

# SEFB412

Part Number



- Increased safety thanks to intelligent muting functions
- Multifunctional thanks to measuring function
- Simple configuration and diagnosis with wTech2 software

The multi-light array can be attached anywhere thanks to the T slot and mounting bracket. The visible red light and signal strength display make it easy to align the emitter and the receiver. Safety mode, restart inhibit and contactor monitoring are included as standard functions. The user-friendly IO-Link and wenglor software wTech2 are used for configuration. In addition, safety light arrays provide various muting features for transporting material through hazardous areas. Optional LED signal indicators visualize the various muting phases.



## Technical Data

Optical Data	
Range	0,5...50 m
Beam Distance	500 mm
Number of Beams	2
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 <sub>b</sub> = 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

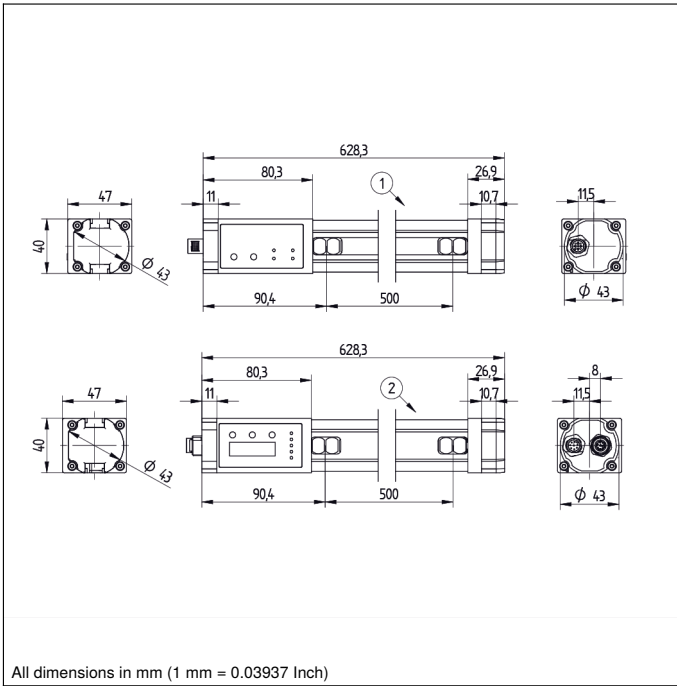
Safety-relevant Data	
ESPE Type (EN 61496)	4
Performance Level (EN ISO 13849-1)	Cat. 4 PL e
PFHD	≤ 1.8 × 10 <sup>-8</sup>
Mission Time TM (EN ISO 13849-1)	20 a
Safety Integrity Level (EN 61508)	SIL3
Safety Integrity Level (EN 62061)	SILCL3

Function	
Body Protection	yes
Scope of functions	Muting
Scope of delivery	ZEFX001 mounting
Scope of delivery (Emitter; Receiver)	SEFB512; SEFB612

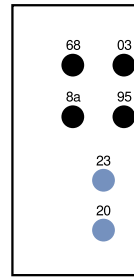
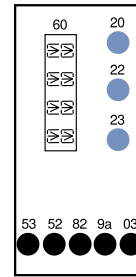
IO-Link	●
Connection Diagram No.	1029   1030   1031
Control Panel No.	A38   A39
Suitable Connection Equipment No.	35   89
Suitable Mounting Technology No.	860   870   880

## Complementary Products

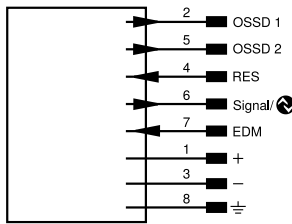
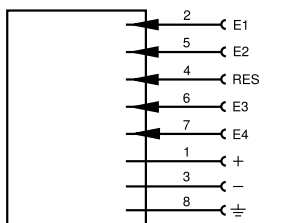
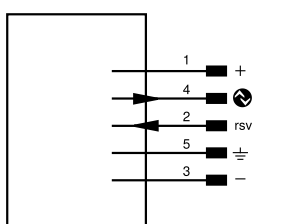
Connection box for muting sensors
IO-Link Master
Muting Sensor Set
Path-Folding Mirror Z2UG001
Protection Column with Path-Folding Mirror SZ000EU125NN01
Protection column with protective screen Z2SS001
Safety Relay SG4-00VA000R2, SR4B3B01S, SR4D3B01S
Set of LED signal indicators Z99G015
Software



### Ctrl. Panel

**A38**

**A39**


- 03 = Error Indicator
- 20 = Enter key
- 22 = Up key
- 23 = Down key
- 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**

**1030**

**1031**


### Legend

+	Supply Voltage +	nc	Not connected	EN <sub>BRS422</sub>	Encoder B/B̄ (TTL)
-	Supply Voltage 0 V	U	Test Input	ENA	Encoder A
~	Supply Voltage (AC Voltage)	Ū	Test Input inverted	EN <sub>B</sub>	Encoder B
A	Switching Output (NO)	W	Trigger Input	AMIN	Digital output MIN
Ā	Switching Output (NC)	W-	Ground for the Trigger Input	AMAX	Digital output MAX
V	Contamination/Error Output (NO)	O	Analog Output	Aok	Digital output OK
V̄	Contamination/Error Output (NC)	O-	Ground for the Analog Output	SY In	Synchronization In
E	Input (analog or digital)	BZ	Block Discharge	SY OUT	Synchronization OUT
T	Teach Input	Amv	Valve Output	OLT	Brightness output
Z	Time Delay (activation)	a	Valve Control Output +	M	Maintenance
S	Shielding	b	Valve Control Output 0 V	rsv	Reserved
RxD	Interface Receive Path	SY	Synchronization	Wire Colors according to DIN IEC 60757	
TxD	Interface Send Path	SY-	Ground for the Synchronization	BK	Black
RDY	Ready	E+	Receiver-Line	BN	Brown
GND	Ground	S+	Emitter-Line	RD	Red
CL	Clock	±	Grounding	OG	Orange
E/A	Output/Input programmable	SnR	Switching Distance Reduction	YE	Yellow
IO-Link	IO-Link	Rx+/-	Ethernet Receive Path	GN	Green
PoE	Power over Ethernet	Tx+/-	Ethernet Send Path	BU	Blue
IN	Safety Input	Bus	Interfaces-Bus A(+)/B(-)	VT	Violet
OSSD	Safety Output	La	Emitted Light disengageable	GY	Grey
Signal	Signal Output	Mag	Magnet activation	WH	White
BI_D+/-	Ethernet Gigabit bidirect. data line (A-D)	RES	Input confirmation	PK	Pink
EN <sub>o</sub> RS422	Encoder 0-pulse 0/0̄ (TTL)	EDM	Contacting Monitoring	GNYE	Green/Yellow
PT	Platinum measuring resistor	EN <sub>A</sub> RS422	Encoder A/Ā (TTL)		

