Panasonic **INSTRUCTION MANUAL**

High-functional Digital Fiber Sensor **FX-302(P)**

ME-FX302 No.0033-38V

Thank you very much for purchasing Panasonic products. Please read this Instruction Manual carefully and thoroughly for the correct and optimum use of this product. Kindly keep this manual in a convenient place for quick reference.

WARNING
- **Never use this product as a sensing device for personnel protection.**
- **In case of using sensing devices for personnel protection, use products which meet standards, such as OSHA, ANSI or IEC etc., for personnel protection applicable in each region or country.**

1 SPECIFICATIONS

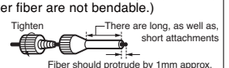
Item \ Type / Model No.		NPN output **FX-302**	PNP output **FX-302P**
Supply voltage		12 to 24V DC ±10% Ripple P-P 10% or less	
Power consumption		Normal operation: 960mW or less (current consumption 40mA or less at 24V supply voltage) Eco-mode: 600mW or less (current consumption 25mA or less at 24V supply voltage)	
Output		NPN open-collector transistor • Maximum sink current: 100mA (Note 1) • Applied voltage: 30V DC or less (between output and 0V) • Residual voltage: 1.5V or less [at 100mA (Note 1) sink current]	PNP open-collector transistor • Maximum source current: 100mA (Note 1) • Applied voltage: 30V DC or less (between output and +V) • Residual voltage: 1.5V or less [at 100mA (Note 1) source current]
	Output operation	Light-ON or Dark-ON, selectable with jog switch	
	Short-circuit protection	Incorporated	
Response time		300μs or less, 500μs or less, 4.0ms or less, selectable with jog switch	
Display		4 digit red LED display	
Sensitivity setting	Normal mode	2-level teaching / Limit teaching / Manual adjustment	
	Window comparator mode	Teaching (1-level/2-level/3-level) / Manual adjustment	
Fine sensitivity adjustment function		Incorporated	
Timer function		Incorporated with variable ON-delay timer, OFF-delay timer, ONE SHOT timer, ON-delay/OFF-delay timer, ON-delay/ONE SHOT timer, switchable either effective or ineffective (Timer: 0.5ms approx. to 5 sec.)	
Interference prevention function		Incorporated [Eight sensors can be mounted closely. (Note 2)] (Note 3)	
Ambient temperature		–10 to +55°C (If 4 to 7 units are connected in cascade: –10 to +50°C, if 8 to 16 units are connected in cascade: –10 to +45°C) (No dew condensation or icing allowed), Storage: –20 to +70°C	
Ambient humidity		35 to 85% RH, Storage: 35 to 85% RH	
Emitting element		Red LED (modulated)	
Material		Enclosure: Heat-resistant ABS, Transparent cover: Polycarbonate, Switch: Acrylic	
Weight		20g approx.	

Notes: 1) 50mA if five, or more, amplifiers are connected in cascade.
2) In case of mounting with Digital fiber sensor **FX-301**(**P**) or Manual setting fiber sensor **FX-311**(**P**) in cascade, up to 4 sensor units can be mounted.
3) When the power supply is switched on, the light emission timing is automatically set for interference prevention.
4) The cable for amplifier connection is not supplied as an accessory. Make sure to use the optional quick-connection cables given below.
Main cable (3-core): **CN-73-C1** (cable length 1m), **CN-73-C2** (cable length 2m) **CN-73-C5** (cable length 5m)
Sub cable (1-core): **CN-71-C1** (cable length 1m), **CN-71-C2** (cable length 2m) **CN-71-C5** (cable length 5m)

