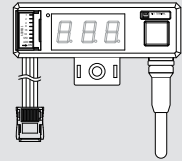




AnyWire POKA-YOKE TERMINAL series

Picking Terminal (Pipe shelf mounting type)

A227XB-73M2-P



Replaceable lever type input

7-segment indicator lamp (3 pcs), RGB indicator lamp

The AnyWire System Products Guide describes individual products. Refer to the Guide as necessary.

[Notes on Safety]

Precautions that must be observed in order to use this system safely are indicated as shown below. You must observe these precautions.



A WARNING indicates a potentially hazardous situation which, if not handled correctly, could result in death or serious injury.



A CAUTION indicates a potentially hazardous situation which, if not handled correctly, may result in personal injury or property damage.



System Safety

This system is intended for general industrial applications. It does not have 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 AnyWire DB A20 series has a high noise margin, keep the transmission line and I/O cables away from high-voltage and power cables.

Connectors and terminals

* 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 be caused.
- Use the AnyWire DB A20 series within the range of the specifications and conditions shown below.

[Features]

- * This product is compatible with the AnyWire DB A20 series Bus.
- * This product has a replaceable lever type eject check switch (input), a 7-segment indicator lamp (3 pcs) (output) and a RGB indicator lamp (output).
- * This product can be laid out with a φ28 pipe.
- * This product has a flat cable equipped with a link connector for transmission line connection.
- * Number of maximum connection units with transmission distance 200m and 4-wire connection: 32 units

[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 as 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 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 damages 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.

[Type]

A227XB-73M2-P	16 points output	7-segment, RGB indicator lamp
	One point input	Lever type switch

[Connection Example]

CC-Link DeviceNet

Compatible Open Bus	Type	Connector layout
CC-Link Gateway	AG22-C1 Input: 256 points Output: 256 points	FG SLD DG DB BA
	AG22-C2 Input: 512 points Output: 512 points	
DeviceNet Gateway	AG22-D1 Input: 512 points Output: 512 points	+V HNCN Drain CANL -V

24V DC stabilized power supply for general-purpose

Install an AnyWire DB A20 series dedicated power supply. Power supply/Power

Voltage used: Rated 24V DC

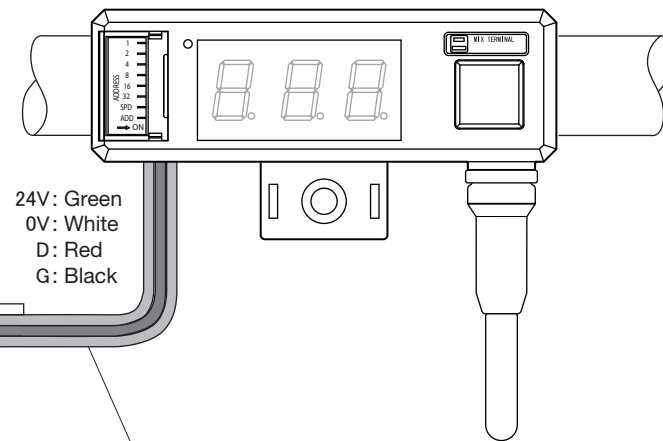
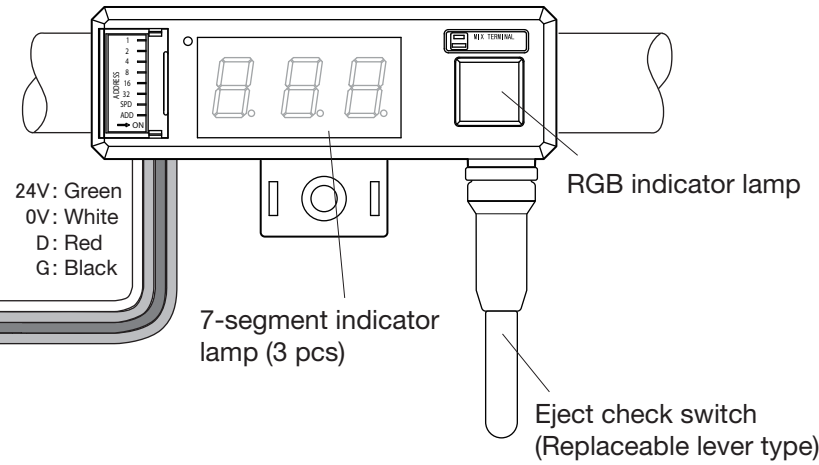
CAUTION Set the master transmission distance (speed) setting to "200m." This does not operate with other settings.

