Magnetic float switch
For horizontal installation, miniature design
Model HLS-M

Applications

- For level monitoring and level indication of liquids
- Level measurement for almost all liquid media
- Pump and level control
- Alarm signals
- Dry-run and overflow protection

Special features

- Lateral installation in the tank
- Plastic and stainless steel versions
- Space-saving installation
- Switch consists of only one component

Fig. top: Plastic version, for installation from inside, cable outlet
Fig. bottom: Stainless steel version, for installation from outside, cable outlet

Description

With its compact design, the model HLS-M magnetic float switch for horizontal installation in miniature design is ideally suited for use in small tanks, for indicating minimum/maximum levels.

The float is attached to a supported, swivelling lever and moves with the level of the medium being measured. By means of a permanent magnet, when a preset switch point is reached, a reed contact (inert gas contact) is actuated.

By using a magnet and reed contact the switching operation is non-contact, free from wear and needs no power supply. The contacts are potential-free.

The switching function refers to a rising liquid level: Standard use as normally open contact (can be used as normally closed contact by a 180° rotation).

The magnetic float switch is simple to mount and maintenance-free, so the costs of mounting, commissioning and operation are low.

The following five magnetic float switches are available:

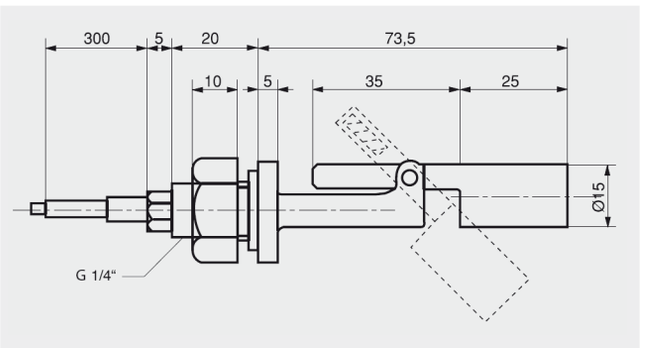
Float switch model	Design	Installation	Electrical connection
HLS-M11	Plastic	from inside	Cable
HLS-M12	Plastic	from outside	Cable
HLS-M21	Stainless steel	from inside	Cable
HLS-M22	Stainless steel	from outside	Cable
HLS-M23	Stainless steel	from outside	Connector

Data sheets showing similar products:
Magnetic float switch, vertical installation; model FLS; see data sheet LM 30.01
Magnetic float switch, horizontal installation; model HLS; see data sheet LM 30.02

Plastic version, for installation from inside, cable outlet, model HLS-M11

Specifications	
Switching power	
Normally open contact (can be used as normally closed contact by a 180° rotation)	AC 50 V; 25 VA; 0.5 A DC 50 V; 25 W; 0.5 A **Attention:** Operation only at safety extra-low voltage, e.g. with contact protection relay
Mounting position	horizontal
Medium density	≥ 800 kg/m³
Medium temperature	-10 … +80 °C
Ingress protection	IP 65
Max. operating pressure	1 bar
Material	Polypropylene
Process connection	Male thread G 1/4"
Mounting	for installation in the tank from inside
Float	Outer diameter 15 mm Length 25 mm
Electrical connection	
Cable connection	PVC wires, 2 x 0.5 mm² Cable length: 0.3 m

Dimensions in mm

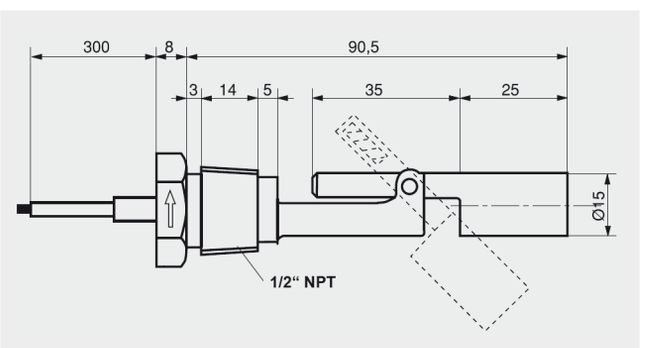


Order no.: 117612

Plastic version, for installation from outside, cable outlet, model HLS-M12

Specifications	
Switching power	
Normally open contact (can be used as normally closed contact by a 180° rotation)	AC 50 V; 25 VA; 0.5 A DC 50 V; 25 W; 0.5 A **Attention:** Operation only at safety extra-low voltage, e.g. with contact protection relay
Mounting position	horizontal
Medium density	≥ 800 kg/m³
Medium temperature	-10 … +80 °C
Ingress protection	IP 65
Max. operating pressure	1 bar
Material	Polypropylene
Process connection	Male thread 1/2" NPT
Mounting	for installation in the tank from outside
Float	Outer diameter 15 mm Length 25 mm
Electrical connection	
Cable connection	PVC wires, 2 x 0.5 mm² Cable length: 0.3 m

Dimensions in mm

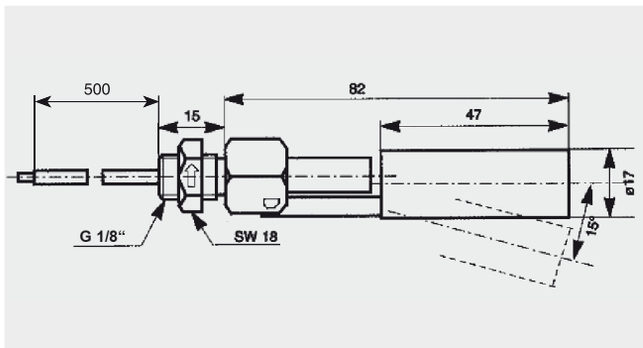


Order no.: 118329

Stainless steel version, for installation from inside, cable outlet, model HLS-M21

