Through-Beam Sensor

SD983
Part Number

- **Simple adjustment with special alignment optic**
- **Test input**

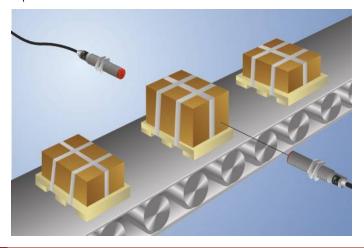## Technical Data

Optical Data	
Range	10000 mm
Light Source	Red Light
Service Life (T = +25 °C)	100000 h
Opening Angle	6 °
Electrical Data	
Sensor Type	Emitter
Supply Voltage	10...30 V DC
Current Consumption (Ub = 24 V)	< 40 mA
Temperature Drift	< 10 %
Temperature Range	-10...60 °C
Reverse Polarity Protection	yes
Protection Class	III
Mechanical Data	
Housing Material	Stainless Steel
Full Encapsulation	yes
Degree of Protection	IP67
Connection	M12 × 1; 4-pin
Safety-relevant Data	
MTTFd (EN ISO 13849-1)	5959,11 a
Connection Diagram No.	1018
Suitable Connection Equipment No.	2
Suitable Mounting Technology No.	150

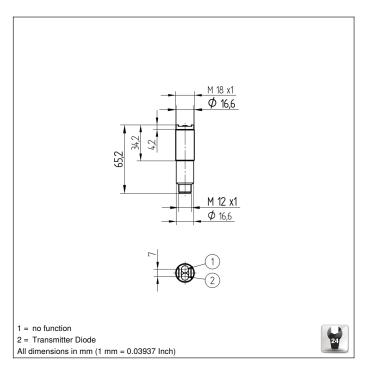### Suitable Receiver

ED98PC3
ED98PCV3

These through-beam sensors are best suited for use in industrial environments. Thanks to their large working range, the devices demonstrate excellent functional reliability in highly contaminated environments. The sensors can be checked for correct functioning via the test input.
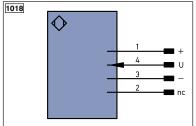
Complementary Products

Dust Extraction Tube STAUBTUBUS-01

Photoelectronic Sensors

1 = no function
2 = Transmitter Diode
All dimensions in mm (1 mm = 0.03937 Inch)

1018		
1	+	Supply Voltage +
4	U	
3	–	
2	nc	

Legend

+	Supply Voltage +	PT	Platinum measuring resistor	EN_ARS422	Encoder A/Ā (TTL)
–	Supply Voltage 0 V	nc	not connected	EN_BRS422	Encoder B/B̄ (TTL)
~	Supply Voltage (AC Voltage)	U	Test Input	EN_A	Encoder A
A	Switching Output (NO)	Ū	Test Input inverted	EN_B	Encoder B
Ā	Switching Output (NC)	W	Trigger Input	A_MIN	Digital output MIN
V	Contamination/Error Output (NO)	W–	Ground for the Trigger Input	A_MAX	Digital output MAX
V̄	Contamination/Error Output (NC)	O	Analog Output	A_OK	Digital output OK
E	Input (analog or digital)	O–	Ground for the Analog Output	SY In	Synchronization In
T	Teach Input	BZ	Block Discharge	SY OUT	Synchronization OUT
Z	Time Delay (activation)	A_MW	Valve Output	0_LT	Brightness output
S	Shielding	a	Valve Control Output +	M	Maintenance
RxD	Interface Receive Path	b	Valve Control Output 0 V	rsv	reserved
TxD	Interface Send Path	SY	Synchronization		Wire Colors according to DIN IEC 757
RDY	Ready	SY–	Ground for the Synchronization	BK	Black
GND	Ground	E+	Receiver-Line	BN	Brown
CL	Clock	S+	Emitter-Line	RD	Red
E/A	Output/Input programmable	⏚	Grounding	OG	Orange
⬙	IO-Link	SnR	Switching Distance Reduction	YE	Yellow
PoE	Power over Ethernet	Rx+/–	Ethernet Receive Path	GN	Green
IN	Safety Input	Tx+/–	Ethernet Send Path	BU	Blue
OSSD	Safety Output	Bus	Interfaces-Bus A(+)/B(–)	VT	Violet
Signal	Signal Output	La	Emitted Light disengageable	GY	Grey
BI_D+/–	Ethernet Gigabit bidirect. data line (A-D)	Mag	Magnet activation	WH	White
EN_0RS422	Encoder 0-pulse 0-0̄ (TTL)	RES	Input confirmation	PK	Pink
		EDM	Contactor Monitoring	GNYE	Green/Yellow