# Magnetic Level Switches
## for Liquids



## KIT-S1

- Switch points: max. 4
- $p_{max}$: 50 bar; $t_{max}$: 180 °C
- Connection:
  Gas parallel, Gas conical, NPT
- Material:
  Stainless steel, brass, PVC, PP, PVDF
- ATEX-Certification



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## Design

## Description

Magnetic level switches are used for the monitoring and control of liquid levels in vessels. Magnetic level switches are manufactured to customer specification.

An overview of types available with minimum lengths of guide tube is set out on the following pages. Please refer to this overview when placing your order. Furthermore, any limits can be specified within the limits found in the brochure.

For example:

- Longer guidetube
- Longer connection cable
- Different cable materials
- Different materials

## Method of Operation

Kobold magnetic float switches are fitted with a hermetically sealed contact which is situated in the tube.

The float sliding on the tube contains a ring magnet whose magnetic field switches the sealed contact in a non-contacting fashion. The sealed contacts are available as N/O, N/C or changeover contacts.

The float sliding up and down on the liquid is the only moving part in the Kobold magnetic float switches.

## Advantages

- Simple installation
- Long electrical service life due to sealed contacts
- High-degree of operational reliability with air gap between guide tube and floats
- Installation in top or bottom of vessel
- Open/close function or changeover contact available

**Model KIT-S1**

**Guide tube and process connection material**
**S** = stainless steel 1.4401
**O** = brass
**V** = PVC
**F** = PVDF

**Process connection size**
**06** = 1/8”
**08** = 1/4”
**10** = 3/8"

**Process connection thread**
**G** = Gas parallel (UNI 228/1)
**C** = Gas conical (UNI7/1)*
**N** = Conical NPT*
*on request

**Contact operation* (separately wired)**
**I1** = N/O contact,
**I2** = N/C contact
**I3** = changeover contact

**Contact types**
**3** = SPST, (300-350 $V_{AC/DC}$ / 0.5-0.7 A / 70 VA)
**4** = SPST, (250 $V_{AC/DC}$ / 1.3 A / 80 VA)
**7** = changeover contact, (230 $V_{AC/DC}$ / 1 A / 60 VA)
**7D** = changeover contact, (150 $V_{AC/DC}$ / 0.5 A / 20 VA)

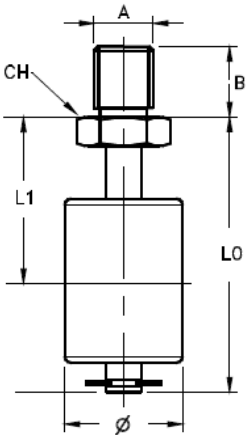
**Electr. connection**
**C1** = 1.5 m PVC-cable
**C2** = 3 m PVC-cable
**YY** = special length and type

**ATEX**
Available on request

### *Please note:

Contact operation refers to a no-level condition. The position of the contact, measured from the sealing edge of the connection screwing, must also be specified.

Guide tube length is designated as L0 (see dimensional drawings)







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## Float designs

| Model | Form | Materials | Float outside Ø [mm] | Contact type | Guide tube material* | S.G. | Process connect. type | Max. temperature | Nominal pressure at 20 °C |
|---|---|---|---|---|---|---|---|---|---|
| B20 | Cylinder | SPANSIL | 30 | 3, 7D | Nickel Plated Brass | > 0.4 | 06 | **L**=105 °C | 20 bar |
| B28 | Cylinder | SPANSIL | 20 | 3 | Brass | > 0.4 | 06 | **L**=105 °C | 20 bar |
| B44 | Cylinder | SPANSIL | 44 | 4, 7 | Brass | > 0.45 | 08 | **L**=105 °C | 20 bar |
| B45 | Cylinder | SPANSIL | 30 | 4, 7 | Nickel Plated Brass | > 0.35 | 06 | **L**=105 °C | 20 bar |
| F25 | Cylinder | PVDF | 25 | 3 | PVDF | > 0.65 | 06 | **N**=130 °C | 6 bar |
| P20 | Cylinder | PP | 20 | 3 | PVC | > 0.5 | 06 | **D**=90 °C | 3 bar |
| V49 | Cylinder | PVC | 49 | 4, 7 | PVC | > 0.7 | 10 | **B**=60 °C | 6 bar |
| F49 | Cylinder | PVDF | 49 | 4, 7 | PVDF | > 0.8 | 10 | **N**=130 °C | 6 bar |
| S28 | Cylinder | Stainless steel 1.4401 | 28 | 3, 7D | Stainless steel 1.4401 | > 0.8 | 06 | **L**=105 °C | 10 bar |
| S29 | Cylinder | Stainless steel 1.4401 | 30 | 3, 7D | Stainless steel 1.4401 | > 0.75 | 06 | **L**=105 °C | 30 bar |
| S41 | Cylinder | Stainless steel 1.4401 | 41 | 4, 7 | Stainless steel 1.4401 | > 0.65 | 08 | **L**=105 °C | 10 bar |
| S52 | Ball | Stainless steel 1.4401 | 52 | 4, 7 | Stainless steel 1.4401 | > 0.7 | 08 | **L**=105 °C | 50 bar |
| S100 | Ball | Stainless steel 1.4401 | 100 | 7 | Stainless steel 1.4401 | > 0.6 | 10 | **L**=105 °C | 15 bar |

*Other materials on request.

