

Product Discontinuation Notices

Safety Sensors

April 1, 2009

No.2009130E

Discontinuation Notice of Safety Light Curtain. Type F3SL-A series

Product Discontinuation



- (1) Safety light curtain
Type F3SL-A series
- (2) Accessory (Single-end connector cord)
Type F39-JL series



Recommended Replacement

- (1) Safety light curtain
Type MS4800A-30 series
- (2) Accessory (Single-end connector cord)
Type MS4800-CBL series

Discontinuation date : The end of March, 2010

Caution on recommended replacement

About the change to Type MS4800A-30

- 1) Dimensions and mounting dimensions are different.
- 2) Body color and wire connection and characteristics, operation ratings are a similarity.
- 3) A part of the setting change is changed with programming and diagnostics module Type MS4800-PDM.

Difference from discontinued product

Model	Body Color	Dimensions	Wire connection	Mounting Dimensions	Characteristics	Operation ratings	Operation methods
Type MS480A-30	*	--	*	--	*	*	--

** : Fully compatible

* : The change is a little/Almost compatible

-- : Not compatible



- : No corresponding specification

Accessory cord is only for F3SL. Production is ended according to the production end of F3SL.

Product Discontinuation and recommended replacement

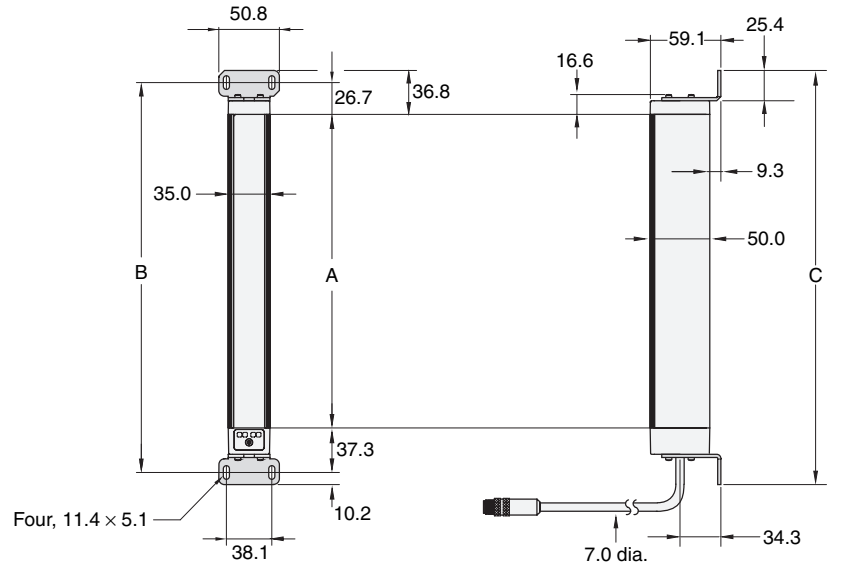
Product discontinuation	Recommended replacement
Type F3SL-A0351P30	Type MS4800A-30-0360
Type F3SL-A0523P30	Type MS4800A-30-0520
Type F3SL-A0700P30	Type MS4800A-30-0720
Type F3SL-A0871P30	Type MS4800A-30-0880
Type F3SL-A1046P30	Type MS4800A-30-1040
Type F3SL-A1219P30	Type MS4800A-30-1200
Type F3SL-A1394P30	Type MS4800A-30-1400
Type F3SL-A1570P30	Type MS4800A-30-1560
Type F3SL-A1746P30	Type MS4800A-30-1760
Type F3SL-A1920P30	Type MS4800A-30-1920
Type F3SL-A2095P30	Type MS4800A-30-2080
Type F39-JL10A-L	Type MS4800-CBLTX-10M
Type F39-JL15A-L	Type MS4800-CBLTX-15M
Type F39-JL30A-L	Type MS4800-CBLTX-30M
Type F39-JL10A-D	Type MS4800-CBLRX-10M
Type F39-JL15A-D	Type MS4800-CBLRX-15M
Type F39-JL30A-D	Type MS4800-CBLRX-30M

