

Reflex Sensor for Measuring Tasks



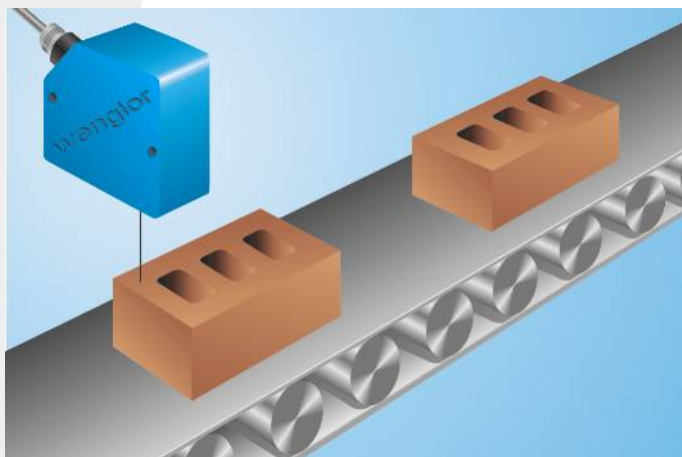
HT77MGV80

Part Number



- Digital, Analog and Error Outputs
- Go / No-Go testing possible
- Infrared Light
- Triple Beam Correction Principle

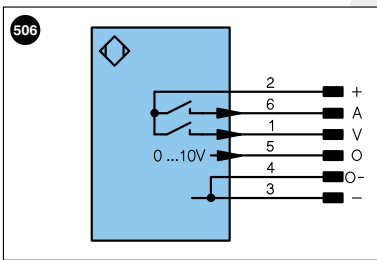
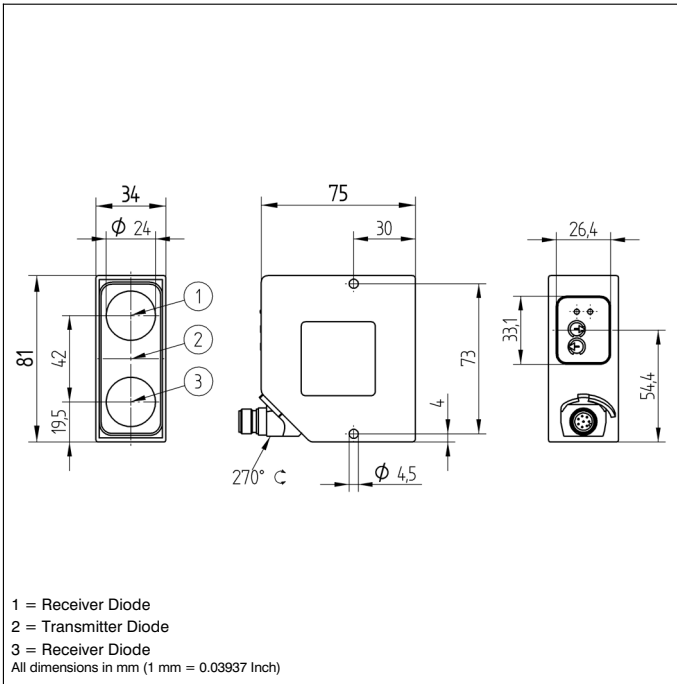
These sensors are equipped with an analog output, as well as a digital output. The upper and lower switching points of the digital output can be adjusted with two potentiometers. The digital output is activated when an object is located within the window defined in this way.



Technical Data

Optical Data	
Working Range	300...1300 mm
Measuring Distance	800 mm
Measuring Range	1000 mm
Resolution	see Table 1
Linearity	2 %
Switching Hysteresis	50 mm
Light Source	Infrared Light
Wave Length	880 nm
Service Life (T = +25 °C)	100000 h
Risk Group (EN 62471)	1
max. Ambient Light	10000 Lux
Light Spot Diameter	see Table 1
Electrical Data	
Supply Voltage	18...30 V DC
Current Consumption (U _b = 24 V)	< 50 mA
Cut-Off Frequency	50 Hz
Response Time	10 ms
Temperature Drift	500 μm/K
Temperature Range	-10...60 °C
Switching Output Voltage Drop	< 2,5 V
PNP Switching Output/Switching Current	200 mA
Error Output Voltage Drop	< 2,5 V
PNP Error Output/Switching Current	200 mA
Analog Output	0...10 V
Output Current Analog Output	500 μA
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Overload Protection	yes
Protection Class	III
Mechanical Data	
Housing	Plastic
Degree of Protection	IP67
Connection	M12 × 1; 8-pin
Error Output	●
PNP NO	●
Analog Output	●
Connection Diagram No.	506
Control Panel No.	T 5
Suiting Connection Technology No.	80
Suiting Mounting Technology No.	330





Legend		PoE	Power over Ethernet
+	Supply Voltage +	U	Test Input
-	Supply Voltage 0 V	Ū	Test Input inverted
~	Supply Voltage (AC Voltage)	W	Trigger Input
A	Switching Output (NO)	O	Analog Output
Ā	Switching Output (NC)	O-	Ground for the Analog Output
V	Contamination/Error Output (NO)	BZ	Block Discharge
V̄	Contamination/Error Output (NC)	AWV	Valve Output
E	Input (analog or digital)	a	Valve Control Output +
T	Teach Input	b	Valve Control Output 0 V
Z	Time Delay (activation)	SY	Synchronization
S	Shielding	E+	Receiver-Line
RxD	Interface Receive Path	S+	Emitter-Line
TxD	Interface Send Path	±	Grounding
RDY	Ready	SnR	Switching Distance Reduction
GND	Ground	Rx +/-	Ethernet Receive Path
CL	Clock	Tx +/-	Ethernet Send Path
E/A	Output/Input programmable	Bus	Interfaces-Bus A(+)/B(-)
	IO-Link	La	Emitted Light disengageable
		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

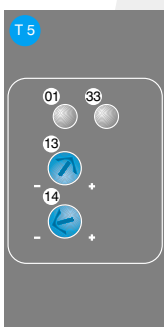
Table 1

Working Distance	300 mm	800 mm	1300 mm
Light Spot Diameter	6 mm	18 mm	30 mm
Resolution	0,2 mm	8 mm	30 mm

Complementary Products

Analog Evaluation Unit AW02

Ctrl.Panel



- 01 = Switching Status Indicator
- 13 = Upper Potentiometer
- 14 = Lower Potentiometer
- 33 = Analog Voltage Output-/ Error Warning

Error of Measurement

Typical characteristic curve based on Kodak white, 90 %

