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Operating Instructions

DS51

Flow Switch

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1 Introduction

Series D51 flow indicators are noted for their reliable function and easy operation. To obtain the greatest benefit from this device, please observe the following cautionary statement:

Persons who are responsible for setting up or operating this device must be sure to read the and understand the operating instructions and the safety information pertaining to it.

2 Safety Information

2.1 General Instructions

To ensure safe operation, the device must only be operated according to the information in the operating instructions. When the device is in use, the regulations and safety standards applicable to the specific application must also be observed. This statement also applies to the use of accessories.

2.2 Proper Usage

Series DS51 flow switches are designed to monitor the flow of liquids.

Any application extending beyond this specific intended use does not constitute proper usage. Series DS51 flow switches must not be employed as the sole means of avoiding hazardous conditions in machinery and installations.

The machinery and installations must be designed in such a manner that faulty conditions and malfunctions will not present hazardous situations for operating personnel.

2.3 Qualified Personnel

Series DS51 flow switches must only be used by qualified, knowledgeable personnel trained in correct use of these devices. Qualified personnel are those persons familiar with setting up and assembling these devices, placing them in service and operating them. In addition, such personnel must also be qualified to perform the work associated with the application for which the device is being used.

3 Functional Description

The model DS51 flow monitors are rugged, heavy duty devices that are to a great extent immune to faults. A piston with integrated permanent magnet is forced by the flow against a stainless steel spring in the direction of flow and actuates a reed switch attached to the enclosure. The reed contact closes upon flow and opens when the flow drops below a preset value.

4 Electrical Connection

The Reed contacts used in the DS51 flow switches are potential free and do not need any supply voltage.

Attention: The Reed contacts used are by nature very sensitive against overloading. Make sure that neither the values for voltage, current or max. load are being exceeded.

DS51

OEM Piston Type Flow Switch for Low Flow Applications

- for low-viscosity liquids
- low-cost model
- switching point factory-set between 0.1 and 2.5 l/min
- small, compact design
- enclosure made of brass, nickel-plated brass or stainless steel; piston made of POM
- available for all mounting positions



Description:

The model DS51 flow monitors are rugged, heavy duty devices that are to a great extent immune to faults. A piston with integrated permanent magnet is forced by the flow against a stainless steel spring in the direction of flow and actuates a reed switch attached to the enclosure. The reed contact closes upon flow and opens when the flow drops below a preset value.

Typical Applications:

DS51 flow monitors are typically used where there is a need to economically monitor flows of low viscosity liquids.

Common applications include:

- cooling circuits
- heating systems
- welding equipment
- laser cooling equipment
- etc.

Models:

DS51.M...:	brass enclosure
DS51.MN...:	brass enclosure, nickel-plated
DS51.E...:	stainless steel enclosure

Process connections:

G 1/4 female thread, nipple for 8 mm hose

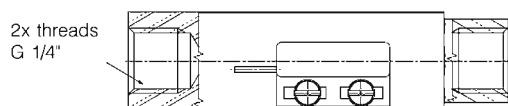
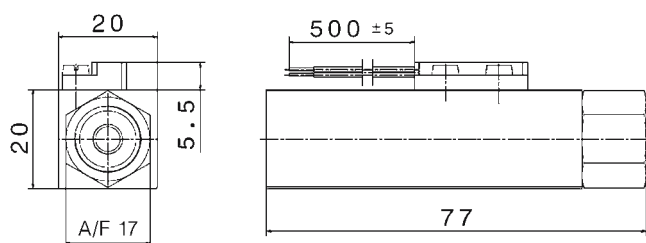
Setpoints:

Factory-set, between 0.1 and 2.5 l/min water, increasing or decreasing Flow

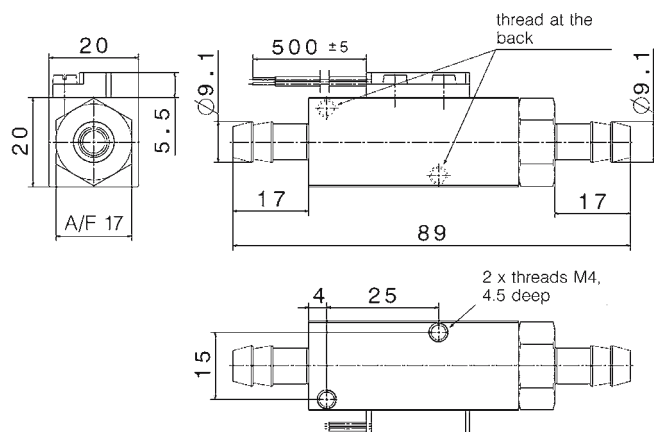
other materials, process connections and setpoints available on request

Dimensions:

DS51.-GG08... (G 1/4 female at both ends)



DS51.-SS08... (8 mm hose nipples at both ends)



Model Coding:

Order number: DS51. M. GG08. F0,5. 0

Piston-type flow monitor

Model:

M	= brass enclosure, POM piston
MN	= nickel-plated brass enclosure POM piston
E	= stainless steel enclosure, POM piston
S	= special version

Process connection:

GG08	= G 1/4 female thread at both ends
GS08	= inlet G 1/4 female, outlet hose connector, 8 mm
SG08	= inlet hose connector, 8 mm, outlet G 1/4 female
SS08	= inlet hose connector, 8 mm, outlet hose connector, 8 mm
S	= special version

Setpoint (xx = 0.1 - 2.5 l/min, please specify):

Fxx	= falling flow
Sxx	= rising flow

Special features:

0	= none
9	= please specify separately

Custom devices with higher setpoints, lower pressure drops or other fittings available on request.

Minimum order quantity: 10 devices

Specifications:

Materials:

Enclosure:	brass, nickel-plated brass or stainless steel
Piston:	POM
Spring:	stainless steel 1.4401
Magnet:	hard ferrite OX300

Pressure drop: 1 bar at 2.5 l/min

Max. pressure: 25 bar

Max. temperature: 100 °C

Setpoints: 0.1...2.5 l/min water

Mounting position: any

Contact: reed contact, normally open (N/O),
fully encapsulated, 200VDC / 1A / 15W

Electrical connection: 2-core cable, 50 cm