

High-Performance Distance Sensor

CP70QXVT35S847

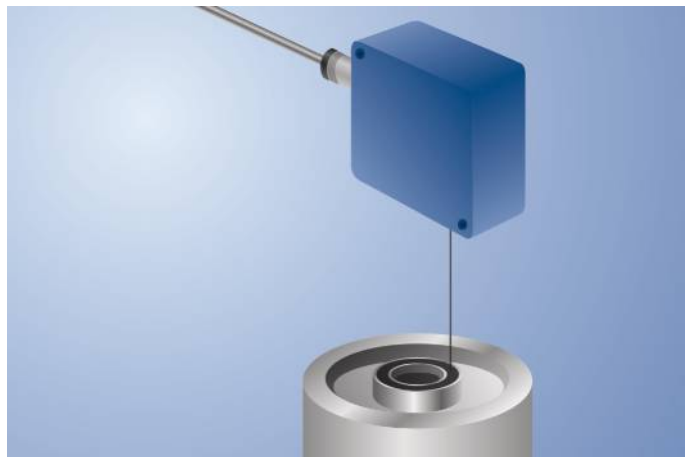
Part Number

LASER



- **Highly accurate switching distance**
- **Minimal switching hysteresis**
- **Modification of standard product, view information document**
- **Switching point independent of material, color and brightness**

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 switching point differences are virtually eliminated. Two independent switching outputs are available, at which two switching thresholds and one on or off-delay time (in 10 ms steps) can be configured. Sensor functions can be activated, and scanning results can be acquired via the RS-232 interface.



Technical Data

Optical Data

Range	660 mm
Adjustable Range	60...660 mm
Switching Hysteresis	< 1 %
Light Source	Laser (red)
Wave Length	655 nm
Service Life (T = +25 °C)	100000 h
Laser Class (EN 60825-1)	2
Max. Ambient Light	10000 Lux

Electrical Data

Supply Voltage	10...30 V DC
Current Consumption (Ub = 24 V)	< 50 mA
Switching Frequency	250 Hz
Response Time	< 2 ms
On-/Off-Delay (RS-232)	0...1 s
Temperature Drift	< 50 µm/K
Temperature Range	-25...60 °C
Switching Outputs	2
Switching Output Voltage Drop	< 1,5 V
Switching Output/Switching Current	200 mA
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Teach Mode	HT, VT, TP
Interface	RS-232
Baud Rate	38400 Bd
Protection Class	III

Mechanical Data

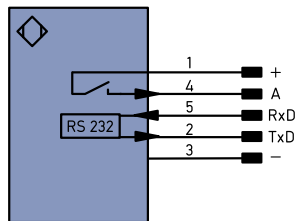
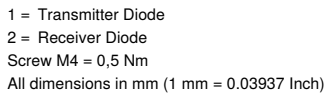
Setting Method	Teach-In
Housing Material	Plastic
Degree of Protection	IP67
Connection	M12 × 1; 5-pin

Error Output	●
Configurable as PNP/NPN/Push-Pull	●
Switchable to NC/NO	●
RS-232 Interface	●

Connection Diagram No.	524
Suitable Connection Technology No.	35
Suitable Mounting Technology No.	380

Complementary Products

Feldbus Gateways ZAGxxxN01, EPGG001
Interface Cable S232W3



+	Supply Voltage +
-	Supply Voltage 0 V
~	Supply Voltage (AC Voltage)
A	Switching Output (NO)
$\bar{A}$	Switching Output (NC)
V	Contamination/Error Output (NO)
$\bar{V}$	Contamination/Error Output (NC)
E	Input (analog or digital)
T	Teach Input
Z	Time Delay (activation)
S	Shielding
RxD	Interface Receive Path
TxD	Interface Send Path
RDY	Ready
GND	Ground
CL	Clock
E/A	Output/Input programmable
	IO-Link
PoE	Power over Ethernet
IN	Safety Input
QSSD	Safety Output
Signal	Signal Output
BL-D/-	Ethernet Gigabit bidirect. data line (A-D)
EN0	Encoder 0-pulse 0-0 (TTL)

PT	Platinum measuring resistor
nc	not connected
U	Test Input
Ū	Test Input inverted
W	Trigger Input
O	Analog Output
—	Ground for the Analog Output
BZ	Block Discharge
AWV	Valve Output
a	Valve Control Output +
b	Valve Control Output 0 V
SY	Synchronization
E+	Receiver-Line
S+	Emitter-Line
$\pm$	Grounding
SxR	Switching Distance Reduction
Rx+/-	Ethernet Receive Path
Tx+/-	Ethernet Send Path
BuS	Interfaces-Bus A(+)/B(-)
La	Emitted Light disengageable
Mag	Magnet activation
RES	Input confirmation
EDM	Contactors Monitoring
EN_{AR542}	Encoder A/A' (TTL)
EN_{BR542}	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
Q _L T	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

Table 1

Detection Range	60 mm	660 mm
Spot Size	0,6 × 2,5 mm	3 × 8 mm

