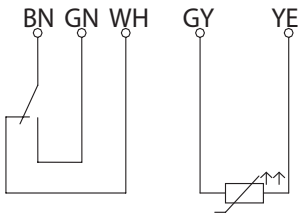
Float switch

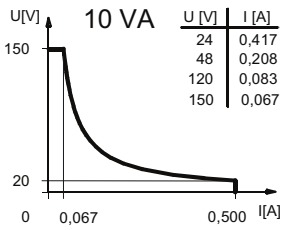
Series Miniature-Float switch

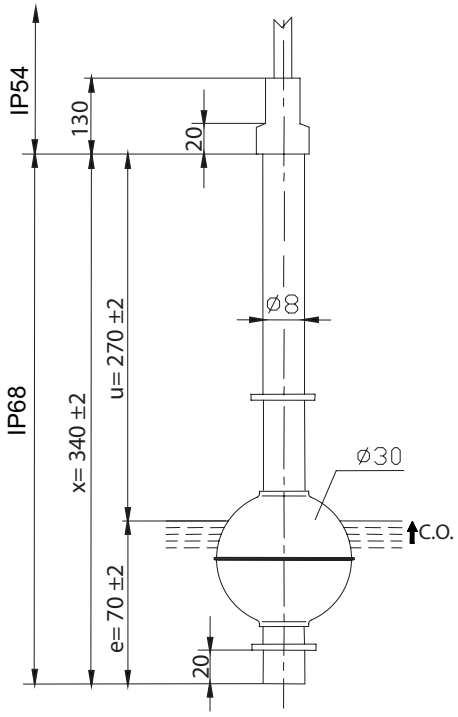
Description **MSN1-NI-OV-U-PT100 0340** Article number **6891170004**

Wiring diagram
(non-actuated state)



Performance diagram





Electrical data	
Switching contact	
max. switching voltage	150 V
max. switching current	0,5 A
max. switching capacity	10 VA
mechanical life	10^7 to 10^9 switches
Switching element	1 C.O., rising level
Temperature sensor	
Type	PT100
measuring current	commend 1,0 mA
max. Strom	7 mA
Temperature coefficient	α= 3,85 x 10-3 °C-1 (between 0 °C and 100° C)
Tolerance	Temperature validity range Class B : -20 °C ... +150 °C
Long-term stability	max. R_o-drift 0,05 % / year
Protection class	II (totally insulated)

Mechanical data	
Switching tube material	X6CrNiMoTi17-12-2 (1.4571)
Float material - density - depth of immersion	X6CrNiMoTi17-12-2 (1.4571) about 0,65 g/cm³ ±10 % 18 mm ± 2 mm (to a fluid-density of 1 g/cm³)
Grip screw material	X39CrMo17-1 (1.4122)
Ambient air temperature	-5 °C to +80 °C
Liquid temperature	-5 °C to +80 °C
Connection	Cable 5 x 0,25 mm² x 1 m ± 5 %, PUR
Protection type	IP 68 / IP 54 acc. to IEC529 / EN 60529
Max. pressure	10 bar

Standards
DIN EN 60947-5-1

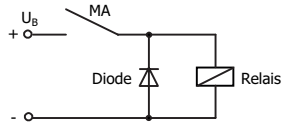
EU Conformity
acc. to directive 2014/35/EU (Low-Voltage-Directive)

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.
Operate only at safe voltage sources!
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!
For measurements with resistance thermometers kontruktiv or by measurement-related influences can affect the measuring result.

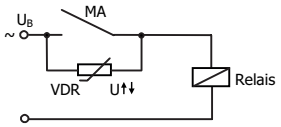
Inductive loads

Direct current

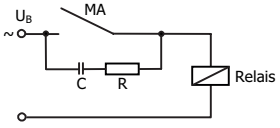


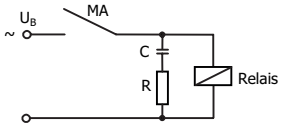
Suppression of voltage peaks with a free-wheeling diode

Alternating voltage



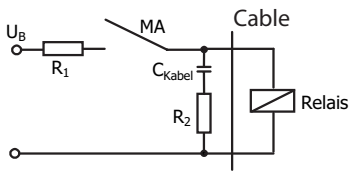
Suppression of voltage peaks with a VDR

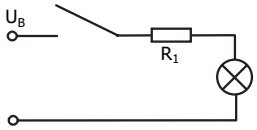


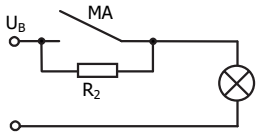


Suppression of voltage peaks with an RC element

Capacitive loads and lamp loads







Contact protection with resistors for limiting current