

Flow Sensor

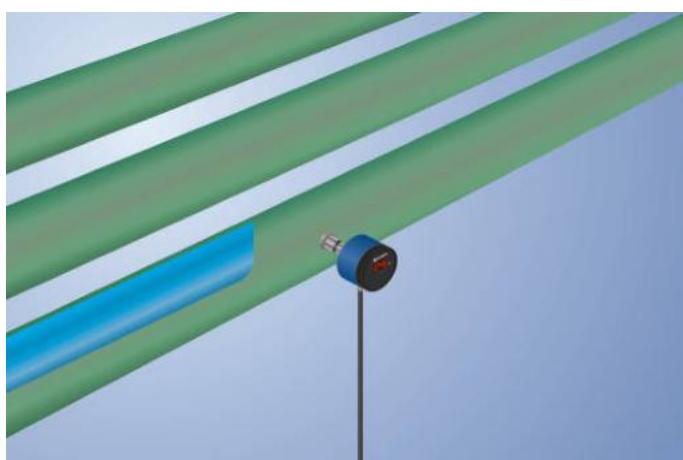
FFAF169

Part Number



- **Highest precision of its class**
- **Installation in any position**
- **Measurement independent of flow direction**
- **Simple operation via the display**
- **Temperature of the medium: 0 ... 100 ° C (140 ° C for 24 hours without current measurement)**

wenglor UniFlow flow sensors measure the flow rate of aqueous and oily media in closed piping systems. UniFlow flow sensors are very easy to operate thanks to the integrated display. The highly visible switching status display enables the rapid localization of affected sensors for maintenance processes.



Technical Data

Sensor-specific data

Measuring Range	20...300 cm/s
Adjustable Range	30...300 cm/s
Medium	Water
Measuring error	2 %
Switching Hysteresis	5 %
Temperature gradient	30 K
Response time in case of temperature jump	10 s

Environmental conditions

Temperature of medium	0...100 °C
Temperature of the medium, short-term	140 °C
Ambient temperature	-20...70 °C
Mechanical Strength	60 bar
EMC	DIN EN 60947-5-9
Shock resistance per DIN IEC 68-2-27	30 g / 11 ms
Vibration resistance per DIN IEC 60068-2-6	20 g (10...2000 Hz)

Electrical Data

Supply Voltage	16...32 V DC
Current Consumption (Ub = 24 V)	60 mA
Switching Outputs	1
Response Time	1...5 s
Relay Output/Switching Current (24 VDC)	< 1 A
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Protection Class	III

Mechanical Data

Setting Method	Menu
Housing Material	PBT; PC; FKM
Material Control Panel	Polyester
Material in contact with media	1.4435; 1.4404; FKM
Degree of Protection	IP67 *
Connection	M12 x 1; 5-pin
Process Connection	Sealing cone M18 x 1,5
Process Connection Length (PCL)	64 mm
Probe Length (PL)	44 mm

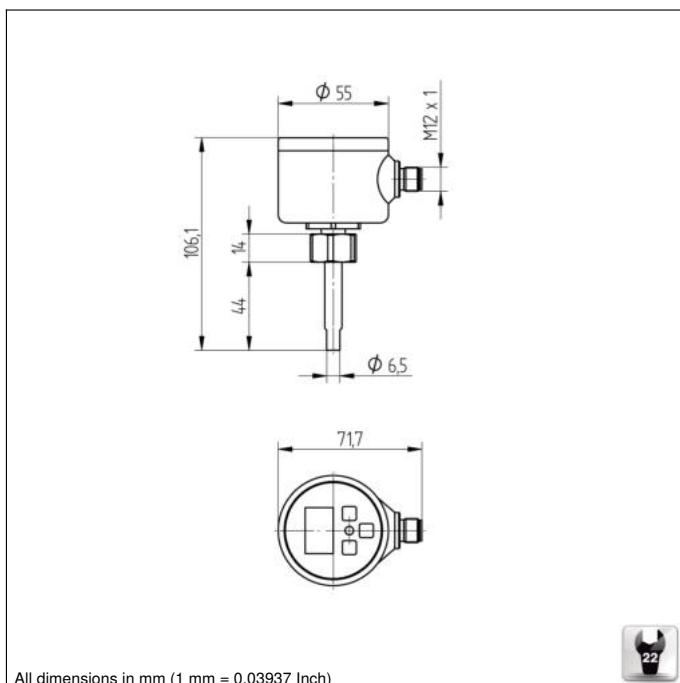
Safety-relevant Data

MTTFd (EN ISO 13849-1)	859,87 a
Diagnostic Coverage (DC)	0 %
Service Life TM (EN ISO 13849-1)	20 a
Relay NO/NC switchable	●
Connection Diagram No.	1001
Control Panel No.	A03
Suitable Connection Technology No.	35
Suitable Mounting Technology No.	900 901

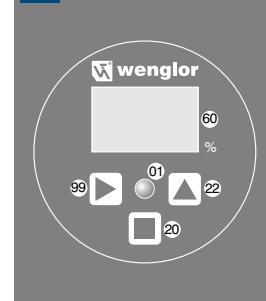
* Tested by wenglor

Complementary Products

Software



Ctrl. Panel

A03


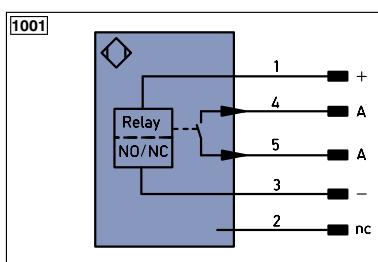
01 = Switching Status Indicator

20 = Enter Button

22 = UP Button

60 = Display

99 = Right button


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
~A	Switching Output (NC)	W	Trigger Input
V	Contamination/Error Output (NO)	O	Analog Output
~V	Contamination/Error Output (NC)	O-	Ground for the Analog Output
E	Input (analog or digital)	BZ	Block Discharge
T	Teach Input	AVV	Valve Output
Z	Time Delay (activation)	a	Valve Control Output +
S	Shielding	b	Valve Control Output 0 V
RxD	Interface Receive Path	SY	Synchronization
TxD	Interface Send Path	E+	Receiver-Line
RDY	Ready	S+	Emitter-Line
GND	Ground	÷	Grounding
CL	Clock	SnR	Switching Distance Reduction
E/A	Output/Input programmable	Rx+/-	Ethernet Receive Path
IO-Link		Tx+/-	Ethernet Send Path
PoE	Power over Ethernet	Bus	Interfaces-Bus A(+)B(-)
IN	Safety Input	La	Emitted Light disengageable
SSO	Safety Output	Mag	Magnet activation
Signal	Signal Output	RES	Input confirmation
BL-D	Ethernet Gigabit bidirect. data line (A-D)	EDM	Contactor Monitoring
ENoRS422	Encoder 0-pulse 0-0 (TTL)	ENArS422	Encoder A/A (TTL)
ENoRS422	Encoder 0-pulse 0-0 (TTL)	ENBrS422	Encoder B/B (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

