

Pressure Sensor

FFMP146

Part Number

UniBar

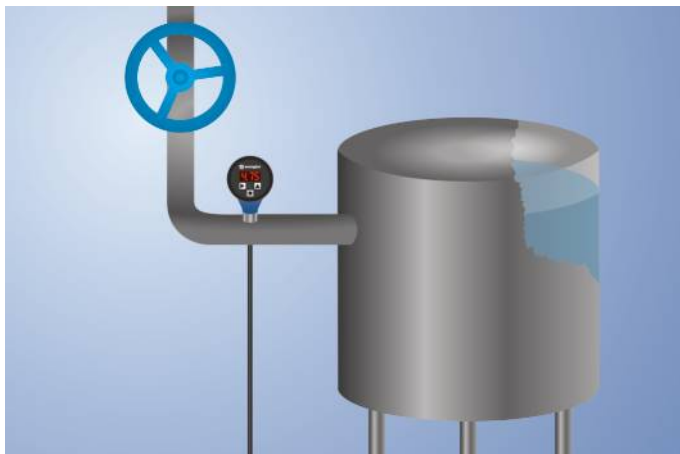


- **Highly visible output indicator**
- **Piggable with flush mounting**
- **Simple operation via the display**
- **Space-saving process connection thanks to small pressure membrane**

UniBar pressure sensors measure the relative pressure in closed systems of any medium in the range -1...600 bar.

UniBar pressure sensors are very easy to use thanks to the integrated display. The highly visible switching status display enables the rapid localization of affected sensors for maintenance processes.

Thanks to the metallic sealing edge on the process connection, no further seals are required.



Technical Data

Sensor-specific data

Measuring Range	0...160 bar
Measurement Type	relative
Maximum overload pressure	320 bar
Bursting pressure	640 bar
Setting Range	4...100 %
Medium	Liquids, gases
Switching Hysteresis	2 %
Measuring error	< ± 0,5 %
Temperature Drift	0,025 %/K

Environmental conditions

Temperature of medium	-25...80 °C
Ambient temperature	-25...80 °C
EMC	DIN EN 61326-2-3
Shock resistance per DIN IEC 68-2-27	30 g / 11 ms
Vibration resistance per DIN IEC 60068-2-6	20 g (10...2000 Hz)

Electrical Data

Supply Voltage	16...32 V DC
Current Consumption (U _b = 24 V)	< 60 mA
Number of Switching Outputs	1
Response Time	30 ms
Relay Output/Switching Current (24 VDC)	< 1 A
Analog Output	4...20 mA
Signal source	Pressure
Resolution	10 bit
Current Output Load Resistance	< 500 Ohm
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Protection Class	III

Mechanical Data

Setting Method	Menu
Housing Material	PBT; PC; FKM
Material Control Panel	Polyester
Material in contact with media	1.4435; 1.4404
Degree of Protection	IP67 *
Connection	M12 × 1; 5-pin
Process Connection	G 1/2"

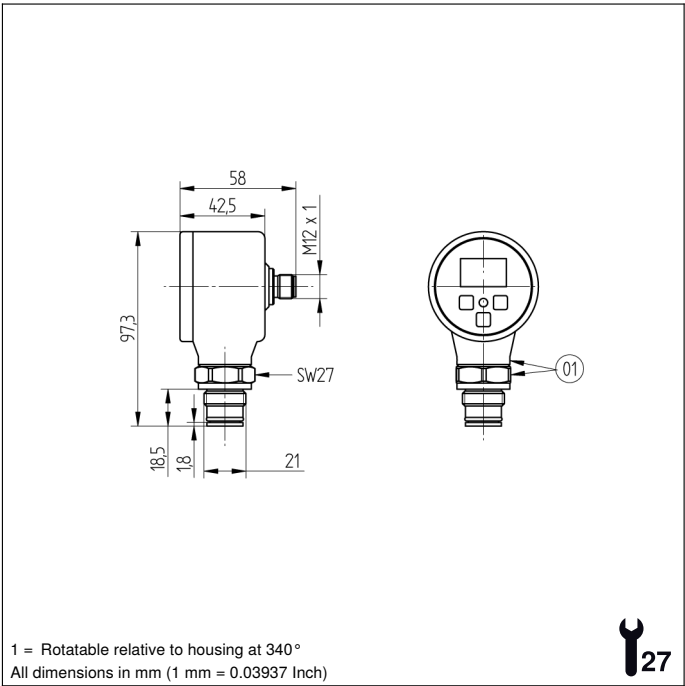
Safety-relevant Data

MTTFd (EN ISO 13849-1)	769,77 a
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Analog Output	●
Relay -NO	●

Connection Diagram No.	1002
Control Panel No.	A05
Suitable Connection Equipment No.	35
Suitable Mounting Technology No.	904

* Certified by wenglor



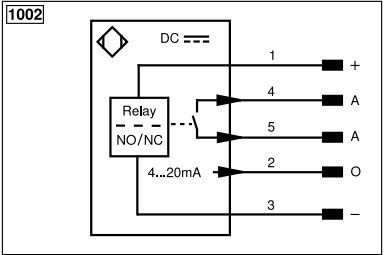
1 = Rotatable relative to housing at 340°
All dimensions in mm (1 mm = 0.03937 Inch)

Ctrl. Panel

A05



01 = Switching Status Indicator
20 = Enter key
22 = Up key
60 = display
99 = Right button



Legend			
+	Supply Voltage +	nc	Not connected
-	Supply Voltage 0 V	U	Test Input
~	Supply Voltage (AC Voltage)	Ü	Test Input inverted
A	Switching Output (NO)	W	Trigger Input
Ä	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
BL_D+/-	Ethernet Gigabit bidirect. data line (A-D)	RES	Input confirmation
ENo RS422	Encoder 0-pulse 0/Ü (TTL)	EDM	Contact Monitoring
PT	Platinum measuring resistor	ENARIS422	Encoder A/Ä (TTL)
		ENBRIS422	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