

The OMRON logo is displayed in a bold, blue, sans-serif font. The letters are thick and rounded, with a consistent blue color throughout. The logo is centered horizontally within a light yellow rectangular background.

Automatización Eléctrica
Especialistas en Automatización

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Category 4 / 2 safety light curtain

The MS4800 and MS2800 family of safety light curtain provides simplicity in mounting, configuring, daily use and maintenance by providing a:

- Sensing distance up to 20m for 30mm resolution and 7 m for 14mm resolution
- LED bar for easy alignment and diagnosis
- DIP-switch setup for blanking, muting and optical coding
- Category 4 / 2 sensor complying with EN 61496-1
- All-in-one M12 connection and mounting concept with robust housing
- Multicascadable up to 3 sets

Ordering information

MS2800 Safety Category 2

Connection features	Standard				Master				Slave	
Standard Standalone operation										
Master Series connection, muting										
Slave Series connection only										
Function Set	MS2800S-				MS2800FS-				MS2800F-	
	Basic		Advanced		Basic		Advanced			
Basic Interlock, restart, EDM, 2 optical channels, integrated alignment tool										
Advanced Muting, blanking (fixed/floating)										
	MS2800S-EB-		MS2800S-EA-		MS2800FS-EB-		MS2800FS-EA-		MS2800F-E-	
Resolution	14 mm	30 mm	14 mm	30 mm	14 mm	30 mm	14 mm	30 mm	14 mm	30 mm
14 mm finger protection	MS2800S-EB-014-	MS2800S-EB-030-	MS2800S-EA-014-	MS2800S-EA-030-	MS2800FS-EB-014-	MS2800FS-EB-030-	MS2800FS-EA-014-	MS2800FS-EA-030-	MS2800F-E-014-	MS2800F-E-030-
30 mm hand protection										
Length	280 ... 1800		280 ... 2120		280 ... 1800		280 ... 2120		240 ... 1280	
240 mm ... 2120 mm in										
40 mm increments										

MS4800 Safety Category 4

Connection features	Standard				Master				Slave	
Standard Standalone operation										
Master Series connection, muting										
Slave Series connection only										
Function Set	MS4800S-				MS4800FS-				MS4800F-	
	Basic		Advanced		Basic		Advanced			
Basic Interlock, restart, EDM, 2 optical channels, integrated alignment tool										
Advanced Muting, blanking (fixed/floating)										
	MS4800S-EB-		MS4800S-EA-		MS4800FS-EB-		MS4800FS-EA-		MS4800F-E-	
Resolution	14mm	30mm	14mm	30mm	14mm	30mm	14mm	30mm	14mm	30mm
14 mm finger protection	MS4800S-EB-014-	MS4800S-EB-030-	MS4800S-EA-014-	MS4800S-EA-030-	MS4800FS-EB-014-	MS4800FS-EB-030-	MS4800FS-EA-014-	MS4800FS-EA-030-	MS4800F-E-014-	MS4800F-E-030-
30 mm hand protection										
Length	280 ... 1800		280 ... 2120		280 ... 1800		280 ... 2120		240 ... 1280	
240 mm ... 2120 mm in										
40 mm increments										

Examples

MS2800S-EB-030-1000
 Standalone operation
 Basic function set
 30 mm resolution
 1000 mm protective height

MS4800FS-EA-014-1200
 Series connection model
 Advanced function set
 14 mm resolution
 1200 mm protective height

