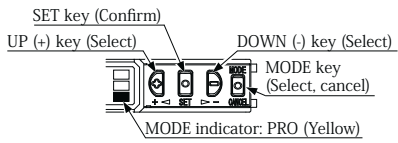
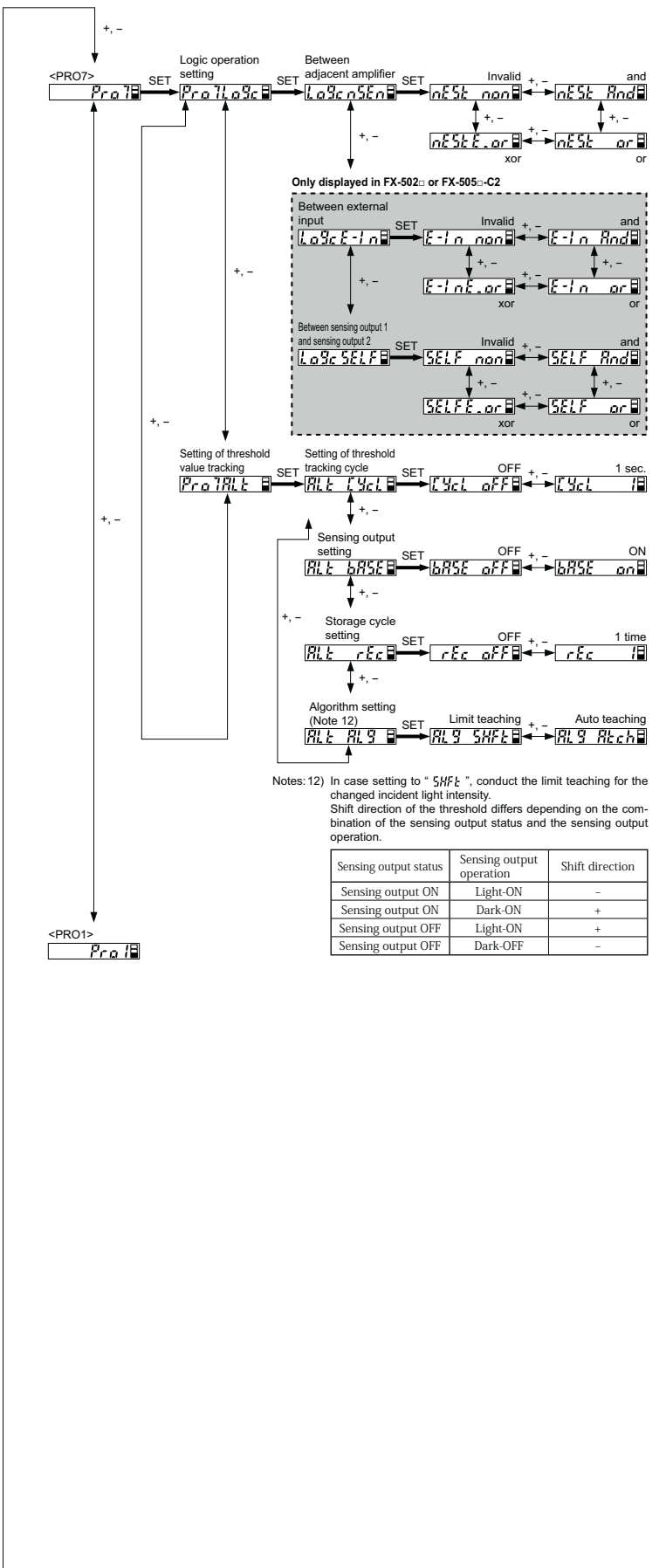
