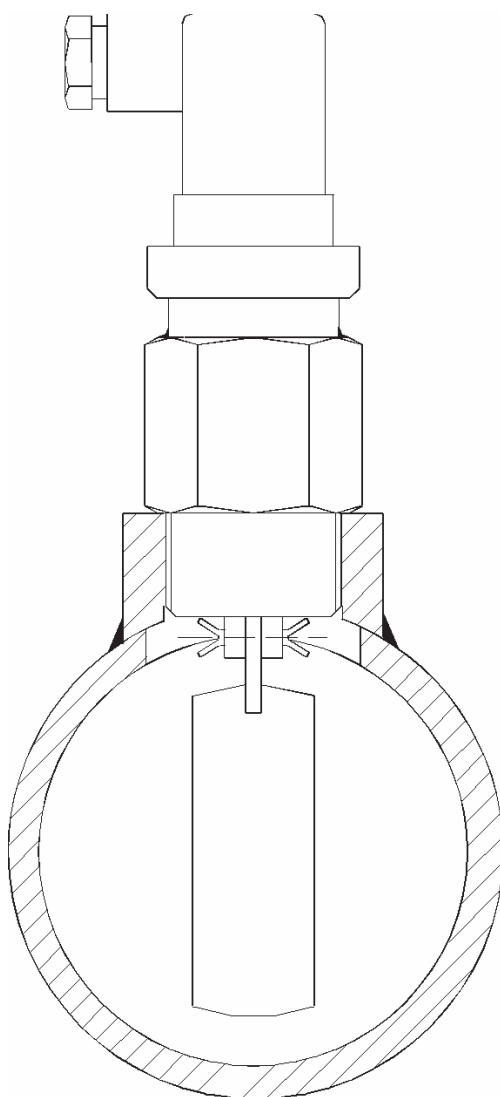




## Instructions Manual



## INTRODUCTION

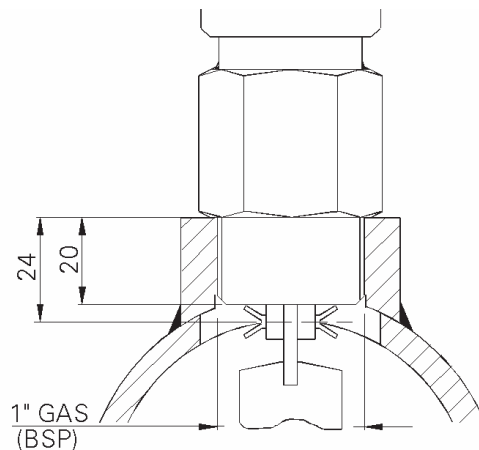
The VH-35 is a mechanical flow switch with a paddle which is displaced by the force of the flowing liquid. The movement of the paddle displaces a magnet which activates the reed switch.

## INSTALLATION

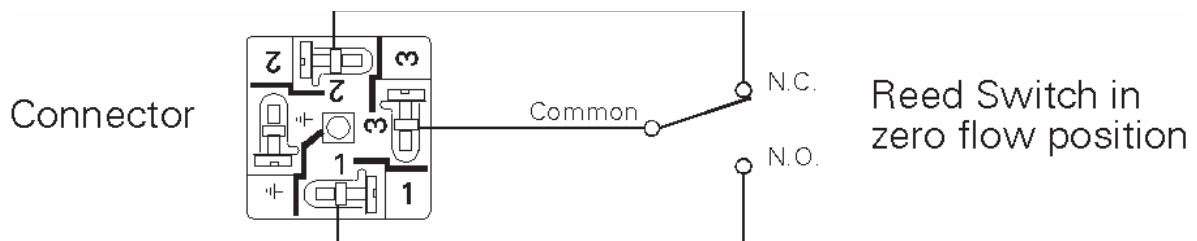
Mount the flow switch in a horizontal pipe with the hanging paddle in a vertical position and perpendicular to the flow direction. The shaft, on which the metal paddle hangs, should be positioned at the internal diameter of the pipe. To achieve this position, the top of the threaded fitting should be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

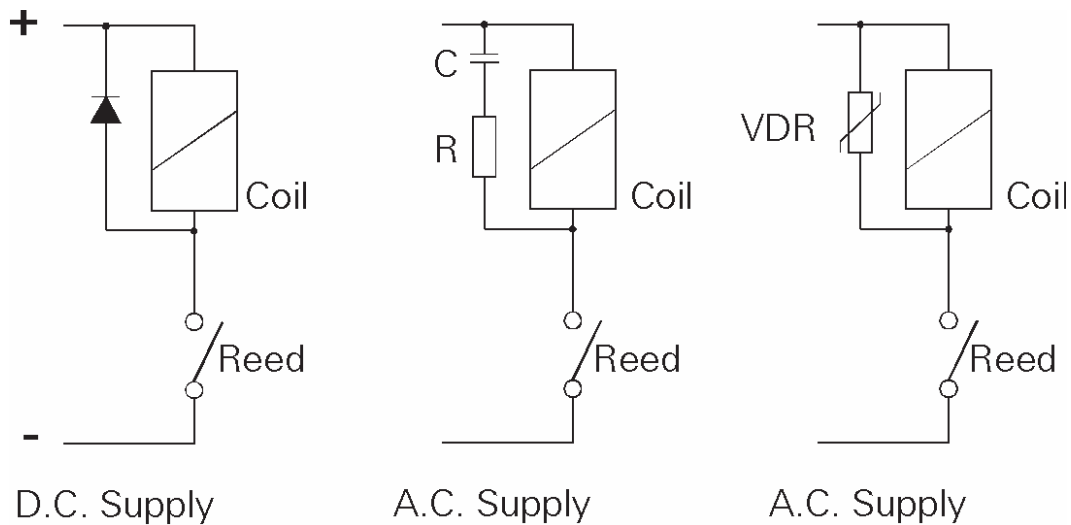


For the electrical installation, a multi-conductor cable should be used to obtain a good seal with the cable gland. The connector is provided with a PG 9 cable gland, suitable for a 4.5 to 7 mm outside diameter cable. Connect the reed switch as required. Terminal 3 of the connector is the common, terminal 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 °C to +125 °C
Working Pressure	:	25 bar

## MAINTENANCE

No special maintenance is required.

## WARRANTY

TECFLUID guarantees all the products for a period of 24 months from their sale, against all faulty materials, manufacturing or performance. This warranty does not cover failures which might be imputed to misuse, use in an application different to that specified in the order, the result of service or modification carried out by personnel not authorized by Tecfluid, wrong handling or accident.

This warranty is limited to cover the replacement or repair of the defective parts which have not damaged due to misuse, being excluded all responsibility due to any other damage or the effects of wear caused by the normal use of the devices.

Any consignment of devices for repair must observe a procedure which can be consulted in the website [www.tecfluid.fr](http://www.tecfluid.fr), "After-Sales" section.

All materials sent to our factory must be correctly packaged, clean and completely exempt of any liquid, grease or toxic substances.

The devices sent for repair must enclose the corresponding form, which can be filled in via website from the same "After-Sales" section.

Warranty for repaired or replaced components applies 6 months from repair or replacement date. Anyway, the warranty period will last at least until the initial supply warranty period is over.

## TRANSPORTATION

All consignments from the Buyer to the Seller's installations for their credit, repair or replacement must always be done at freight cost paid unless previous agreement.

The Seller will not accept any responsibility for possible damages caused on the devices during transportation.

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