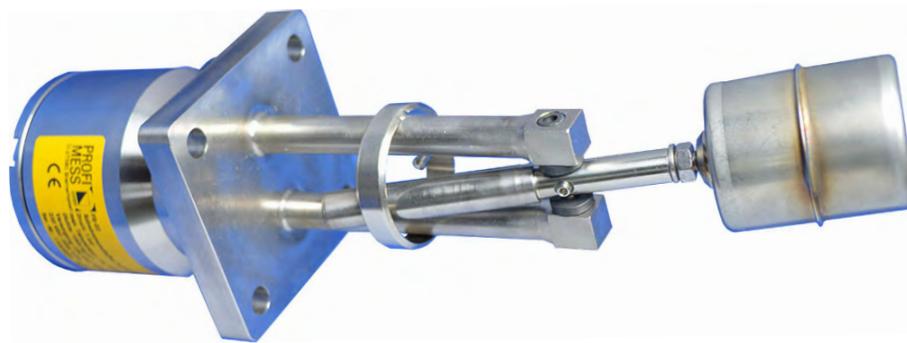




FS-02

Float Switch for Horizontal Mounting



Features

- / Suitable in ship-building
- / Max. pressure to 232 bar
- / Robust
- / Stainless steel- and plastic version
- / DN50. . .DN100 flange
- / Pump and level control
- / Explosion proof version

Description:

With the robust float switch of the FS-02 series, a float moves on a rotatable stainless steel lever at the level of the medium to be monitored. A reed contact inside the contact tube is actuated by a permanent magnet when a switching point is reached. This principle enables a contactless and wear-free switching process that does not require any auxiliary energy. The reed contact can be designed as a NO-, a NC- or a changeover contact, with signal processing being universal. A direct connection to a signal amplifier or a contact protection relay or many other evaluating circuits is possible without any problems.

Application:

The float switch FS-02 is used to monitor level limits and is designed for side installation on the tank. Various DIN- or ANSI- flange variants are available as process connections, as well as the square flange that is widely used on the market. The proven technology of this series has established itself in all areas of industry due to its extremely wide application limits with regard to pressure, temperature, media density and durability.

The switching technology via a magnetically controlled REED contact enables the device to be used in explosion-proof areas according to ATEX, insofar as the float switch is operated via an intrinsically safe isolating switching amplifier. The intended function of the FS-02 is not influenced by the conductivity of the medium, foaming, blistering or vibration.



Electrical Specifications:

Switching function /	Reed contact, alternatively normally open (NO), normally closed (NC) or change-over (SPDT) Ex version only change-over
Switching power /	FS-02.x: 230 VAC, 40 VA 1 A 230 VDC, 20 W 0,5 A
Switching power Ex /	FS-02.1: $U_{\max} = 36V$, $I_{\max} = 100$ mA Only for connection to a certified intrinsically safe circuit.
Electrical connection /	FS-02.1: connection housing, stainless st. 1.4571 FS-02.2: connection housing, Polypropylene
Protection class /	FS-02.1: IP 67 according to IEC/EN 60529 FS-02.2 IP 65 according to IEC/EN 60529

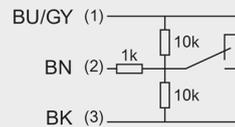
Technical Specifications:

Housing material /	FS-02.1: stainless steel 1.4571 (316Ti) FS-02.2: plastic PP (Polypropylen)
Max. Pressure /	FS-02.1: 232 bar FS-02.2: 6 bar
Temperature range /	FS-02.1: -50...+250 °C (standard version) Option: high-temperature version: +350 °C low-temperature version: -120 °C FS-02.1 Ex-version: -50...+180 °C depending on temperature range FS-02.2: -10...+80 °C
Min. density /	FS-02.1: 600 kg/m ³ FS-02.2: 750 kg/m ³
Mounting position /	horizontal
Certificate /	ATEX, DNV GL, ABS
Option /	FS-02.1 as an explosion-proof version - Ex i II 1/2G Ex ia IIC T6-T2 Ga/Gb II 2D Ex ia IIIC T80 °C Db

Electrical Connection:

Reed contact

1 switch point

1 switch point
Wiring for operation with a PLC1 switch point
NAMUR circuit per DIN EN 60947-5-6

Float Table:

Type	Cylinder	Ball	Oval	Floater for plastic version
Material	Stainless steele 1.4571	Titan 3.7035 Titan 3.7165	Stainless steele 1.4571	Polypropylen
Insertion length	190...990 mm	190...990 mm	240...990 mm	176 mm
Diameter	44 mm	52 mm	43 mm	44 mm
Length	52 mm	52 mm	100 mm	52 mm
Max. operating pressure	6 bar	Titan 3.7035: 100 bar Titan 3.7165: 232 bar	20 bar	4 bar
Min. density	600 kg/m ³	600 kg/m ³	500 kg/m ³	750 kg/m ³



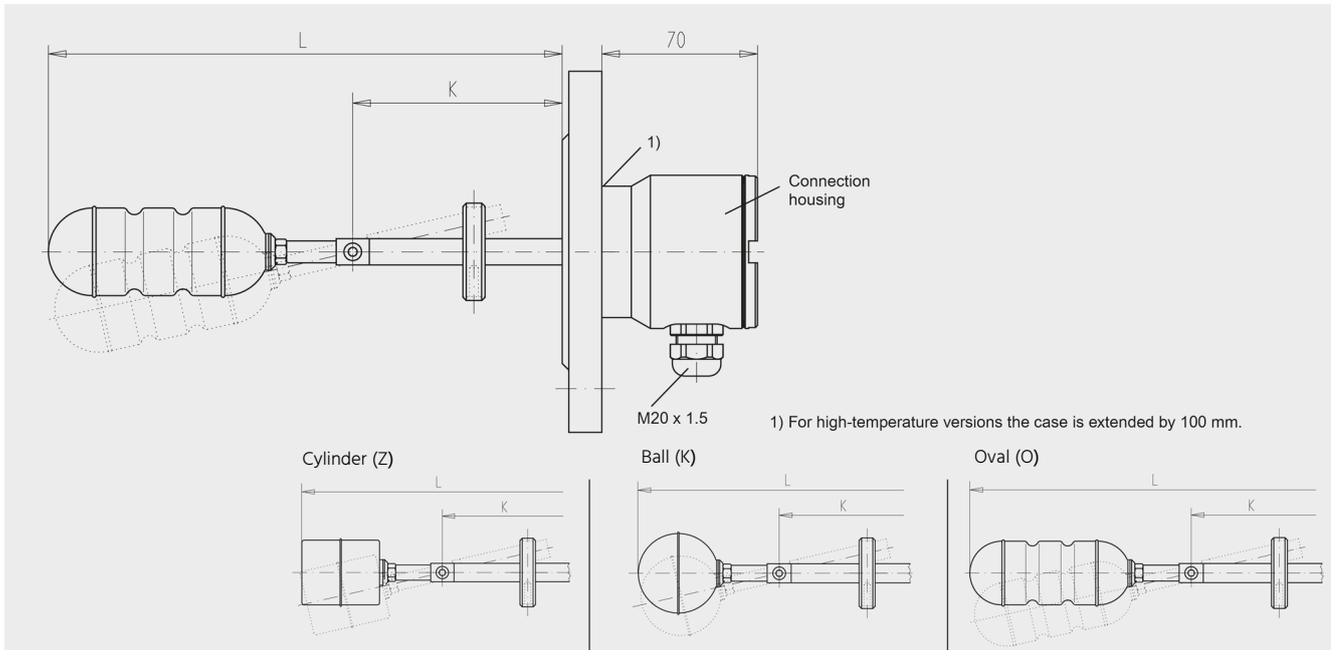
Ordering Codes:

Order number	FS-02.	1.	2.	1.	[50].	[6].	Z[300].	1.
FS-02 Float Switch								
Material /								
1 = stainless steel 1,4571								
2 = plastic PP								
Switching function /								
1 = normally open (NO), none Ex-version								
2 = normally closed (NC), none Ex-version								
3 = change over (SPDT)								
Process connection flange /								
1 = DIN								
2 = DIN EN								
3 = ANSI								
4 = square flange DN 80								
5 = square flange DN 92								
Nominal size [] /								
50 = DN 50								
65 = DN 65								
80 = DN 80								
100 = DN 100								
Pressure rating [] /								
6 = PN 6								
16 = PN 16								
40 = PN 40								
63 = PN 63								
100 = PN 100								
160 = PN 160								
Floater and insertion length [] /								
Z = cylinder (190..990 mm)*								
K = ball GL (190..990 mm)*								
O = oval (240..990 mm)*								
* Please specify in plain text e.g. K[600]								
Approvals (multiple choices possible) /								
0 = without								
1 = EAC (FS-02.1 or FS-02.2)								
2 = DNV GL (only FS-02.1)								
3 = ABS (only FS-02.1)								
4 = ATEX (only FS-02.1)								



Dimensions:

Stainless steel version FS-02.1:



Plastic version FS-02.2:

