

# FLOWX3

## FLS FLOWX3 F3.60M.S

Insertion Magmeter Flow Sensor  
with USB connection



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## Flow Sensor Insertion Magmeter with USB connection

New FLS FLOWX3 insertion magmeter is provided with a USB interface and a **dedicated software to easily configure by PC all the parameters** according to any specific installation requirement.

Current installation simplicity is now maximised due to a **single magmeter sensor more flexible and fully customizable by the end user.**

Parameters like mono or bi-directional flow measurement, full scale value, cut-off value, filter level can be set in few seconds using PC capabilities. In addition, the new software automatically generates a back-up file with all the downloaded parameters for a data-base creation.

### Technical features

- No moving parts, no wear, maintenance free
- High mechanical resistance
- Accurate measurement of dirty liquids.
- Pipe size range: from DN15 (0,5") to DN600 (24").
- Flow Rate Range adjustable from 0.05 to 8 m/s (0.15 to 25 ft/s)
- Low pressure drop
- User Settable Operating Parameters
- 4-20 mA frequency or volumetric pulse output
- Bi-directional flow measurement selectable
- Special versions for salt-water applications (high concentrations of chlorides like sea water) and for high temperature conditions



## Options & Advantages of the new Magmeter

### Performance improvement:

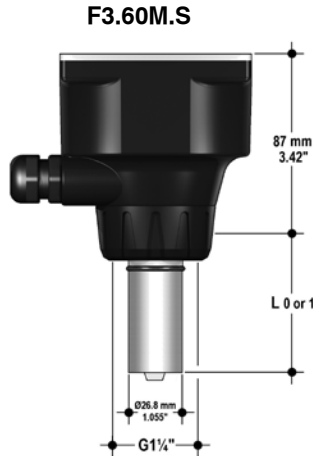
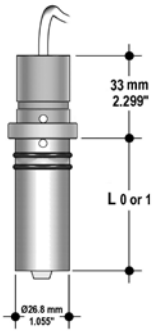
- Adjustable Filter Average: measurement stability increase
- Adjustable Filter Sensitivity: measurement reactivity tuning
- New Output option: Volumetric Pulse output
- 4-20mA adjust: analog output signal fine tuning

### Mistake-proof sensor:

- Dipswitches: simple guided procedure for HW manual setting and final control test
- Data folder: data setting back-up file automatic creation

## Dimensions

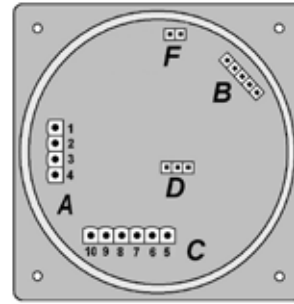
### Sensor Body



### Sensor length:

L0 = 68.5 mm (2.70") / L1 = 98.5 mm (3.88")

## Terminal View



### Power supply

1	+ VDC
2	+ LOOP
3	- LOOP
4	- VDC

### Sensor connections

B
F

### Open collector OUTPUTS

5	N.C.
6	N.C.
7	DIR +
8	DIR -
9	FREQ +
10	FREQ -

### USB connection

D
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## Technical Data

### General

- Pipe Size Range: DN15 to DN600 (0.5" to 24").  
Please refer to Installation Fitting section for more details
- Max Flow Rate Range: from 0.05 to 8 m/s (0.15 to 26.24 ft/s)
- Full Scale Range: from 2 to 8 m/s (6.56 to 26.24 ft/s)
- Linearity:  $\pm 1\%$  of reading + 1,0 cm/s
- Repeatability:  $\pm 0.5\%$  of reading
- Enclosure: IP65
- Materials:
  - Case: PC/UPVC
  - Gasket: EPDM
- Wetted Materials:
  - Sensor body: 316L SS/PVDF; 316L SS/PEEK; CuNi alloy/PVDF
  - O-rings: EPDM or FPM
  - Electrodes: 316LSS or CuNi alloy

### Electrical

- Power Supply:
  - 12 to 24 VDC  $\pm 10\%$  regulated (reverse polarity and short circuit protected)
  - Maximum current: consumption: 150 mA
  - Protective earth: < 10  $\Omega$
- Current output:
  - 4-20 mA, isolated
  - Max. loop impedance: 600  $\Omega$  @ 24 VDC
  - Positive or negative flow indication
- Frequency/Volumetric pulse output:
  - Open Collector NPN
  - Frequency: 0 – 500 Hz

- Max. Pull-up Voltage: 24 VDC
- Max. Current: 50 mA, current limited
- Compatible with FLOWX3 F9.02.L, F9.03, F9.50.L and F9.51.L

### Digital output:

- Type: Open Collector NPN
- Max. Pull-up Voltage: 24 VDC
- Max. Current: 50mA, current limited
- Flow direction:
  - 0 VDC arrow-wise
  - + VDC anti arrow-wise

### Environmental

- Storage Temperature: -10°C to +60°C (14°F to 140°F)
- Ambient Temperature: 0°C to +60°C (32°F to 140°F)
- Relative Humidity: 0 to 95% (non-condensing)
- Fluid conditions:
  - homogeneous liquids, pastes or slurries, also with solid content
  - Min Electrical Conductivity: 20  $\mu\text{S}$
- Temperature:
  - PVDF bottom version: -10 °C to +60 °C (14 °F to 140 °F)
  - PEEK bottom version: -10 °C +150 °C (14 °F to 302 °F)
- Max. operating pressure:
  - 16 bar @ 25°C (232 psi @ 77°F)
  - 8.6 bar @ 60°C (124 psi @ 140°F)

### Standards & Approvals

- Manufactured under ISO 9001 (Quality)
- Manufactured under ISO 14001 (Environmental Management)
- CE.
- ROHS

## Ordering Data

### FLOWX3 NEW F3.60M.XX.S

Part No.	Power Supply	Max Flow Rate Range	Length	Body/Electrodes	O-ring	Enclosure
F3.60M.09.S	12 - 24 VCC	0,05 - 8 m/s bi-directional	L0	316L SS & PVDF/316L SS	EPDM	IP65
F3.60M.10.S	12 - 24 VCC	0,05 - 8 m/s bi-directional	L0	316L SS & PVDF/316L SS	FPM	IP65
F3.60M.11.S	12 - 24 VCC	0,05 - 8 m/s bi-directional	L1	316L SS & PVDF/316L SS	EPDM	IP65
F3.60M.12.S	12 - 24 VCC	0,05 - 8 m/s bi-directional	L1	316L SS & PVDF/316L SS	FPM	IP65
F3.60M.33.S	12 - 24 VCC	0,05 - 8 m/s bi-directional	L0	CuNi & PVDF/CuNi	EPDM	IP65
F3.60M.34.S	12 - 24 VCC	0,05 - 8 m/s bi-directional	L0	CuNi & PVDF/CuNi	FPM	IP65
F3.60M.35.S	12 - 24 VCC	0,05 - 8 m/s bi-directional	L1	CuNi & PVDF/CuNi	EPDM	IP65
F3.60M.36.S	12 - 24 VCC	0,05 - 8 m/s bi-directional	L1	CuNi & PVDF/CuNi	FPM	IP65
F3.60M.38.S	12 - 24 VCC	0,05 - 8 m/s bi-directional	L0	316L SS & PEEK/316L SS	FPM	IP65
F3.60M.40.S	12 - 24 VCC	0,05 - 8 m/s bi-directional	L1	316L SS & PEEK/316L SS	FPM	IP65



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