2 CAUTIONS

- Make sure to carry out the wiring in the power supply off condition.
- Verify that the supply voltage variation is within the rating.
- Take care that if a voltage exceeding the rated range is applied, or if an AC power supply is directly connected, the sensor may get burnt or damaged.
- In case noise generating equipment (switching regulator, inverter motor, etc.) is used in the vicinity of this product, connect the frame ground (F.G.) terminal of the equipment to an actual ground.
- If power is supplied from a commercial switching regulator, ensure that the frame ground (F.G.) terminal of the power supply is connected to an actual ground.
- Do not use during the initial transient time (0.5 sec.) after the power supply is switched on.
- Take care that short-circuit or wrong wiring of the load may burn or damage the sensor.
- Do not run the wires together with high-voltage lines or power lines or put them in the same raceway. This can cause malfunction due to induction.
- Make sure to use the optional quick-connection cable for the connection of the amplifier. Extension up to total 100m is possible with 0.3mm², or more, cable. However, in order to reduce noise, make the wiring as short as possible.
- This sensor is suitable for indoor use only.
- Avoid dust, dirt, and steam.
- Take care that the product does not come in direct contact with organic solvents, such as, thinner, etc.
- This sensor cannot be used in an environment containing inflammable or explosive gases.
- Never disassemble or modify the sensor.

- **Precautions for fiber**
  - Do not expose the fiber cable to any organic solvent (except for chemical resistant fiber).
  - Do not apply excessive tensile force to the fiber cable.
  - Wipe dirt or stains from the sensing faces with a soft cloth.
  - The bending radius of the fiber cable must be R25mm or more. If the bending radius is smaller than the specification, the sensing ability is decreased.
    However, as there are fibers which can be bent at less than R25mm, their bending radius should be equal to or more than the value specified in their catalog.
  - The free-cut fiber cables must be cut with a fiber cutter before insertion into the amplifier. (Do not cut the coiled part of coiled fiber.)
    Note: Once a fiber cable is cut off at a hole, do not use the hole again.
  - The sleeve part bending radius of fiber with sleeve must be R10mm or more. (Note that the sleeves of side-view, narrow-view and ultra-small diameter fiber are not bendable.)
  - Fiber attachments are enclosed with the small diameter free-cut fiber. Use the shorter attachment.
  - Take care that the sensor is not directly exposed to fluorescent light from a rapid-starter lamp or a high frequency lighting device, as it may affect the sensing performance.
  - The tightening torque must not exceed the values given below.



Mounting with a nut (threaded head type)

	Tightening torque
M3	0.39N·m
M4	0.58N·m (350°C heat-resistant fiber: 0.98N·m)
M5	0.98N·m
M6	(350°C heat-resistant fiber: 1.96N·m)
M14	1.47N·m

Mounting with a set screw

	Tightening section	Tightening torque
General fiber	–	0.29N·m
FT-P2, FT-P20, FD-P2, FD-P20	–	0.20N·m
FT-SFM2L	–	0.19N·m
FT-V22, FT-V41, FT-SFM2SV2, FD-V41	10mm (Note2)	0.19N·m
FD-SFM2SV2	7mm (Note2)	0.34N·m
FD-E12	4mm (Note2)	0.29N·m

Mounting with a M3 screw

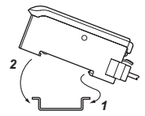
	Tightening torque
FT-AFM2(E) FD-AFM2(E)	0.58N·m

Notes: 1) For fibers other than those given in the above table, refer to the instruction manual enclosed with the fiber.
2) The tightening section is given from the tip of the mounting part. However, for **FD-E12**, the sleeve part is excluded.

3 MOUNTING

How to mount the amplifier

1. Fit the rear part of the mounting section of the amplifier on a 35mm width DIN rail.
2. Press down the rear part of the mounting section of the amplifier on the 35mm width DIN rail and fit the front part of the mounting section to the DIN rail.

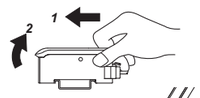


35mm width DIN rail

How to remove the amplifier

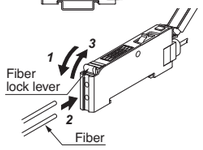
1. Push the amplifier forward.
2. Lift up the front part of the amplifier to remove it.

Note: Take care that if the front part is lifted up without pushing the amplifier forward, the hook on the rear part of the mounting section is likely to break.



How to connect the fiber cables

1. Snap the fiber lock lever down.
2. Insert the fiber cables slowly into the inlets until they stop. (Note 1)
3. Return the fiber lock lever to the original position, till it stops.



