Fill-level Sensor
with IO-Link

FXSL005
Part Number

- **2 switching outputs**
- **Fill-level measurement in all media: liquid, pasty, sticky or solid**
- **IO-Link 1.1**
- **Stainless steel housing**
- **With adaptive trigger**

LevelTech level sensors use innovative frequency-stroke technology to identify different media based on their resonance frequency. With two individually adjustable switching outputs, they enable reliable differentiation between foam and liquids or between two different media. For applications with frequently changing media, the adaptive trigger offers an efficient solution. The parameterization of the sensors, including filter and output functions, takes place flexibly via IO-Link. The robust, FDA-compliant stainless steel housing is easy to install even in confined spaces thanks to its compact format.

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
Electrical Data	
Supply Voltage	8...35 V DC
Current Consumption (Ub = 24 V)	< 53 mA
Number of Switching Outputs	2
Power-up Time	< 1,5 s
Switching Output/Switching Current	100 mA
Switching Output Voltage Drop	≤ 1,9 V
Signal source	Change of medium
Leakage Current	< 100 µA
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Interface	IO-Link V1.1
Mechanical Data	
Setting Method	IO-Link
Housing Material	Stainless steel, V4A (1.4404/316L)
Material in contact with media	Plastic, PEEK
Material in contact with media	Stainless steel, V4A (1.4404 / 316L)
Degree of Protection	IP67
Degree of Protection	IP69K
Connection	M12 × 1; 4-pin
Connector Plug Material	Stainless Steel
Process Connection	G 1/2" hygienic
Safety-relevant Data	
MTTFd (EN ISO 13849-1)	633,2 a
IO-Link	●
Push-Pull	●
Connection Diagram No.	704
Suitable Connection Equipment No.	2
Suitable Mounting Technology No.	918

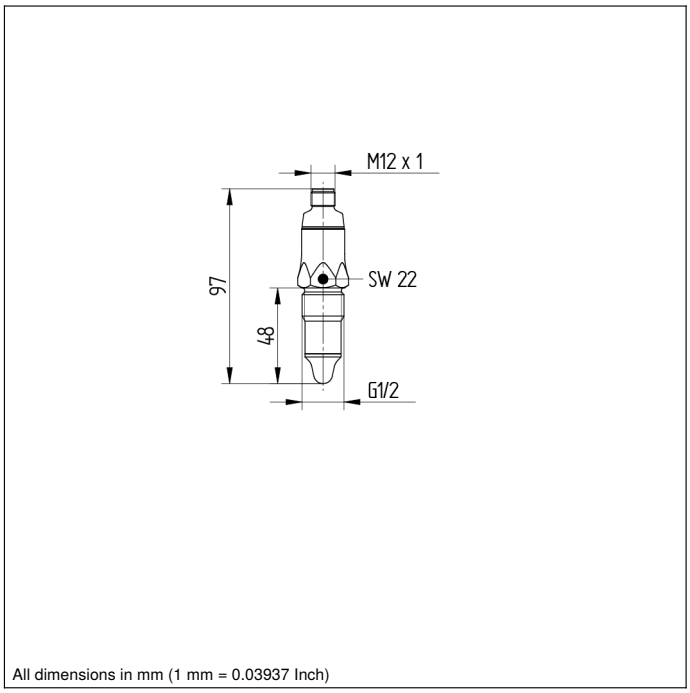
* mounted in closed metal tank

** TM= temperature of medium; TU= ambient temperature

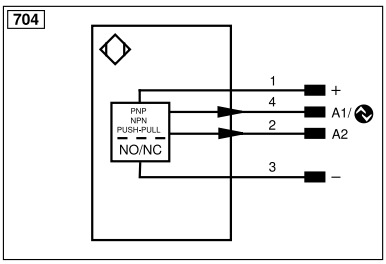
*** The relative dielectric constant of the medium to be detected must be greater than 1.5. (DC = dielectric constant)

Complementary Products

IO-Link Master
Software



All dimensions in mm (1 mm = 0.03937 Inch)



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)		