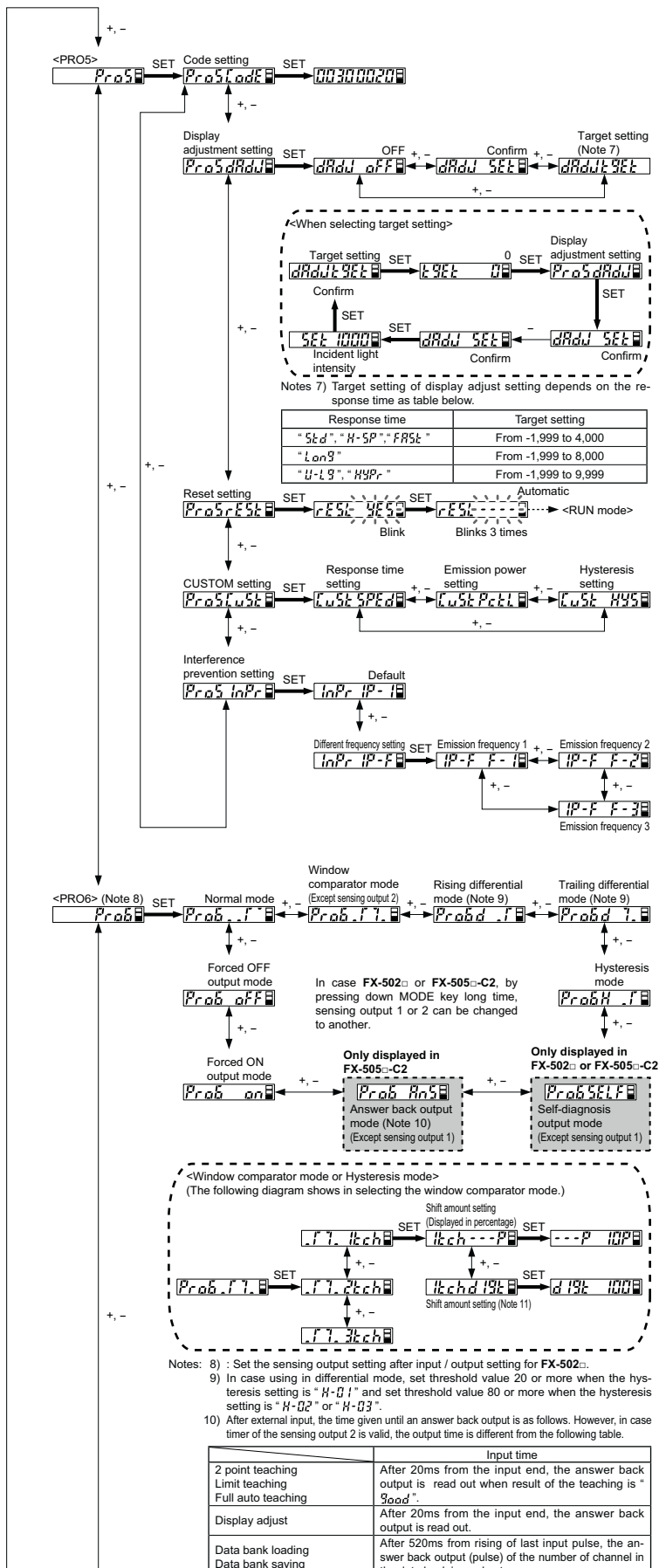