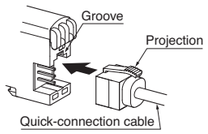
Notes: 1) In case the fiber cables are not inserted to a position where they stop, the sensing range reduces. However, in case of a flexible fiber, take care that it may bend inside the amplifier, during insertion.
2) With the coaxial reflective type fiber, such as, **FD-G4** or **FD-FM2**, insert the single-core fiber cable into the beam-emitting inlet and the multi-core fiber cable into the beam-receiving inlet. If they are inserted in reverse, the sensing accuracy will deteriorate.

4 CONNECTION

Make sure to connect or disconnect the quick-connection cable in the power supply off condition.

Connection method

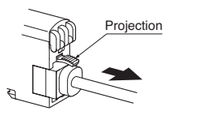
1. Holding the connector of the quick-connection cable, align its projection with the groove at the top portion of the amplifier connector.
2. Insert the connector till a click is felt.



Disconnection method

1. Pressing the projection at the top of the quick-connection cable connector, pull out the connector.

Note: Take care that if the connector is pulled out without pressing the projection, the projection may break. Do not use a quick-connection cable whose projection has broken. Further, do not pull by holding the cable, as this can cause a cable-break.

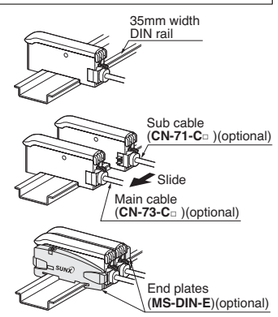


5 CASCADING AMPLIFIERS

- Make sure to add or remove the amplifiers in the power supply off condition.
- Make sure to check the allowable ambient temperature, as it depends on the number of amplifiers connected in cascade.
- In case two, or more, amplifiers are connected in cascade, make sure to mount them on a DIN rail.
- When connecting in cascade, mount the amplifiers close to each other, fitting them between the optional end plates (**MS-DIN-E**) mounted at the two ends.
- Up to maximum 15 amplifiers can be added (total 16 amplifiers connected in cascade.)
- When connecting more than two amplifiers in cascade, use the sub cable (**CN-71-C**□) as the quick-connection cable for the second amplifier onwards.
- The setting of the setting condition copy function cannot be transmitted between this product and the digital fiber sensor **FX-301**(**P**). Therefore, in case both models of amplifiers are mounted in cascade, make sure to mount identical models together.
- Since the communication function of this sensor and that of the leak/liquid fiber dedicated fiber sensor **FX-301**(**P**)**-F** is different, if these models are mounted in cascade, do not use the communication function.
- The settings other than that of the interference prevention function cannot be transmitted between this product and the manual setting fiber sensor **FX-311**(**P**). Therefore, in case both models of amplifiers are mounted in cascade, make sure to mount identical models together.

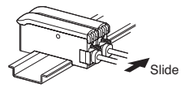
Cascading method

1. Mount the amplifiers, one by one, on the 35mm width DIN rail.
   (For details, refer to '**3 MOUNTING**'.)
2. Slide the amplifiers next to each other, and connect the quick-connection cables.
3. Mount the optional end plates (**MS-DIN-E**) at both the ends to hold the amplifiers between their flat sides.
4. Tighten the screws to fix the end plates (**MS-DIN-E**).



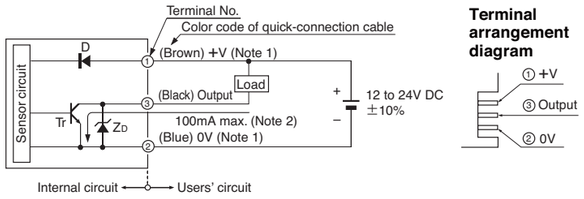
Dismantling method

1. Loosen the screws of the end plates (**MS-DIN-E**).
2. Remove the end plates (**MS-DIN-E**).
3. Slide the amplifiers and remove them one by one.
   (For details, refer to '**3 MOUNTING**'.)



6 I/O CIRCUIT DIAGRAMS

●**FX-302 / NPN output type**

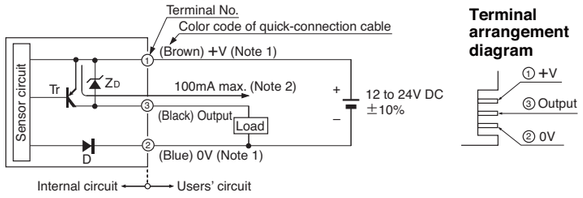


Terminal arrangement diagram

Notes: 1) The quick-connection sub cable does not have +V (brown) and 0V (blue). The power is supplied from the connector of the main cable.
2) 50mA max. if five, or more, amplifiers are connected in cascade.

