

Reflex Sensor with Analog Output

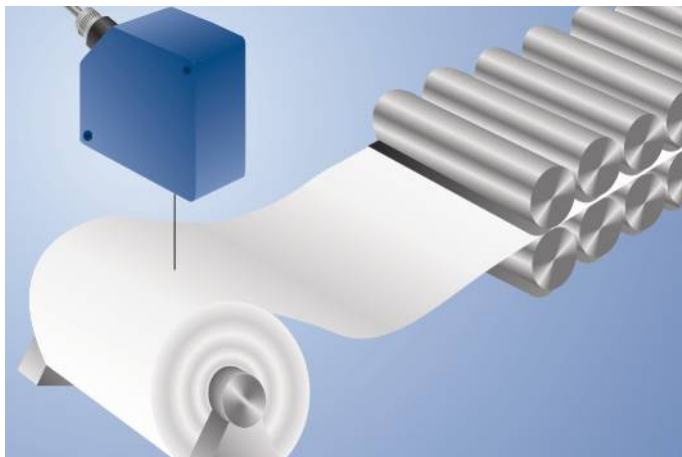
HT60MGV80

Part Number



- Digital, analog and error output
- Go/no-go testing possible
- Red 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.

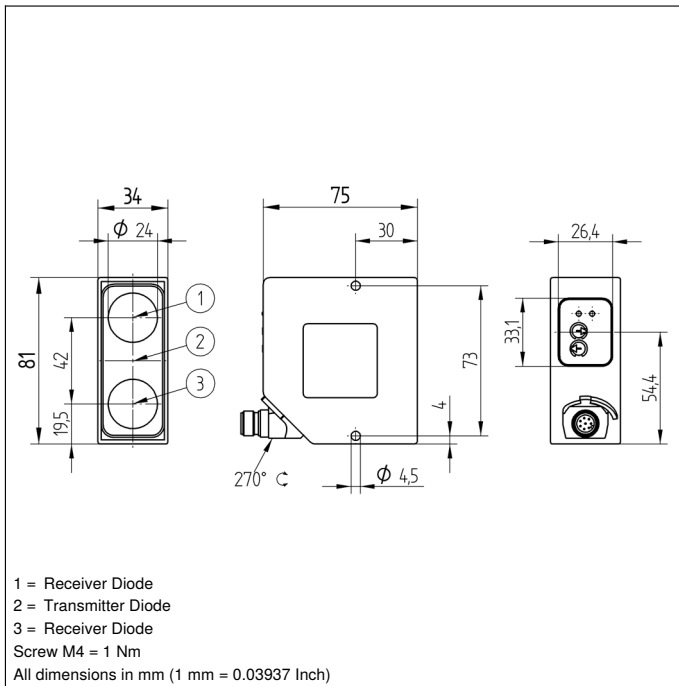


Technical Data

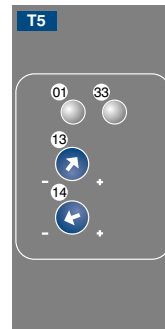
Optical Data	
Working Range	300...600 mm
Measuring Distance	450 mm
Measuring Range	300 mm
Resolution	see Table 1
Linearity	1 %
Switching Hysteresis	20 mm
Light Source	Red Light
Wavelength	660 nm
Service Life (T = +25 °C)	100000 h
Max. Ambient Light	10000 Lux
Light Spot Diameter	see Table 1
Electrical 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	100 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 Material	Plastic
Degree of Protection	IP67
Connection	M12 × 1; 8-pin
Error Output	●
PNP NO	●
Analog Output	●
Connection Diagram No.	506
Control Panel No.	T5
Suitable Connection Equipment No.	80
Suitable Mounting Technology No.	330

Complementary Products

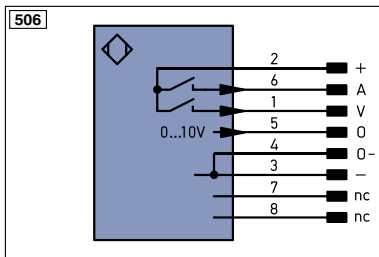
Analog Evaluation Unit AW02



Ctrl. Panel



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



Legend		Legend		Legend	
+	Supply Voltage +	PT	Platinum measuring resistor	EN ^A ES422	Encoder A/Ā (TTL)
-	Supply Voltage 0 V	nc	not connected	EN ^B ES422	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
Ṽ	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)	AWV	Valve Output	OL _T	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	S _n R	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	L _a	Emitted Light disengageable	GY	Grey
Bl_D+/-	Ethernet Gigabit bidirect. data line (A-D)	Mag	Magnet activation	WH	White
EN ⁰ ES422	Encoder 0-pulse 0-0̄ (TTL)	RES	Input confirmation	PK	Pink
		EDM	Contactur Monitoring	GNVE	Green/Yellow

Table 1

Working Distance	300 mm	450 mm	600 mm
Light Spot Diameter	10 mm	15 mm	20 mm
Resolution	0,3 mm	2 mm	5 mm

Error of Measurement

Typical characteristic curve based on white, 90 % remission