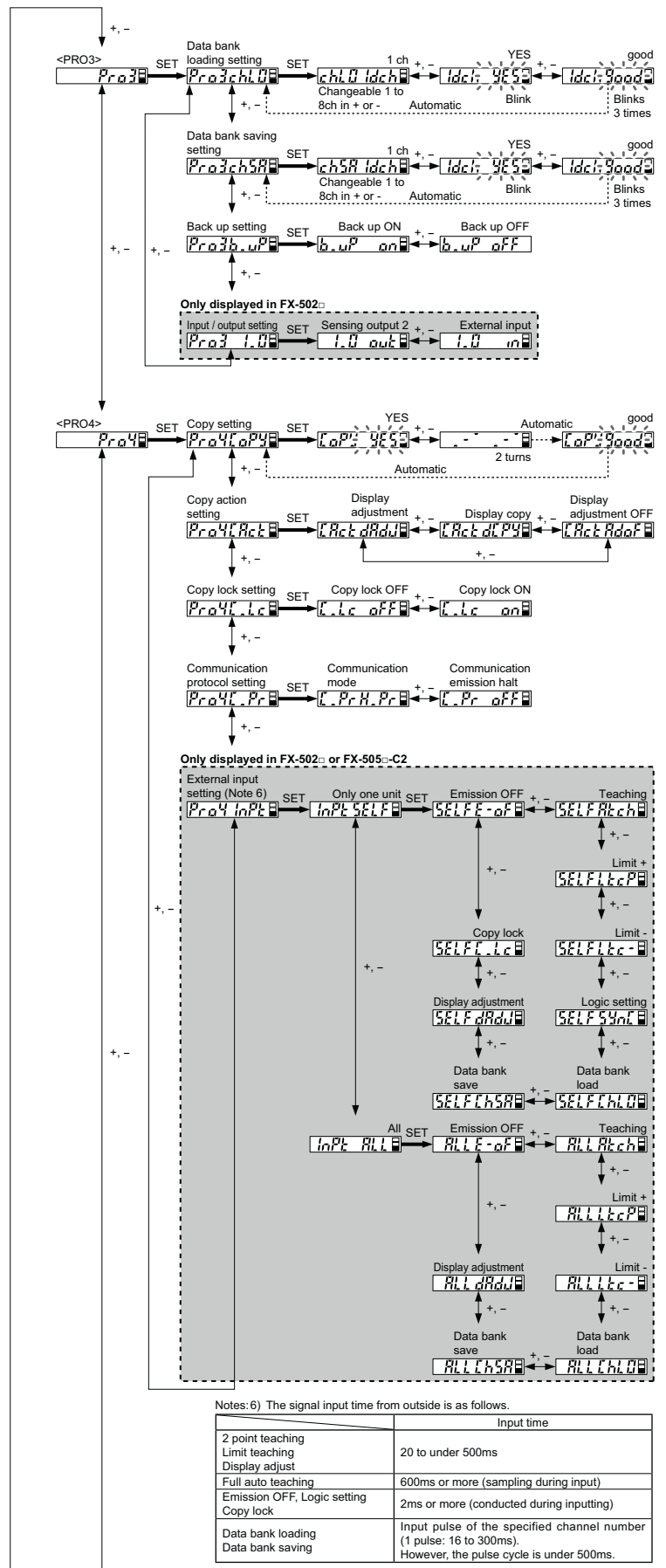
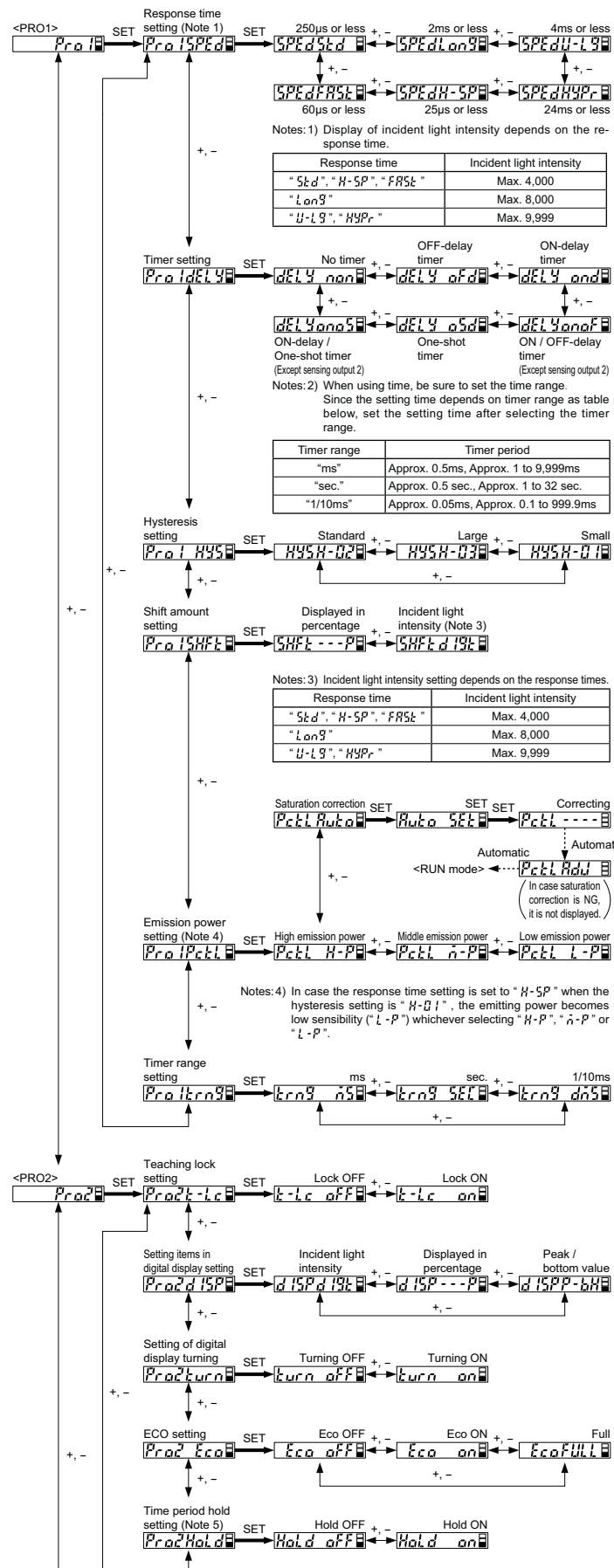


