

Fill-level Sensor with IO-Link

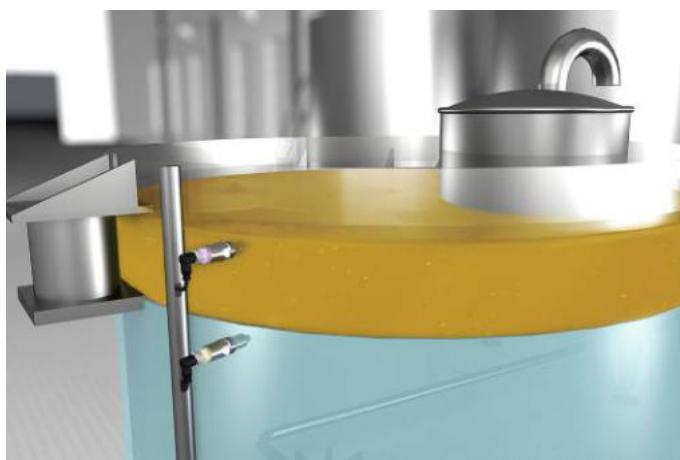
FXSL003

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 principle. 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	IO-Link
Housing Material	1.4404
Material in contact with media	PEEK Natura 1.4404
Degree of Protection	IP67/IP69K
Connection	M12 x 1; 4-pin
Connector Plug Material	Stainless Steel
Process Connection	G 1/2" hygienic

Safety-relevant Data

MTTFd (EN ISO 13849-1)	686 a
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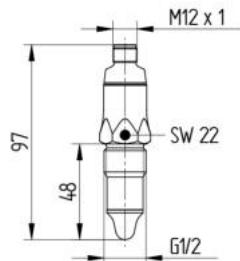
Function

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

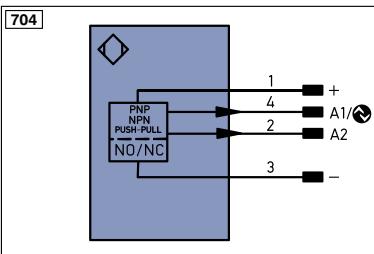
* mounted in closed metal tank

Complementary Products

IO-Link Master



All dimensions in mm (1 mm = 0.03937 Inch)


Legend

+	Supply Voltage +	PT	Platinum measuring resistor
-	Supply Voltage 0 V	nc	not connected
~	Supply Voltage (AC Voltage)	U	Test Input
A	Switching Output (NO)	Ü	Test Input inverted
Ä	Switching Output (NC)	W	Trigger Input
V	Contamination/Error Output (NO)	W-	Ground for the Trigger Input
Ä	Contamination/Error Output (NC)	O	Analog Output
E	Input (analog or digital)	O-	Ground for the Analog Output
T	Teach Input	BZ	Block Discharge
Z	Time Delay (activation)	Awv	Valve Output
S	Shielding	a	Valve Control Output +
		b	Valve Control Output 0 V
RxD	Interface Receive Path	SY	Synchronization
TxD	Interface Send Path	SY-	Ground for the Synchronization
RDY	Ready	E+	Receiver-Line
GND	Ground	E-	Emitter-Line
CL	Clock	±	Grounding
E/A	Output/Input programmable	SnR	Switching Distance Reduction
IO-Link		Rx+/-	Ethernet Receive Path
PoE	Power over Ethernet	Tx+/-	Ethernet Send Path
IN	Safety Input	Bus	Interfaces-Bus A(+)/B(-)
OSSD	Safety Output	La	Emitted Light disengageable
Signal	Signal Output	Mag	Magnet activation
BLD	Ethernet Gigabit bidirect. data line (A-D)	RES	Input confirmation
EN0RS422	Encoder 0-pulse 0-0 (TTL)	EDM	Contactor Monitoring

EN0RS422 Encoder A/Ä (TTL)

EN1RS422 Encoder B/ß (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

