

FLOAT LEVEL SWITCH



DISTRIBUTOR

FLOAT LEVEL SWITCH

FLM series

SINGLE-POINT FLOAT LEVEL SWITCH

The **FLM** Single-Point Float Level Switches VANTSU are available in small and large size, side mount, specialty float. The sensor has a long-standing reputation as a proven technology in the float encircling a stationary stem is equipped with magnets. As the float rises or lowers, the magnetic field actuates a hermetically sealed, magnetic reed switch mounted within the stem.

The durable construction of these reed switch designs ensures long, trouble-free service. These hermetically sealed switches provide precise repeatability. The sensor actuation points remain constant over the life of the unit.

APPLICATIONS

- Aquariums, HVAC, medical, marine uses, wastewater treatment
- Chemical processing, breweries and wineries, bioprocessing, etc.
- Factory waste water, waste water, sewage, rainwater
- Wastewater, oil & gas industry, agriculture, industrial equipment
- Marine and manufacturing, machine tool, and food processing.

FEATURES

- Reliable performance and wide range of application
- Side, Top, Bottom-mounting, Various flexible installation
- SUS304/316; Max. operating temp. 200° C; Pressure 60kg/cm²
- Compact simple design and principle, high reliability, low price
- PP, PVDF, NYLON, materials are suitable for corrosive applicaiton

TECHNICAL FEATURE

ITEM	BASIC PARAMETERS
Switching Rate Power	50W...DC / 70W...AC
Max.Switching Voltage	220 VDC / 240 VAC
Max. Switching Current	0.7A....DC / 0.5A....AC
Insulation Resistance	10 ¹⁰ Ω Min.
Electrical Service Life	10 ⁷ Times

HOW TO ORDER

FLM - - - - - - - -

1 2 3 4 5 6 7 8

1 Size of Float

30	Ø28x28
45	Ø45x55
50	Ø52x52
75	Ø75x75

6 Insertion length, L

3	300mm
5	500mm
.....

2 Material of Wetted

0	SUS304
4	SUS304+PP
6	SUS316
8	PP

7 Length of Lead wire

3	300mm
5	500mm
.....

3 Installation Mode

V	Vertical
H	Horizontal

8 Materail of Lead wire

P	PVC Cable
S	Silicon Cable
T	Teflon Cable

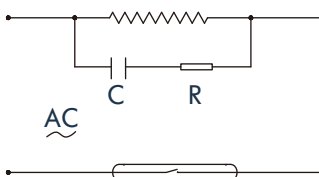
4 Process Temperature

N	-10...+125°C
T	-10...+200°C

5 Number of Float

1	1 point
2	2 pooints
3	3 pooints

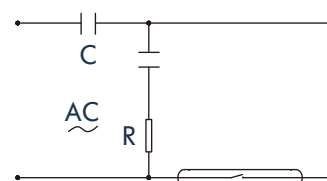
Inductive Loads



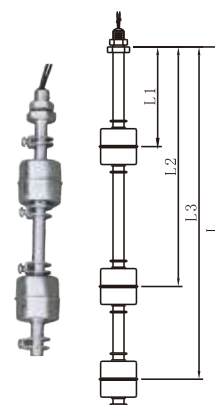
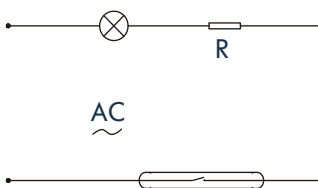
When using reed switches for inductive loads such as motors, relay Coil, solenoids, etc., the Contact points will sometimes be subjected high voltages. Such high induced voltages may damage the reed switch or significantly reduce its life.

Therefore, circuit protectors such as: RC snubbers, varistors or clamping diodes are recommended. (See Fig.)

