Pressure Sensor
with IO-Link

FX5P014
Part Number

weFlux² InoxSens

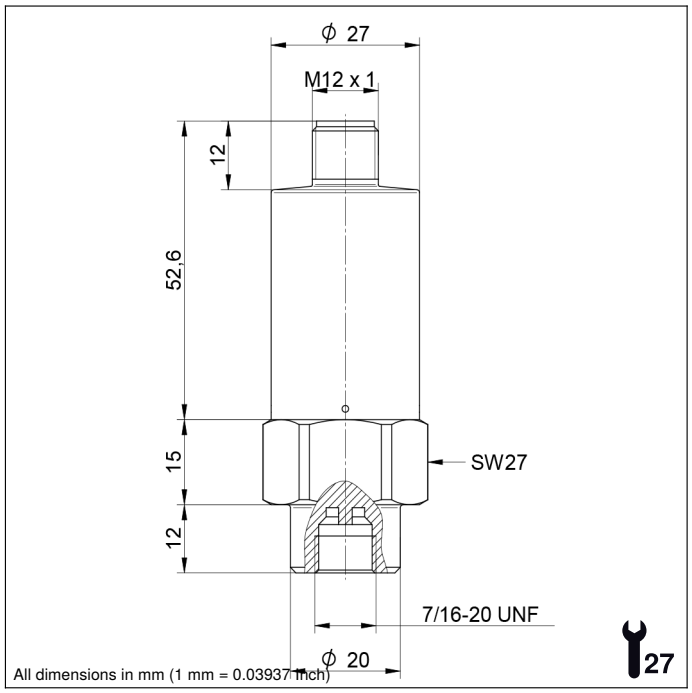
- **Compact, laser-welded stainless steel 316L housing**
- **Individual parameter configuration via IO-Link 1.1**
- **Precise measuring accuracy: ±0.5%**
- **Quick sensor replacement thanks to data storage**

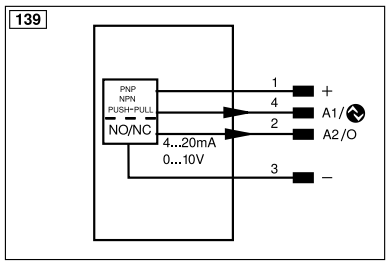
weFlux² pressure sensors precisely measure the relative pressure of any desired media. Depending on application requirements, either two switching outputs or one switching output and one analog output can be selected to output measured values. Furthermore, weFlux² pressure sensors offer new dimensions in individual parameter configurability. Sensor parameters, filter and output functions as well as the unit of measurement of the measured values (bar, PSI or Pascal) can be adjusted as needed.

Technical Data

Sensor-specific data	
Measuring Range	-1...10 bar
Measurement Type	relative
Maximum overload pressure	20 bar
Bursting pressure	30 bar
Medium	Liquids, gases
Pressure response time (t90)	< 10 ms
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	<± 0,15% /10K
Temperature coefficient range	<± 0,2% /10K
Environmental conditions	
Temperature of medium	-40...125 °C**
Ambient temperature	-20...80 °C
Storage temperature	-20...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 (Ub = 24 V)	< 15 mA
Number of Switching Outputs	2
Switching Output/Switching Current	100 mA
Switching Output Voltage Drop	< 1,5 V
Number of analog outputs	1
Analog Output	4...20 mA
Signal source	Pressure
Resolution	> 11 bit
Current Output Load Resistance	< 500 Ohm
Voltage output load resistance	> 1 kOhm
Interface	IO-Link V1.1
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Protection Class	III
Mechanical Data	
Setting Method	IO-Link
Sensor element	Ceramic membrane
Housing Material	1.4404
Material in contact with media	1.4404; EPDM; ceramic
Degree of Protection	IP65 *
Connection	M12 × 1; 4-pin
Process Connection	7/16-20 UNF
Seal material	EPDM
Safety-relevant Data	
MTTFd (EN ISO 13849-1)	1157,11 a
Analog Output	●
PNP NO	●
IO-Link	●
Connection Diagram No.	139
Suitable Connection Equipment No.	2

* 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.





Legend					
+	Supply Voltage +	nc	Not connected	ENBRS422	Encoder B/B̄ (TTL)
–	Supply Voltage 0 V	U	Test Input	ENA	Encoder A
~	Supply Voltage (AC Voltage)	Ū	Test Input inverted	ENB	Encoder B
A	Switching Output (NO)	W	Trigger Input	AMIN	Digital output MIN
Ā	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
V̄	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	Rx+/–	Ethernet Receive Path	GN	Green
PoE	ower 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
BI_D+/–	Ethernet Gigabit bidirect. data line (A-D)	RES	Input confirmation	PK	Pink
EN0 RS422	Encoder 0-pulse 0/0̄ (TTL)	EDM	Contactor Monitoring	GNYE	Green/Yellow
PT	Platinum measuring resistor	ENARS422	Encoder A/Ā (TTL)		