**Part description**



**Symbol explanation**

- SET: Press the SET key.
- +/-: Press the UP (+) key or DOWN (-) key.
- Automatic: Automatically move to next



Item	Default setting	Description
PRO1 mode	Response time setting	5PEd5td Set response time.
	Timer setting	dELYnan Set operation and period of the timer.
	Hysteresis setting	H45H-02 Hysteresis can be set when the normal mode or the window comparator mode is selected. When setting to "H-01", it becomes low sensibility.
	Shift amount setting	5HfL---P Set shift amount of threshold value in limit teaching.
	Emission power setting	PcLH-P Set emission power. "RuKa": Saturated incident light intensity can be automatically adjusted "H-P": High emission power (25 to 100%) "n-P": Middle emission power (25 to 100%) "L-P": Low emission power (25 to 100%)
Timer range setting	Ern9n5 Change unit time of timer.	
PRO2 mode	Teaching lock setting	t-Lc aFF Be able to prevent from wrong operation of teaching. "aFF": Teaching mode is valid "an": Teaching mode is invalid
	Digital display item setting	d15Pd19t Incident light intensity can be displayed in percentage or the peak / bottom value can be displayed on the digital display (red).
	Digital display turning on setting	turn aFF Sets the viewing orientation of the digital display.
	ECO setting	Eca aFF Power consumption can be lowered. "aFF": ECO OFF "an": If any key operation is not carried out for 20 sec. in RUN mode, the digital display turns OFF. "FullL": If key operation is not done in 20 sec. or setting the key lock function in Run mode, all indicators turns OFF.
Period hold setting	Hal d aFF "aFF": Peak / bottom value in the digital display refreshing condition can be displayed. "an": Peak / bottom value in the hold condition can be displayed.	
PRO3 mode	Data bank loading setting	chl0 idch Load a setting from specified data bank. (1 to 8 channel)
	Data bank saving setting	ch5R idch Save a setting to specified data bank. (1 to 8 channel)
PRO4 mode	Back up setting	b.uP an Select to save or not to save the threshold value by teaching in EEPROM.
	Input / output setting (FX-502 only)	l.0 aub Select either sensing output 2 or external output.
PRO5 mode	Copy setting	— Using optical communications, be able to copy setting contents in main amplifier to all of the sub amplifiers connected from the main amplifier. FX-502 cannot send or receive threshold value when conducting copy.
	Copy action setting	LRct dRdu "dLpy": Incident light intensity of main amplifier can be copied to sub amplifier. However, when the difference between main amplifier and sub amplifier is big, it will not be copied. "RdaF": Display adjust of main and sub amplifier can be set to OFF. Do not press down the SET key many times when display is "RdaF". When "RdaF" is not displayed in confirmation, also do not press down set key many times.
	Copy lock setting	l.Lc aFF When conducting the setting of copy setting or data bank loading / saving from the main amplifier via optical communications, it is possible that only the sub amplifier which is set to copy lock ON "l.Lc an" does not receive the set contents. However, even if copy lock ON " is set, the copy action setting is communicated.
	Communication protocol setting	l.PrH.Pr When conducting the copy setting or setting of data bank loading / saving from the main amplifier via optical communications, the optical communications through a sub amplifier which is set to communication emission halt "l.Pr aFF" and the following sub amplifiers can be halted.
PRO6 mode	External input setting (Only FX-502, FX-505-C2)	inPt5ELF Set external input.
	Code setting	00300020 Consistent setting can be done by inputting 8-digit code instead of independent setting. In addition, present setting can be confirmed.
PRO6 mode	Display adjustment setting	dRdu aFF Set incident light intensity to target value. If conducting display adjustment setting when incident light intensity does not have enough margin, "LUEr" is blinked "aFF": Display adjustment OFF "5Et": Slide to (smaller side) incident light intensity from the set of target setting. "t9Et": Set incident light intensity to value you want (negative side). In case setting to 0-adjustment, set to 0.
	Reset setting	— If setting to "YE5," returns to default settings (factory settings).
	CUSTOM setting	Lu5t5PEd Select an item in CUSTOM mode to display.

