Fill-level Sensor
with IO-Link

FXPL003
Part Number

- **Fill-level measurement in all media: liquid, pasty, sticky or solid**
- **Process optimization with IO-Link 1.1**
- **Quick sensor replacement with data storage**
- **Two adjustable switching outputs**

LevelTech fill-level sensors work in accordance with the innovative frequency sweep principal. With the help of this functional principle, the sensors detect any desired medium on the basis of the measured resonant frequency. With their two adjustable switching outputs, the sensors are capable of differentiating between foam and liquid or two different media. Sensor parameters, as well as filter and output functions, can be individually configured via IO-Link. The stainless steel housing is FDA compliant and can be installed in the tightest of spaces thanks to its compact design.

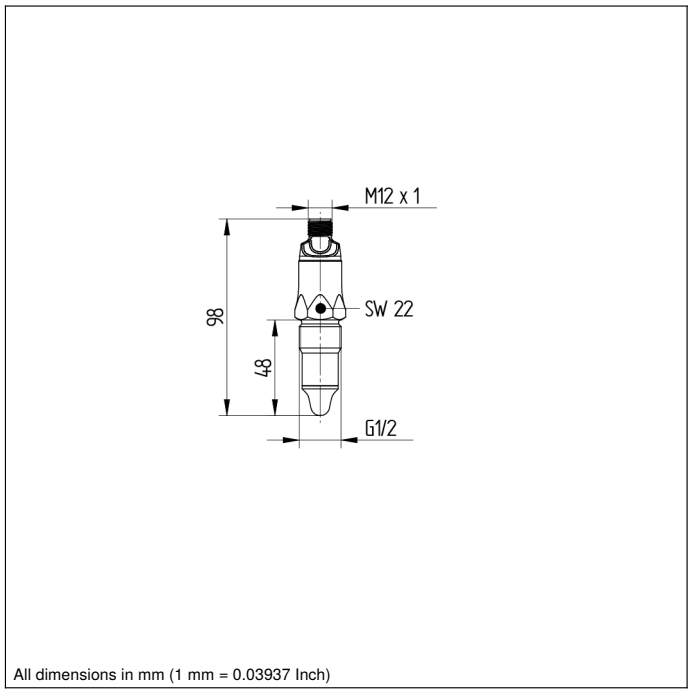
Technical Data

Sensor-specific data	
Measuring principle	Frequency sweep
Measuring Range	DK > 1,5
Medium	Liquids, granulate, powder
Response Time	0,04 s
Environmental conditions	
Media temperature TM (TU < 50 °C)	-40...115 °C
Media temperature TM brief (TU < 50 °C, t < 1 h)	-40...130 °C
Ambient temperature	-40...85 °C
Storage temperature	-40...85 °C
Pressure Resistance	10 bar
EMC	DIN EN 61326 *
Vibration resistance per DIN IEC 60068-2-6	1,6 mm p-p (2...25 Hz), 4 g (25...100 Hz)
Electrical Data	
Supply Voltage	8...36 V DC
Current Consumption (Ub = 24 V)	< 35 mA
Number of Switching Outputs	2
Power-up Time	< 3 s
Switching Output/Switching Current	100 mA
Switching Output Voltage Drop	< 0,7 V
Leakage Current	< 100 µA
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Interface	IO-Link V1.1
Mechanical Data	
Setting Method	Teach-in/IO-Link
Housing Material	1.4404
Material in contact with media	PEEK Natura 1.4404
Degree of Protection	IP67/IP69K
Connection	M12 × 1; 4-pin
Connector Plug Material	Polycarbonate
Process Connection	G 1/2" hygienic
Safety-relevant Data	
MTTFd (EN ISO 13849-1)	686 a
Function	
Attenuation (adjustable)	0...10 s
Selective fill-level measurement	yes
Configurable as PNP/NPN/Push-Pull	●
Switchable to NC/NO	●
IO-Link	●
Connection Diagram No.	704
Suitable Connection Equipment No.	2
Suitable Mounting Technology No.	918

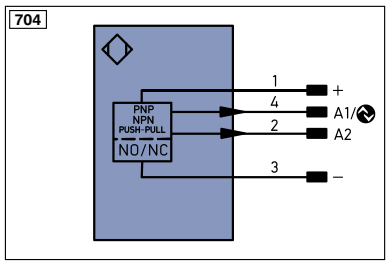
* mounted in closed metal tank

Complementary Products

IO-Link Master



All dimensions in mm (1 mm = 0.03937 Inch)



Legend

+	Supply Voltage +
–	Supply Voltage 0 V
~	Supply Voltage (AC Voltage)
A	Switching Output (NO)
Ā	Switching Output (NC)
V	Contamination/Error Output (NO)
V̄	Contamination/Error Output (NC)
E	Input (analog or digital)
T	Teach Input
Z	Time Delay (activation)
S	Shielding
RxD	Interface Receive Path
TxD	Interface Send Path
RDY	Ready
GND	Ground
CL	Clock
E/A	Output/Input programmable
	IO-Link
PoE	Power over Ethernet
IN	Safety Input
OSSD	Safety Output
Signal	Signal Output
BI_D+/-	Ethernet Gigabit bidirect. data line (A-D)
EN0 RS422	Encoder 0-pulse 0-0̄ (TTL)
PT	Platinum measuring resistor
nc	not connected
U	Test Input
Ū	Test Input inverted
W	Trigger Input
W–	Ground for the Trigger Input
O	Analog Output
O–	Ground for the Analog Output
BZ	Block Discharge
AMV	Valve Output
a	Valve Control Output +
b	Valve Control Output 0 V
SY	Synchronization
SY–	Ground for the Synchronization
E+	Receiver-Line
S+	Emitter-Line
⏚	Grounding
SnR	Switching Distance Reduction
Rx+/–	Ethernet Receive Path
Tx+/–	Ethernet Send Path
Bus	Interfaces-Bus A(+)/B(–)
La	Emitted Light disengageable
Mag	Magnet activation
RES	Input confirmation
EDM	Contactor Monitoring
ENA RS422	Encoder A/Ā (TTL)
ENB RS422	Encoder B/B̄ (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
rsv	reserved

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