

## Flow meter (rotor)



### RRI - 010 / ...

Flow meter (DN10, G3/8)

### RRI - 025 / ...

Flow meter (DN25, G1)

#### General:

The flow meter measures the flow rate with an impeller rotating due to the flow. The flow rate is proportional to the rotational frequency. The rotational speed is measured by an inductive proximity switch.

- no magnets, but with inductive sensor
- largely wear-free due to high-quality ceramic axis and bearing
- output signal NPN (optional PNP)
- no inlet and outflow zone needed
- uncomplicated flow measurement
- intrinsically safe behaviour
- modular design with several connecting systems
- connections plug- and pivotable

#### Application:

Sensors suitable for: Water, oil (viscosity up to 10 mm<sup>2</sup>/s (10 cSt.))

#### Specification:

**Measuring principle:** rotor (inductive sensor)

Designs:	bore	measuring range	pulse rate <sup>1</sup>
RRI-010 / 020:	2 mm	(0.1) 0.5 ... 1.5 l/min.	approx. 10200 Imp. / l
RRI-010 / 050:	5 mm	(0.2) 2.0 ... 10 l/min.	approx. 3345 Imp. / l
RRI-010 / 070:	7 mm	(0.4) 2.0 ... 12 l/min.	approx. 1755 Imp. / l
RRI-025 / 080:	8 mm	(2) 3 ... 30 l/min.	approx. 1216 Imp. / l
RRI-025 / 120:	12 mm	(3) 5 ... 60 l/min.	approx. 607 Imp. / l
RRI-025 / 160:	16 mm	(4) 6 ... 100 l/min.	approx. 252 Imp. / l

**Accuracy:** ±3 % of meas. value (in special measuring range)

**Repeatability:** ±1 % of full scale

**Pressure decrease:** max. 0.5 bar (at max. flow)

**Working pressure:** max. 16 bar

**Output signal:** NPN (optional: PNP)

**Auxiliary energy:** 5 ... 30 V DC, max. 10 mA (closed current, without load)

**Electrical connection:** 2 m cable (optional: 4-pole locking plug M12 x 1)

**Working temperature:** 0 ... 60 °C

**Protection class:** IP 67

**Mechanical connection:** nominal bore thread

RRI-010...: DN 10 G 3/8, female thread <sup>2</sup>

RRI-025...: DN 25 G 1, female thread <sup>2</sup>

**Mounting position:** horizontal or ascending direction of flow

**Materials:**

**Housing:** Questra (DN25) / PPS (DN10)

**Connection <sup>2</sup>, rotor:** PVDF

**Bearing:** Iglidur X

**Axis:** ceramics ZrO<sub>2</sub>-TZP

**Seal:** viton

**Dimensions:** 84 x 29 x 88 mm (RRI-010...),  
110 x 73 x 103 mm (RRI-025...)

<sup>1</sup> precise value on type plate, max. variability within a batch: ±10 %

<sup>2</sup> other thread types (male thread, ...) or materials for connectors upon request

#### Options:

##### PNP:

output signal PNP

##### M12:

Electr. connection = plug M12 x 1

## Flow switch



### FCM - 6 (2.5 l/min)

Flow switch incl. DIN plug

### FCM - 3 (6 l/min)

Flow switch incl. DIN plug

#### General:

FCM flow switch has been designed to offer a very simple and safety control against the missing flow passage. The electrical components are separated from the mechanical parts and the reed contact is magnetically actuated. The switch head is fixed to the body by a fast self locking system and can be replaced without removing the flow switch from the pipe. No adjustment or setting is required after the switch head replacement.

- No setting required
- Easy and fast replacement of the switch head
- Low pressure loss
- Horizontal and vertical mounting
- Liquid and gas applications

#### Specification:

**Body:** Brass

**Process connection:** G 1/2"

**Sensing element (Piston):** Polypropylen

**Accuracy:** ± 15 %

**Temperature max.:** 90 °C

**Pressure loss :** 0.5 bar at max. flow rate

**Flow rate max.:** 25 l/min

**Weight:** 170 g

**Reed contact** N.O. / No flow condition

**Contact rating** 300 V, 70 VA, 0.5 A

**Wiring:** Angle plug

**Protection class:** IP65

**Mounting:** Horizontal and vertical

Set point l/min	Nominal	ON	OFF
FCM - 6	2.5	2.8	1.7
FCM - 3	6	6.3	4.1

#### Dimensions:

