# **Technical Data**

# Float Switch

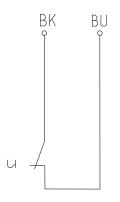


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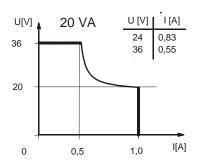
### Mini level float switches

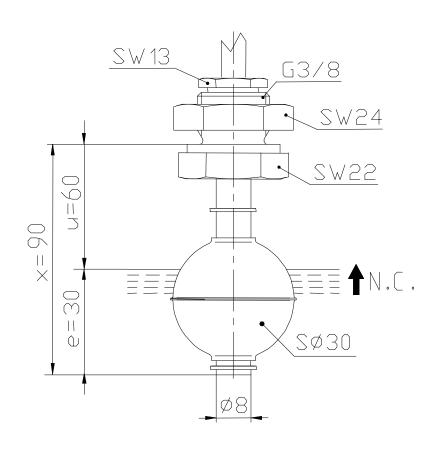
Description MSN1-NI-R3/8-O 0090 Article number

Wiring diagram (non activated condition)



## Performance diagram





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

| Electrical data           |                |   |
|---------------------------|----------------|---|
| Operational voltage range | U <sub>B</sub> | 10 - 36 V   |
| max. switching current    |                | 1,0 A   |
| max. switching capacity   |                | 20 VA   |
| mechanical life           |                | 10 <sup>7</sup> to 10 <sup>9</sup> switches depending on the load |
| Switching element         |                | 1 x normally-closed contact, rising level                         |
| Protection class          |                | III   |

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## Float Switch



| Mechanical data                |   |
|--------------------------------|---|
| Screw connection material Pg7  | X8CrNiS18-9 (1.4305)                                      |
| Screw connection material G3/8 | X6CrNiMoTi17-12-2 (1.4571)                                |
| Hexagon nut material           | X8CrNiS18-9 (1.4305)                                      |
| Switching tube material        | X6CrNiMoTi17-12-2 (1.4571)                                |
| Float material                 | X6CrNiMoTi17-12-2 (1.4571)                                |
| -density                       | about 0,65 g/cm³ ±10%                                     |
| -depth of immersion            | 18 mm ±2 mm ( to a fluid-density of 1 g/cm <sup>3</sup> ) |
| Adjusting ring material        | X39CrMo17-1 (1.4122)                                      |
| Gasket material                | NBR   |
| Ambient air temperature        | -5°C to +100°C  |
| Liquid temperature             | -5°C to +100°C  |
| Connection                     | Cable 2x0,5 mm <sup>2</sup> x 2m ± 5 %, Silicon           |
| Protection type                | IP 65 acc to IEC529 / EN 60529                            |
| Max. pressure                  | 5 bar   |

### **General details**

Repeatability of switching points is  $\pm 0.05$ mm based on the same geometrical conditions as of a switch device.

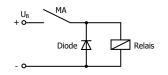
The measures of the switching points refer to a fluid-density of 1 g/cm<sup>3</sup>.

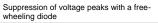
The tolerance of the switching points is  $\pm 2\text{mm}$ 

Pay attention to the contact protection, when switching inductive or capacitive loads. Maximum data must not be exceeded!

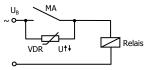
#### **Inductive loads**



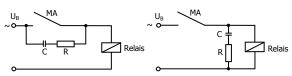




### Alternating voltage

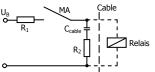


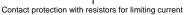
Suppression of voltage peaks with a VDR

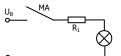


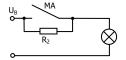
Suppression of voltage peaks with an RC element

### Capacitive loads and lamp loads









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