Capacitive Loads



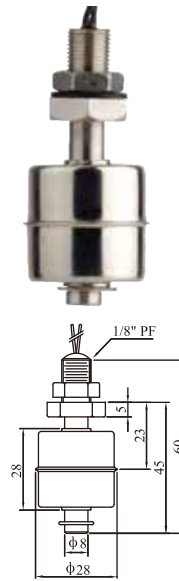
Wiring Capacitance / Bulb



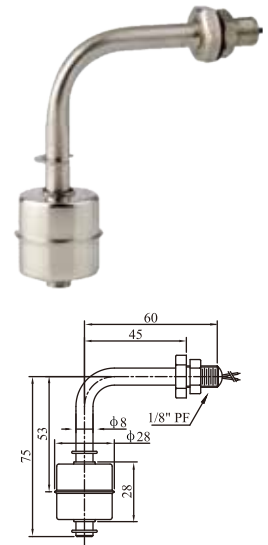
TECHNICAL FEATURE

Models	Wetted material	Installation mode	Mounting size
FLM-3001	SUS304/316L	Vertical	Ø10
FLM-3002	SUS304/316L	Horizontal	Ø10
FLM-4501	SUS304/316L	Vertical	Ø17
FLM-4502	SUS304/316L	Horizontal	Ø17
FLM-MV25S	PP/SUS304/316L	Horizontal	Ø10
FLM-MV25P	PP	PP	Ø10
FLM-MH16	SUS304	SUS304	1/2" Thread
FLM-MH16S	SUS304	SUS304	1/2" Thread
FLM-MH31C	PP/Nylon/PVDF	PP/Nylon/PVDF	1/2" Thread
FLM-MH21C	PP/Nylon/PVDF	PP/Nylon/PVDF	Ø16 / 22