Item	Default setting	Description																	
PRO5 mode	Interference prevention setting	inPr IP-1 Number of adherence mounting of sensor head depends on response time of interference prevention function. "IP-1": Set when using the interference prevention function by optical communication. Maximum adherence mounting of sensor head is 12 units "IP-F": Set when using interference prevention function by changing emitting frequency. The maximum adherence mounting by setting 3 types of emission frequency is 3 units.																	
	Sensing output mode	Prab..f- Set sensing output 1 mode and sensing output 2 mode. "..f-": (Normal mode) • Sets a threshold value for ON / OFF operation. ".f7.": Window comparator mode (Except sensing output 2 of FX-502, FX-505-C2) • Sets two threshold values and judges they are within the required range or not. This can be selected in 1/2/3-point teaching. "d.f." (Rising differential mode) • Only drastic rises in incident light intensity are detected. "d7." (Trailing differential mode) • Only drastic drops in incident light intensity are detected. "H.f." (Hysteresis mode) • Changes hysteresis to ignore small change of incident light intensity. • This can be selected in 1/2/3-point teaching. "SELF" (Self diagnosis output mode) (Only displayed in FX-502, FX-505-C2 but except sensing output 1. • Conduct self diagnosis output "Rn5" (Answer back output mode) (Only displayed in FX-502 but except sensing output1) • Conduct Answer back output toward external input. "an": Forced ON output mode • Sets forcibly the output to ON. "aFF": Forced OFF output mode • Sets forcibly the output to OFF.																	
PRO6 mode	Logical operation setting	La9cn5En Select for logical operation and set logical operation methods (and, or, xor). "n5En": Logical operation is sensing output 1 of this device and conduct logical operation between the sensing output 1 and sensing output 1 of this device. The calculation result of upper amplifiers and this product is output from the sensing output 1 of this product. "E-in": Logical operation is sensing output 1 of an upper adjacent amplifier and conduct logical operation between the sensing output and sensing output 1 of this device. (Only displayed in FX-502, FX-505-C2) "SELF": Logical operation is outer input and conduct logical operation between the output and sensing output 1 of this device. (Only displayed in FX-502, FX-505-C2)																	
	Setting of threshold value tracking	LYcL aFF This mode can change the threshold value depending on the cycle (1 to 9,999 sec.) that is set with the variations of the incident light intensity. The tracking shift amount is the one which is set at the shift setting.																	
	Sensing output setting	bR5E aFF Selects whether tracking threshold when the output is OFF or when the output is ON.																	
	Storage cycle setting	rEc aFF Selects a threshold storage cycle in EEPROM from 1 to 250 times.																	
PRO6 mode	Algorithm setting	Rl9 5HfL When setting to limit teaching, threshold value is followed up on the bases of shift amount. Furthermore, when setting to auto teaching, threshold value be followed up on the bases of each cycle.																	
	Setting of logical operations	<table border="1"> <thead> <tr> <th>Logical operation</th> <th>Sensing output 1 of this device</th> <th>Setting of logical operations</th> </tr> </thead> <tbody> <tr> <td></td> <td>and</td> <td>or</td> </tr> <tr> <td>ON</td> <td>ON</td> <td>ON</td> </tr> <tr> <td>ON</td> <td>OFF</td> <td>OFF</td> </tr> <tr> <td>OFF</td> <td>ON</td> <td>ON</td> </tr> <tr> <td>OFF</td> <td>OFF</td> <td>OFF</td> </tr> </tbody> </table>	Logical operation	Sensing output 1 of this device	Setting of logical operations		and	or	ON	ON	ON	ON	OFF	OFF	OFF	ON	ON	OFF	OFF
Logical operation	Sensing output 1 of this device	Setting of logical operations																	
	and	or																	
ON	ON	ON																	
ON	OFF	OFF																	
OFF	ON	ON																	
OFF	OFF	OFF																	