MS4800F-E-014-600
 Slave operation
 14 mm resolution
 600 mm protective height

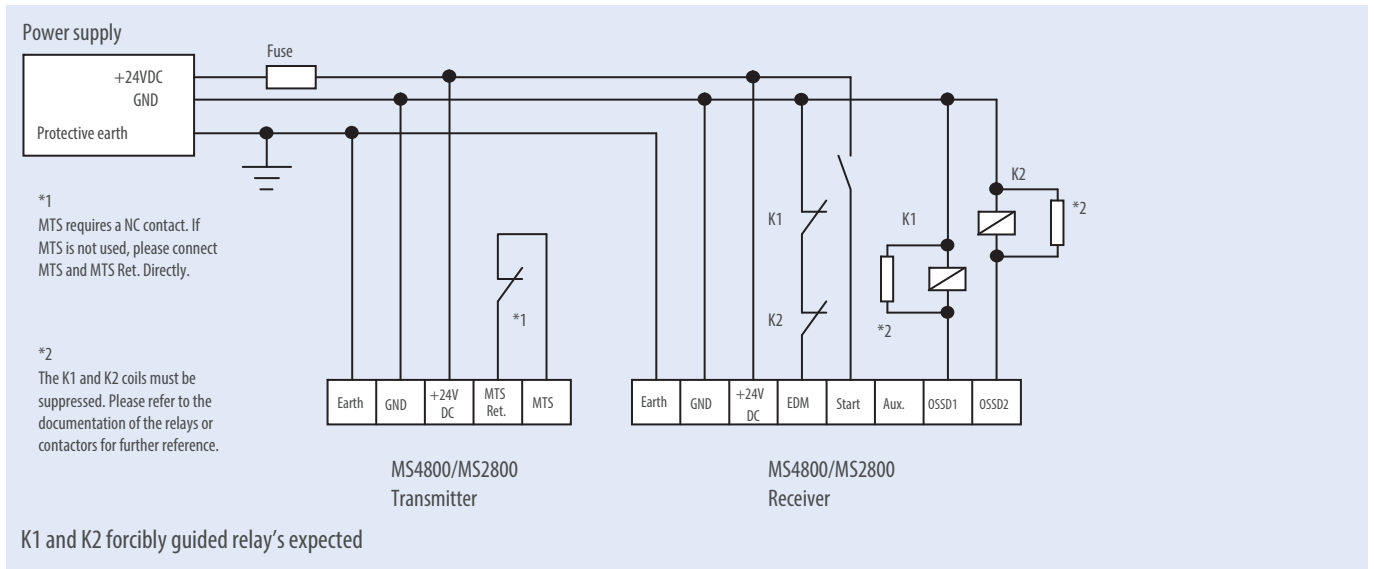
Specifications

Model	MS4800_-E_-_-_	MS2800_-E_-_-_
Sensor type	Type 4	Type2
Normal operating range	14 mm resolution: 0.3 - 7 m, 30 mm resolution: 0.3 - 20 m	
Reduced range (DIP-switch 6)	14 mm resolution: 0.3 - 3 m, 30 mm resolution: 0.3 - 8 m	
Beam pitch	14 mm resolution: 10 mm; 30 mm resolution: 20 mm	
Protective height	14 mm resolution: 280 - 1800 mm; 30 mm resolution: 240 - 2120 mm	
Detection capability	14 mm resolution: 14 mm non-transparent; 30 mm resolution: 30 mm non-transparent	
Effective aperture angle (EAA)	Within $\pm 2,5^\circ$	Within $\pm 5,0^\circ$
	for the emitter and receiver at a detection distance of at least 3m according to IEC61496-2	
Light source	Infrared LED's (880 nm), Power dissipation: 180 mW, Class 1 per EN60825-1	
Supply voltage (Vs)	24 VDC $\pm 20\%$, according EN/IEC60204, able to cover a drop of voltage of at least 20 msec	
OSSD	Two safety related PNP transistor output, load current 625 mA max.*1, short circuit protection	
Auxiliary output (non safety output)	One PNP output sourcing 100mA @ 24VDC. This output follows the OSSD's	
Output operation mode	OSSD output: Light-ON	
Test functions	Self-test (after power ON and during operation)	
Safety-related functions	All versions: Auto reset/interlock with manual reset, EDM (external device monitoring) advanced versions only: fixed blanking, floating blanking, muting	
Response time	ON to OFF: 14 to 59 ms	
Ambient light intensity	Incandescent lamp: 3000 lx max. (light intensity on the receiver surface)	
Ambient temperature	Operating: -10°C to +55°C, storage: -25°C to +70°C (without icing or condensation)	
Degree of protection	IP65 (IEC60529)	
Connection method	Flexible cable with M 12 connection: receiver: 8 pins, transmitter: 5 pins	
Materials	Case: Polyurethane powder painted aluminum, cap: polycarbonate, front window: acrylic, mounting brackets: cold rolled steel	
Size (cross section)	39 x 50 mm	
Receiver indicator lights	Individual Beam Indicator (IBI), interlock, blanking activ, RUN and STOP state, error codes	
Transmitter indicator lights	ON, OFF, failure	
AOPD (ESPE)	Type4 acc. IEC 61496-1	Type2 acc. IEC 61496-1
Suitable for safety control systems	Cat. 4 acc. EN954-1, PL e acc. EN ISO 13849-1	Cat. 2 acc. EN954-1, PLC acc. EN ISO 13849-1
Safety Integrity Level	SIL 3 according IEC 61508	
PFH	$5,9 \times 10^{-8}$	

*1 Up to 12 m we recommend to use the F39-JMR cables, to use longer cables and a current of 625 mA the F39-JMR cables are necessary.

Connection example

Using a manual restart and an external device monitoring





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Product	Code	Reference	Product link
Safety light curtain, Basic, category 2, hand protection (30mm), 1000mm height, DC, 20m scan distance	247955	MS2800S-EB-030-1000	Buy on EAN