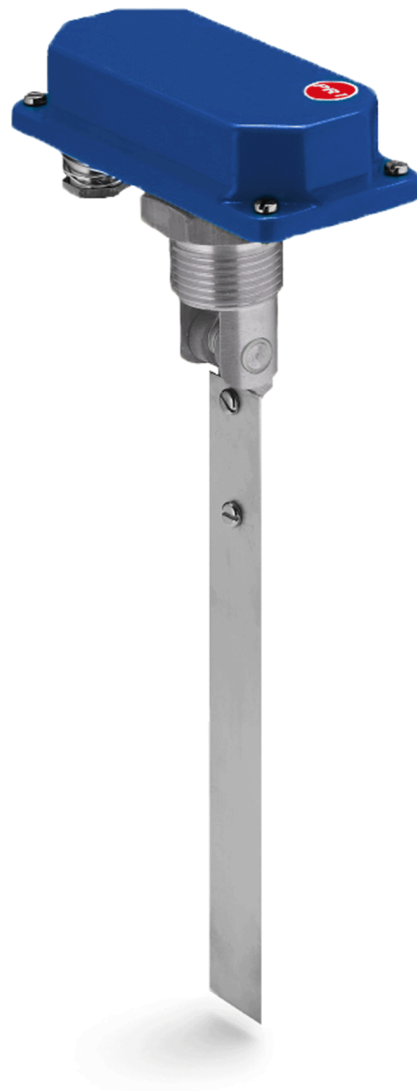


Manual



PR1

Function

The PR1 liquid flow switch is suitable for control and monitoring in installations where a functional value (impulse transmission) from 100 l/min and upwards is acceptable.

The function value is dependent on the pipe dimension and paddle length. The lowest functional value (switching value) that can be obtained in a 50 pipe is about 90 l/min = 0.7 m/sec. For a 150 pipe, the corresponding value is about 240 l/min = 0.2 m/sec.

The paddle is lodged so that it can be folded in either direction. It always moves in the direction of the flow and can therefore never be damaged due to possible recoil shocks. However, the contact function only occurs in the pre-determined direction of flow.

The movement of the paddle with the flow affects a lever that actuates a built-in micro-switch. The paddle length determines the signal point at which the switch changes position.

As standard, the parts wetted by liquid are made of a copper alloy and stainless steel. The paddle is suspended in teflon bearings. Sealing sleeve for pivoting Nitrile bushing (HNBR).

Model

PR1 can be used for pipe sizes 2" – 10".

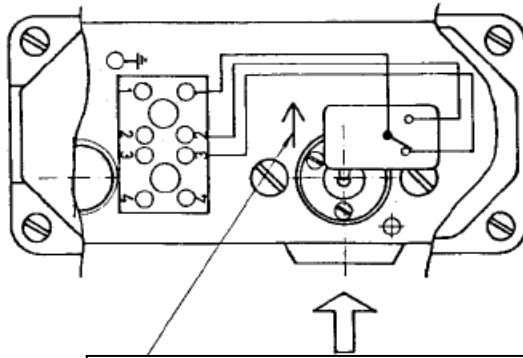
The PR1 has a built-in micro-switch with alternating contact function.
The PR1M is Marine certified flow switch with stainless steel cover.

Marine Certification

The PR1M flow switch is certified for marine applications according to DNV rules for classification – Ships, offshore units, and high-speed and light craft. It has received type approval from DNV for installation on vessels classed by DNV. The product complies with the requirements for temperature class D, humidity class B, vibration class B, EMC class B, and enclosure class B. The certificate number for this approval is TAA00003MD.

Installation instructions

- The PR1 is mounted in a 1" half sleeve on the pipe.
- The position of the switch is fixed and can only be mounted in horizontal lines with the impulse cover facing upwards.
- Make sure that the direction of flow is aligned with the arrow on the bottom plate under the cover.



When mounting, make sure that the flow is in the direction of the arrow.

- There should be a straight pipe section about 3 times the pipe diameter before and after the switch.
- The switch is supplied with a paddle for 10". Cut the paddle to the desired pipe size before mounting; see the table below.