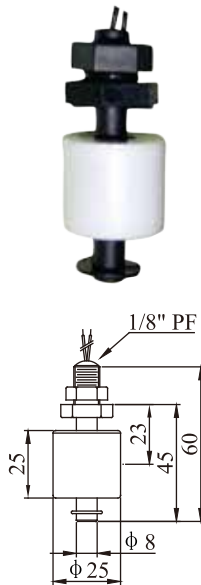
■ FLM-3001



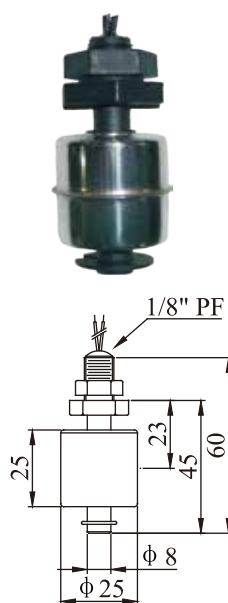
■ FLM-3002



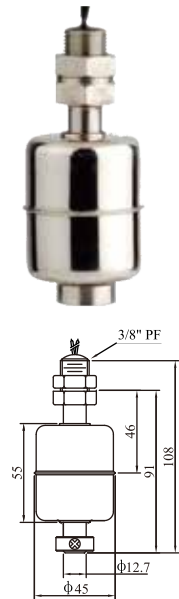
■ FLM-MV25P



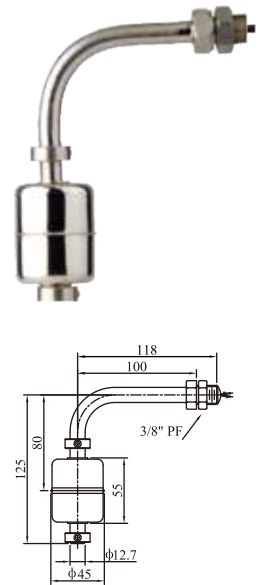
■ FLM-MV25S



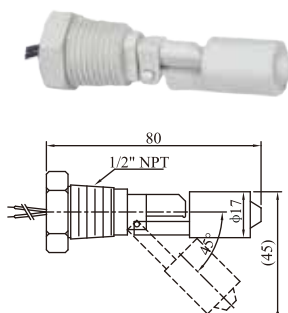
■ FLM-4501



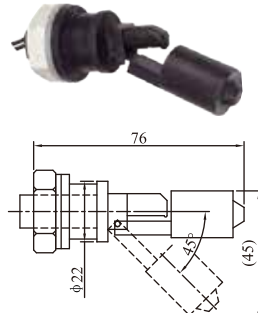
■ FLM-4502



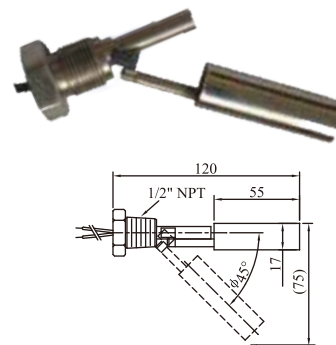
■ FLM-MH31C



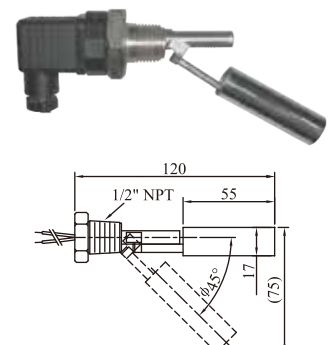
■ FLM-MH21C



■ FLM-MH16



■ FLM-MH16S



FLS series

MAGNETIC MULTIPOINT FLOAT LEVEL SWITCH

The **FLS** series magnetic multipoint level switches are used for the monitoring and control of liquid level in tanks. The single unit or multiple reed switch units are housed tightly in stainless steel or float encircling a stationary stem is equipped with magnets. As engineering plastic stem, and the permanent magnet is sealed into the middle of the specified float ball(s). You can mount the float ball to penetrating through the stem, then the liquid buoyancy will deliver the float ball up and down at the specified position by graduating rings. When the float internal magnet approaches the reed switch, it will actuate the reed switch contact point to create an open or close circuit. User can apply such on-off output signals to reach liquid level controlling and monitoring purpose.

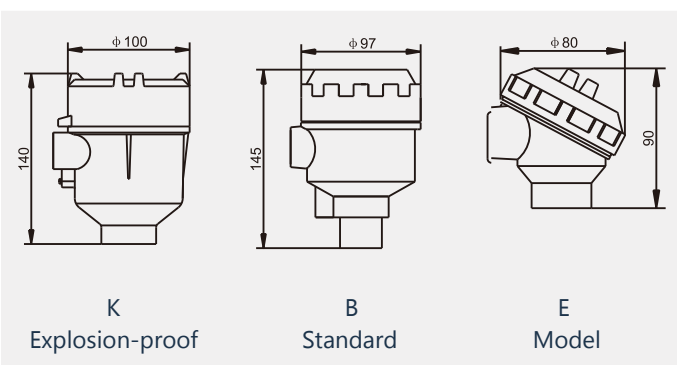
FEATURES

- Multiple points measuring, multiple level points are available for custom-built.
- It is used the magnet to actuate the reed switch without any extra electric power source. Each reed switch is durable for operation life reaching 1 million times.
- All output signal wiring are simplified in same junction boxes to economize the external wiring construction.
- Rugged construction and multiple options for materials from engineering plastics as PVDF, PP, PVC and stainless steels as SUS304/316 float switches can be applied to versatile applications in chemical corrosion of acidity and alkalinity liquid, solvents or oil fuels.

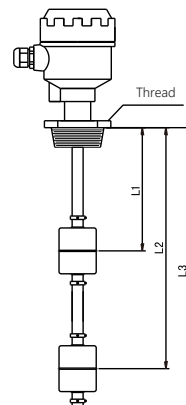
TECHNICAL FEATURE

ITEM	BASIC PARAMETERS
Switching capacity	70W...220VAC, Max.0.5A SPST 120W...220VAC, Max.3A SPDT
Wetted material	SUS304,316; PP, PVDF, PTFE
Process Temperature	-20...+200° C depending materials
Protection class	IP65
Electrical Service Life	10 ⁷ Times