Body color

Product discontinuation Type F3SL-A	Recommended replacement Type MS4800A-30
	

Dimensions

Product discontinuation Type F3SL-A

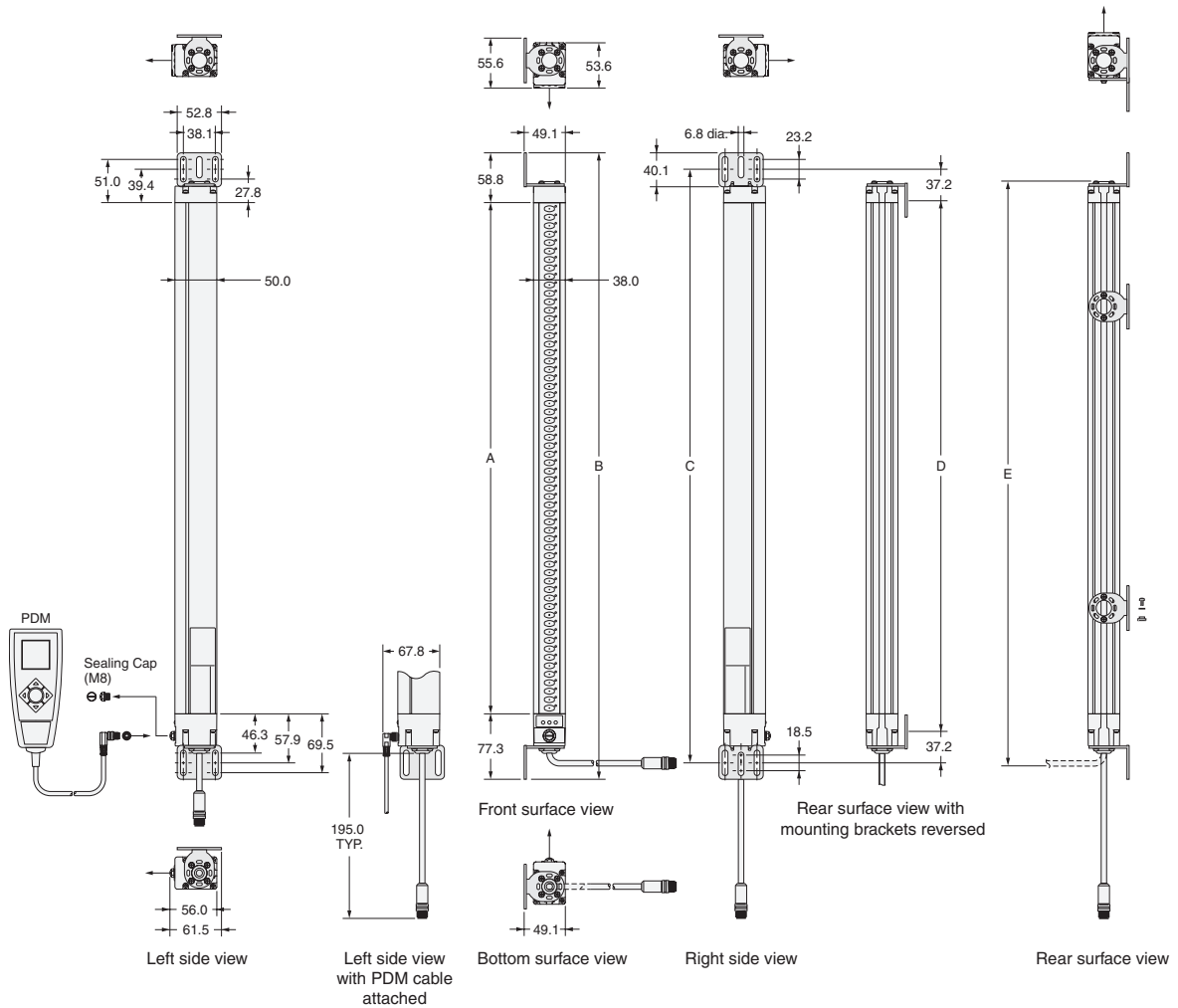


A = Detection width B = A + 64.0 C = A + 84.3

Model	A (mm)	B (mm)	C (mm)
F3SL-A0351P30	351	415	435.3
F3SL-A0523P30	523	587	607.3
F3SL-A0700P30	700	764	784.3
F3SL-A0871P30	871	935	955.3
F3SL-A1046P30	1,046	1,110	1,130.3
F3SL-A1219P30	1,219	1,283	1,303.3
F3SL-A1394P30	1,394	1,458	1,478.3
F3SL-A1570P30	1,570	1,634	1,654.3
F3SL-A1746P30	1,746	1,810	1,830.3
F3SL-A1920P30	1,920	1,984	2,004.3
F3SL-A2095P30	2,095	2,159	2,179.3