The following condition is allowed for the transmission line.

Cable: Our flat cable (FK4-075-100) (4-wire wiring including power supply)
Transmission distance: within the maximum length of 200m
Number of connected units: Up to 32 units

* The total length refers to the total of the used cables.

Link connector (38104-0018-000FL) manufactured by Sumitomo 3M Limited can be used for the branched part.
→Our model (LP4-BK-10P)



CAUTION The terminator (AT2) is a composite element to stabilize the transmission wave form. Connect it at a position at the furthest end from the master in the transmission line. Note that it has own polarities. (The LED lights up in a normal state.) Improper connection may cause a malfunction or a failure.

CAUTION When making the connection, make sure that the cable is not under tension. In addition, do not fix the unit while the cable is under tension.



● **Transmission line (AnyWire Bus line)**
Connect transmission lines **D** and **G** correctly.

● **Installation of transmission lines**

The transmission signal has high noise resistance, however, when installing the transmission line, keep the transmission line away from high voltage lines and the power lines as much as possible. Assign one transmission cable to one master. Even if multiple systems are used, install a cable for each system and do not use one multi-wire cable for them.

● **Transmission line error**

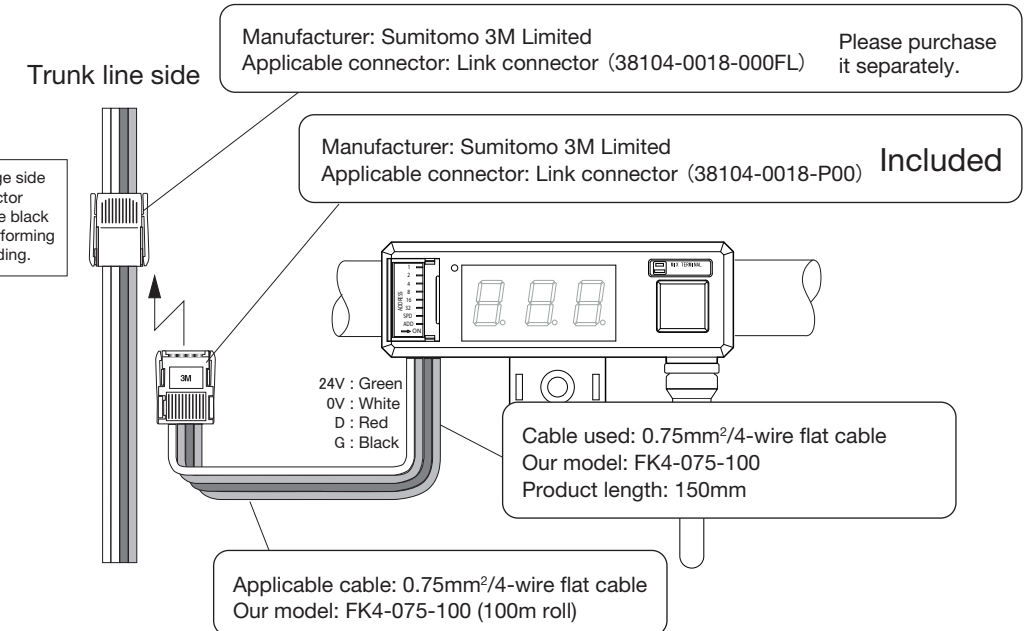
When the transmission line is not working properly, the output of **A227XB-73M2-P** is turned OFF regardless of output data from **AG22-□□** side. In addition, even if the lever of **A227XB-73M2-P** is turned ON, the input data of **AG22-□□** side is turned OFF.

