

Laser Distance Sensor

Triangulation

OCPS895

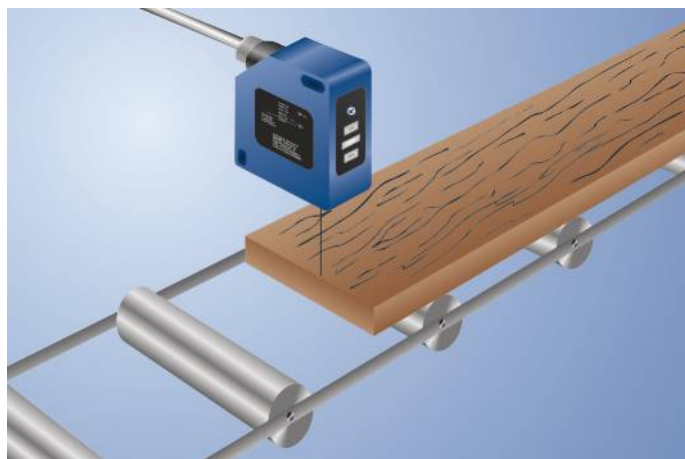
Part Number



- Emitted light disengageable
- Laser class 1
- Measured value independent of material, color and brightness
- Zoom function

These sensors work with a high-resolution CMOS line and DSP technology and determine distance using angular measurement. As a result, material, color and brightness related measurement differences are virtually eliminated.

Integrated analogue output can be configured for voltage 0...10 V (10...0 V) or current 4...20 mA (20...4 mA).



Technical Data

Optical Data

Working Range	50...350 mm
Measuring Range	300 mm
Reproducibility maximum	1200 μ m
Reproducibility: 1 Sigma	400 μ m
Linearity Deviation	1000 μ m
Light Source	Laser (red)
Wavelength	660 nm
Service Life (T = +25 °C)	100000 h
Laser Class (EN 60825-1)	1
Max. Ambient Light	10000 Lux
Light Spot Diameter	see Table 1

Electrical Data

Supply Voltage	18...30 V DC
Current Consumption (Ub = 24 V)	< 80 mA
Measuring Rate	500 /s
Measuring Rate (Resolution-Mode)	250 /s
Response Time	< 2000 μ s
Response Time (Resolution Mode)	< 4000 μ s
Temperature Drift	< 75 μ m/K
Temperature Range	-25...50 °C
Analog Output	0...10 V
Load Current Voltage Output	< 1 mA
Current Output Load Resistance	< 500 Ohm
Interface	RS-232
Transmission rate	38400 Bd
Protection Class	III

Mechanical Data

Setting Method	Teach-In
Housing Material	Plastic, ABS
Housing Material	Plastic, PC
Optic Cover	Plastic, PMMA
Degree of Protection	IP67
Connection	M12 $\times$ 1; 8-pin

Safety-relevant Data

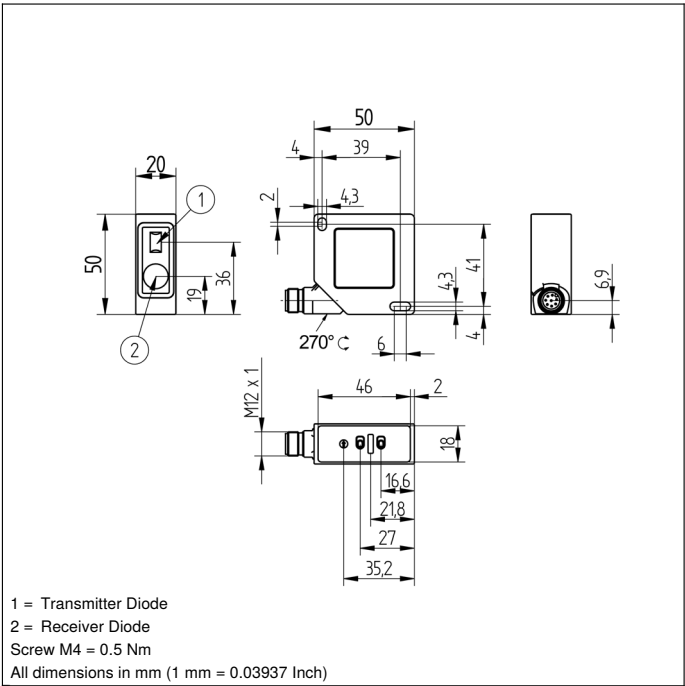
MTTFd (EN ISO 13849-1)	713,97 a
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Error Output	●
Analog Output	●
RS-232 Interface	●

