



# FLS F3.05 PADDLEWHEEL FLOW SWITCH



The simple insertion paddlewheel flow switch type F3.05 is designed to protect a pump from running dry or pumping against a closed valve. It is equipped with a mechanical SPST contact activated when the flow velocity drops below the factory preset value of 0.15 m/s (0.5 ft/s). The F3.05 features a LED which shows the flow status locally. A specially designed family of fitting ensures an easy and quick installation into all pipe materials in sizes from DN15 to DN600 (0.5" to 24").

## APPLICATIONS

- Pump protection
- Filtration systems
- Cooling water systems

## MAIN FEATURES

- C-PVC, PVDF, Stainless Steel body
- Easy insertion system
- High chemical resistance
- No-Flow alarm relay output
- Highly visible Local Bicolour Status Indicator
- Maintenance free
- Very low pressure drop



# TECHNICAL DATA

## General

- Pipe Size Range: DN15 to DN600 (0.5 to 24 in.)  
Please refer to Installation Fittings section for more details
- Supply voltage: 12 to 24 VDC  $\pm$  10% regulated
- Supply current: < 50 mA
- Relay Output: mechanical SPDT contact, 1A @ 24 VDC, 0.1A @ 230 VAC
- Local Status Indicator:
  - GREEN Led = Flow
  - RED Led = No Flow
- No-Flow Rate Point: 0.15 m/s (0.5 ft./s)
- Enclosure: IP65
- Wetted Materials:
  - sensor Body: C-PVC or 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 sensors)

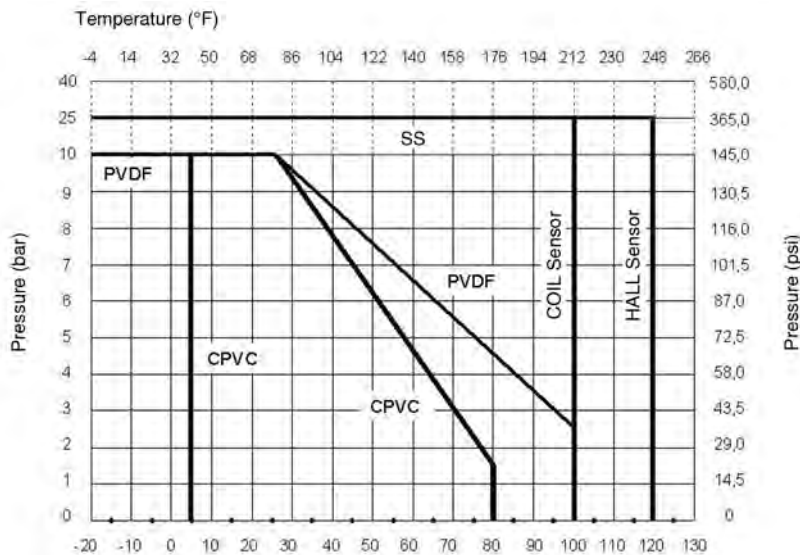
## Standards & Approvals

- 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.

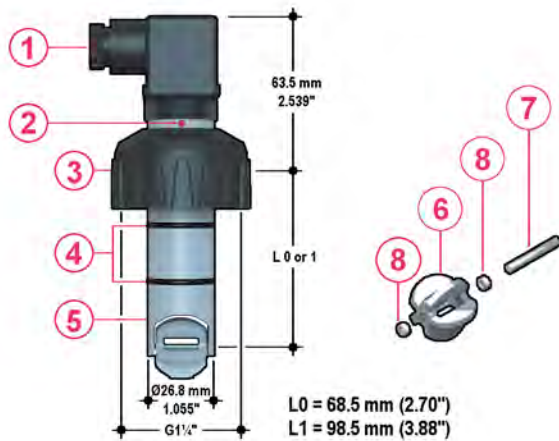
## Maximum Operating Pressure / Temperature (25 years lifetime)

### F3.05 Sensor

- 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) @ 120°C (248°F)



## DIMENSIONS

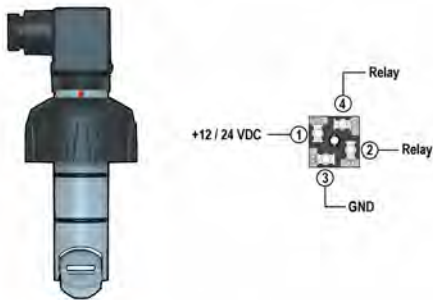


- 1 4 pole cable plug according to DIN 43650-B/ISO 6952
- 2 Local Bicolour Status LED
- 3 U-PVC cap for installation into fittings
- 4 O-Ring seals available in EPDM or FPM

- 5 C-PVC, PVDF or Stainless Steel sensor body
- 6 ECTFE (Halar®) Open-cell rotor
- 7 Ceramic shaft, 316L SS (for metal sensors)
- 8 Ceramic bearings, none (for metal sensors)

## WIRING CONNECTIONS

### F3.05 sensor wiring connection



## ORDERING DATA

F3.05.XX Paddlewheel Flow Switches							
Part No.	Version	Power supply	Length	Main wetted materials	Enclosure	Flow Rate Range	Weight (gr.)
F3.05.01	Hall	12 to 24 VDC	L0	C-PVC/EPDM	IP65	-	250
F3.05.02	Hall	12 to 24 VDC	L0	C-PVC/FPM	IP65	-	250
F3.05.03	Hall	12 to 24 VDC	L1	C-PVC/EPDM	IP65	-	300
F3.05.04	Hall	12 to 24 VDC	L1	C-PVC/FPM	IP65	-	300
F3.05.05	Hall	12 to 24 VDC	L0	PVDF/EPDM	IP65	-	250
F3.05.06	Hall	12 to 24 VDC	L0	PVDF/FPM	IP65	-	250
F3.05.07	Hall	12 to 24 VDC	L1	PVDF/EPDM	IP65	-	300
F3.05.08	Hall	12 to 24 VDC	L1	PVDF/FPM	IP65	-	300
F3.05.09	Hall	12 to 24 VDC	L0	316L SS/EPDM	IP65	-	600
F3.05.10	Hall	12 to 24 VDC	L0	316L SS/FPM	IP65	-	600
F3.05.11	Hall	12 to 24 VDC	L1	316L SS/EPDM	IP65	-	650
F3.05.12	Hall	12 to 24 VDC	L1	316L SS/FPM	IP65	-	650