● **Power supply for AnyWire system**

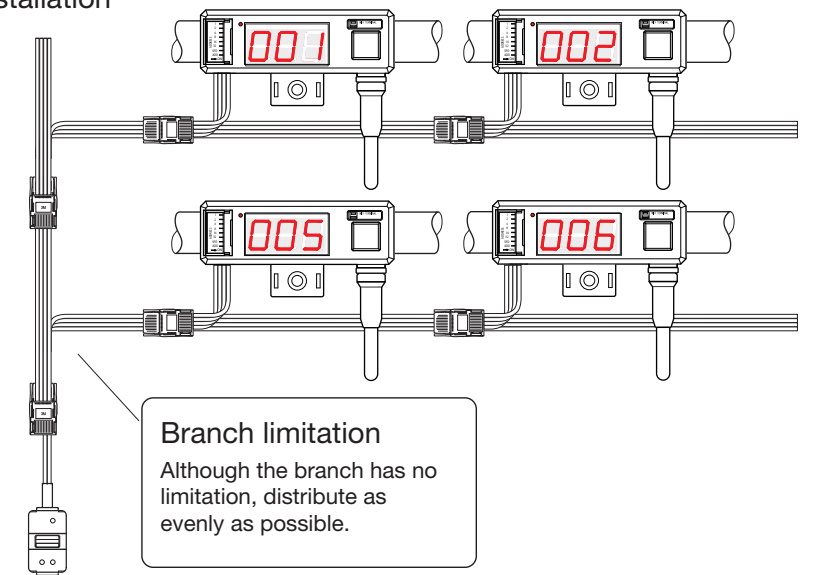
Install a 24V DC stabilized power supply dedicated to the **AnyWire** system.

■ **Wiring for picking unit**

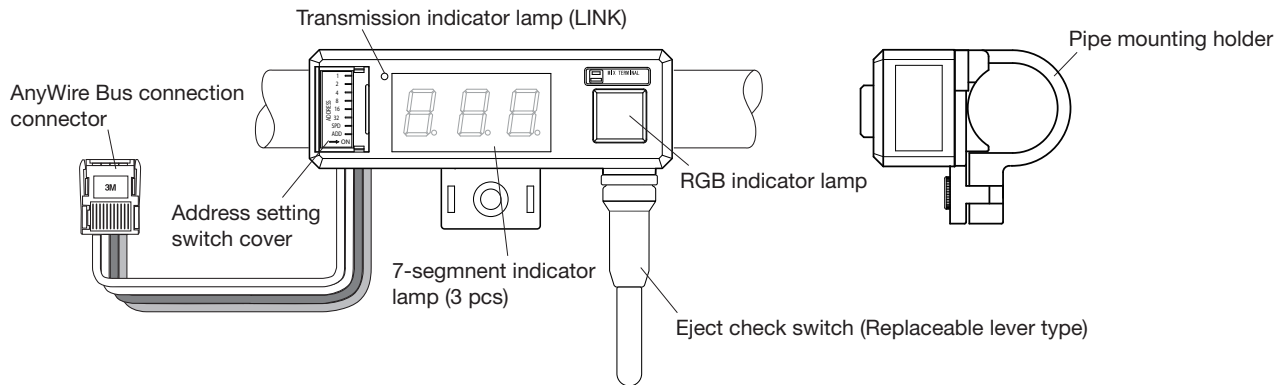
- Perform wiring using a cable with connector protruding from the back of the unit.
- Connect the cable, being careful not to reverse the connection or cause a short circuit.
- Use a dedicated tool (L-TOOL-N: SUZUDEN CORPORATION) when swaging by link the connector.



■ **Example of installation**

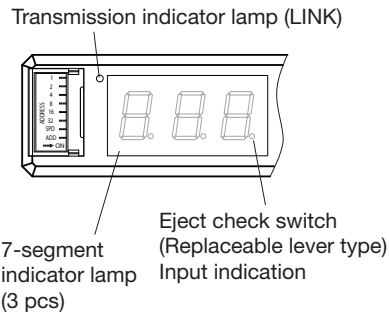


[Name of Each Part]



[Monitor Display]

- This equipment has a monitoring function.
- The operation indicator lamp indicates the system state as shown in the table on the right.
- In any case other than normal indication, immediately turn off the power.
- After removing the cause, confirm safety and turn on the power again.



Indication LED	Indicated state	Monitor information
Transmission indicator lamp (LINK) (Orange)	Flashing	Transmission signal received
	Goes out	Transmission line error Disconnection of power Transmission speed setting discrepancy
7-segment indicator lamp (Red)	Lights up	Specified value indication
	Goes out	Power shutdown FFFF data Transmission speed setting discrepancy
	Flashing	Address set value check indicating
RGB indicator lamp	Lights up	Indication specified
	Goes out	Indication not specified
Eject check switch	Lights up	Check input ON
Input indication (Red)	Goes out	Check input OFF

- Data state when transmission error is detected

Input data of AG22-□□: Turns **OFF** regardless of data state immediately before error occurs.