Max. paddle length		
Pipe size	L mm	
2"	50	22
2 ½"	65	38
3"	80	52
4"	100	75
5"	125	100
6"	150	125
8"	200	175
10"	250	200

Micro-switch change-over	Switch-on l/min	Switch-off l/min
DN 50	> 125	< 75
DN 65	> 150	< 100
DN 80	> 200	< 150
DN 100	> 300	< 200
DN 150	> 350	< 250
Note: Only approximate values!		

PR1 specifications

- Alarm point: Not exact. The switch is only used to indicate flow or no flow.
- Connections: 1" half sleeve on pipe size from DN50.
- Max. pressure: 25 bar
- Max. fluid temperature: 125 °C
- Min. liquid temperature: -20 °C
- Protection class: IP 65 with M16 GR cable gland included.
- Wetted materials: Dezincification-resistant brass, stainless steel 316 and PTFE Nitrile (HNBR) seals. Optional EPDM and FPM (Viton)

PR1 liquid flow switch

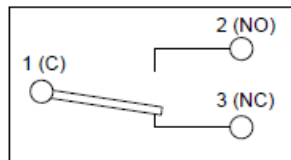
Enclosure material: Polycarbonate (Lexan®) or Stainless steel for Marine certified.

Micro-switch: SPDT, 1-pole 2-way connector. In the standard design, the contact surfaces are silver-plated. Max. load 250 V/8 A Nominal, 250 V/10 A Thermal.

Electrical data

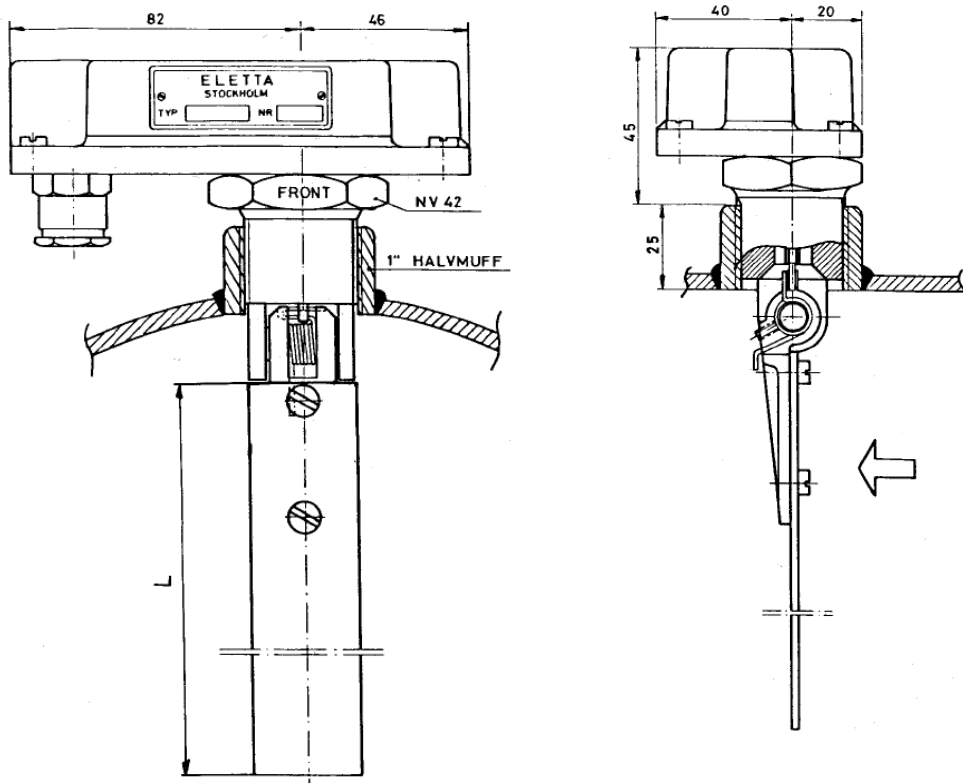
PR1 micro-switch

Contact function 1 pole, 2-way



- 1: Black
- 2: Blue
- 3: Brown

Dimensions and weight



Weight: 0.7 kg

PR1 liquid flow switch



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