Dimensions

Recommended replacement Type MS4800A-30

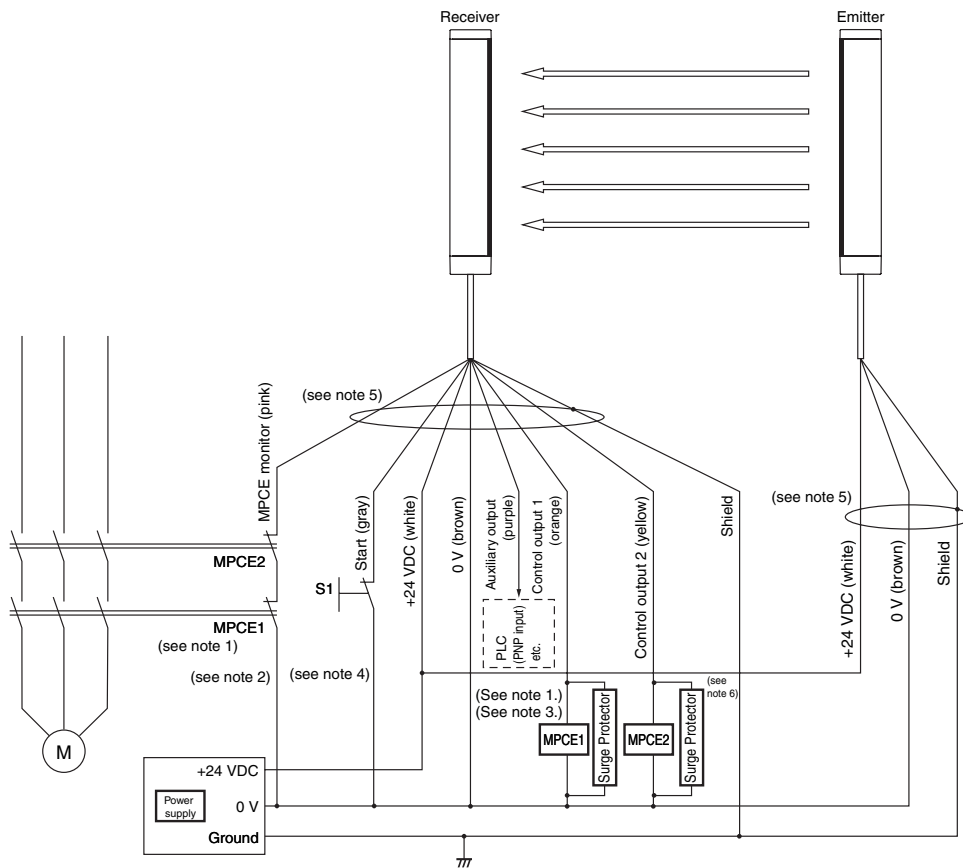


* The value of dimension F doesn't change even if the direction of mounting brackets are set up oppositely.

Dimensions	A	B	C	D	E	F
Protective height 360	364.5	500.5	461.8	387.4	451.4	424.6
520	523.4	659.4	620.7	546.3	610.3	583.5
720	724.0	860.0	821.3	746.9	810.9	784.1
880	882.8	1018.8	980.1	905.7	969.7	942.9
1040	1042.9	1178.9	1140.2	1065.8	1129.8	1103.0
1200	1203.8	1339.8	1301.1	1226.7	1290.7	1263.9
1400	1401.7	1537.7	1499.0	1424.6	1488.6	1461.8
1560	1563.3	1699.3	1660.6	1586.2	1650.2	1623.4
1760	1760.5	1896.5	1857.8	1783.4	1847.4	1820.6
1920	1922.8	2058.8	2020.1	1945.7	2009.7	1982.9
2080	2079.6	2215.6	2176.9	2102.5	2166.5	2139.7