In addition, even if **A227XB-73M2-P** input is turned **ON** during an error state, input data on the master side is kept **OFF**.

Output data of A227XB-73M2-P: Turns **OFF** regardless of data state immediately before error occurs.

[Address Setting]

- Address numbers set in this unit are used to correspond to the I/O memory map of the controller.
- The value set with the address setting switch for the terminal indicates the address number at the head of the terminal for the AnyWire transmission frame, and occupies 16 points after the number.
- You can set the address value in 16 point units.
- The switch “ADD” “HEX” is a switch to change the 7-segment function.
- Switch “·” is set before shipment. Do not change it.

Address setting example

Address	Switch Setting				
	16	32	64	128	256
0	:	:	:	:	:
64	:	:	○	:	:
:	:	:	:	:	:
496	○	○	○	○	○

* Set in such a manner so as not to exceed the maximum number of transmission points including the number of own terminals.

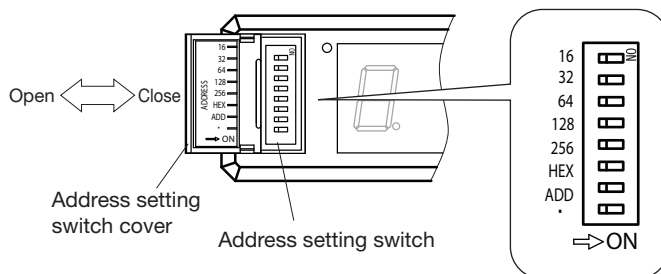
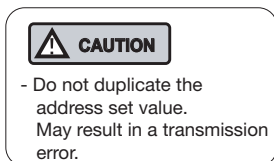
Address indication value switching

HEX	7-segment indication
ON	Hexadecimal indication
OFF	Decimal indication

Address set value check indication

ADD	7-segment indication
OFF	Eject specified value
ON	Set address value

* Turn OFF “ADD” during picking operation.



■ Data configuration

Input	Configuration of 1 word (16 points)															LSD	
	MSD	15	14	13	12	11	10	9	8	7	6	5	4	3	2		1
																	0
	Reserve															INO	
Output	Configuration of 1 word (16 points)															LSD	
	MSD	15	14	13	12	11	10	9	8	7	6	5	4	3	2		1
	OUT	B	G	R													0
				Digit on front left side	Digit on front center			Digit on front right side									
				BCD	BCD			BCD									

This bit becomes the address set value, and then 1 word (16 points) is occupied after that.

BCD content (each digit)

0000	
·	→0 ~ 9
1001	
1010	→A
1011	→B
1100	→C
1101	→D
1110	→E
1111	→Blank

— This unit does not support the configuration. (Optional specification)

[Power Consumption]

Type	Power Consumption	Mass
A227XB-73M2-P	Completely shuts off, when the lever is OFF : 8.4mA When the lever is ON : 8.7mA When [0][0][0] is indicated : 14mA When [8][8][8] is indicated : 15mA When [R][G][B] is indicated at the same time : 13.7mA When [0][0][0]+[R][G][B] is indicated at the same time : 19.2mA When [8][8][8]+[R][G][B] is indicated at the same time : 20mA	106g

[Specifications]

Item	Specification
Operating power supply voltage	24V DC (rating) Ripple 0.5 Vp-p
Allowable voltage range	24V DC +15%, -10% (27.6V - 21.6V)
Ambient temperature use	0 - +55°C
Ambient humidity use	35 - 85%RH No condensation
Storage temperature	-20 - +70°C
Atmosphere	No corrosive gas
Noise resistance	1200Vp-p (Pulse width 1 μs)
Transmission method	Total frame/cyclic method
Synchronization method	Frame/bit synchronization method
Transmission procedure	Dedicated protocol (AnyWire Bus)
Connection mode	Bus type (Multi-drop method, T-branch method, Tree branch method)
Number of connected points	Maximum 1024 points (IN: 512 points, OUT: 512 points)
Number of connection points	Up to 32 units (Connect to A227XB-73M2-P only)
Transmission distance	Up to 200 m (0.75mm ² when using our flat cable)
Number of occupied data items	Input 1 bit/output 16 bit

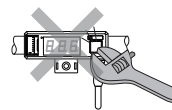


Set the master transmission distance (speed) setting to "200m."
Will not operate with other settings.

