



## Ultrasonic Level Switches for Liquids



measuring  
•  
monitoring  
•  
analysing



- Pressure: max. 70 bar
- Temperature: max. 125 °C
- Connection: R 1
- Material: Stainless steel 1.4408
- Easy to install
- Self-cleaning



N1

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**Model:**  
NQ-1000

### Usage

The KOBOLD ultrasonic level switch NQ-1000 is a small and compact level sensor for service in vessels and piping for monitoring liquids.

The instrument monitors almost all homogeneous liquids regardless of viscosity, density and conductance.

Service in technological plants, where hitherto float switches have been used, but also in plants where only very little installation space is available.

(Immersion length 35 mm)

### Advantages

- Very short sensor (only 35 mm from end of thread)
- Freedom from interference by means of Low-frequency oscillations
- Compact design
- Two or three-wire connection
- No moving parts
- Can be installed in any position
- Insensitive to viscosity
- Indication of output state
- Selector switch, lower/upper limiter
- High temperature, 125 °C
- Pressure up to 70 bar
- Protection IP 67

### Technical Details

Housing:	Glass-fibre reinforced Nylon
Sensor:	St. steel 316 (app. 1.4408)
Process connection:	R 1 male thread
Power supply:	24 - 240 V <sub>AC/DC</sub> (50/60 Hz)
Electrical connection:	terminals, via M16 x 1.5
Switching hysteresis:	± 1 mm
Loading capacity:	0.5 A max.
Min. switching current:	7.5 mA
Max. peak load:	5 A for 40 ms max.
OFF-state leakage current:	< 4.5 mA continuous
Voltage drop:	4.5 V at 500 mA 10 V at 7.5 mA
Delays:	1 s wet/dry 150 ms dry/wet
Max. operating pressure:	70 bar at -40 °C...+50 °C, 52 bar at 125 °C
Operating temperature:	-40...+125 °C
Ambient temperature:	max. 50 °C at 125 °C medium temperature
Medium viscosity:	5000 mm <sup>2</sup> /s max. (at 25 °C)
Protection:	IP 65
Weight:	0.43 kg

### Design

The NQ-1000 comprises a compact plastic housing made of glass-fibre-reinforced nylon with electronics and a fork-shaped sensor.

The sensor is manufactured from stainless steel with R 1 threaded connection according to DIN 2999 and a fitting hexagon. To facilitate installation the housing can be rotated though 330° with respect to the sensor.

The sensor can be configured as a max. or min. contact for wet or dry with a selector switch for 'ON'. The output state is signalled with an LED.

### Connection

The NQ-1000 can be operated as a 2 or 3-wire connection.

#### Three-wire connection with clip-on block

24 V<sub>DC</sub>

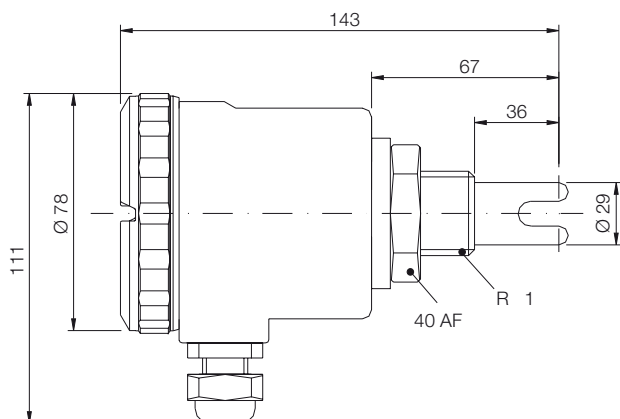
1	A	SPS/PLC
2	+	] 24 V <sub>DC</sub>
4	-	

#### Two-wire connection

24 - 240 V<sub>AC/DC</sub>

1	N	Load
2	L <sub>1</sub>	
3	⊥	

### Dimensions



### Order Details

Model	Description
NQ-1000	R 1, 2 or 3-wire