Specifications	
Switching power	
Normally open contact (can be used as normally closed contact by a 180° rotation)	AC 50 V; 25 VA; 0.5 A DC 50 V; 25 W; 0.5 A **Attention:** Operation only at safety extra-low voltage, e.g. with contact protection relay
Mounting position	horizontal
Medium density	≥ 800 kg/m³
Medium temperature	-40 … +120 °C
Ingress protection	IP 65
Max. operating pressure	5 bar
Material	Stainless steel 1.4301
Process connection	Male thread G 1/8"
Mounting	for installation in the tank from inside
Float	Outer diameter 17 mm Length 47 mm
Electrical connection	
Cable connection	PVC wires, 2 x 0.5 mm² Cable length: 0.5 m

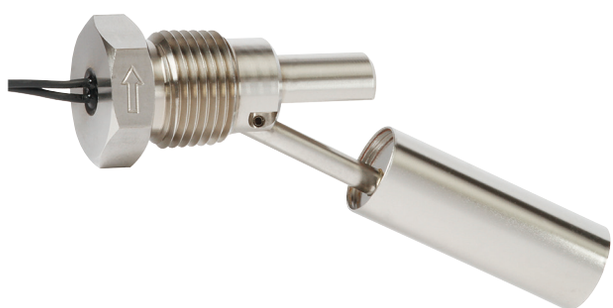
Dimensions in mm



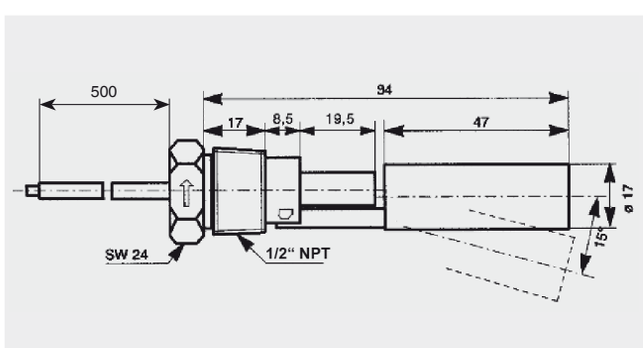
Order no.: 118330

Stainless steel version, for installation from outside, cable outlet, model HLS-M22

Specifications	
Switching power	
Normally open contact (can be used as normally closed contact by a 180° rotation)	AC 50 V; 25 VA; 0.5 A DC 50 V; 25 W; 0.5 A **Attention:** Operation only at safety extra-low voltage, e.g. with contact protection relay
Mounting position	horizontal
Medium density	≥ 800 kg/m³
Medium temperature	-40 … +120 °C
Ingress protection	IP 65
Max. operating pressure	5 bar
Material	Stainless steel 1.4301
Process connection	Male thread 1/2" NPT
Mounting	for installation in the tank from outside
Float	Outer diameter 17 mm Length 47 mm
Electrical connection	
Cable connection	PVC wires, 2 x 0.5 mm² Cable length: 0.5 m



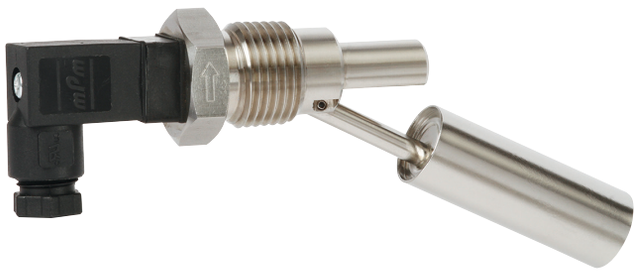
Dimensions in mm



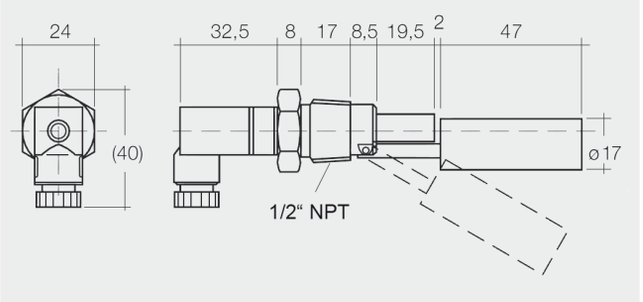
Order no.: 013955

Stainless steel version, for installation from outside, plug connection, model HLS-M23

Specifications	
Switching power Normally open contact (can be used as normally closed contact by a 180° rotation)	AC 50 V; 25 VA; 0.5 A DC 50 V; 25 W; 0.5 A **Attention:** Operation only at safety extra-low voltage, e.g. with contact protection relay
Mounting position	horizontal
Medium density	≥ 800 kg/m³
Medium temperature	-40 … +120 °C
Ingress protection	IP 65
Max. operating pressure	5 bar
Material	Stainless steel 1.4301
Process connection	Male thread 1/2" NPT
Mounting	for installation in the tank from outside
Float	Outer diameter 17 mm Length 47 mm
Electrical connection Plug connection	Rectangular connector EN 175301-803, 2-pin



Dimensions in mm



Order no.: 118332

Options

- Other versions on request
- Other cable lengths on request

CE conformity

EMC directive
2004/108/EC, EN 61000-6-4 and EN 61000-6-2

Ordering information
To order the described product the order number is sufficient.

Alternatively:
Model / Material / Process connection / Electrical connection / Mounting / Pressure, temperature, density / Options

KSR KUEBLER Niveau-Messtechnik AG
Heinrich-Kuebler-Platz 1
69439 Zwingenberg/Germany
Tel. +49 6263 87-0
Fax +49 6263 8799
info@ksr-kuebler.com
www.ksr-kuebler.com

01/2015 EN