

Safety Light Array

Body Protection

SEFB424

Part Number



- Multifunctional thanks to measuring function
- Quick alignment through visible red light
- Simple configuration and diagnosis with wTeach2 software

The safety light array can be attached anywhere thanks to the T nut and mounting bracket. The visible red light and signal strength display make it easy to align the emitter and the receiver. Safety mode, restart prevention, and contactor monitoring are included as standard functions. The protective equipment can be configured using the user-friendly IO-Link and wenglor software wTeach2. Optional LED indicators visualize switch states or error messages



Technical Data

Optical Data

Range	0,5...50 m
Beam Distance	300 mm
Number of Beams	4
Light Source	Red Light
Wavelength	630 nm
Max. Ambient Light	10000 Lux
Opening Angle	± 2,5 °

Electrical Data

Sensor Type	Set
Supply Voltage	19,2...28,8 V DC
Current Consumption (U _b = 24 V)	≤ 350 mA
Response Time	15 ms
Temperature Range	-30...55 °C
Storage temperature	-30...70 °C
No. Safety Outputs (OSSDs)	2
Safety Output Voltage Drop	≤ 2,3 V
PNP Safety Output/Switching Current	≤ 300 mA
Number of Signal Outputs	1
Signal Output Voltage Drop	≤ 2,5 V
Signal Output/Switching Current	≤ 100 mA
Short Circuit and Overload Protection	yes
Interface	IO-Link V1.1
Protection Class	III

Mechanical Data

Housing Material	Aluminum
Disc Material	Polycarbonate
Degree of Protection	IP65/IP67
Connection	M12 × 1; 8-pin

Safety-relevant Data

ESPE Type (EN 61496)	4
Performance Level (EN ISO 13849-1)	Cat. 4 PL e
Mission Time TM (EN ISO 13849-1)	20 a
Safety Integrity Level (EN 61508)	SIL3
Safety Integrity Level (EN 62061)	SILCL3

Function

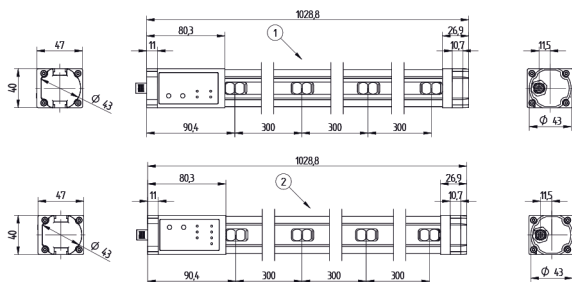
Body Protection	yes
Scope of Functions	Basic Function
Scope of delivery	ZEFX001 mounting
Scope of delivery (Emitter; Receiver)	SEFB514; SEFB624

IO-Link

Connection Diagram No.	1029	1031	
Control Panel No.	A38	A40	
Suitable Connection Equipment No.	35	89	
Suitable Mounting Technology No.	860	870	880

Complementary Products

Connection Box for Muting Sensors
IO-Link Master
LED indicator strip set Z99G013
Muting Sensor Set
Path-Folding Mirror Z2UG001
Protection Column with Path-Folding Mirror SZ000EU125NN01
Protection Column with Protective Screen Z2SS001
Safety Relay SG4-00VA000R2, SR4B3B01S, SR4D3B01S
Software



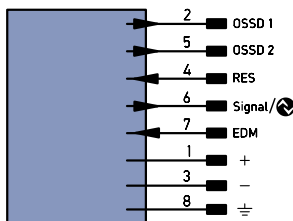
All dimensions in mm (1 mm = 0.03937 Inch)

Ctrl. Panel

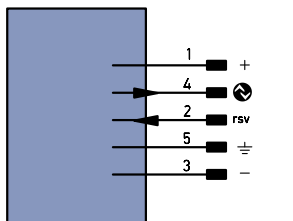


03 = Error Indicator
20 = Enter Button
22 = UP Button
23 = Down Button
52 = OSSD ON
53 = OSSD OFF
60 = Display
68 = Supply Voltage Indicator
82 = Acknowledgement Request
8a = Coding
95 = Diagnosis/Large Detection Range
9a = Weak signal

1029



1031



Legend

+	Supply Voltage +	PT	Platinum measuring resistor
-	Supply Voltage 0 V	nc	not connected
~	Supply Voltage (AC Voltage)	U	Test Input
A	Switching Output (NO)	U	Test Input inverted
Ā	Switching Output (NC)	W	Trigger Input
V	Contamination/Error Output (NO)	W-	Ground for the Trigger Input
V̄	Contamination/Error Output (NC)	O	Analog Output
E	Input (analog or digital)	O-	Ground for the Analog Output
T	Teach Input	BZ	Block Discharge
Z	Time Delay (activation)	Awv	Valve Output
S	Shielding	a	Valve Control Output +
RxD	Interface Receive Path	b	Valve Control Output 0 V
TxD	Interface Send Path	SY	Synchronization
RDY	Ready	SY-	Ground for the Synchronization
GND	Ground	E+	Receiver-Line
CL	Clock	S+	Emitter-Line
E/A	Output/Input programmable	±	Grounding
IO-Link	IO-Link	SnR	Switching Distance Reduction
PoE	Power over Ethernet	Rx+/-	Ethernet Receive Path
IN	Safety Input	Tx+/-	Ethernet Send Path
OSSD	Safety Output	Bus	Interfaces-Bus A(+)/B(-)
Signal	Signal Output	La	Emitted Light disengageable
BL-D+/-	Ethernet Gigabit bidirect. data line (A-D)	Mag	Magnet activation
EN0 r5422	Encoder 0-pulse 0-0 (TTL)	RES	Input confirmation
		EDM	Contacting Monitoring

ENAr5422	Encoder A/Ā (TTL)
ENBr5422	Encoder B/B̄ (TTL)
ENa	Encoder A
ENb	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
rsv	reserved
Wire Colors according to IEC 60757	
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

