

FLS F6.50

Paddlewheel flow transmitter



FLS F6.50

The new FLS F6.50 transmitter is a paddlewheel-based device and can be used for measuring any type of solid-free liquid. The FLS F6.50 transmitter provides a 4-20 mA current output and is equipped with a Bluetooth® connection for interaction with the Smart Connect FIP app, which allows the user to set the transmitter configuration and installation parameters and other features. The specific design guarantees accurate flow measurements over a wide range of pipe sizes, from DN15 (0.5") to DN600 (24").

PADDLEWHEEL FLOW TRANSMITTER

APPLICATIONS

- Water and industrial wastewater treatment
- Water cooling systems
- Swimming pools
- Flow control and monitoring
- Water treatment
- Water regeneration plants
- Processing and manufacturing industry
- Water distribution

MAIN CHARACTERISTICS

- High chemical resistance
- Pipe size range: DN15 (0.5") to DN600 (24")
- Low pressure drop
- Setting the functional parameters of the instrument and reading the proximity of the information detected during its use through the Smart Connect FIP application
- 4-20 mA signal transmission via cable connection

TECHNICAL DATA

General information

Pipe size range: from DN15 to DN600 (0.5-24"). For more details, refer to the «Installation Adapters» section

Wireless connection standards: Bluetooth® 5.0 compatible with iOS and Android

Flow range: from 0.15 to 8 m/s (0.5-25 ft/s)

Linearity: ±0.75% of full scale

Repeatability: ±0.5% of full scale

Minimum Reynolds number required: 4,500

Protection class: IP65

Materials in contact with liquids:

- Sensor body: C-PVC, PVDF or AISI 316L stainless steel
- O-ring: EPDM or FKM
- Rotor: ECTFE (Halar®)
- Shaft: Ceramic (Al₂O₃) / AISI 316 Stainless Steel (for metal sensors)
- Bearings: Ceramic (Al₂O₃) absent for metal sensors

Electrical data

Power supply: 12 to 24 VDC ±10% regulated (reverse polarity and short circuit protection)

Max electrical consumption: 150 mA

- Ground connection: < 10 Ω

Current output:

- 4-20 mA, isolated

- Max loop impedance: 800 Ω @ 24 VDC - 250 Ω @ 12 VDC

Environmental data

Storage temperature: -30 to +80°C (from -22 to 176°F)

Ambient temperature: -20 to +70°C (from -4 to 158°F)

Relative humidity: from 0 to 95% not condensing

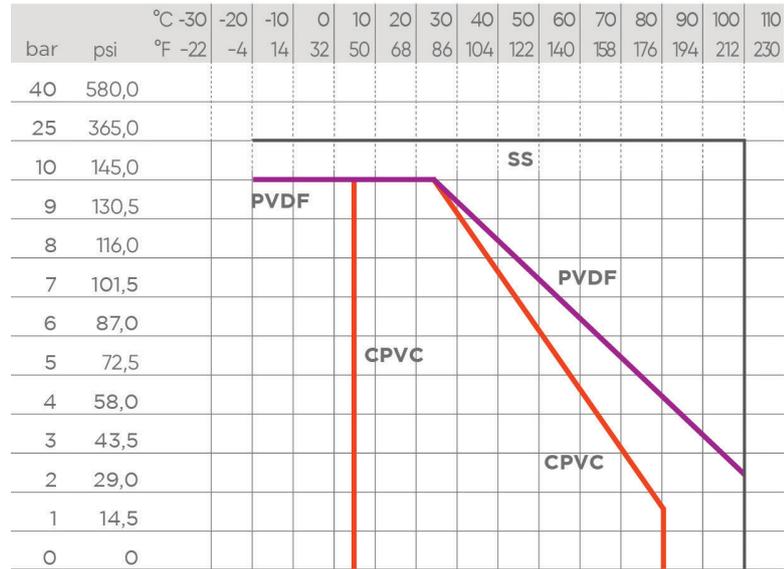
Standards & Approvals

Manufactured under ISO 9001
 Manufactured under ISO 14001
 CE
 RoHS Compliance
 EAC

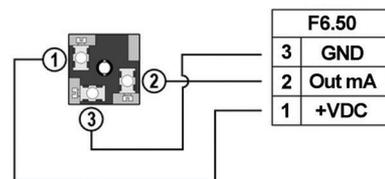
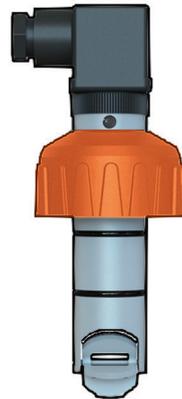
MAX OPERATING PRESSURE/ TEMPERATURE (25-YEAR DURATION)

Transmitter FLS F6.50

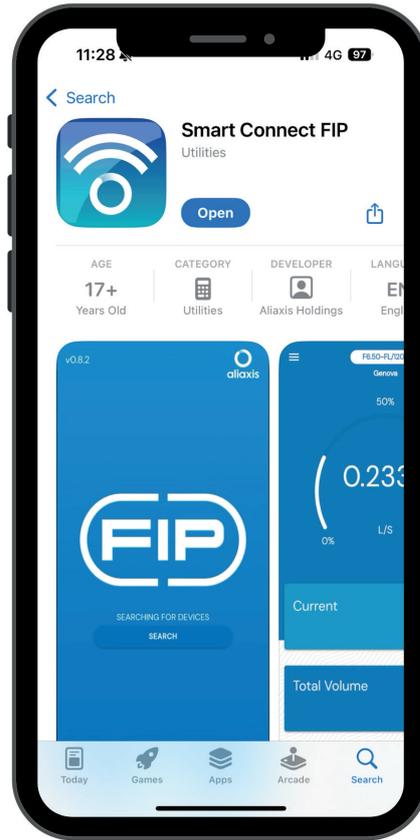
- C-PVC body:
 - 10 bar (145 psi) at 25°C (77°F)
 - 1.5 bar (22 psi) at 80°C (176°F)
- PVDF body:
 - 10 bar (145 psi) at 25°C (77°F)
 - 2.5 bar (36 psi) at 100°C (212°F)
- Stainless steel body:
 - 25 bar (363 psi) at 100°C (212°F)



FLS F6.50 TRANSMITTER ELECTRICAL CONNECTIONS



SMART CONNECT FIP APP



The new FLS F6.50 series rotor flow transmitters are able to communicate with the user via Bluetooth® connection and the Smart Connect FIP app.

Smart Connect FIP allows the user to interact with the transmitter in a simple and fast way to access the settings of the instrument or for a proximity reading of the information detected during its use.

Main features of the Smart Connect FIP app:

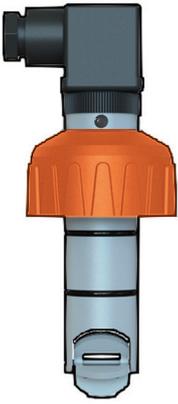
- Maximum signal range: 10 m, even in the presence of obstacles
- Setting of installation parameters: pipe material and size, K-factor
- Protecting access to transmitter settings via user password
- Multilingual interface
- Reading of the instantaneous and totalised flow rate and related current output value
- Auto Flow Rate Calibration
- Setting the units of measurement, filters and percentage correction of measurement
- Setting of the flow measurement range corresponding to the 4-20mA range
- Simulation of current values for evaluation of calibration and linearity of the output
- Data logger

The Smart Connect FIP app is compatible with Android and iOS, and it is downloadable from Google Play and App Store.



For further information, it is possible to visit the FLS F6.50 dedicated page on our website aliaxis.it, accessible via this QR code.

PRODUCT CODES

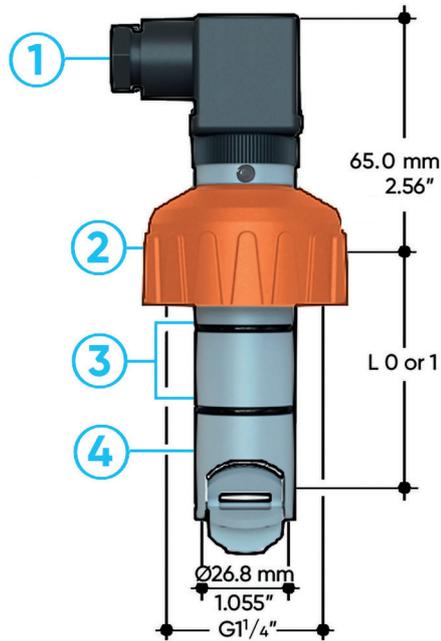


F6.50.XX
Paddlewheel Flow Transmitter

Code	Power supply	Length	Main Wetted Materials	Enclosure	Flow Rate Range	Weight (gr.)
F6.50.01	12 - 24 VDC	L0	C-PVC EPDM	IP65	From 0,15 to 8 m/s*	250
F6.50.02	12 - 24 VDC	L0	C-PVC FKM	IP65	From 0,15 to 8 m/s*	250
F6.50.03	12 - 24 VDC	L1	C-PVC EPDM	IP65	From 0,15 to 8 m/s*	300
F6.50.04	12 - 24 VDC	L1	C-PVC FKM	IP65	From 0,15 to 8 m/s*	300
F6.50.05	12 - 24 VDC	L0	PVDF EPDM	IP65	From 0,15 to 8 m/s*	250
F6.50.06	12 - 24 VDC	L0	PVDF FKM	IP65	From 0,15 to 8 m/s*	250
F6.50.07	12 - 24 VDC	L1	PVDF EPDM	IP65	From 0,15 to 8 m/s*	300
F6.50.08	12 - 24 VDC	L1	PVDF FKM	IP65	From 0,15 to 8 m/s*	300
F6.50.09	12 - 24 VDC	L0	316L SS EPDM	IP65	From 0,15 to 8 m/s*	450
F6.50.10	12 - 24 VDC	L0	316L SS FKM	IP65	From 0,15 to 8 m/s*	450
F6.50.11	12 - 24 VDC	L1	316L SS EPDM	IP65	From 0,15 to 8 m/s*	500
F6.50.12	12 - 24 VDC	L1	316L SS FKM	IP65	From 0,15 to 8 m/s*	500

* from 0,15 to 8 m/s = (0,5-25 feet/s)

TECHNICAL DRAWINGS



A



B

- | | | | | | |
|----------|--|----------|--|----------|---|
| A | Transmitter FLS F6.50 | 3 | O-ring seals available in EPDM or FKM | 6 | Ceramic shaft (AISI 316L stainless steel for metal sensors) |
| B | Paddlewheel | 4 | Sensor body in C-PVC, PVDF or stainless steel | 7 | Ceramic bearings (absent for metal sensors) |
| 1 | Quadrupole plug in accordance with DIN 43650-B/ISO 6952 | 5 | ECTFE Halar® (registered trademark of Ausimont-Solvay) open cell rotor | | |
| 2 | U-PVC cap for installation on adapters (AISI 316L stainless steel for metal sensors) | | | | |