[Mounting Location]

- * Location where the unit will not be subject to vibration or shock.
- * Where the body is not exposed to waste metal or sputter.
- * Location where humidity is 35 to 85% RH, non-condensing.
- * Location where the atmosphere is free of corrosive gas, flammable gas, and sulfur.
- * Location where there are no high-voltage or high-current cables.
- * Location where there are no cables and controllers that generate servo, inverter, or other high-frequency noise.

This unit does not have any special protective structure.



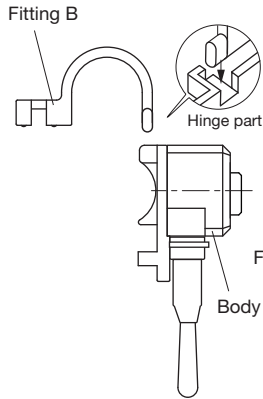
Protect the unit from shock (no more than 0.49 G). It may cause damage.



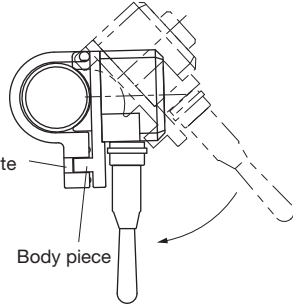
Do not install the unit in a location subject to constant vibration.

[How to Mount Fittings on the Pipe]

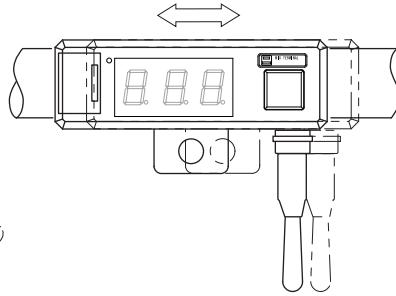
Hook the boss of fitting B onto the hinge part of the body.



Hook fitting B onto the pipe, and then pull the body to make the connection. When the body piece snaps into the flute of fitting B, a temporary fixing has been made.

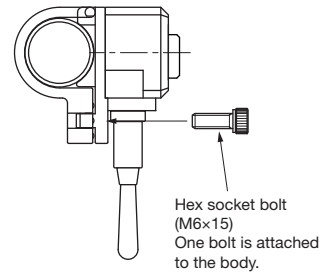


Slide the body to adjust the position.



Once the position has been determined, fasten fitting B to the pipe with the provided bolts.

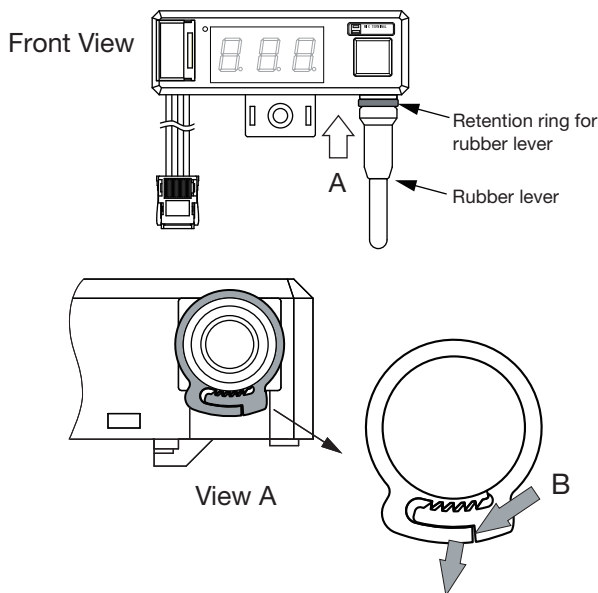
M6 bolt fastening torque: 1.5 - 2 N-m



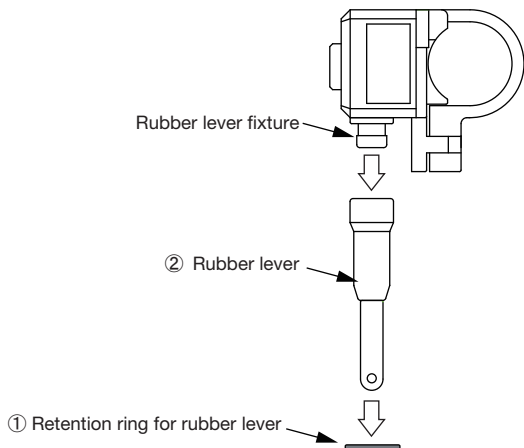
[How to Replace the Lever]

■ Removal of Rubber Lever

- (1) Push the black part of the retention ring for the rubber lever in the direction of B and release the stopper fitting to loosen the ring.

