

Pressure Sensor

FFMP220

Part Number

UniBar

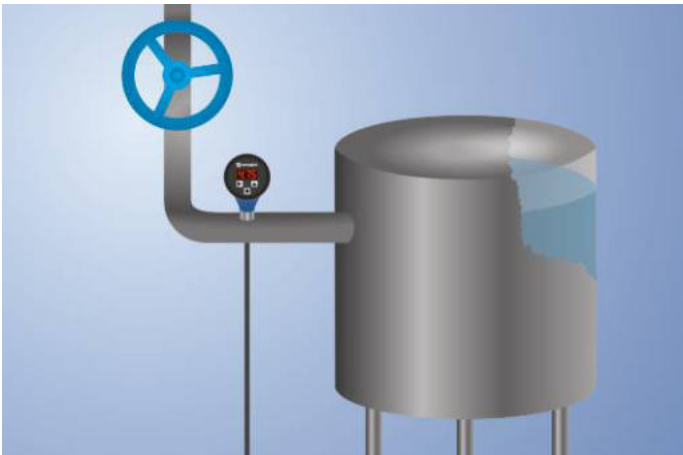


- **Highly visible output indicator**
- **Piggable with flush mounting**
- **Simple operation via the display**
- **Space-saving process connection thanks to small pressure membrane**

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.

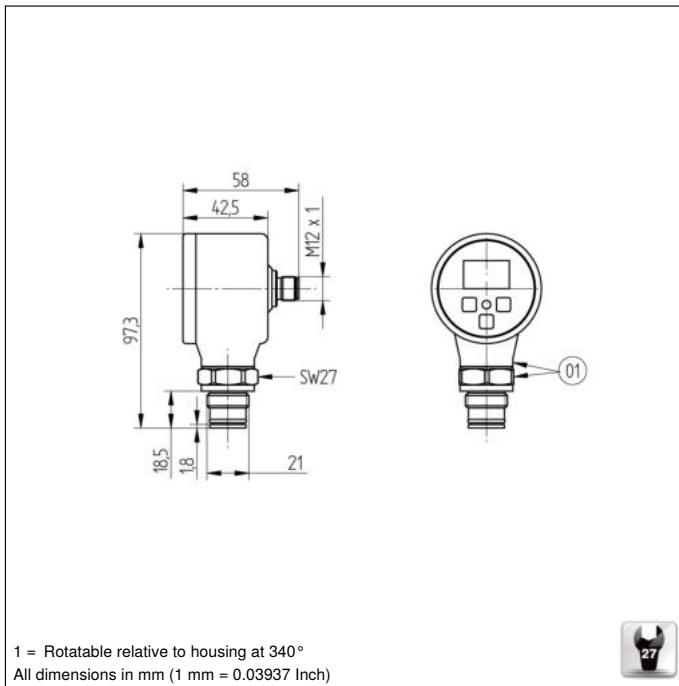
Thanks to the metallic sealing edge on the process connection, no further seals are required.



Technical Data

Sensor-specific data	
Measuring Range	0...160 bar
Maximum overload pressure	320 bar
Bursting pressure	640 bar
Adjustable 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
Switching Outputs	2
Response Time	30 ms
Switching Output/Switching Current	< 250 mA
Switching Output Voltage Drop	< 2 V
Resolution	10 bit
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; 4-pin
Process Connection	G 1/2"
PNP NO/NC switchable	
Connection Diagram No.	536
Control Panel No.	A05
Suitable Connection Technology No.	21
Suitable Mounting Technology No.	904

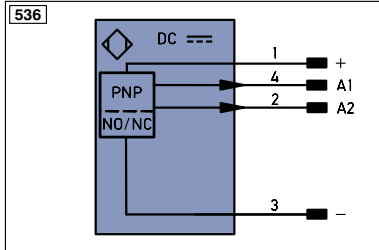
* Tested by wenglor



Ctrl. Panel



01 = Switching Status Indicator
20 = Enter Button
22 = UP Button
60 = Display
99 = Right button



Legend

+	Supply Voltage +	PT	Platinum measuring resistor
-	Supply Voltage 0 V	nc	not connected
~	Supply Voltage (AC Voltage)	U	Test Input
A	Switching Output (NO)	U	Test Input inverted
Ā	Switching Output (NC)	W	Trigger Input
V	Contamination/Error Output (NO)	O	Analog Output
Ṽ	Contamination/Error Output (NC)	O-	Ground for the Analog Output
E	Input (analog or digital)	BZ	Block Discharge
T	Teach Input	AWV	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	E+	Receiver-Line
RDY	Ready	S+	Emitter-Line
GND	Ground	±	Grounding
CL	Clock	SnR	Switching Distance Reduction
E/A	Output/Input programmable	Rx+/-	Ethernet Receive Path
IO-Link		Tx+/-	Ethernet Send Path
PoE	Power over Ethernet	Bus	Interfaces-Bus A(+)/B(-)
IN	Safety Input	La	Emitted Light disengageable
OSSD	Safety Output	Mag	Magnet activation
Signal	Signal Output	RES	Input confirmation
BI-D+/-	Ethernet Gigabit bidirect. data line (A-D)	EDM	Contacting Monitoring
EN0 RS422	Encoder 0-pulse 0-0 (TTL)	ENAR5422	Encoder A/A (TTL)
		ENBR5422	Encoder B/B (TTL)

ENa	Encoder A
ENb	Encoder B
AMIN	Digital output MIN
AMAX	Digital output MAX
AOK	Digital output OK
SY In	Synchronization In
SY OUT	Synchronization OUT
OLt	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