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: ± 0.75 % of full scale
• Repeatability: ± 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 ± 10% regulated (reverse polarity and short circuit protected)
• Max Power Consumption: 150 mA
- protective earth: < 10 Ω
• 1*Current output:
- 4-20 mA, isolated
- max. loop impedance: 800 Ω @ 24 VDC - 250 Ω @ 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°C to +80°C (-22°F to 176°F)
• Ambient Temperature: -20°C to +70°C (-4°F to 158°F)
• Relative Humidity: 0 to 95% (non-condensing)

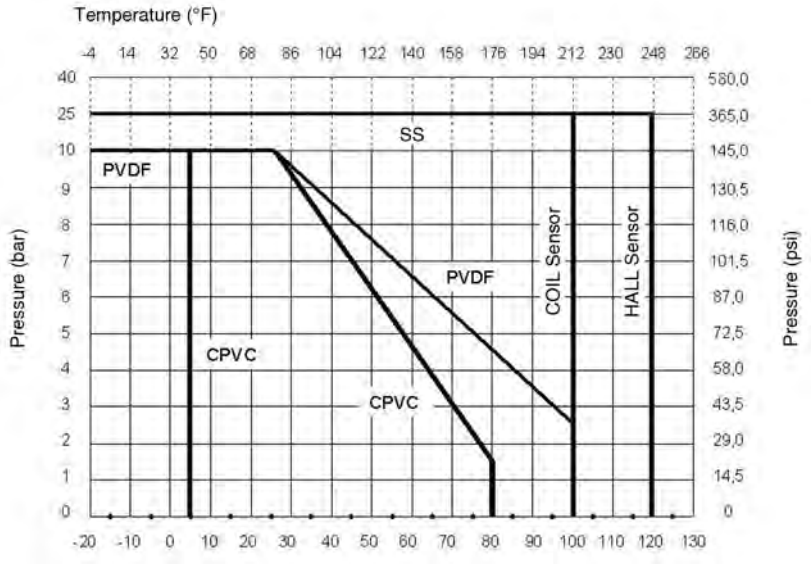
Standards & Approvals

• 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.

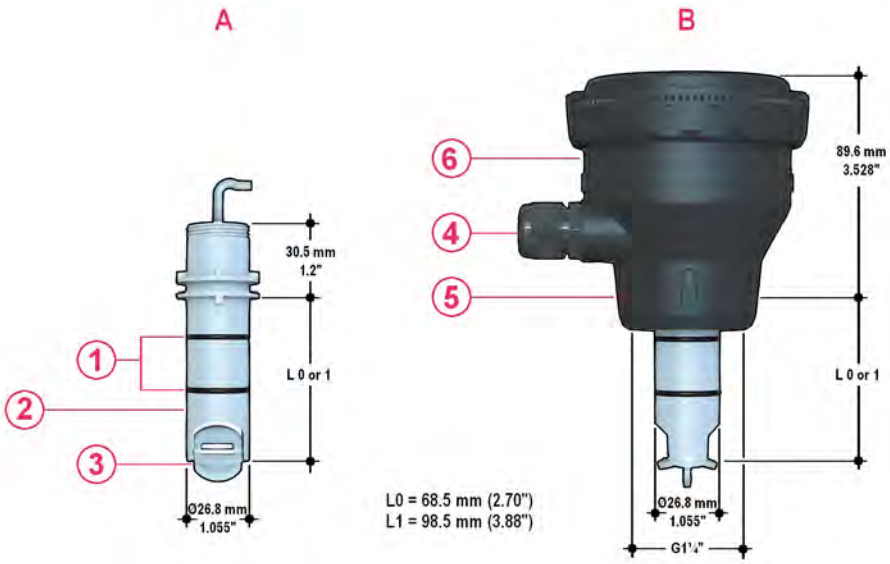
Maximum Operating Pressure / Temperature (25 years lifetime)

F6.30 Transmitter

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



DIMENSIONS



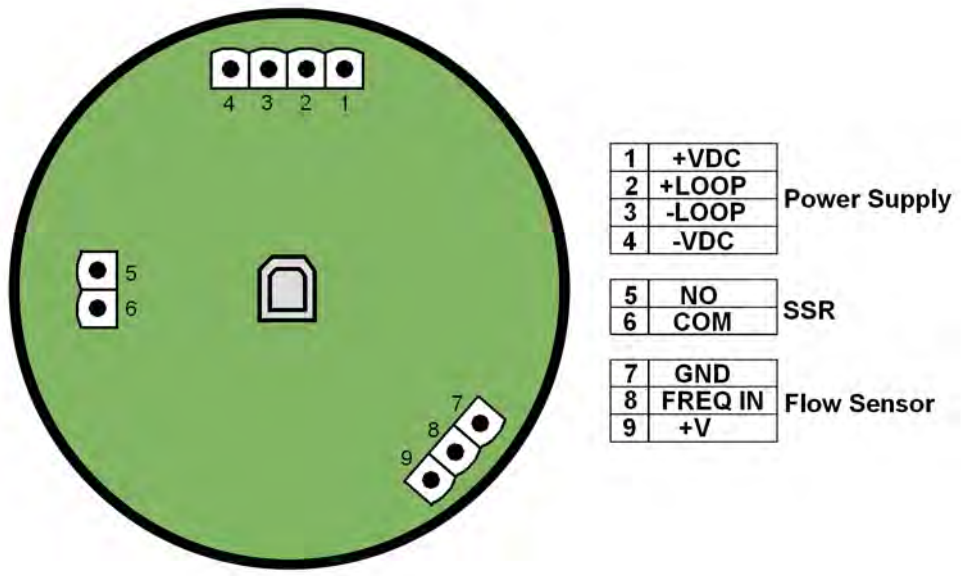
A Sensor body
B F6.30 Paddlewheel Flow Transmitter

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



1	+VDC	Power Supply
2	+LOOP	
3	-LOOP	
4	-VDC	
5	NO	SSR
6	COM	
7	GND	Flow Sensor
8	FREQ IN	
9	+V	

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