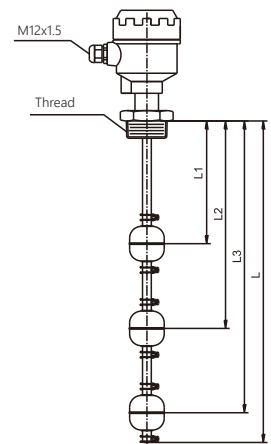
HOUSING



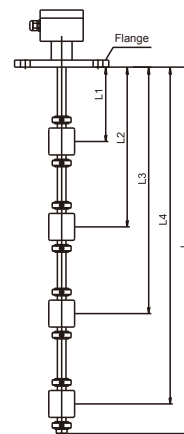
■ FLS-BB2S



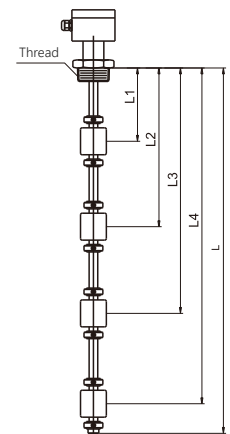
■ FLS-BC3S



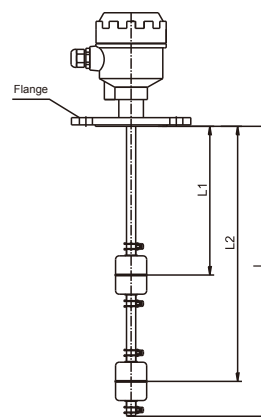
■ FLS-PE4F



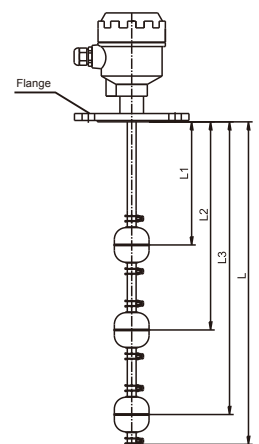
■ FLS-P44S



■ FLS-BB2F



■ FLS-BC3F



FLS - - - - - - - -

1 2 3 4 5 6 7 8

1 Housing

- B Standard
E Simple
P Anti-corrosive
K Explosion-proof
N Non-housing

2 Material of Wetted

- A SUS316, Ø 28x28x9.5
B SUS316, Ø 45x55x15
C SUS316, Ø 52x52x15
D SUS316, Ø 75x75x23
E PP, Ø 45x50x19
F PVDF, Ø 45x50x19
X Customized

3 Number of Float

- 1 1
2 2
3 3
4 4

4 Process Fitting

- F Flange
S Thread
C Clamp
x Other
FK Adjustment Flange
SK Adjustment Thread

5 Insertion Length

- 5 500mm
7 700mm
.....

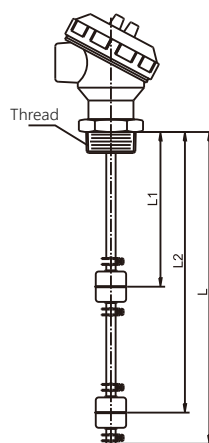
6 Process Temperature

- Blank Standard version
T High-Temperature Version

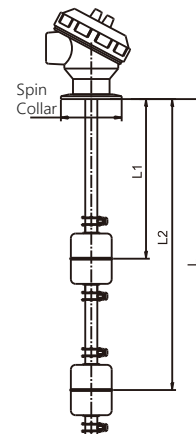
Temperature of Wetted Material

SUS304/316L	Standard	-20...+120 °C
SUS304/316L	High-Temp.	-20...+200 °C
PP		-20...+80 °C
PVDF / PTFE		-20...+120 °C

