



## Level Switches



measuring  
•  
monitoring  
•  
analysing

NV



- $p_{\max}$ : 16 bar;  $t_{\max}$ : 110°C
- Material:  
brass or stainless steel
- Connection:  
G 3/4, M 27 x 1.5



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NV

**Description**

The KOBOLD level switch model NV is a reasonably-priced compact instrument for monitoring levels. A stainless steel cylindrical float attached to one end of a balance arm moves up and down with the liquid level.

The motion of the float is transferred to a permanent magnet fitted at the other end of the balance arm. The permanent magnet switches a reed contact that is fitted in a sliding tube outside the medium. The tube is set as a N/O contact at the factory, that is, the contact closes when the level rises. The switching function is reversed by moving the tube. The instruments are delivered in standard sleeves for side installation. PTFE tape is used to seal the switch.

**Technical Details**

Housing: NV-11...: brass, Ms 58  
 NV-12...: stainless steel, 1.4301

Connections: NV-11...: brass, Ms 58  
 NV-12...: stainless steel, 1.4301

Float: stainless steel, 1.4301

Leaf spring: stainless steel, 1.4310

Balance arm: stainless steel, 1.4310

Sleeve: NV-11...: brass, Ms 58  
 NV-12...: stainless steel, 1.4301

Contact tube: Polyamide

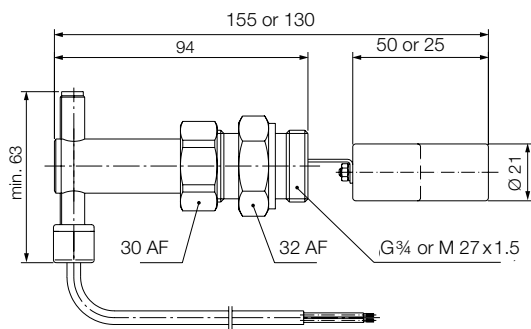
Seal: NV-11...: NBR  
 NV-12...: FPM

Max. temperature: 110 °C

Max. pressure: 16 bar

Installation position: horizontal

**Dimensions**



**Bistable reed contact**

- R** N/O contact / N/C contact Standard  
 max. 2 A, max. 230 V<sub>AC/DC</sub>,  
 max. 40 W, 40 VA
- U** Changeover contact Standard  
 max. 0.5 A, max. 150 V<sub>AC/DC</sub>,  
 max. 20 W, 20 VA
- C** N/O contact / N/C contact   
 2 A, 20 V<sub>AC</sub>, 0.18 A, 230 V<sub>AC</sub>,  
 max. 40 W
- D** Changeover contact   
 0.13 A, 150 V<sub>AC</sub>, 0.5 A, 40 V<sub>AC</sub>,  
 max. 20 W

Electrical connection: PVC cable

Contact resistance: max. 80 mΩ

Closing point: max. 6 mm (above centre line)

Opening point: max. 3 mm (below centre line)

Switching hysteresis: approx. 8 mm

Density: >0.8 kg/dm<sup>3</sup> ... 25 mm float  
 >0.7 kg/dm<sup>3</sup> ... 50 mm float

Protection: IP 65

**Re-adjusting the contact unit**

To re-adjust the contact unit the locking plate on the top part of the housing must be loosened and the contact unit moved. Blue (white) or red arrows are situated on the contact unit for re-adjustment purposes. The front edge of the locking plate serves as an adjustment mark.

- **N/O contact:**  
 Adjust the contact unit near the red arrow. The contact closes as the liquid level rises.
- **N/C contact:**  
 Adjust the contact unit near the blue (white) arrow. The contact opens as the liquid level rises.

**Applications**

- Heating boilers
- Car washes
- Cleaning machines

**Order Details (Example: NV-1101R1)**

Model	Material	Connection/length of float	Contact type	Cable type/length
NV-	11 = brass 12 = stainless steel	01 = G $\frac{3}{4}$ ; 25 mm 02 = M27 x 1.5; 25 mm 03 = G $\frac{3}{4}$ ; 50 mm 04 = M27 x 1.5; 50 mm	R = N/O contact (Standard CE) C = N/O contact (cCSAus) U = Changeover contact (Standard CE) D = Changeover contact (cCSAus)	<b>PVC cable</b> 1 = 1.5 m (Standard) 2 = 2.0 m <sup>1)</sup> 4 = 3.0 m <sup>1)</sup> 6 = 4.0 m <sup>1)</sup> 8 = 5.0 m <sup>1)</sup> P = PVC cable, special length <sup>2)</sup> S = Silicone cable <sup>2)3)</sup> G = yellow PUR cable <sup>2)3)</sup>

<sup>1)</sup> only for N/O contact "R" and "C"    <sup>2)</sup> length as described    <sup>3)</sup> only for N/O contact "R"