F6.61

Hot Tap Electromagnetic Flow Sensor

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The FLS F6.61 electromagnetic flow meter is an hot tap sensor that, thanks to the absence of moving parts, can be used for the measurement of dirty liquids provided they are conductive and homogeneous. The sensor offers three different options: frequency output for connection to flow monitors; 4-20 mA output for long-distance transmission and connection to PLC; new freely adjustable volumetric pulse output. The F6.61 electromagnetic insertion meter is equipped with a USB interface and dedicated software (downloadable free of charge from the Aliaxis website) that allows you to easily set, via PC, all the installation parameters and relevant calibration. The sensor can be mounted in pressurised pipes of various sizes, from DN50 (2") to DN900 (36") with a clamp saddle and a standard shut-off ball valve.

HOT TAP ELECTROMAGNETIC FLOW SENSOR

APPLICATIONS

- Water distribution
- Leak monitoring and search
- Raw water treatment
- Water and wastewater treatment
- Restoration of aquifers
- Irrigation

MAIN CHARACTERISTICS

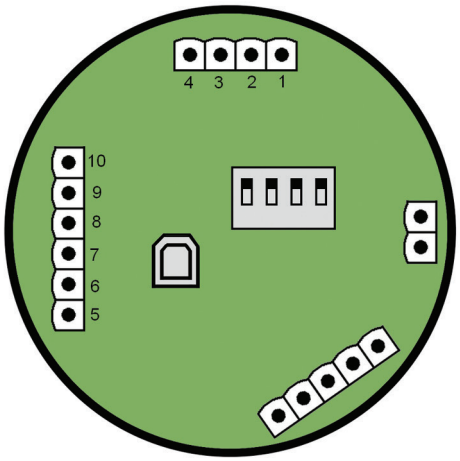
- Adjustable sensor position
- Flush-mounted installation
- PC interface settable operating parameters
- Pressure tap
- 1 ¼" BSP connection to standard process
- Absence of moving parts, wear and maintenance
- Settable flow rate range from 0.05 to 8 m/s (0.15 -25 ft/s)
- Precise measurement of dirty liquids
- 4-20 mA outputs, frequency or volumetric pulses
- Bi-directional selectable flow measurement

TECHNICAL DATA	
General information	**Pipe size range;** from DN50 to DN900 (from 2" to 36") Special model for other sizes on request. For more details, refer to the Installation Adapters section
	Max flow rate range: – from 0.05 at 8 m/s = (0.15-26.24 ft/s)
	Full scale: 8 m/s (26,24 ft/s)
	Linearity: ±1% of reading + 1.0 cm/s
	Repeatability: ±0,5% of reading
	Protection class: IP65
	Materials: – Case: ABS
	Materials in contact with liquids: – Sensor body: AISI 304 stainless steel / PVDF – O-ring: EPDM o FKM – Electrodes: AISI 316L stainless steel

Electrical data	**Power supply:** 12 to 24 VDC ±10% regulated (reverse polarity and short circuit protection)
	Max electrical consumption: 250 mA] – Ground connection: < 10 Ω
	1 Current output: – 4-20 mA,isolated – Max loop impedance: 800 Ω @ 24 VDC - 250 Ω @ 12 VDC – Positive or negative flow indication
	1 solid state relay output: – User selectable as MIN alarm, MAX alarm, volumetric, pulse output, window alarm, off – Optically isolated, 50 mA max sink, 24 VDC max pull-up voltage – Max pulse/min: 300 – Hysteresis: user selectable
	Open collector output frequency: – Type: NPN Open collector – Frequency: 0-800 Hz – Max pull-up voltage: 24 VDC – Max current: 50mA, current limited – Compatible with M9.02, M9.50, M9.07
	Open collector output direction: – Type: NPN Open collector – Max pull-up voltage: 24 VDC – Max current: 50mA, current limited – Flow direction: – 0 VDC in the direction of the arrow – + VDC in the opposite direction of the arrow
Environmental data	**Storage temperature:** from -30°C to +80°C (from -22°F to +176°F)
	Ambient temperature: -20 to +70°C (from -4 to 158°F)
	Relative humidity: from 0 to 95% not condensing
	Fluid conditions: – homogeneous liquids, doughs or sludge, even with solid contents – Min electrical conductivity: 20 µS/cm – Temperature: model with PVDF bottom: from -10°C to +60°C (from 14°F to 140°F)
	Max operating pressure: – 16 bar a 25°C (232 psi a 77°F) – 8,6 bar a 60°C (124 psi a 140°F)
Standards & Approvals	Manufactured under ISO 9001 Manufactured under ISO 14001 CE RoHS Compliance EAC

ELECTRICAL CONNECTIONS

Rear view of electrical connections



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

Power supply

5	NO
6	COM
7	+DIR
8	-DIR
9	+FREQ
10	-FREQ

Digital Output

PRODUCT CODES

F6.61.01

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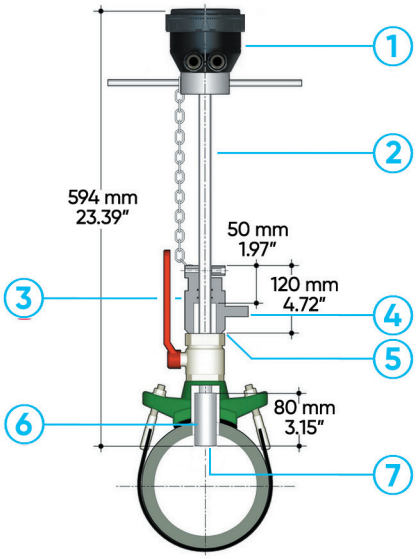
Code	Version	Power supply	Length	Main Wetted Materials	Enclosure	Flow Rate Range	Weight (gr.)
F6.61.01	HOT TAP INSERTION INSTALLATION	12 - 24 VDC	615 mm	AISI 304 SS PVDF AISI 316L	IP65	Da 0,05 a 8 m/s*	6000

*from 0,05 to 8 m/s = (0,15-25 feet/s)

TECHNICAL DRAWINGS



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1 Electronic electromagnetic flow meter
2 Sliding stem
3 AISI 304 stainless steel sensor installation joint
4 Pressure tap
5 Connection to the 1 ¼" threaded gas process
6 Adjustable sensor body in AISI 304 stainless steel
7 AISI 316L stainless steel electrodes and PVDF bottom