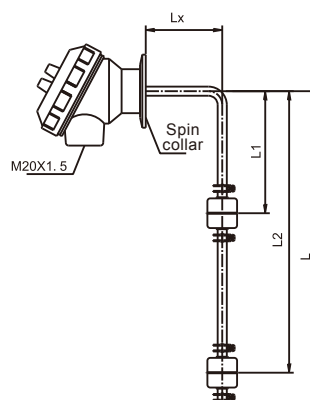
■ FLS-EA2S



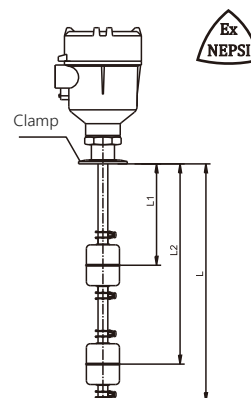
■ FLS-EB2C



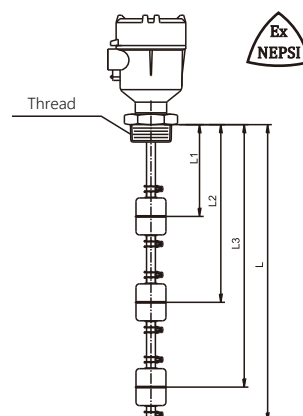
■ FLS-EA2C



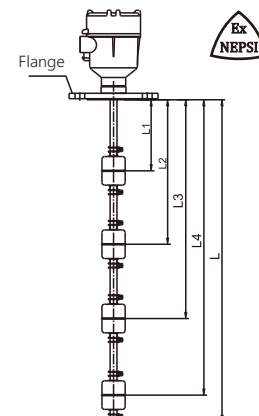
■ FLS-KB2C



■ FLS-KB3S



■ FLS-KB4F



FLF series

SIDE-MOUNTED FLOAT LEVEL SWITCH

The **FLF** Side-Mounted Float Switch is suitable for liquid level control of open or bearing pressure container in industrial process. When the liquid level reaches to high or low limit, relay contact point can be as signal alarm device or the switch in electronic pump circuit. It is widely applicable in the condition of high viscosity, high pressure, high temperature because of its flexible structure. Specially, it is used in water treatment, petrochemical, furnace, shipyard etc. material of SUS304/316 is suitable for high temperature and high pressure tanks.

FEATURES

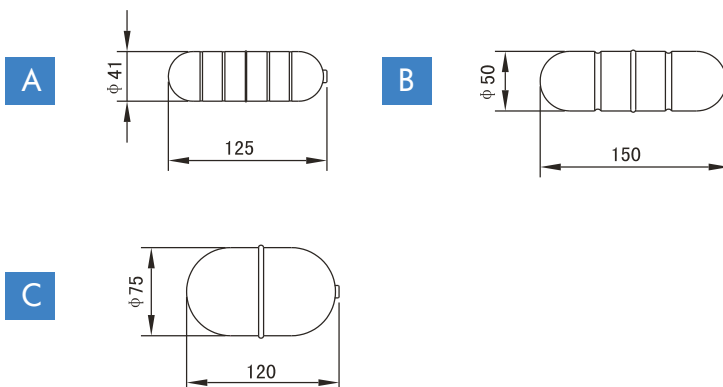
- Floats for almost any liquid
- Microswitch or reed switch output
- High-temperature capability up to 350° C
- Explosionproof and corrosion-resistant versions available
- Wide range of flanged and threaded process connections for side mounting
- Aluminum housing, EX version housing is stainless



TECHNICAL DATA

Version of Sensor / Material of Wetted part	Switching Rating	Medium Temperature
Standard SUS304 / 316	220 VAC, 5A, SPDT	-10...+100° C
High-Temperature SUS304 / 316	220 VAC, 1A, SPDT	-20...+200° C
High-Temp., Radiator SUS304 / 3016	220 VAC, 5A SPDT	-20...+350° C
Anti-Corrosive PP	220 VAC, 1A, SPDT	-10...+80° C

FLOAT TYPE



HOW TO ORDER

FLF — — — — —

1 2 3 4 5

1 Version of Level Switch

- 10 Standard
- 20 Standard High Temperature
- 30 Vertical Standard
- 32 Vertical High Temperature
- 35 Vertical High Temperature Radiator
- 40 Double Angle Standard
- 42 Double Angle High-Temperature
- 45 Double Angle High-Temperature Radiator
- 55 High-Temperature Radiator
- 60 Adjustment Type
- 70 Explosion-Proof
- 80 Simple Anti-corrosive
- 81 Anti-corrosive Standard

