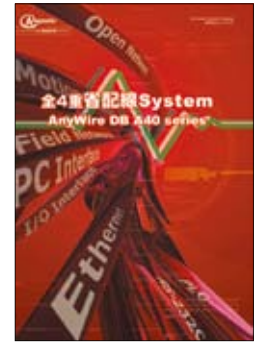
**AnyWireASLINK system catalog**



**Bitty series catalog**



**DB A20 series catalog**



**DB A40 series catalog**



**POKAYOKE catalog**



**Mapping catalog**



**iDC Environmental Monitoring System catalog**



**Energy monitoring energy saving support catalog**

**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>**

●WARNING ○CAUTION

○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. The 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 system has a high noise margin, separate the transmission line and the input/output cables from the high voltage line and the power line.

○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 POKAYOKE terminal series, DB A20 series, Bitty series within the range of the specifications and conditions specified in each manual.

**ISO9001 / 1400 Certification**

**Anywire Corporation**

**Headquarters**  
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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: