

F3.05

Paddlewheel Flow Switch



F3.05

The FLS F3.05 paddlewheel flow switch is designed to protect pumps from non-lubricating operation or pumping against a closed valve. It is equipped with an electromechanical SPST (Single Pole Single Throw) contact that is activated when the flow speed drops below the factory default value, 0.15 m/s (0.5 ft/s). On the F3.05 model there is an LED indicating the status of the local flow. The family of specially designed adapters reduces installation times in pipes of all materials and sizes, from DN15 to DN600 (0.5-24").

PADDLEWHEEL FLOW SWITCH

APPLICATIONS

- Pump protection
- Filtration systems
- Water cooling systems

MAIN CHARACTERISTICS

- Sensor body in C-PVC, PVDF or stainless steel
- Simple insertion system
- High chemical resistance
- Flow absence alarm relay output
- Two-tone LED status monitor with high visibility
- Maintenance free
- Very low pressure drop

TECHNICAL DATA

General information

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

Supply voltage: from 12 to 24 VDC ±10% regulated

Supply current: < 50 mA

Relay output: Mechanical Single Pole Double Throw (SPDT) contact, 1 A at 24 VDC, 0.1 A at 230 VAC

Local status indicator:

- GREEN LED = flow present
- RED LED = no flow

Point without flow rate: 0.15 m/s (0.5 ft/s)

Protection class: IP65

Materials in contact with liquids:

- Sensor body: PVC-C, 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

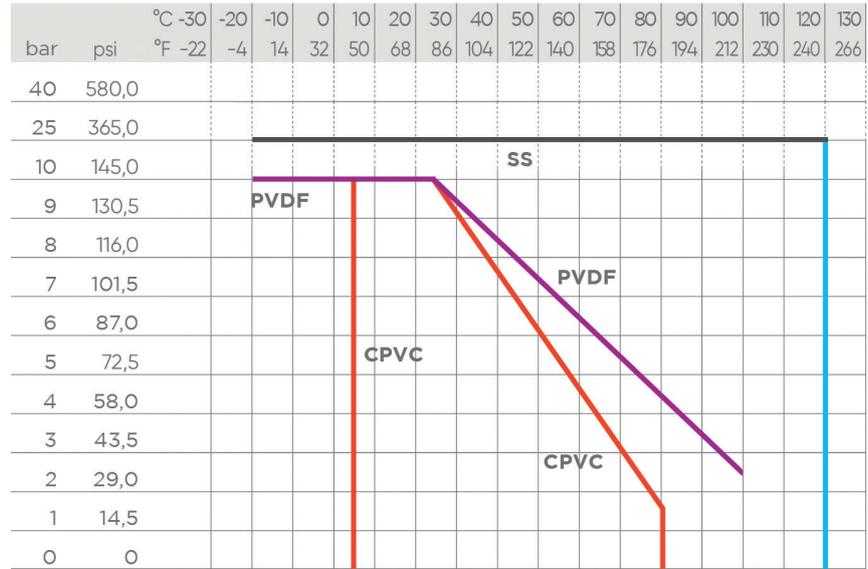
Standards & Approvals

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

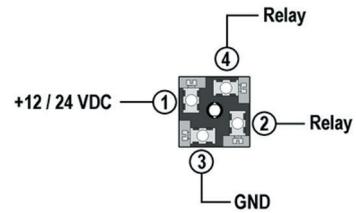
MAX OPERATING PRESSURE/ TEMPERATURE (25-YEAR DURATION)

F3.05 sensor

- 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 120°C (248°F)



F3.05 SENSOR ELECTRICAL CONNECTIONS



PRODUCT CODES

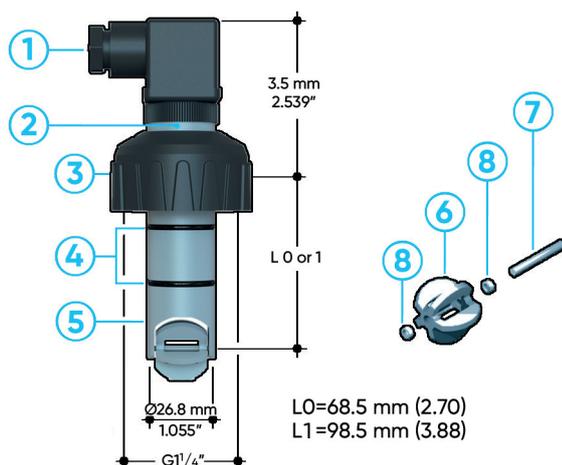


F3.05.XX

Paddlewheel Flow Switch

Code	Version	Power supply	Length	Main Wetted Materials	Enclosure	Weight (gr.)
F3.05.01	Hall	12 - 24 VDC	L0	C-PVC EPDM	IP65	250
F3.05.02	Hall	12 - 24 VDC	L0	C-PVC FKM	IP65	250
F3.05.03	Hall	12 - 24 VDC	L1	C-PVC EPDM	IP65	300
F3.05.04	Hall	12 - 24 VDC	L1	C-PVC FKM	IP65	300
F3.05.05	Hall	12 - 24 VDC	L0	PVDF EPDM	IP65	250
F3.05.06	Hall	12 - 24 VDC	L0	PVDF FKM	IP65	250
F3.05.07	Hall	12 - 24 VDC	L1	PVDF EPDM	IP65	300
F3.05.08	Hall	12 - 24 VDC	L1	PVDF FKM	IP65	300
F3.05.09	Hall	12 - 24 VDC	L0	316L SS EPDM	IP65	600
F3.05.10	Hall	12 - 24 VDC	L0	316L SS FKM	IP65	600
F3.05.11	Hall	12 - 24 VDC	L1	316L SS EPDM	IP65	650
F3.05.12	Hall	12 - 24 VDC	L1	316L SS FKM	IP65	650

TECHNICAL DRAWINGS



F3.05

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| <p>1 Quadrupole plug in accordance with DIN 43650-B/ISO 6952</p> <p>2 Two-tone local status LED</p> <p>3 U-PVC cap for installation on adapters</p> | <p>4 O-ring seals available in EPDM or FKM</p> <p>5 Sensor body in C-PVC, PVDF or stainless steel</p> <p>6 ECTFE (Halar®) open cell rotor</p> | <p>7 Shaft in ceramic, AISI 316L stainless steel (for metal sensors)</p> <p>8 Ceramic bearings, absent (for metal sensors)</p> |
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