Symbols... D : Reverse supply polarity protection diode
ZD : Surge absorption zener diode
Tr : NPN output transistor

●**FX-302P / PNP output type**

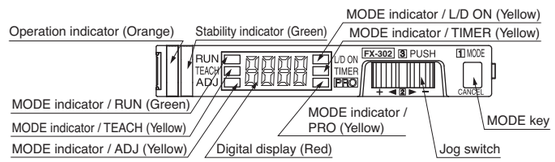


Terminal arrangement diagram

Notes: 1) The quick-connection sub cable does not have +V (brown) and 0V (blue). The power is supplied from the connector of the main cable.
2) 50mA max. if five, or more, amplifiers are connected in cascade.

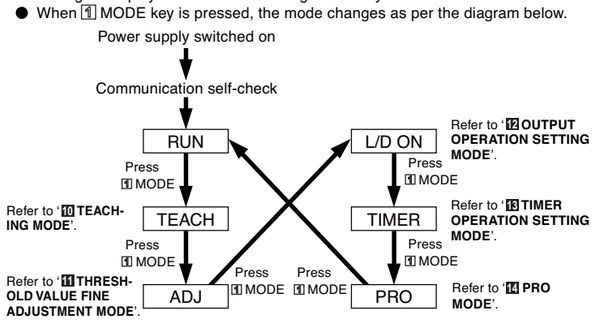
Symbols... D : Reverse supply polarity protection diode
ZD : Surge absorption zener diode
Tr : PNP output transistor

7 PART DESCRIPTION



8 OPERATION PROCEDURE

- When the power supply is switched on, communication self-check is carried out and normal condition is displayed [MODE indicator / RUN (green)] lights up and the digital display shows the incident light intensity.
- When 1 MODE key is pressed, the mode changes as per the diagram below.



Notes: 1) When 3 Jog switch is pressed, the setting is confirmed.
2) When 1 MODE key is pressed for 2 sec., or more, the sensor returns to the RUN mode.
3) Cancellation is possible by pressing 1 MODE key during setting.

9 SETTING METHOD FOR DETECTION MODE

- **FX-302**(**P**) incorporates window comparator mode, in addition to the normal ON / OFF operation, which allows to set the upper and lower threshold value and the sensing object within the set range can be detected.
  The setting procedure for the detection mode is in the table below.

Step	Display	Description
1	Pro	• Press 1 mode key to light up Mode indicator / PRO (yellow).
2	Pro6	• Turn 2 jog switch to the '+' side or the '–' side to display 'Pro6' in the display.
3	Out HYS	• When 3 jog switch is pressed, the output selection 'Out' is displayed. (The initial state at the time of factory shipment is the display of the output selection.) • Turn 2 jog switch to the '+' side or the '–' side to set either the output selection or the hysteresis selection. Out : Output selection → If 3 jog switch is pressed, see step ***4***. HYS : Hysteresis selection (Note 1) → oUtH : The hysteresis is set outside the upper and the lower threshold value. In_H : The hysteresis is set inside the upper and the lower threshold value.
4	_ _ r _ r 7 _	• If 3 jog switch is pressed when the output selection 'Out' is selected in step ***3*** , the normal mode '_ _ r' is displayed. (The initial state at the time of factory shipment is the normal mode.) • Turn 2 jog switch to the '+' side or the '–' side to set either the normal mode or the window comparator mode. _ _ r : Normal mode → If 3 jog switch is pressed, MODE indicator / TEACH (yellow) lights up. _ r 7 _ : Window comparator mode → If 3 jog switch is pressed, see step ***5***.
5	1tch 2tch 3tch	• If 3 jog switch is pressed when the window comparator mode '_ r 7 _' is selected in step ***4*** , 1-level teaching of the teaching setting '1tch' is displayed. (The initial state at the time of factory shipment is 1-level teaching setting.) • Turn 2 jog switch to the '+' side or the '–' side to set the teaching to the 1-level teaching, 2-level teaching or 3-level teaching. 1tch : 1-level teaching → If 3 jog switch is pressed, see step ***6***. 2tch : 2-level teaching → If 3 jog switch is pressed, see step ***7***. 3tch : 3-level teaching → If 3 jog switch is pressed, see step ***7***.
6	100	• After selecting the 1-level teaching in step ***5*** , if 3 jog switch is pressed, the shift amount is displayed. • Turn 2 jog switch to the '+' side or the '–' side to set the shift amount.
7	1tch 2tch 3tch	• The teaching set in step ***5*** is displayed for 0.5 sec. • MODE indicator / TEACH (yellow) lights up.
8	P- 1	• 'P- 1' is displayed for 0.5 sec.
9	567	• After this, carry out the teaching by the method used at step ***5***. For details of each teaching method, please refer to '**10 TEACHING MODE**'.