Connection Diagram No.	529
Control Panel No.	P7
Suitable Connection Equipment No.	80
Suitable Mounting Technology No.	380

Complementary Products

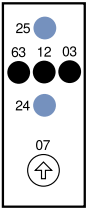
Analog Evaluation Unit AW02
Fieldbus Gateway ZAGxxxN01, EPGG001
Interface Cable S232W3
Protective Housing ZSV-0x-01
Set Protective Housing ZSP-NN-02



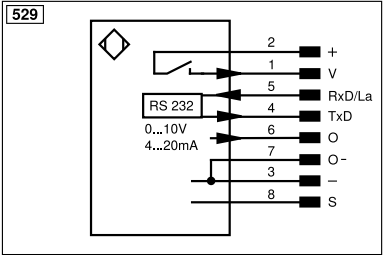
1 = Transmitter Diode
2 = Receiver Diode
Screw M4 = 0.5 Nm
All dimensions in mm (1 mm = 0.03937 Inch)

Ctrl. Panel

P7



03 = Error Indicator
07 = Selector Switch
12 = Analog Output Indicator
24 = Plus Button
25 = Minus Button
63 = Analog Output Current Indicator



Legend			
+	Supply Voltage +	nc	Not connected
-	Supply Voltage 0 V	U	Test Input
~	Supply Voltage (AC Voltage)	Ů	Test Input inverted
A	Switching Output (NO)	W	Trigger Input
Ā	Switching Output (NC)	W-	Ground for the Trigger Input
V	Contamination/Error Output (NO)	O	Analog Output
Ȳ	Contamination/Error Output (NC)	O-	Ground for the Analog Output
E	Input (analog or digital)	BZ	Block Discharge
T	Teach Input	Amv	Valve Output
Z	Time Delay (activation)	a	Valve Control Output +
S	Shielding	b	Valve Control Output 0 V
RxD	Interface Receive Path	SY	Synchronization
TxD	Interface Send Path	SY-	Ground for the Synchronization
RDY	Ready	E+	Receiver-Line
GND	Ground	S+	Emitter-Line
CL	Clock	±	Grounding
E/A	Output/Input programmable	SnR	Switching Distance Reduction
IO-Link	IO-Link	Rx+/-	Ethernet Receive Path
PoE	Power over Ethernet	Tx+/-	Ethernet Send Path
IN	Safety Input	Bus	Interfaces-Bus A(+)/B(-)
OSSD	Safety Output	La	Emitted Light disengageable
Signal	Signal Output	Mag	Magnet activation
BI_D+/-	Ethernet Gigabit bidirect. data line (A-D)	RES	Input confirmation
ENo RS422	Encoder 0-pulse 0/0 (TTL)	EDM	Contact Monitoring
PT	Platinum measuring resistor	ENARs422	Encoder A/A (TTL)
		ENBrs422	Encoder B/B (TTL)
		ENA	Encoder A
		ENb	Encoder B
		AMIN	Digital output MIN
		AMAX	Digital output MAX
		Ack	Digital output OK
		SY In	Synchronization In
		SY OUT	Synchronization OUT
		OLt	Brightness output
		M	Maintenance
		rsv	Reserved
		Wire Colors according to DIN 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

Table 1

Working Distance	50 mm	350 mm
Spot Size	0,4 × 1 mm	1,4 × 3,1 mm

Output Graph

