Flow switch  
QVE1900  
for liquids for piping DN 32…200

Use

In HVAC plants to monitor the flow of fluids in hydraulic systems, especially in refrigeration, heat pump and heating plants, e.g. for use with condensers, boilers, heat exchangers, etc.

Ordering

When ordering, please provide the name and product number:
flow switch QVE1900

Mechanical design

The unit comprises a base with attached screw-in body R1 (refer to "Dimensions") and cover.  
The base houses the microswitch, transfer lever with adjusting screw (for switch-on/switch-off point), a paddle holder and an opening for the cable entry. Four paddles of various lengths and attaching screws for mounting the paddles are enclosed.  
The cover is secured to the base with two screws.
The unit is supplied with the switch-on/off values set to the minimum (See the next section "Notes")

Notes

Engineering
- On site, a T-junction R1" per EN DIN 10241 required (steel fittings with threads) and EN DIN 10242 (threaded fitting from malleable casting) required.
- All dimensions and data provided in the table of switching values are based on water at 20 °C, the use of T-junctions and horizontal piping.
- Before and after the mounting location of the flow switch, a smoothing path of at least 10 times or 5 times the nominal pipe diameter required.

Fitting
- Mount the enclosed cable gland and fit the T-junction R1" on-site prior to mounting the device.
- Insert vertically in the horizontal piping.
- Note the flow direction during installation (the screw-in body R1 has an arrow).
- For reasons of stability, the short paddles may not be removed with the larger pipe diameters.

Installation
- Observe all local regulations from the electrical utilities or waterworks as applicable.
- Allow for an extra loop of the connecting cable to ensure the switching value can be adjusted.

Commissioning
- A higher switch-off value can be set by turning the adjusting screw for the switch-on/off value clockwise.
- When mounting the flow switch in vertical piping, you must compensate for the weight of the paddles on the adjusting screw for the switch-on/off values (Orientation not recommended, see fitting instructions).
### Technical data

**Functional data**

Field of use
- Suitable media: All liquids (not suitable for ammonia)

Piping diameter: DN 32...200

Type of switch: Microswitch with single-pole changeover, potential free

Contact rating: AC 250 V, 15 (8) A

Adjustment of switching point: Manual, supplied with minimum switch-on/off values

Setting range: Refer to switching value table

Perm. medium temperature: \( -20 \ldots +120 \degree C \) (medium must be antifreeze)

Perm. operating pressure: PN 10

**Protective data**

Degree of protection: IP 65 per EN 60529

Safety class: I per EN 60335-1
Environmental conditions

General environmental conditions
Operation and storage

-20…+85 °C

Standards and directives

Conformity to
Low voltage directive
RoHS
Product norm

2006/95/EEC
2011/65/EU
EN 60335-1

Environmental compatibility

Environmental product declaration
CM1E1592en provides information on environmentally compatible product design and assessment (RoHS compliance, composition of substances, packaging, environmental benefit, disposal).

ISO 14001 (environment)
ISO 9001 (quality)

Materials / colors

Housing base
Bayblend T85 / color RAL 7015

Cover
ABS / color RAL 5007

Screw-in body R1"
Brass

Paddle
High-grade steel (V2A)

Flow switch, overall
Silicon free

Dimensions (weight)

Without packaging
0.570 kg

Internal diagram

COMMON

Flow velocity ≥ Switch-on value
COMMON – 2
No flow or flow velocity has fallen below the adjusted switch-off value

Dimensions

Dimensions in mm