

FLS F6.30

PADDLEWHEEL FLOW TRANSMITTER



The new FLS F6.30 is a blind transmitter based on paddlewheel. It can be applied for the measurement of every kind of solid-free liquids. The F6.30 can provides different output options using a 4-20 mA and a Solid State Relay. Analog output can be used for long distance transmission and SSR can be set as an alarm or as a volumetric pulse output. F6.30 Paddlewheel Flow Transmitter is provided with an USB interface and a dedicated software (freely downloadable from FLS web site) which allows to easily calibrate instrument and to intuitively set outputs by a PC. The specific design allows an accurate flow measurement over a wide dynamic range in pipe sizes from DN15 (0.5") to DN600 (24").

APPLICATIONS

- Industrial water and wastewater treatment
- Cooling water systems
- Swimming pools
- Flow control and monitoring
- Water treatment
- Water regeneration plant
- Processing and manufacturing industry
- Water distribution

MAIN FEATURES

- High chemical resistance
- Pipe size range: from DN15 (0,5") to DN600 (24")
- Low pressure drop
- Friendly calibration procedure
- 4-20 mA, frequency or volumetric pulse output settable by USB
- SSR settable as alarm by laptop



TECHNICAL DATA

General

- Pipe Size Range: DN15 to DN600 (0.5" to 24")
Please refer to Installation Fittings section for more details
- Flow Rate Range: 0.15 to 8 m/s (0.5 to 25 ft./s)
- Linearity: $\pm 0.75\%$ of full scale
- Repeatability: $\pm 0.5\%$ of full scale
- Minimum Reynolds Number Required: 4500
- Enclosure: IP65
- Wetted Materials:
 - sensor Body: C-PVC, PVDF or 316L SS
 - o-rings: EPDM or FPM
 - rotor: ECTFE (Halar®)
 - shaft: Ceramic (Al_2O_3)/ 316L SS (for metal sensors)
 - bearings: Ceramic (Al_2O_3), none (for metal sensor)

Electrical

- Power Supply:
 - 12 to 24 VDC $\pm 10\%$ regulated (reverse polarity and short circuit protected)
- Max Power Consumption: 150 mA
- protective earth: $< 10 \Omega$
- 1*Current output:
 - 4-20 mA, isolated
 - max. loop impedance: $800 \Omega @ 24 VDC - 250 \Omega @ 12 VDC$
- 1*Solid State Relay output:
 - user selectable as MIN alarm, MAX alarm, Volumetric, Pulse Out, Window alarm, Off
 - optically isolated, 50 mA MAX sink, 24 VDC MAX pull-up voltage
 - max pulse/min: 300
 - hysteresis: User selectable

Environmental

- Storage Temperature: $-30^\circ C$ to $+80^\circ C$ ($-22^\circ F$ to $176^\circ F$)
- Ambient Temperature: $-20^\circ C$ to $+70^\circ C$ ($-4^\circ F$ to $158^\circ F$)
- Relative Humidity: 0 to 95% (non-condensing)

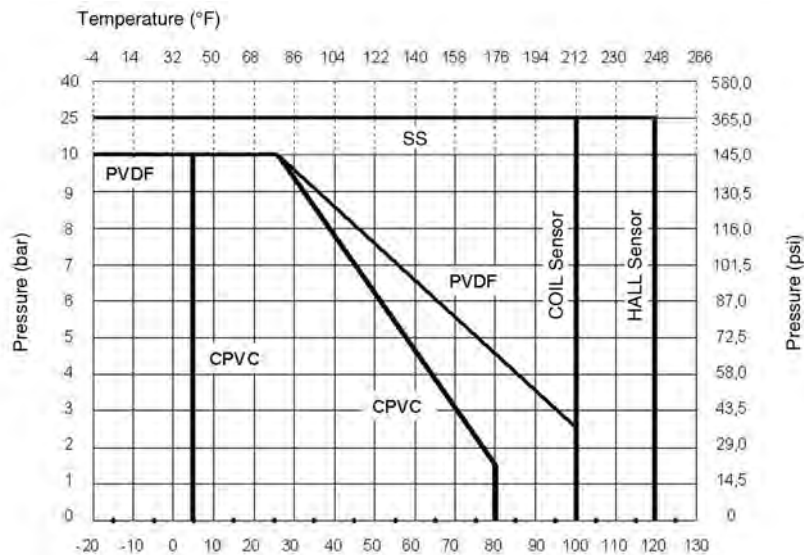
Standards & Approvals

- Manufactured under ISO 9001
- Manufactured under ISO 14001
- CE
- RoHS Compliant
- EAC
- FDA on request for paddlewheel in C-PVC/EPDM, PVDF/EPDM, SS316L/EPDM.

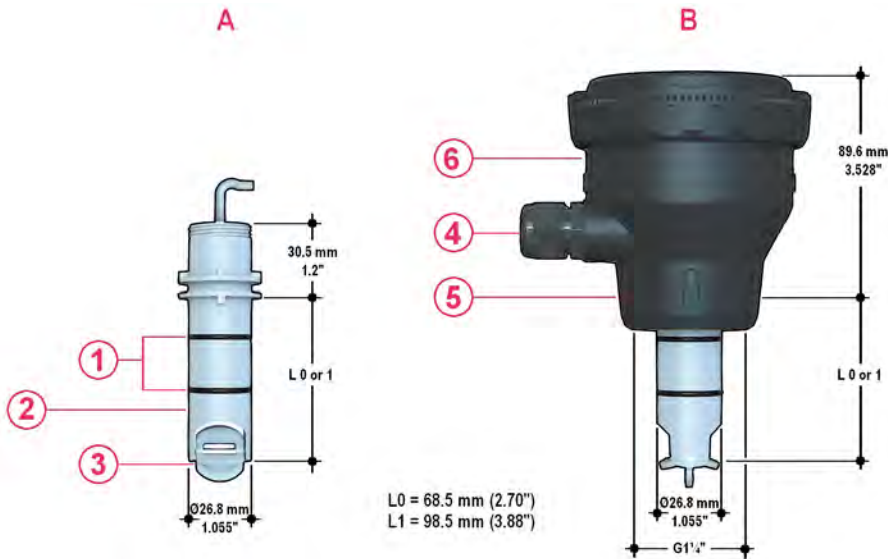
Maximum Operating Pressure / Temperature (25 years lifetime)

F6.30 Transmitter

- C-PVC body:
 - 10 bar (145 psi) @ $25^\circ C$ ($77^\circ F$)
 - 1,5 bar (22 psi) @ $80^\circ C$ ($176^\circ F$)
- PVDF body:
 - 10 bar (145 psi) @ $25^\circ C$ ($77^\circ F$)
 - 2,5 bar (36 psi) @ $100^\circ C$ ($212^\circ F$)
- SS body:
 - 25 bar (363 psi) @ $100^\circ C$ ($212^\circ F$)



DIMENSIONS

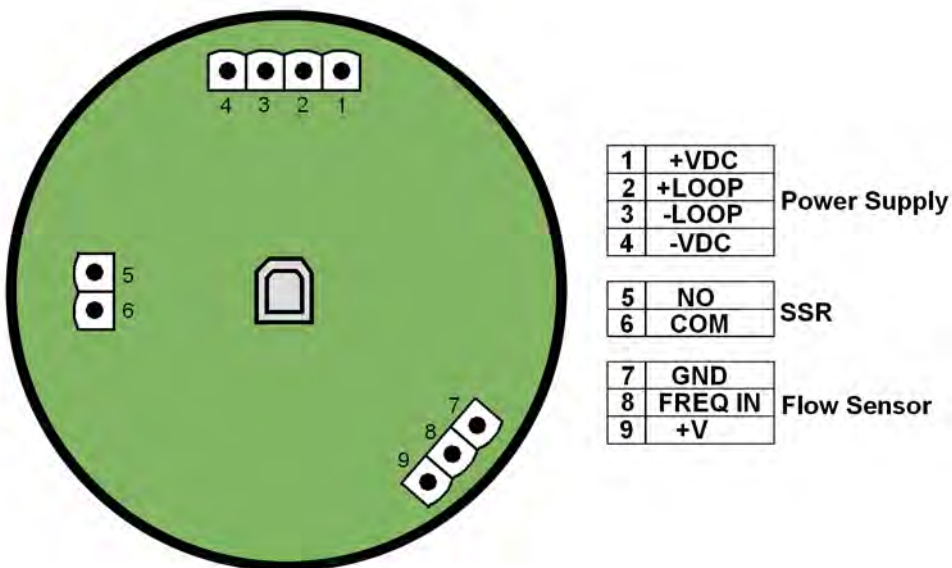


A Sensor body
 B F6.30 Paddlewheel Flow Transmitter

- 1 O-Ring (EPDM or FPM)
- 2 Sensor body C-PVC, PVDF, 316L SS
- 3 Halar Rotor, Ceramic shaft & bearings (316L SS shaft for metal sensors)
- 4 Cable Gland
- 5 ABS cap for installation into fittings (SS cap for metal sensors)
- 6 Electronic box

WIRING CONNECTIONS

Rear Terminal View



ORDERING DATA

FLS F6.30.XX Paddlewheel Flow Transmitter							
Part No.	Version	Power supply	Length	Main wetted materials	Enclosure	Flow Rate Range	Weight (gr.)
F6.30.01	Hall	12 - 24 VDC	L0	C-PVC/EPDM	IP65	0.15 to 8 m/s (0.5 to 25 ft./s.)	750
F6.30.02	Hall	12 - 24 VDC	L0	C-PVC/FPM	IP65	0.15 to 8 m/s (0.5 to 25 ft./s.)	750
F6.30.03	Hall	12 - 24 VDC	L1	C-PVC/EPDM	IP65	0.15 to 8 m/s (0.5 to 25 ft./s.)	800
F6.30.04	Hall	12 - 24 VDC	L1	C-PVC/FPM	IP65	0.15 to 8 m/s (0.5 to 25 ft./s.)	800
F6.30.05	Hall	12 - 24 VDC	L0	PVDF/EPDM	IP65	0.15 to 8 m/s (0.5 to 25 ft./s.)	750
F6.30.06	Hall	12 - 24 VDC	L0	PVDF/FPM	IP65	0.15 to 8 m/s (0.5 to 25 ft./s.)	750
F6.30.07	Hall	12 - 24 VDC	L1	PVDF/EPDM	IP65	0.15 to 8 m/s (0.5 to 25 ft./s.)	800
F6.30.08	Hall	12 - 24 VDC	L1	PVDF/FPM	IP65	0.15 to 8 m/s (0.5 to 25 ft./s.)	800
F6.30.09	Hall	12 - 24 VDC	L0	316SS/EPDM	IP65	0.15 to 8 m/s (0.5 to 25 ft./s.)	950
F6.30.10	Hall	12 - 24 VDC	L0	316SS/FPM	IP65	0.15 to 8 m/s (0.5 to 25 ft./s.)	950
F6.30.11	Hall	12 - 24 VDC	L1	316SS/EPDM	IP65	0.15 to 8 m/s (0.5 to 25 ft./s.)	1000
F6.30.12	Hall	12 - 24 VDC	L1	316SS/FPM	IP65	0.15 to 8 m/s (0.5 to 25 ft./s.)	1000

INSERTION FLOW SENSORS