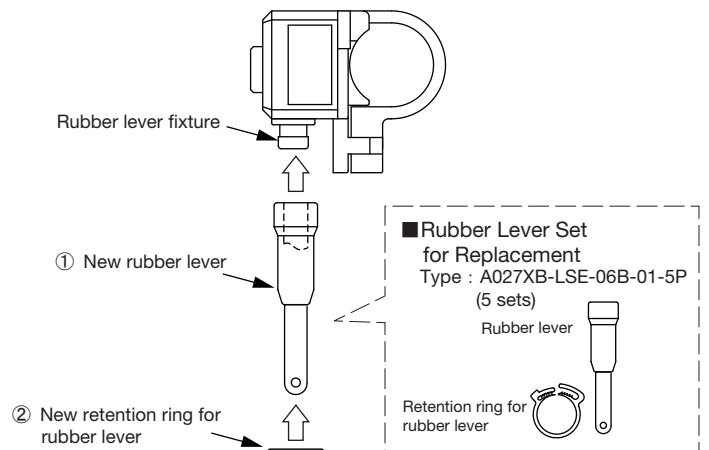


- (2) Remove the rubber lever from the rubber lever fixture in order (① → ②).

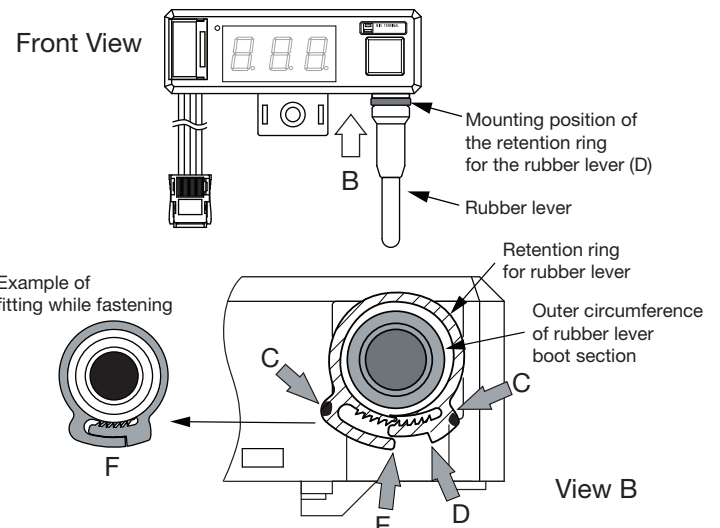


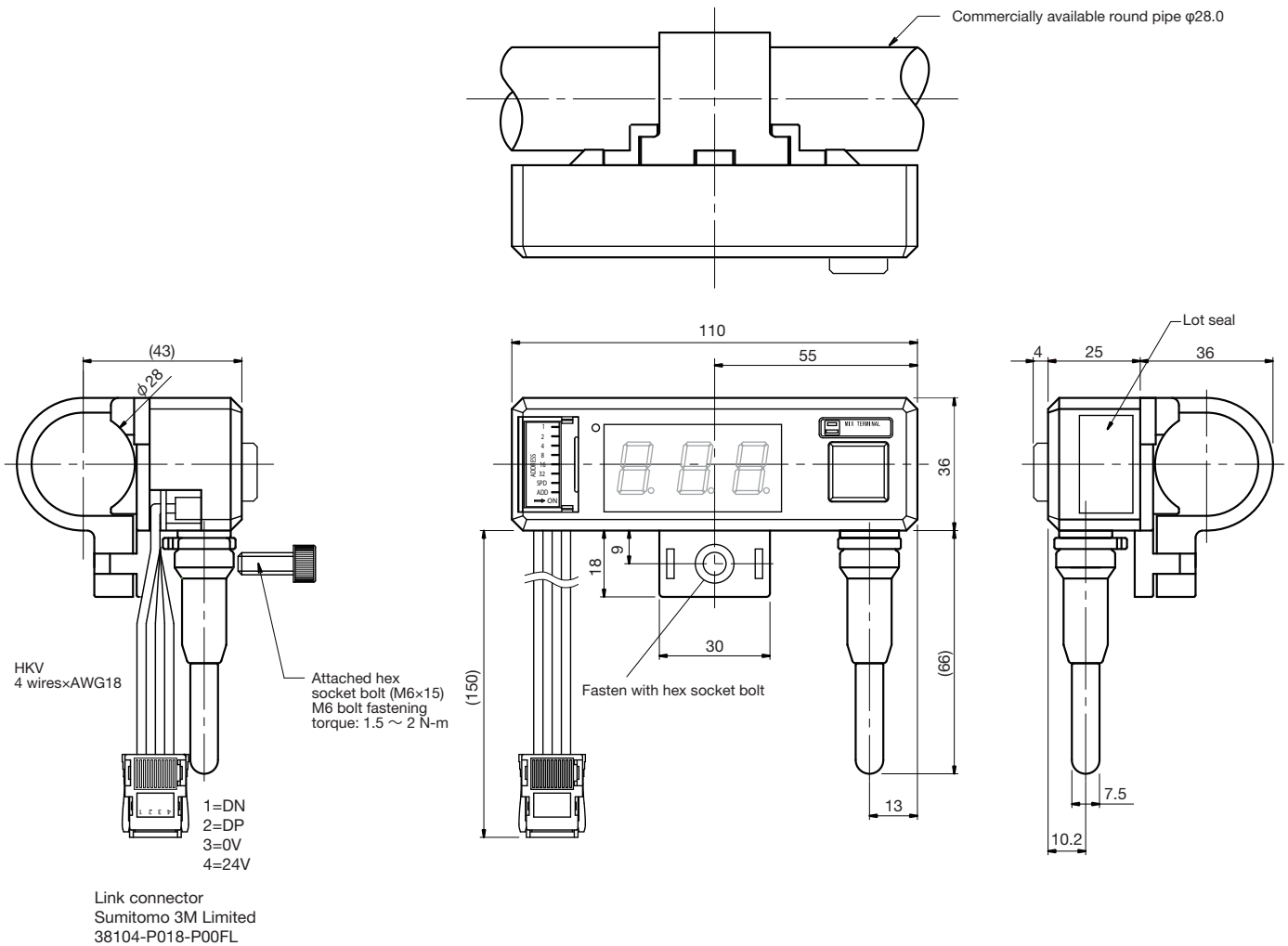
■ Mounting the Rubber Lever

- (1) Ensure that a rubber lever fixture has been pushed completely into the boot section and place the retention ring over the rubber lever. Use a new retention ring for the rubber lever.



- (2) Mount the retention ring for the rubber lever to the (D) position (Rubber lever boot section) in the front view. Fasten the outer circumference of the rubber lever boot section after pushing the black mark part in the direction of C with pliers, etc., and matching the stopper piece until D and E contact each other (Refer to F). After fastening, pull the lever and ensure that the lever is securely fixed.





[Address]

Anywire Corporation

Headquarters:

1 Babazusho, Nagaokakyo-shi, Kyoto 617-8550 JAPAN TEL: (+81) 75-956-1611 (main) / FAX: (+81) 75-956-1613

West Japan Office:

1 Babazusho, Nagaokakyo-shi, Kyoto 617-8550 JAPAN TEL: (+81) 75-956-4911 / FAX: (+81) 75-956-1613

East Japan Office:

6F, Shinkoei Bldg., 47, Kandakonya-cho, Chiyoda-ku, Tokyo 101-0035 JAPAN TEL: (+81) 3-5209-5711 / FAX: (+81) 3-5209-5713

Chubu Office:

5-1-14, Yadaminami, Higashi-ku, Nagoya-shi, Aichi 461-0048 JAPAN TEL: (+81) 52-723-4611 / FAX: (+81) 52-723-4683

Kyushu Office:

7F, No. 6 Myojo Bldg., 1-15-2 Tenjin, Chuo-ku, Fukuoka-shi, Fukuoka 810-0001 JAPAN TEL: (+81) 92-724-3711 / FAX: (+81) 92-724-3713