

Float switch

For horizontal installation, miniature design

Model HLS-M

KSR data sheet LM 30.06

Applications

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

Special features

- Lateral installation in the tank
- Operating limits:
 - Operating temperature: $T = -40 \dots +120 \text{ }^\circ\text{C}$
 - Operating pressure: $P = 5 \text{ bar}$
 - Limit density: $\rho \geq 800 \text{ kg/m}^3$
- Plastic and stainless steel versions
- Space-saving installation
- Switch consists of only one component



Fig. top: Plastic version, model HLS-M11

Fig. bottom: Stainless steel version, model HLS-M22

Description

With its compact design, the model HLS-M 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 float switch is simple to mount and maintenance-free, so the costs of mounting, commissioning and operation are low.

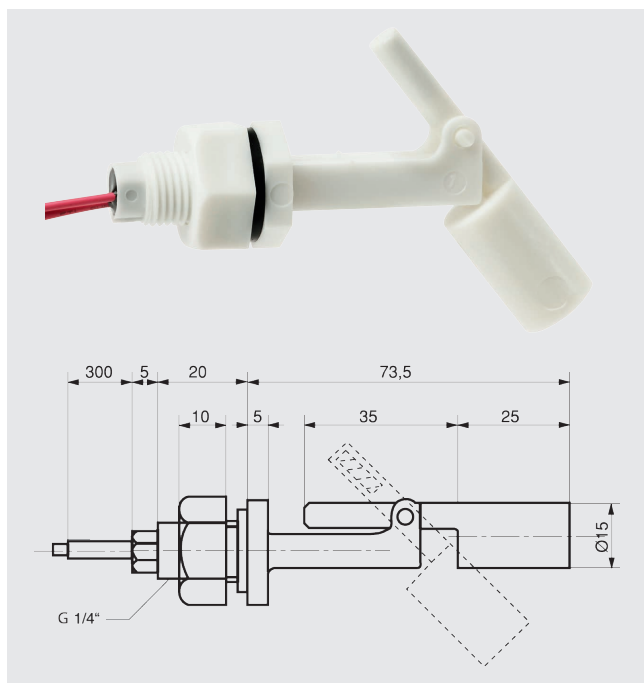
Model overview

Float switch model	Description	Installation	Electrical connection
HLS-M11	Plastic version	From inside	Cable
HLS-M12	Plastic version	From outside	Cable
HLS-M21	Stainless steel version	From inside	Cable
HLS-M22	Stainless steel version	From outside	Cable
HSL-M23	Stainless steel version	From outside	Connector

Approvals

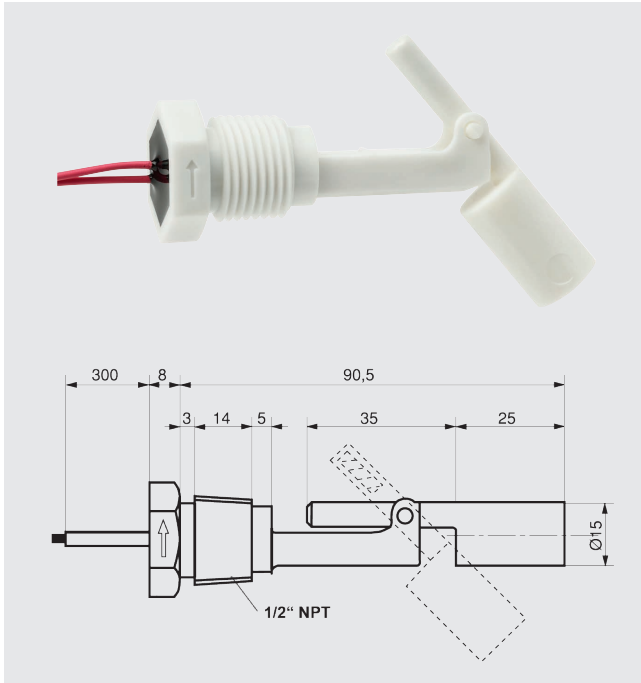
Logo	Description	Country
CE	EU declaration of conformity RoHS directive	European Union

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



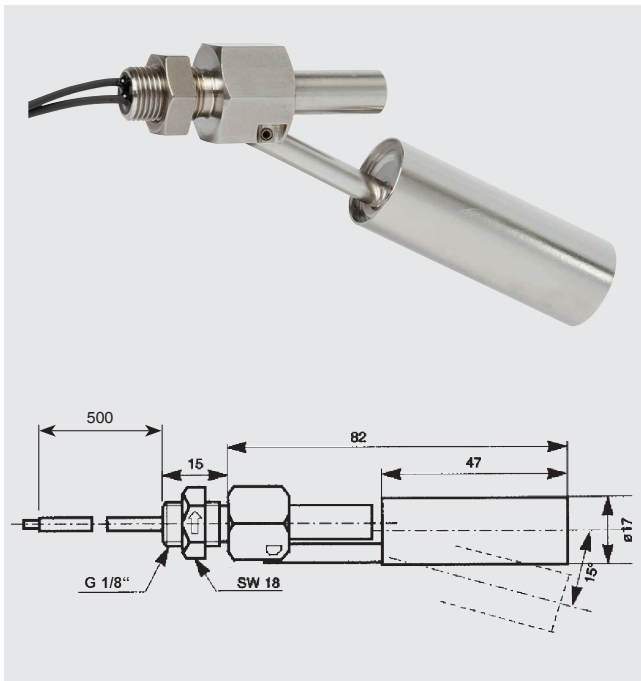
Specification	
Switching power	< AC 25 V; 25 VA; 0.5 A < DC 60 V; 25 W; 0.5 A
Normally open contact (can be used as normally closed contact by a 180° rotation)	Attention: Operation only at safety extra-low voltage, e.g. with contact protection relay
Mounting position	Horizontal
Limit density	≥ 800 kg/m ³
Medium temperature	-10 ... +80 °C
Ingress protection	IP65
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 stranded wires, 2 x 0.5 mm ² Cable length 0.3 m
Order number	117612