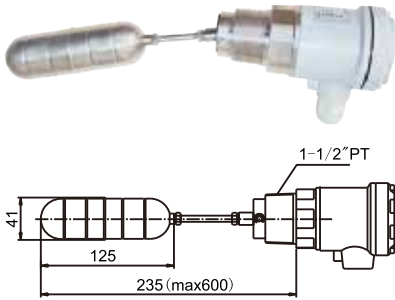
2 Process Fitting

- F Flange
- S Thread
- C Clamp
- X Others

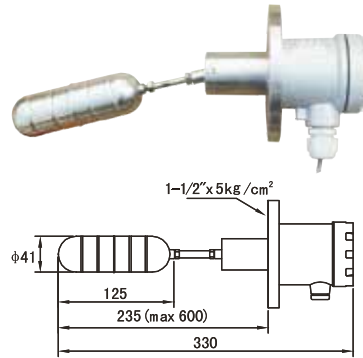
3 Float Type

- A Ø41x125
- B Ø50x125
- C Ø75x120
- X Others

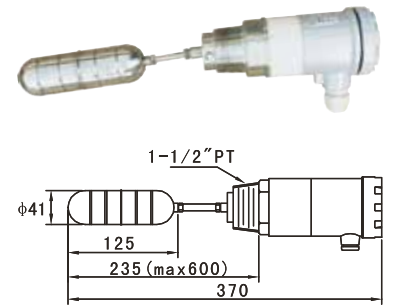
■ FLF-10SA



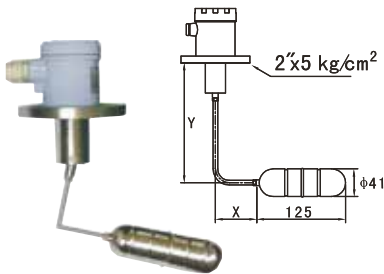
■ FLF-10FA



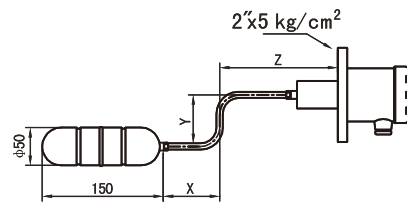
■ FLF-20SA



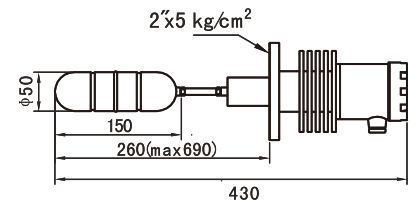
■ FLF-30FA



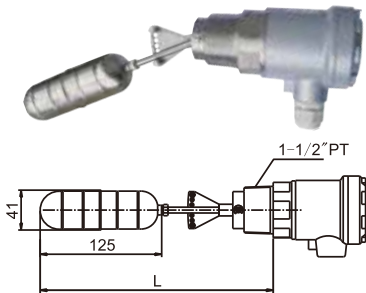
■ FLF-40FA



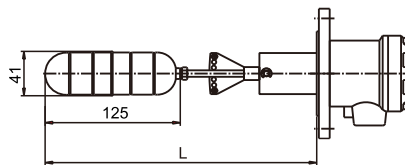
■ FLF-55FA



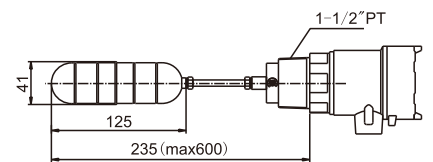
■ FLF-60SA



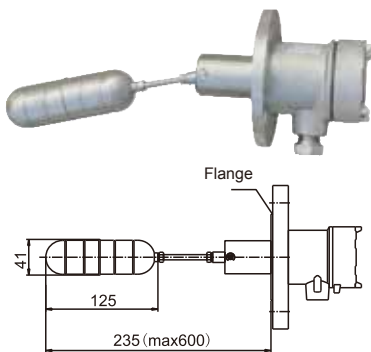
■ FLF-60FA



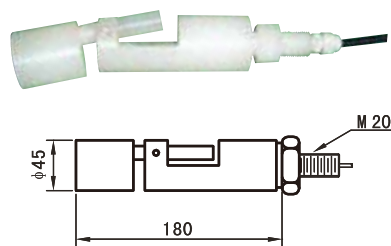
■ FLF-70SA



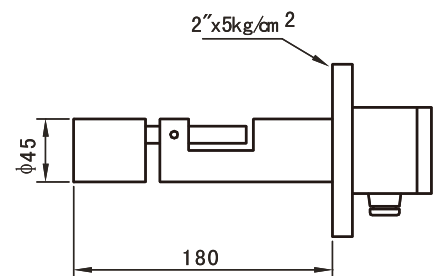
■ FLF-70FA



■ FLF-80SX



■ FLF-81FX



FLOATLESS CONTROLLER



61F-G

Automatic Water
Supply and
Drainage Control

Voltage	110VAC, 220VAC, 240VAC	Wiring Diagram
Operating temperature	-10 to 55°C	
Technical parameter	5A,250VAC (RESISTIVE LOAD)	
External dimension(mm)	79.5 × 84 × 127	



