

F3.10

Mini paddlewheel flow sensor



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The simple and reliable paddlewheel technology was adopted in this type of FLS F3.10 mini flow sensor model, designed for use with any type of solid-free liquids. The sensor is capable of measuring flows from 0.25 m/s (0.8 ft/s) producing a highly repeatable output frequency signal. Extremely solid construction and consolidated technology ensure exceptional returns, with zero or very little maintenance. Due to its highly compact size and particular design, it is suitable for installation on standard FLS T adapters from DN15 to DN40 (0.5-1.5 inches).

MINI PADDLEWHEEL FLOW SENSOR

APPLICATIONS

- Water treatment
- Filtration systems
- Production of pure water
- Water monitoring
- Fertilization

MAIN CHARACTERISTICS

- IP68 protection class
- ABS body with EPDM or FKM gasket
- 4-blade ABS paddlewheel (without bearings)
- Mono-directional design
- Installation on FLS standard T adapters
- Model with PVDF body on request

TECHNICAL DATA

General information

Pipe size range: from DN15 to DN40 (from 0.5 to 1 1/2 inches). For more details, refer to the Installation Adapters section

Flow range: from 0.25 to 4 m/s (0.8-12.5 ft/s)

Linearity: ±1% of full scale

Repeatability: ±0.5% of full scale

Minimum Reynolds number required: 4,500

Protection class: IP68

Operating pressure:

- max 10 bar (145 psi) at 20°C (68°F)
- max 2 bar (30 psi) at 70°C (158°F)

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

Materials in contact with liquids:

- Sensor body: ABS (PVDF on request)
- O-ring: EPDM or FKM
- Rotor: ABS (PVDF on request)
- Shaft: AISI 316 Stainless Steel
- Magnets: SmCo₂

Electrical data

Supply current: < 30 mA at 24 VDC

Output signal:

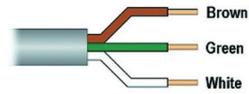
- Square wave:
- Output frequency: 15 Hz for nominal m/s (4.6 Hz for nominal ft/s)
- Output type: NPN Open collector transistor
- Output current: max 10 mA

Cable length: 2m standard (6,5 ft), max 300 m (990 ft)

Standards & Approvals

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

F3.10 IP68 SENSOR ELECTRICAL CONNECTIONS



M9.02

SENSOR	
5	GND
6	IN
7	V+

ELECTRICAL CONNECTIONS TO OTHER FLS MONITORS

	M9.00	M9.50	M9.03 input 1	M9.03 input 2	M9.07	M9.08	M9.10
GND	7	30	30	16	16	16	37
FREQ	8	28	28	14	14	14	36
V+	9	27	27	13	13	13	35

PRODUCT CODES



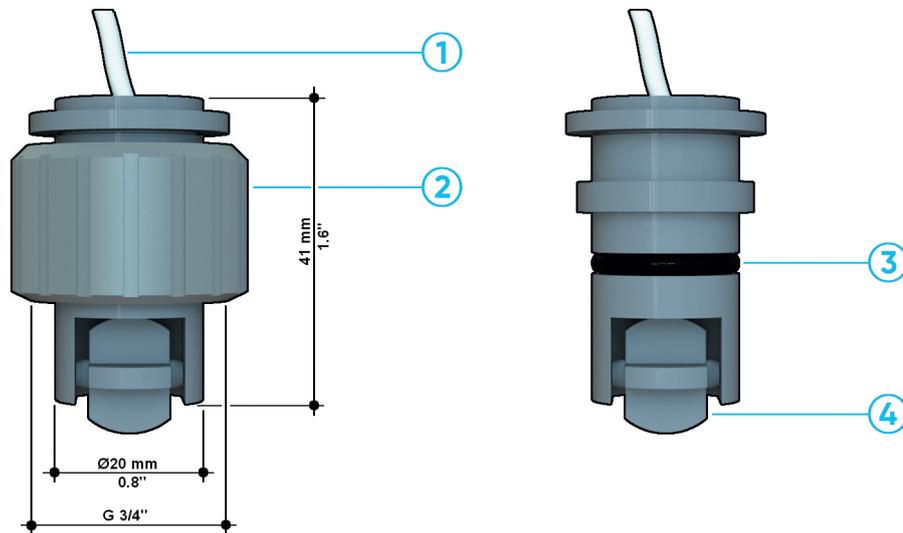
F3.10.H.XX

Mini Paddlewheel Flow Sensor

Code	Version	Power supply	Length	Main Wetted Materials	Enclosure	Flow Rate Range	Weight (gr.)
F3.10.H.01	Hall	5- 24 VDC	41 mm	ABS EPDM	IP68	From 0,25 to 4 m/s*	100
F3.10.H.02	Hall	5- 24 VDC	41 mm	ABS FKM	IP68	From 0,25 to 4 m/s*	100

*From 0,25 to 4 m/s= (0,8-12,5 feet/s)

TECHNICAL DRAWINGS



F3.10

- 1 Electrical cable: 8 m. (26.4 ft) standard
- 2 U-PVC cap for installation into fittings
- 3 O-Ring seals available in EPDM or FKM
- 4 ABS rotor with 4 blades and stainless steel shaft