Notes: 1) This is only effective in the window comparator mode.
2) When the teaching mode is changed, the threshold value is initialized.
3) In case no change is taken up to step ***5*** and ***6*** , the sensor returns to step ***2***.

10 TEACHING MODE

The output mode at the time of factory shipment is set to the normal mode.
In case the teaching is carried out in the window comparator mode, the teaching should be done after setting at PRO6 of PRO mode.
For details of the setting method, please refer to '**9 SETTING METHOD FOR DETECTION MODE**'.

- When MODE indicator / TEACH (yellow) lights up, the threshold value can be set in either the normal mode (2-level teaching or the limit teaching) or in the window comparator mode (1-level teaching, 2-level teaching or 3-level teaching).

Normal mode

<In case of 2-level teaching>

- This is the method of setting the threshold value by teaching two levels, corresponding to the object present and the object absent conditions. Normally, setting is done by this method.

Step	Display	Description
1	1234	• Set the fiber within the sensing range. • Press 1 MODE key to light up MODE indicator / TEACH (yellow).
2	567	• Press 3 jog switch in the object present condition. • If the teaching is accepted, the read incident light intensity blinks in the digital display.
3	1234	• The MODE indicator / TEACH (yellow) blinks. • Press 3 jog switch in the object absent condition.
4	Good HArd	• When the teaching is accepted, the read incident light intensity blinks in the digital display and the threshold value is set at the mid-value between the incident light intensities in the object present and in the object absent conditions. After this, the judgment on stability of sensing is displayed. In case stable sensing is possible: 'Good' is displayed. Stablity indicator (green) blinks. In case stable sensing is not possible: 'HArd' blinks. Stable indicator (green) is off.
5	900	• The threshold value is displayed.
6	----	• '----' is displayed.
7	1234	• The incident light intensity appears in the display and the setting is complete.

<In case of limit teaching>

● This is the method of setting the threshold value by teaching only the object absent condition (stable incident light condition). This is used for detection in the presence of a background body or for detection of small objects.

Step	Display	Description
1	1234	• Set the fiber within the sensing range. • Press [1] MODE key to light up MODE indicator / TEACH (yellow).
2	1234	• Press [3] jog switch in the object absent condition. • If the teaching is accepted, the read incident light intensity blinks in the display.
3	1234	• The MODE indicator TEACH (yellow) blinks. • Turn [2] jog switch to the '+' side or the '–' side.
4	,	• If [2] jog switch is turned to the '+' side, ' ,' scrolls (twice) the display from right to left, and the threshold level is shifted to a value approx. 15% higher (lower sensitivity) than the set at **2**. (Note) This is used in case of reflective type fibers. • If [2] jog switch is turned to the '–' side, ' , ' scrolls (twice) the display from left to right, and the threshold level is shifted to a value approx. 15% lower (higher sensitivity) than the set at **2**. (Note) This is used in case of thru-beam type fibers.
5	Good HArd	• After this, the judgment on whether the set shift amount is possible to change or not will be displayed. When the shift is possible: 'Good' blinks. When the shift is not possible: 'HArd' blinks.
6	900	• The threshold value is displayed.
7	----	• '----' is displayed.
8	1234	• The incident light intensity appears in the display and the setting is complete.