Wire Connection

Product discontinuation Type F3SL-A

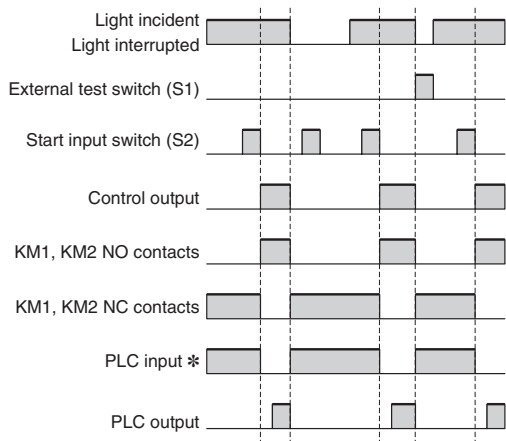
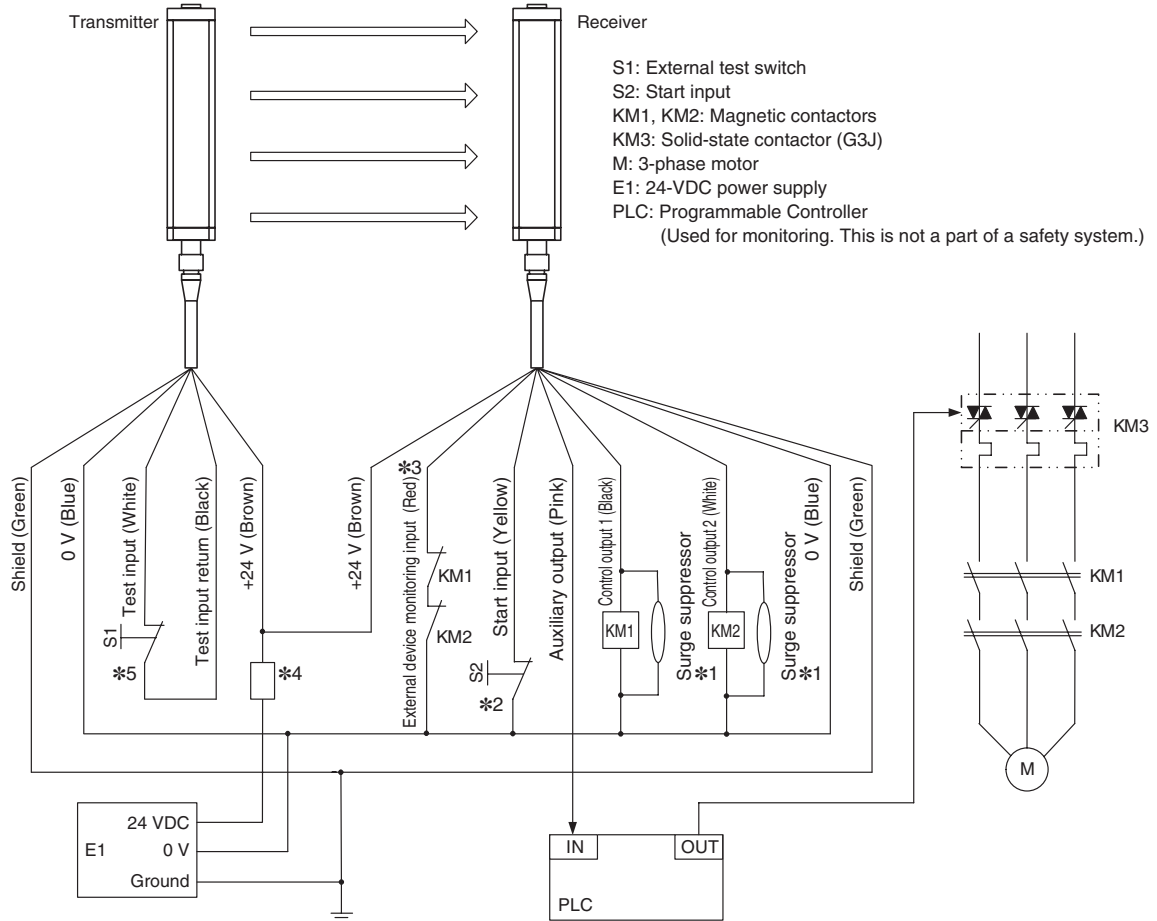


