

Pressure Sensor

2 × Analog Output

FX1Q101

Part Number

weFlux² InoxSens



- 2 analog outputs: 4 ... 20 mA
- Compact, laser-welded stainless steel 316L housing
- Pressure and temperature measurement with a single sensor
- Temperature-compensated pressure measurement

weFlux² pressure sensors measure the relative pressure of any desired media in closed systems. The pressure acting upon the sensor is converted to an electronic signal. The analog outputs read out the measured pressure and temperature values as 4 to 20 mA signals.



Technical Data

Sensor-specific data

Measuring Range	-1...1 bar
Measurement Type	relative
Maximum overload pressure	5 bar
Bursting pressure	7,5 bar
Medium	Liquids, gases
Temperature Measurement Range	-40...125 °C
Response time (t90) Temp	< 1 s
Pressure response time (t90)	< 10 ms
Temperature Measurement Accuracy	< ± 1 °C
Measuring error (total)	≤ ± 0,5 %
Hysteresis	< ± 0,1 %
Linearity Deviation	< ± 0,5 %
Zero-point error	< ± 0,1 %
Repeat Accuracy	< ± 0,1 %
Temperature coefficient zero-point	<± 0,05% /10K
Temperature coefficient range	<± 0,05% /10K

Environmental conditions

Temperature of medium	-40...125 °C**
Ambient temperature	-25...80 °C
Storage temperature	-25...80 °C
EMC	DIN EN 61326-2-3
Shock resistance per DIN IEC 68-2-27	50 g / 11 ms
Vibration resistance per DIN IEC 60068-2-6	10 g (10...2000 Hz)

Electrical Data

Supply Voltage	12...32 V DC
Current Consumption (U _b = 24 V)	< 15 mA
Number of analog outputs	2
Analog Output	4...20 mA
Signal source	Pressure
Signal source	Temperature
Resolution	> 11 bit
Current Output Load Resistance	< 500 Ohm
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Protection Class	III

Mechanical Data

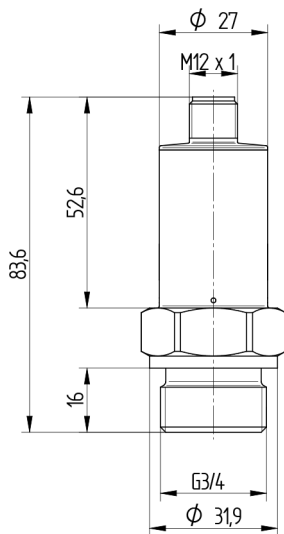
Sensor element	Ceramic membrane
Housing Material	1.4404
Material in contact with media	1.4404; FKM; ceramic
Degree of Protection	IP65 *
Connection	M12 × 1; 4-pin
Process Connection	G3/4"; front
Seal material	Fluororubber, FKM

Safety-relevant Data

MTTFd (EN ISO 13849-1)	1157,11 a
Analog Output	●
Connection Diagram No.	141
Suitable Connection Equipment No.	2
Suitable Mounting Technology No.	920

* Not UL certified

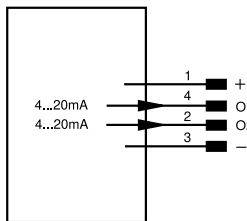
** Sensors up to 125 °C medium temperature suitable. During installation, please ensure that the sensor housing is sufficiently cooled by the surroundings.



All dimensions in mm (1 mm = 0.03937 Inch)



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Legend					
+	Supply Voltage +	nc	Not connected	ENBRS422	Encoder B/B (TTL)
-	Supply Voltage 0 V	U	Test Input	ENA	Encoder A
~	Supply Voltage (AC Voltage)	Ü	Test Input inverted	ENB	Encoder B
A	Switching Output (NO)	W	Trigger Input	AMIN	Digital output MIN
Ä	Switching Output (NC)	W-	Ground for the Trigger Input	AMAX	Digital output MAX
V	Contamination/Error Output (NO)	O	Analog Output	AOK	Digital output OK
Ÿ	Contamination/Error Output (NC)	O-	Ground for the Analog Output	SY In	Synchronization In
E	Input (analog or digital)	BZ	Block Discharge	SY OUT	Synchronization OUT
T	Teach Input	Amv	Valve Output	OLT	Brightness output
Z	Time Delay (activation)	a	Valve Control Output +	M	Maintenance
S	Shielding	b	Valve Control Output 0 V	rsv	Reserved
RxD	Interface Receive Path	SY	Synchronization	Wire Colors according to DIN IEC 60757	
TxD	Interface Send Path	SY-	Ground for the Synchronization	BK	Black
RDY	Ready	E+	Receiver-Line	BN	Brown
GND	Ground	S+	Emitter-Line	RD	Red
CL	Clock	±	Grounding	OG	Orange
E/A	Output/Input programmable	SnR	Switching Distance Reduction	YE	Yellow
IO-Link	IO-Link	Rx+/-	Ethernet Receive Path	GN	Green
PoE	Power over Ethernet	Tx+/-	Ethernet Send Path	BU	Blue
IN	Safety Input	Bus	Interfaces-Bus A(+)/B(-)	VT	Violet
OSSD	Safety Output	La	Emitted Light disengageable	GY	Grey
Signal	Signal Output	Mag	Magnet activation	WH	White
BL_D+/-	Ethernet Gigabit bidirect. data line (A-D)	RES	Input confirmation	PK	Pink
ENo RS422	Encoder 0-pulse 0/Ü (TTL)	EDM	Contact Monitoring	GNYE	Green/Yellow
PT	Platinum measuring resistor	ENARIS422	Encoder A/A (TTL)		