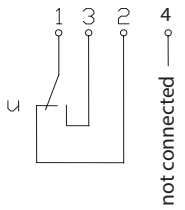
# Float switch

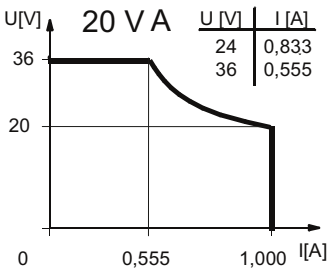
## Series Miniature-Float switch

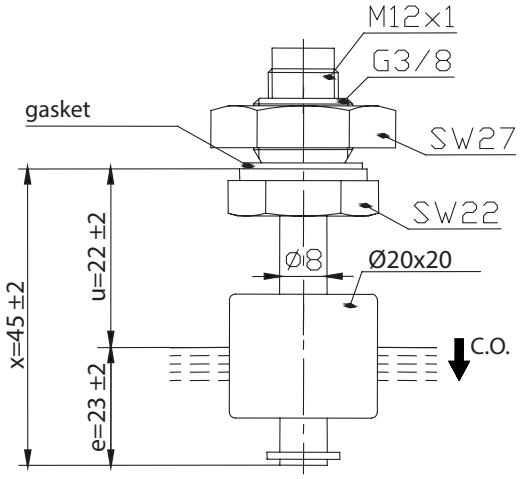
| Description **MSK3-MS-R3/8ST-U 0045** | Article number **6895237002** |
|---|---|

**Wiring diagram**
(non-actuated state)




**Performance diagram**




**Characteristic features in accordance with EN 60947-5-1**

| **Electrical data** | | |
|---|---|---|
| Operational voltage range | $U_B$ | 10 - 36 V |
| max. switching current | | 1,0 A |
| max. switching capacity | | 20 VA |
| mechanical life | | $10^7$ to $10^9$ switches depending on the load |
| Switching element | | 1 C.O., falling level |
| Protection class | | III |

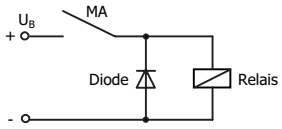
| **Mechanical data** | |
|---|---|
| Bolting material | CuZn39Pb3 (CW614N) |
| Hexagon nut material | CuZn39Pb3 (CW614N) |
| Switching tube material | CuZn37 (CW508L) |
| Float material<br>- density<br>- depth of immersion | NBR<br>about 0,75 g/cm³ ±10 %<br>15 mm ± 2 mm ( to a fluid-density of 1 g/cm³ ) |
| Grip screw material | CuSn8 (CW453K) |
| Gasket material | NBR |
| Ambient air temperature | -5 °C to +60 °C |
| Liquid temperature | -5 °C to +60 °C |
| Connection | Plug-connector M12 x 1 (1, 2 and 3 connected) |
| Protection type | IP 65 acc to IEC529 / EN 60529 |
| Max. pressure | 5 bar |

## General details

Repeatability of switching points is ±0,05 mm based on the same geometrical conditions as of a switch device.
The measures of the switching points refer to a fluid-density of 1 g/cm³.
The tolerance of the switching points is ±2 mm
Pay attention to the contact protection, when switching inductive or capacitive loads. Maximum data must not be exceeded!

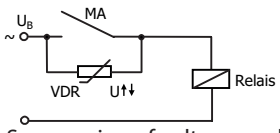
## Inductive loads

Direct current

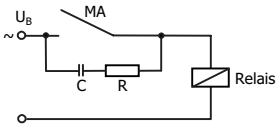



Suppression of voltage peaks with a free-wheeling diode

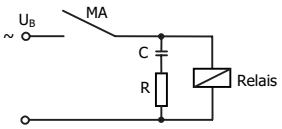
Alternating voltage



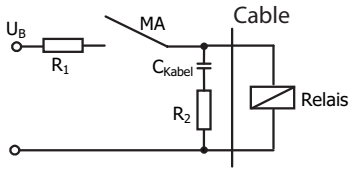

Suppression of voltage peaks with a VDR

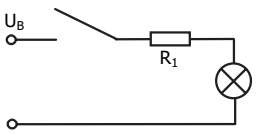


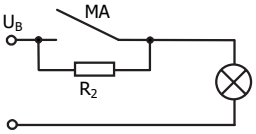

Suppression of voltage peaks with an RC element




## Capacitive loads and lamp loads




Contact protection with resistors for limiting current