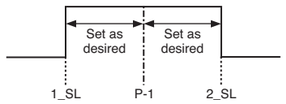
Note: The approx. 15% amount of shift is the initial value. The amount of shift can be changed in the PRO mode from approx. 5 to 80% (5% step).

Window comparator mode

● This is used to detect specific objects from various objects in size or shape, etc.

<In case of 1-level teaching>

● This is the method of setting the threshold range by 1-level teaching. The shift value can be set as desired.



Step	Display	Description
1	1234	• Set the fiber within the sensing range. • Press [1] MODE key to light up MODE indicator / TEACH (yellow).
2	1tch	• The current teaching method is displayed for 0.5 sec.
3	P-1	• 'P- 1' is displayed for 0.5 sec.
4	561	• Press [3] jog switch in the object present condition. • When the teaching is accepted, the read incident light intensity blinks on the display.
5	Good HArd	• The judgment on stability of sensing is displayed. In case stable sensing is possible: 'Good' blinks. In case stable sensing is not possible: 'HArd' blinks.
6	461	• A value deducted the shift value (100) from the incident light intensity becomes the threshold value (1_SL), which is displayed. (Note 1) (Note 2)
7	661	• A value added the shift value (100) to the incident light intensity becomes the threshold value (2_SL), which is displayed. (Note 1) (Note 2)
8	----	• '----' is shown on the display, and the sensor returns to step **2**. • The setting is complete.

Notes: 1) The shift value 100 is the initial value. The shift value can be changed in PRO mode. For details of the setting method, refer to '**9 SETTING METHOD FOR DETECTION MODE**'.
2) In case the set value exceeds the max. (min.) sensitivity, the set value is fixed at max. (min.) sensitivity.

<In case of 2-level teaching>

● This is a method of setting the threshold range by two levels (P-1, P-2) teaching.

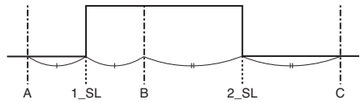
Step	Display	Description
1	1234	• Set the fiber within the sensing range. • Press [1] MODE key to light up MODE indicator / TEACH (yellow).
2	2tch	• The current teaching method is displayed for 0.5 sec.
3	P-1	• 'P- 1' is displayed for 0.5 sec.
4	561	• First, press [3] jog switch in the object present condition. • When the teaching is accepted, the read incident light intensity blinks on the display.
5	P-2	• 'P-2' is displayed for 0.5 sec.
6	890	• Second, press [3] jog switch in the object present condition. • When the teaching is accepted, the read incident light intensity blinks on the display.
7	Good HArd	• The judgment on stability of sensing is displayed. In case stable sensing is possible: 'Good' blinks. In case stable sensing is not possible: 'HArd' blinks.
8	561	• The value of 'P- 1' becomes the threshold value (1_SL), which is displayed. (Note)
9	890	• The value of 'P-2' becomes the threshold value (2_SL), which is displayed. (Note)
10	----	• '----' is displayed, and the sensor returns to step **2**. • The setting is complete.

Note: In case the set value exceeds the max. (min.) sensitivity, the set value is fixed at max. (min.) sensitivity.

<In case of 3-level teaching>

● This is a method of setting the threshold range by three levels (P-1, P-2, P-3) teaching and set the threshold values at the middle of 'A' and 'B' (1_SL) and 'B' and 'C' (2_SL) as per the diagram below.

● After teaching, P-1, P-2 and P-3 are automatically assigned in ascending order to 'A', 'B', and 'C'.



Step	Display	Description
1	1234	• Set the fiber within the sensing range. • Press [1] MODE key to light up MODE indicator / TEACH (yellow).
2	3tch	• The current teaching method is displayed for 0.5 sec.
3	P-1	• 'P- 1' is displayed for 0.5 sec.
4	123	• For the first level teaching, press [3] jog switch in the object present condition. • When the teaching is accepted, the read incident light intensity blinks on the display.
5	P-2	• 'P-2' is displayed for 0.5 sec.
6	345	• For the second level teaching, press [3] jog switch in the object present condition. • When the teaching is accepted, the read incident light intensity blinks on the display.
7	P-3	• 'P-3' is displayed for 0.5 sec.
8	561	• For the third level teaching, press [3] jog switch in the object present condition. • When the teaching is accepted, the read incident light intensity blinks on the display.
9	Good HArd	• The judgment on stability of sensing is displayed. In case stable sensing is possible: 'Good' blinks. In case stable sensing is not possible: 'HArd' blinks.
10	234	• The middle of 'A' and 'B' becomes the threshold (1_SL), as shown in the diagram above, which is displayed. (Note)
11	456	• The middle of 'B' and 'C' becomes the threshold (2_SL), as shown in the diagram above, which is displayed. (Note)
12	----	• '----' is displayed, and the sensor returns to step **2**. • The setting is complete.

