

Set Safety Light Curtain Type 4

Hand Protection

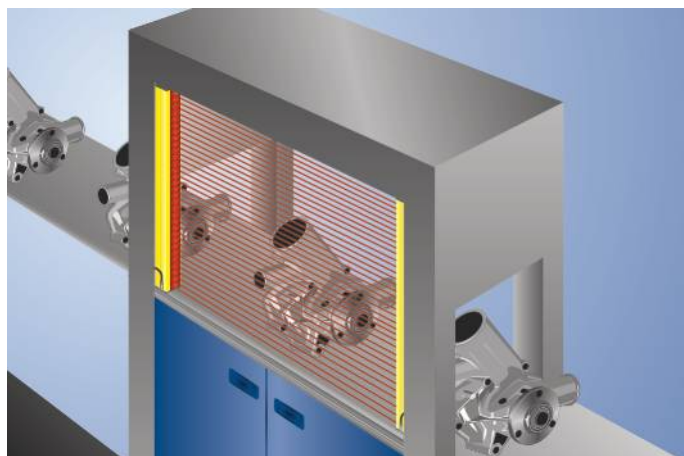
SEMG412

Part Number



- Easy configuration via wiring
- Protection field over the entire length of the housing for an installation without protrusion
- Quick alignment through visible red light
- Slim design for easy integration

These safety light curtains confidently solve all basic tasks. The basic function protection mode, restart inhibit and protection monitoring are standard and can be easily configured. The protective field always extends up to the end of the housing without protrusion. As a result, protection is easily provided even in confined installation conditions. The adequate mounting angle ZEMX001 is included in the delivery.



Technical Data

Optical Data	
Range	0,25...14 m
Housing Length (L)	311 mm
Safety Field Height (SFH)	326 mm
Resolution	30 mm
Light Source	Red Light
Wave Length	630 nm
Max. Ambient Light	10000 Lux
Opening Angle	± 2,5 °

Electrical Data	
Sensor Type	Set
Supply Voltage	19,2...28,8 V DC
Response Time	6,6 ms
Temperature Range	-25...55 °C
Storage temperature	-25...60 °C
No. Safety Outputs (OSSDs)	2
Safety Output Voltage Drop	< 2,3 V
PNP Safety Output/Switching Current	300 mA
Signal Outputs	1
Signal Output Voltage Drop	< 2,5 V
Signal Output/Switching Current	100 mA
Short Circuit and Overload Protection	yes
Reverse Polarity Protection	yes
Protection Class	III

Mechanical Data	
Housing Material	Aluminum
Disk Material	Polycarbonate
Degree of Protection	IP65/IP67
Connection	M12 × 1
Cable Length	300 mm

Safety-relevant Data	
ESPE Type (EN 61496)	4
Safety Category (EN ISO 13849-1)	4
Performance Level (EN ISO 13849-1)	PL e
PFHd	1,60 × E-8 1/h
Service Life TM (EN ISO 13849-1)	20 a
Safety Integrity Level (EN 61508)	SIL3
Safety Integrity Level (EN 62061)	SILCL3

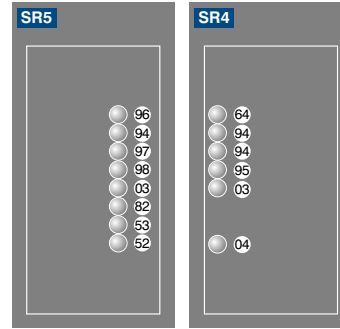
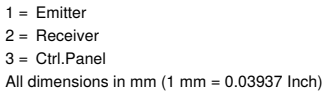
Function	
Hand Protection	yes
Restart Inhibit	yes
Safety Operating Mode	yes
Contactor Monitoring	yes

Scope of delivery	Mounting ZEMX001
Scope of delivery (Emitter; Receiver)	SEMG512; SEMG612

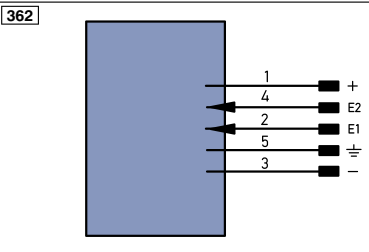
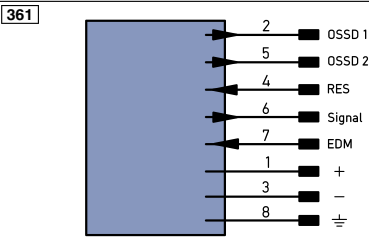
Connection Diagram No.	361	362	
Control Panel No.	SR4	SR5	
Suitable Connection Technology No.	35	89	
Suitable Mounting Technology No.	790	810	820

Complementary Products

Deflection Mirror Z2UG002
Protection Column with Deflection Mirror SZ000EU125NN01
Protection Column with Screening Grid SZ000EG125NN01
Safety Relay SG4-00VA000R2, SR4B3B01S, SR4D3B01S
Sistema Library software DNNF007



03 = Error Indicator
04 = Function Indicator
52 = OSSD ON
53 = OSSD OFF
64 = Diagnosis/Test
82 = Acknowledgement Request
94 = Diagnosis
95 = Diagnosis/Large Detection Range
96 = Diagnosis/Signal weak
97 = Diagnosis/Contactor Monitoring
98 = Diagnosis/Synchronization



Legend

+	Supply Voltage +	nc	not connected
–	Supply Voltage 0 V	U	Test Input
~	Supply Voltage (AC Voltage)	Ū	Test Input inverted
A	Switching Output (NO)	W	Trigger Input
Ā	Switching Output (NC)	O	Analog Output
V	Contamination/Error Output (NO)	O–	Ground for the Analog Output
Ė	Contamination/Error Output (NC)	BZ	Block Discharge
E	Input (analog or digital)	AWV	Valve Output
T	Teach Input	a	Valve Control Output +
Z	Time Delay (activation)	b	Valve Control Output 0 V
S	Shielding	SY	Synchronization
RxD	Interface Receive Path	E+	Receiver-Line
TxD	Interface Send Path	S+	Emitter-Line
RDY	Ready	±	Grounding
GND	Ground	SnR	Switching Distance Reduction
CL	Clock	Rx+/-	Ethernet Receive Path
E/A	Output/Input programmable	Tx+/-	Ethernet Send Path
	IO-Link	B _{US}	Interfaces-Bus A(+)/B(-)
PoE	Power over Ethernet	La	Emitted Light disengageable
IN	Safety Input	Mag	Magnet activation
QSSD	Safety Output	RES	Input confirmation
Signal	Signal Output	EDM	Contactors Monitoring
Bl-D _{+/–}	Ethernet Gigabit bidirect. data line (A-D)	EN _A RS42	Encoder A/A (TTL)
EN _B RS42	Encoder 0-pulse 0-0 (TTL)	EN _B RS42	Encoder B/B (TTL)

EN _A	Encoder A
EN _B	Encoder B
AMIN	Digital output MIN
AMAX	Digital output MAX
AOK	Digital output OK
SY _{IN}	Synchronization In
SY _{OUT}	Synchronization OUT
OLT	Brightness output
M	Maintenance

Wire Colors according to
DIN IEC 757

BK	Black
BN	Brown
RD	Red
OG	Orange
YE	Yellow
GN	Green
BU	Blue
VT	Violet
GY	Grey
WH	White
PK	Pink
GNYE	Green/Yellow