M: Mechanical drive unit including 3-phase motor
 S1: Start switch for interlock reset (NC contact)
 MPCE1, MPCE2: Contactor or relay with forcibly guide mechanism (G7SA is recommended)

- Note: 1. Please use a relay with a forcibly guided contact (such as the G7SA) for MPCE1 and MPCE2, which are relays that perform ultimate control of the machine.
2. If you do not intend to use the MPCE monitor function, short the MPCE monitor line (pink) to power supply 0 V.
3. If a load is not connected to control output 1 and control output 2, an error will result and normal operation will not take place. For testing purposes during installation or at other times, connect the 510 k Ω resistors included with the operation manual to the MPCE1 and MPCE2 positions.
4. If you intend to use auto start mode, short the start line (gray) to power supply 0 V.
5. Take care when wiring not to make any mistakes regarding the cable colors. In particular, the wire colors of the power supply line (+ 24 V DC: white, 0 V: brown) are different from the regular sensor wires.
6. Connect the provided surge protector in parallel with MPCE1 and MPCE2.

Wire Connection

Recommended replacement Type MS4800A-30



* The output operation mode of the auxiliary output is the Dark-ON output mode.

- *1. Make sure that both external devices have been suitably suppressed.
- *2. For the MS/MSF4800B, use an NC contacts for the start input switch. For the MS/MSF4800A, refer to Start Input Methods (MS/MSF4800A Only) on page 21. When using Auto Start Mode, use the PDM to check that the operation mode is set to Auto Start Mode (default), and connect the start input to 0 V.
- *3. With the default setting, the external relay monitor input (EDM) is set so that the EDM is enabled and disabled with the start input. This will prevent accessing the normal functionality of the start input. To use both the start input and the EDM as shown in the example safety circuits on this page, connect the PDM to the Receiver and use the PDM to enable the EDM. If the EDM is not necessary, use the PDM to disable the EDM, and then connect the EDM (red wire) to 0 V. For details, refer to *Mini Safe 4800 Series Light Curtains Installation and Operating Manual*.
- *4. Fuse (provided by the customer).
- *5. The test input is disabled with the default setting. To use the test input, connect the PDM to the Receiver and enable the test input, and use NC contacts for the test input.

Characteristics

	Discontinuation F3SL-A	Replacement MS4800A-30
Operating range	0.3 to 20 m	0.3 to 20 m 0.3 to 8 m (setting by type MS4800-PDM)
Beam gap	22 mm	20 mm
Number of beams	16 to 96	14 to 106
Protective height	351 to 2095 mm	280 to 2120 mm
Detection capability	Diameter 30 mm opaque objects	Diameter 30 mm opaque objects
Effective aperture angle (EAA)	Within $\pm 2.5^\circ$ for the emitter and receiver at a detection distance of at least 3 m according to IEC61496-2	Within $\pm 2.5^\circ$ for the emitter and receiver at a detection distance of at least 3 m according to IEC61496-2
Light source	Infrared LED 850 nm wavelength	Infrared LED 880nm wavelength
Power supply voltage	DC 24 V \pm 20 %	DC 24 V \pm 20 %
Start waiting time	3 s max.	3.5 s max.
Current consumption	Emitter 285 mA max. Receiver 1.4 A max.	Emitter 285 mA max. Receiver 450 mA max.
Safety outputs	PNP transistor outputs \times 2 Load current 500 mA max. ON at light on	PNP transistors \times 2 Load current 625 mA max. ON at light on
Auxiliary output	PNP transistor \times 1 Load current 100 mA max. Output mode : ON at light on	PNP transistor \times 1 Load current 100 mA max. Output mode : ON at light on or alarm (setting by type MS4800-PDM)
Protection circuit	Output short-circuit protection, power supply reverse polarity protection	Output short-circuit protection, power supply reverse polarity protection, Interference light avoidance algorithm with type MS800-PDM
Safety-related functions	Start interlock / Restart interlock External device monitoring Fixed blanking Floating blanking	
	Setting by select switch	Setting by type MS4800-PDM
	Monitored blanking Reduced resolution blanking	
	-	Setting by type MS4800-PDM
	Muting	
-	Setting by type MS4800-RM6	
Response time	Refer to time table of ON to OFF	
Series connection	-	- (Only MSF4800A or MSF4800A series)
Ambient temperature	During operation and During storage 0 to +55 °C	During operation -10 to +55 °C During storage -25 to +70 °C
Ambient humidity	During operation and During storage 35 to 95 %RH	During operation and During storage 95 %RH max.
Vibration resistance	Malfunction : 10 to 55Hz, Multiple amplitude of 0.7 mm, 20 sweeps each in X,Y,Z directions	Malfunction : 10 to 55Hz, Multiple amplitude of 0.35 mm, 20 sweeps each in X,Y,Z directions
Shock resistance	Malfunction : 100 m/s ² , 1,000 times each in X,Y,Z directions	Malfunction : 100 m/s ² , 1,000 times each in X,Y,Z directions
Degree of protection	IEC60529 IP65	IEC60529 IP65

