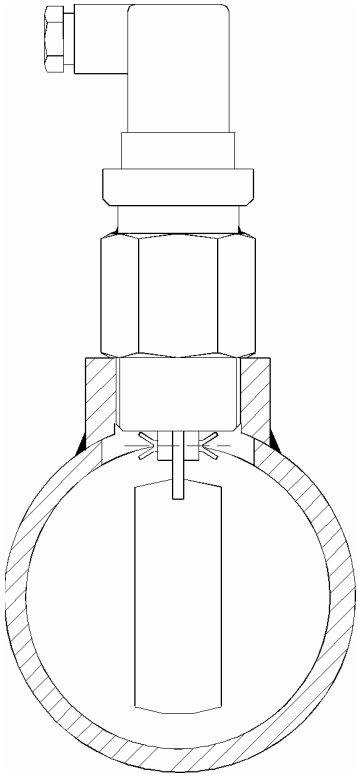
instrumentation
for fluids

Flow switch

Series

VH35 AISI-316

Instructions Manual



E-MI-VH35 REV.: 0 English version

INTRODUCTION

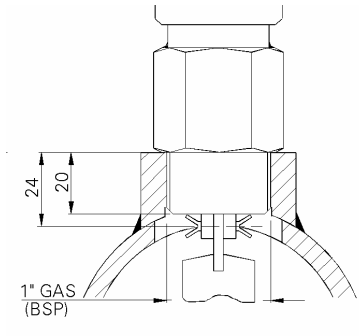
The VH-35 is a mechanical flow switch with a paddle which is displaced by the force of the flowing liquid. The movement of the paddle displaces a magnet which activates the reed switch.

INSTALLATION

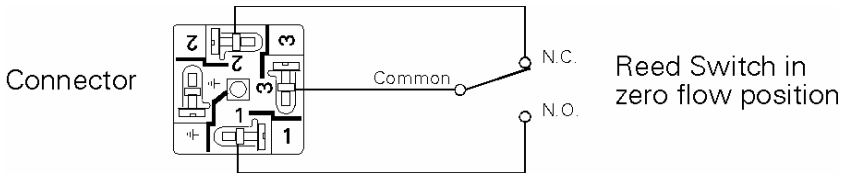
Mount the flow switch in a horizontal pipe with the hanging paddle in a vertical position and perpendicular to the flow direction. The shaft, on which the metal paddle hangs, should be positioned at the internal diameter of the pipe. To achieve this position, the top of the threaded fitting should be at 24 mm (0.96 inch) from the internal diameter of the pipe.

NOTE: On special order the VH-35 can be supplied for mounting in a vertical pipe with rising flow direction. In this case the paddle has a stop to avoid it falling, and the switching flow rate will be higher than the version for a horizontal pipe.

The paddle should be free to move without touching the pipe. The flow switch will work with flow in either direction in a horizontal pipe.

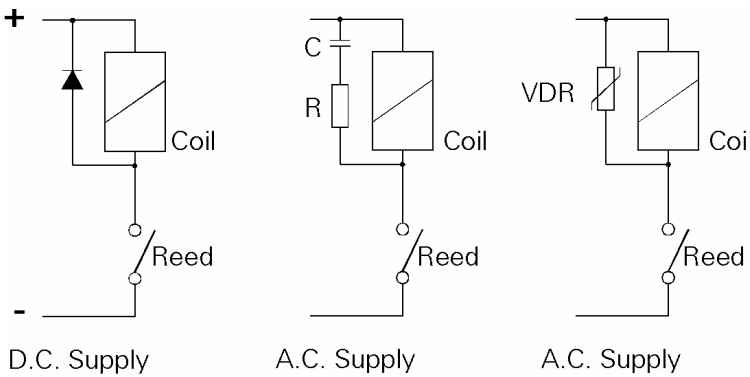


For the electrical installation, a multi-conductor cable should be used to obtain a good seal with the cable gland. The connector is provided with a PG 9 cable gland, suitable for a 4.5 to 7 mm outside diameter cable. Connect the reed switch as required. Terminal 3 of the connector is the common, terminal 2 is the normally closed (N.C.) contact and terminal 1 is the normally open (N.O.) contact when there is no flow. The fourth terminal is an earth connection which is connected to the body of the flow detector.



Make sure that the contact rating is not exceeded. If high loads are to be switched, use an auxiliary relay.

When using inductive loads, such as relays or electro-valve coils, surge arresters should be installed to protect the reed contacts.



With a DC supply, a diode should be connected as shown.
For an AC supply, an RC circuit can be used as shown, although a varistor (VDR) is better and is easier to select the right value. The VDR should have a breakdown voltage greater than 1.5 times the rms voltage. The standard varistor ratings specify the rms working voltage for the varistor, for example a S05K25 varistor will be for 25 Vrms working and will have a breakdown voltage of 39 V at 1 mA.

The electrical installation should provide a fuse or circuit breaker to protect the reed switch from overloads.

When installing the connector, make sure that the cable gland closes over the cable and that the connector is well screwed down to maintain the IP-65 rating.

CHARACTERISTICS

Contact Rating:

Maximum Switching Power	:	3 Watts
Maximum Switching Voltage	:	48 Vac, 70 Vdc
Maximum Switching Current	:	0.25 A

Working Conditions:

Connector	:	IP 65
Working Temperature	:	-40 ºC to +125 ºC
Working Pressure	:	25 bar

MAINTENANCE

No special maintenance is required.

WARRANTY

Tecfluid S.A. GUARANTEES ALL ITS PRODUCTS FOR A PERIOD OF 24 MONTHS, after consignment, against all defects in materials and workmanship.

This warranty does not cover failures which can be imputed to misuse, use in an application different to that specified in the order, the result of service or modification by un-authorized persons, bad handling or accident.

This warranty is limited to cover the repair or replacement defective parts which have not been damaged by misuse.

This warranty is limited to the repair of the equipment and all further and eventually following damages are not covered by this warranty.

Any consignment of equipment to our factory or distributor must be previously authorised. The consignment should be done with the equipment well packed, clean of any liquids, grease or hazardous materials. Tecfluid S.A. will not accept any responsibility for damage done during transport.

Together with the equipment, a note should be enclosed indicating the failure observed, the name, address and telephone number of the sender.

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