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



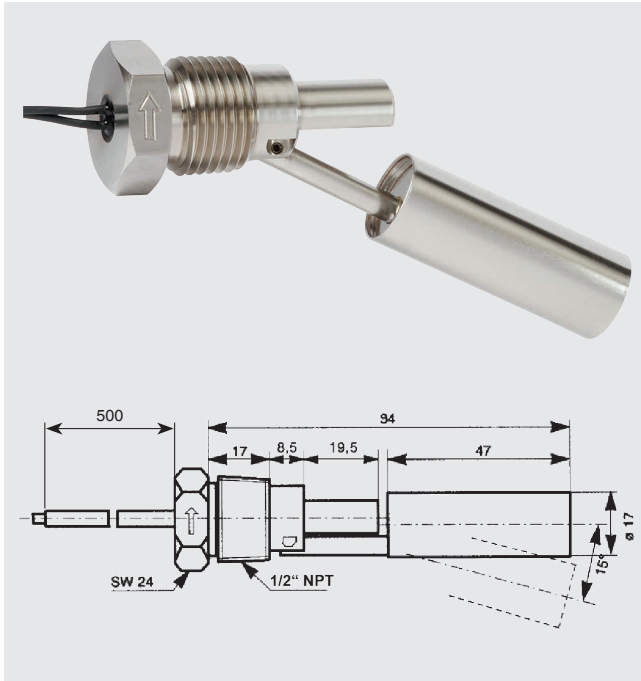
Specification	
Switching power Normally open contact (can be used as normally closed contact by a 180° rotation)	< AC 25 V; 25 VA; 0.5 A < DC 60 V; 25 W; 0.5 A Attention: Operation only at safety extra-low voltage, e.g. with contact protection relay
Mounting position	Horizontal
Limit density	≥ 800 kg/m ³
Medium temperature	-10 ... +80 °C
Ingress protection	IP65
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 stranded wires, 2 x 0.5 mm ² Cable length 0.3 m
Order number	118329

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



Specification	
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 75 V; 25 W; 0.5 A Attention: Operation only at safety extra-low voltage, e.g. with contact protection relay
Mounting position	Horizontal
Limit density	≥ 800 kg/m ³
Medium temperature	-40 ... +120 °C
Ingress protection	IP65
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 stranded wires, 2 x 0.5 mm ² Cable length 0.5 m
Order number	118330

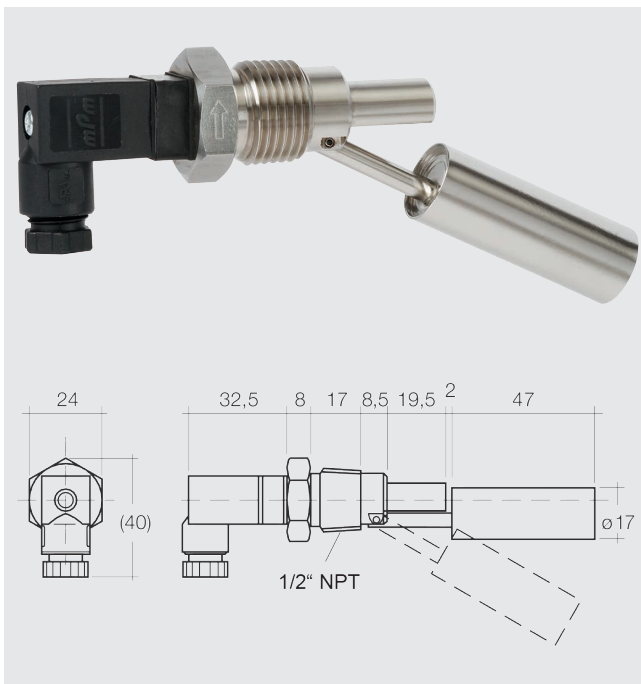
Stainless steel version, for installation from outside, cable outlet
Model HLS-M22



Specification	
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 75 V; 25 W; 0.5 A Attention: Operation only at safety extra-low voltage, e.g. with contact protection relay
Mounting position	Horizontal
Limit density	≥ 800 kg/m ³
Medium temperature	-40 ... +120 °C
Ingress protection	IP65
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 stranded wires, 2 x 0.5 mm ² Cable length 0.5 m
Order number	013955

Special version HLS-M22H for temperature range -40 ... +180 °C on request

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



Specification	
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 75 V; 25 W; 0.5 A Attention: Operation only at safety extra-low voltage, e.g. with contact protection relay
Mounting position	Horizontal
Limit density	≥ 800 kg/m ³
Medium temperature	-40 ... +120 °C
Ingress protection	IP65
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 per EN 175301-803, 2-pin
Order number	118332

Ordering information

To order the described product the order number is sufficient.

Alternatively:

Model / Material / Process connection / Electrical connection / Cable length / Mounting / Pressure, temperature, density / Options

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D-Ex Instruments, s.r.o.
Optátova 708/37
637 00 Brno/Czech Republic
Mob. +420 775 757 225
Tel. +420 541 423 225
ksr@dex.cz
www.dex.cz/ksr



D-Ex Instruments, s.r.o.
Pražská 3222/1
811 04 Bratislava/Slovakia
Mob. +420 775 757 225
Tel. +421 2 5729 7421
info@dex.sk
www.dex.sk/ksr



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