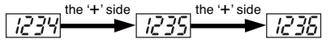
Note: In case the set value exceeds the max. (min.) sensitivity, the set value is fixed at max. (min.) sensitivity.

11 THRESHOLD VALUE FINE ADJUSTMENT MODE

● Fine adjustment of the threshold value can be done when MODE indictor / ADJ (yellow) lights up.

● When the window comparator mode is set, select either '1_SL' or '2_SL' first, and then, carry out the setting as follows.

· When [2] jog switch is turned to the '+' side, the threshold value increases. (sensitivity decreases)
When [3] jog switch is pressed, the threshold value is confirmed.



· When [2] jog switch is turned to the '–' side, the threshold value decreases. (sensitivity increases)
When [3] jog switch is pressed, the threshold value is confirmed.

12 OUTPUT OPERATION SETTING MODE

● The output operation setting can be done when MODE indicator / L/D ON (yellow) lights up.

· The output operation is changed when [2] jog switch is turned to the '+' side or the '–' side.
When [3] jog switch is pressed, the setting is confirmed.

13 TIMER OPERATION SETTING MODE

● The setting for whether the timer is used or not can be done when MODE indicator / TIMER (yellow) lights up.

● 10ms OFF-delay (initial value) timer is automatically set when the timer is set to be used.

● Further, an OFF-delay (oFd), which is useful when the response of the connected device is slow, etc., an ON-delay (ond), which is useful to detect only objects taking a long time to travel, ONE SHOT (osd), which is useful when the input specifications of the connected device require a signal of a fixed width, an ON-delay/OFF-delay (onoF), which is useful when the conditions in use between ON-delay and OFF-delay overlaps , and an ON-delay/ONE SHOT (ono5), which is useful when the conditions in use between ON-delay and ONE SHOT overlaps, are possible with **FX-302(P)**.

(Note)

Note: The OFF-delay timer interval set in the PRO mode is displayed.

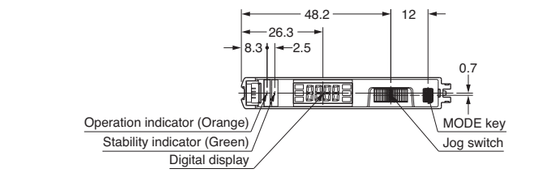
14 PRO MODE

● PRO settings can be done when MODE indicator / PRO (yellow) lights up.

● **Table for PRO mode setting**

	Display	Description
PRO1	Pro1	**1.** Response time change function 'SPEd' **2.** Timer setting function 'dELY' **3.** Hysteresis function 'HYS' **4.** Stability function 'Stb' **5.** Limit teaching function 'SHFt'
PRO2	Pro2	**1.** Digital display setting function 'd ISP' **2.** Digital display inversion function 'turn' **3.** ECO mode setting function 'Eco'
PRO3	Pro3	**1.** Data bank load setting function 'chLd' **2.** Data bank save setting function 'chSA'
PRO4	Pro4	**1.** Setting condition copy function 'CoPY' **2.** Remote data bank load setting function 'chLd' **3.** Remote data bank save setting function 'chSA' **4.** Communication condition confirmation function 'tESt' **5.** Selection for transmission change to permit / not to permit 'C_Lc'
PRO5	Pro5	**1.** Code setting function 'CodE' **2.** 0-ADJ setting function 'ZAdJ' **3.** Adjust lock setting function 'A_Lc' **4.** Setting reset function 'rESt'
PRO6	Pro6	**1.** Window comparator mode setting function 'Wut' **2.** Window comparator mode hysteresis function 'HYS'

15 DIMENSIONS (Unit: mm)



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