Mounting instructions
Float switches can also be fitted in the bottom of vessels.
*Important: The contact operation is then reversed.*

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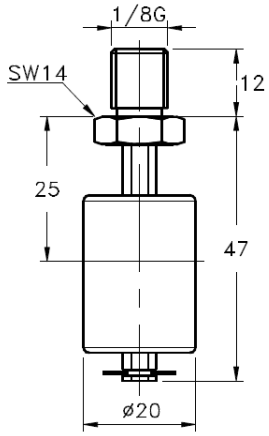
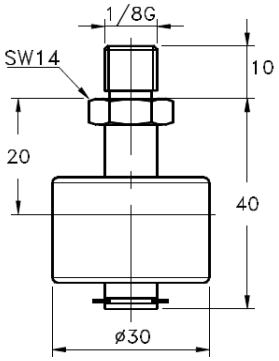
### Spansil series

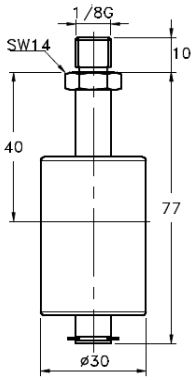
Dimensions [mm]



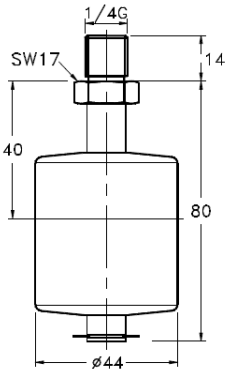

**B28**




**B20**

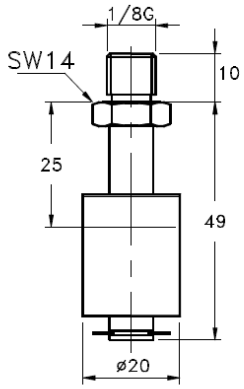



**B45**

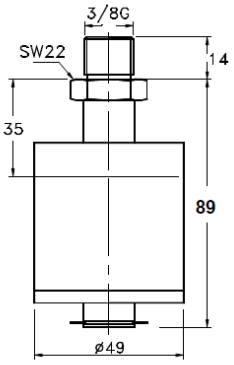



**B44**

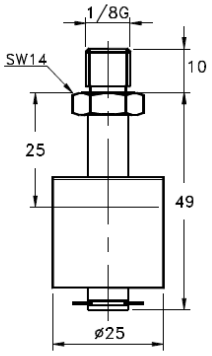
### Plastic series



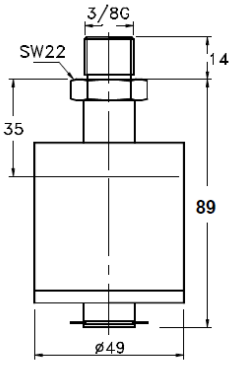

**P20**




**V49**

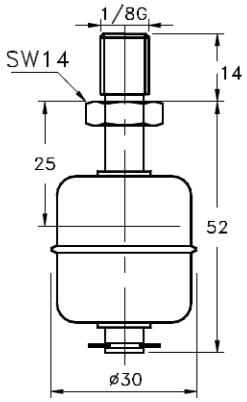



**F25**

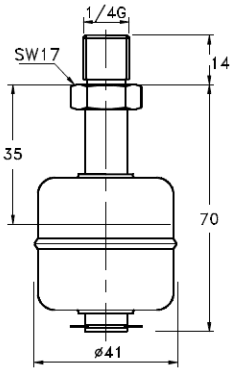



**F49**

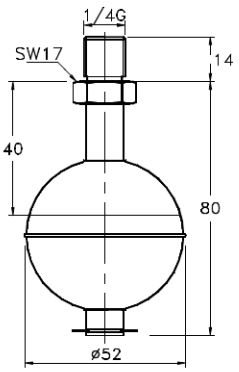
### Stainless Steel series



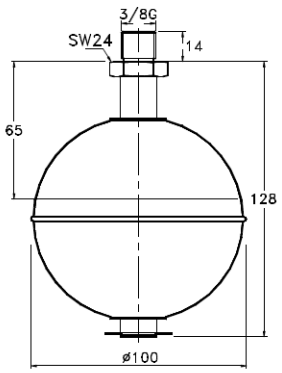

**S29**
**S28** (Ø28)




**S41**




**S52**




**S100**