### FX-501 □ / Code setting table

- Green digital display (right side is the first digit)

Code	Forth digit		Code	Third digit		Code	Second digit		Code	First digit	
	Sensing output operation mode	Sensing output 2		Timer operation	Timer period		Timer period	CUSTOM setting			
0	Light-ON	Light-ON	0	No timer	0	0.5ms	0	Response time setting			
1	Dark-ON	Dark-ON	1	OFD	1	1ms	1	Emission power setting			
2	—	—	2	OND	2	3ms	2	Hysteresis setting			
3	—	—	3	ONOF	3	5ms	3	—			
4	—	—	4	OSD	4	10ms	4	—			
5	—	—	5	ONOS	5	30ms	5	—			
6	—	—	6	—	6	50ms	6	—			
7	—	—	7	—	7	100ms	7	—			
8	—	—	8	—	8	300ms	8	—			
9	—	—	9	—	9	500ms	9	—			
R	—	—	R	—	R	1 sec.	R	—			
b	—	—	b	—	b	2 sec.	b	—			
c	—	—	c	—	c	3 sec.	c	—			
d	—	—	d	—	d	4 sec.	d	—			
E	—	—	E	—	E	5 sec.	E	—			

OFD: OFF-delay timer, OND: ON-delay timer, ONOF: ON / OFF-delay timer, OSD: One-shot timer  
ONOS: ON-delay / One-shot timer

- Red digital display (right side is the first digit)

Code	Forth digit		Code	Third digit		Code	Second digit		Code	First digit	
	Copy lock setting	Hysteresis setting		Setting items in digital display setting	Back up setting		Response time setting	Sensing output setting			
0	Copy lock OFF	H-02	0	Incident light intensity	Back up ON	0	H-SP	0	Normal mode		
1	Copy lock ON	H-02	1	Incident light intensity	Back up OFF	1	FAST	1	WC mode		
2	Copy lock OFF	H-03	2	Displayed in percentage	Back up ON	2	STD	2	Rising differential mode		
3	Copy lock ON	H-03	3	Displayed in percentage	Back up OFF	3	LONG	3	Trailing differential mode		
4	Copy lock OFF	H-01	4	Peak / bottom value	Back up ON	4	U-LG	4	HYS mode		
5	Copy lock ON	H-01	5	Peak / bottom value	Back up OFF	5	HYPR	5	—		

(WC mode: Window comparator mode, HYS mode: Hysteresis mode)

### FX-502 □ / Code setting table

- Green digital display (right side is the first digit)

Code	Forth digit		Code	Third digit		Code	Second digit		Code	First digit	
	Sensing output operation mode	Sensing output 2		Timer operation	Timer period		Timer period	CUSTOM setting			
0	Light-ON	Light-ON	0	No timer	No timer	0	0.5ms	0	Response time setting		
1	Light-ON	Dark-ON	1	OFD	No timer	1	1ms	1	Emission power setting		
2	Dark-ON	Light-ON	2	OND	No timer	2	3ms	2	Hysteresis setting		
3	Dark-ON	Dark-ON	3	ONOF	No timer	3	5ms	3	—		
4	—	—	4	OSD	No timer	4	10ms	4	—		
5	—	—	5	ONOS	No timer	5	30ms	5	—		
6	—	—	6	No timer	OFD	6	50ms	6	—		
7	—	—	7	No timer	OND	7	100ms	7	—		
8	—	—	8	No timer	OSD	8	300ms	8	—		
9	—	—	9	—	—	9	500ms	9	—		
R	—	—	R	—	—	R	1 sec.	R	—		
b	—	—	b	—	—	b	2 sec.	b	—		
c	—	—	c	—	—	c	3 sec.	c	—		
d	—	—	d	—	—	d	4 sec.	d	—		
E	—	—	E	—	—	E	5 sec.	E	—		

OFD: OFF-delay timer, OND: ON-delay timer, ONOF: ON / OFF-delay timer, OSD: One-shot timer  
ONOS: ON-delay / One-shot timer

- Red digital display (right side is the first digit)

Code	Forth digit		Code	Third digit		Code	Second digit		Code	First digit	
	Copy lock setting	Hysteresis setting		Setting items in digital display setting	Back up setting		Response time setting	Sensing output setting (Note)			
0	Copy lock OFF	H-02	0	Incident light intensity	Back up ON	0	H-SP	0	Normal mode		
1	Copy lock ON	H-02	1	Incident light intensity	Back up OFF	1	FAST	1	WC mode		
2	Copy lock OFF	H-03	2	Displayed in percentage	Back up ON	2	STD	2	Rising differential mode		
3	Copy lock ON	H-03	3	Displayed in percentage	Back up OFF	3	LONG	3	Trailing differential mode		
4	Copy lock OFF	H-01	4	Peak / bottom value	Back up ON	4	U-LG	4	HYS mode		
5	Copy lock ON	H-01	5	Peak / bottom value	Back up OFF	5	HYPR	5	—		

(WC mode: Window comparator mode, HYS mode: Hysteresis mode)

Note: It is a setting only for sensing output 1. Sensing output 2 cannot be set.

### FX-505 □ -C2 / Code setting table

- Green digital display (right side is the first digit)

Code	Forth digit		Code	Third digit		Code	Second digit		Code	First digit	
	Sensing output operation mode	Sensing output 2		Timer operation	Timer period		Timer period	CUSTOM setting			
0	Light-ON	Light-ON	0	No timer	No timer	0	0.5ms	0	Response time setting		
1	Light-ON	Dark-ON	1	OFD	No timer	1	1ms	1	Emission power setting		
2	Dark-ON	Light-ON	2	OND	No timer	2	3ms	2	Hysteresis setting		
3	Dark-ON	Dark-ON	3	ONOF	No timer	3	5ms	3	—		
4	—	—	4	OSD	No timer	4	10ms	4	—		
5	—	—	5	ONOS	No timer	5	30ms	5	—		
6	—	—	6	No timer	OFD	6	50ms	6	—		
7	—	—	7	No timer	OND	7	100ms	7	—		
8	—	—	8	No timer	OSD	8	300ms	8	—		
9	—	—	9	—	—	9	500ms	9	—		
R	—	—	R	—	—	R	1 sec.	R	—		
b	—	—	b	—	—	b	2 sec.	b	—		
c	—	—	c	—	—	c	3 sec.	c	—		
d	—	—	d	—	—	d	4 sec.	d	—		
E	—	—	E	—	—	E	5 sec.	E	—		

OFD: OFF-delay timer, OND: ON-delay timer, ONOF: ON / OFF-delay timer, OSD: One-shot timer  
ONOS: ON-delay / One-shot timer

- Red digital display (right side is the first digit)

Code	Forth digit		Code	Third digit		Code	Second digit		Code	First digit	
	Copy lock setting	Hysteresis setting		Setting items in digital display setting	Back up setting		Response time setting	Sensing output setting			
0	Copy lock OFF	H-02	0	Incident light intensity	Back up ON	0	H-SP	0	Normal mode		
1	Copy lock ON	H-02	1	Incident light intensity	Back up OFF	1	FAST	1	Normal mode		
2	Copy lock OFF	H-03	2	Displayed in percentage	Back up ON	2	STD	2	Normal mode		
3	Copy lock ON	H-03	3	Displayed in percentage	Back up OFF	3	LONG	3	Normal mode		
4	Copy lock OFF	H-01	4	Peak / bottom value	Back up ON	4	U-LG	4	Normal mode		
5	Copy lock ON	H-01	5	Peak / bottom value	Back up OFF	5	HYPR	5	Normal mode		
6	—	—	6	—	—	6	—	6	WC mode		
7	—	—	7	—	—	7	—	7	WC mode		
8	—	—	8	—	—	8	—	8	Rising differential mode		
9	—	—	9	—	—	9	—	9	HYS mode		

(WC mode: Window comparator mode, HYS mode: Hysteresis mode)

## Panasonic Industrial Devices SUNX Co., Ltd.

http://panasonic.net/id/pidsx/global  
**Overseas Sales Division (Head Office)**  
 2431-1 Ushiyama-cho, Kasugai-shi, Aichi, 486-0901, Japan  
 Phone: +81-568-33-7861 FAX: +81-568-33-8591  
 About our sale network, please visit our website.  
 PRINTED IN CHINA