Characteristics

Time table of ON to OFF

	Discontinuation F3SL-A		Replacement MS4800A-30	
Response time	F3SL-A0351P30	20ms	MS4800A-30-0360	23ms
	F3SL-A0523P30	20ms	MS4800A-30-0520	23ms
	F3SL-A0700P30	20ms	MS4800A-30-0720	23ms
	F3SL-A0871P30	20ms	MS4800A-30-0880	23ms
	F3SL-A1046P30	25ms	MS4800A-30-1040	23ms
	F3SL-A1219P30	25ms	MS4800A-30-1200	23ms
	F3SL-A1394P30	25ms	MS4800A-30-1400	23ms
	F3SL-A1570P30	30ms	MS4800A-30-1560	32ms
	F3SL-A1746P30	30ms	MS4800A-30-1760	32ms
	F3SL-A1920P30	35ms	MS4800A-30-1920	32ms
	F3SL-A2095P30	35ms	MS4800A-30-2080	32ms

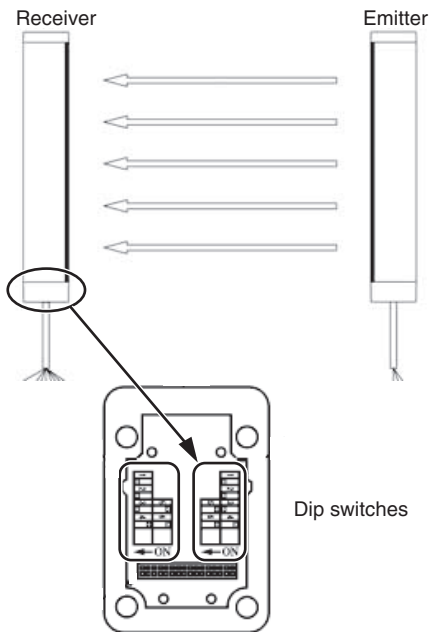
Operation ratings

Product discontinuation Type F3SL-A	Recommended replacement Type MS4800A-30
Refer to wire connection and characteristics	Refer to wire connection and characteristics

Operation methods

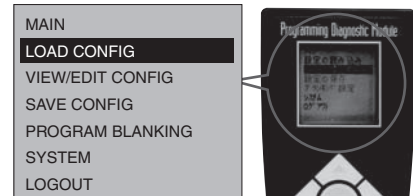
Product discontinuation Type F3SL-A

The receiver side connector is removed, and dip switches in the connector are changed.



Recommended replacement Type MS4800A-30

Type MS4800-PDM is connected with an emitter or a receiver. The monitor menu is selected, and it changes.



The interactive menu



Connect to the PDM connection port at the bottom of the Safety Light Curtain. Power is supplied from the Safety Light Curtain.