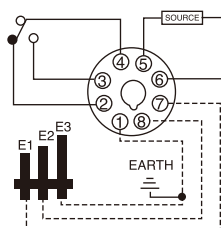
61F-G1

Automatic Water Supply
Control with Prevention
of Pump Idling

Voltage	110VAC, 220VAC, 240VAC	Wiring Diagram
Operating temperature	-10 to 55°C	
Technical parameter	5A,250VAC (RESISTIVE LOAD)	
External dimension (mm)	79.5 × 135 × 127	



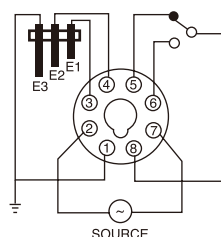
AFS-GR



Voltage	24...380VAC, 24VDC	Wiring Diagram
Contact	1C SPDT	
Operating temperature	-25 to 40°C	
Technical parameter	Out put DC12V DC24V Amps DC15mA	
External dimension (mm)	40 × 50 × 58	



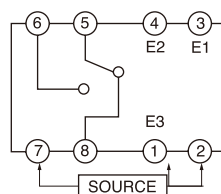
61F-GP



Voltage	24...380VAC, 24VDC	Wiring Diagram
Contact	1C SPDT	
Operating temperature	-25 to 40°C	
Technical parameter	Out put DC12V DC24V Amps DC15mA	
External dimension (mm)	40 × 50 × 70	



AFR-1



Voltage	24...380VAC, 24VDC	Wiring Diagram
Contact	1C SPDT	
Operating temperature	-25 to 40°C	
Technical parameter	Out put DC12V DC24V Amps DC15mA	
External dimension (mm)	49 × 80 × 79	



AQUA-10 series CABLE FLOAT LEVEL SWITCH

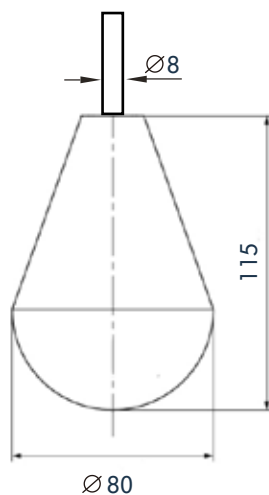
The **AQUA-10** series Cable Float Switches is a mechanically actuated floating switch intended to activate electrical components, designed for the automation of pumps, pumps, specifically filling and draining of tanks, wells, and reservoirs, cheap price and long lifetime.

It can be regulated freely and easy to operate, convenient to install, safe and reliable, without maintenance, non-toxic and environment friendly.

APPLICATION

It can resist sewage so that widely used in pool in resident, factories and mines ect., and ponds, barrel, manger and pot with oil, acid and alkali as well as the vessel with high viscosity and suspended substance.

FLOAT SIZE



WORKING PRINCIPLE



TECHNICAL FEATURE

ITEM	BASIC PARAMETERS
Switch type	Micro / mercury switch (for 10 degree)
Current, Voltage	3A 250VAC
Switching angle	10, 15, 45, 80 °
Operation pressure	2kgf/cm ² (under water to 20 m)
Operation temperature	-30 +60 °C
Float housing	ABS
Size of float	Height 115mm, Ø80
Switching ball	300 g
Material of cable	Neoprene
Feature of cable	2 cond..x 0.5mm ² / 3 cond. X 0.5mm ²
Cable length	2, 3, 4, 5, 10m and others
Mechanical working life	50 million times, min.
Protection class	IP68

WIRING DIAGRAM

