



Vibrating Level Switches for Bulk Goods



measuring
•
monitoring
•
analysing

NVI



- Pressure: max. 25 bar (6 bar cable version)
- Temperature: max. 160 °C
- Connection: G 1½ or NPT
- Material: stainless steel
- Easy to install
- Suited for universal use
- For density > 0.05 kg/l
- Self-cleaning



NVI

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Description

The KOBOLD NVI level switch is a mechanical system that is made to resonate by an electronic switching operation. When the probe is covered by a medium, the vibrations are damped. This change in the resonance frequency is converted to a switching signal by electronic means.

Applications

The combined vibrating switch can be used in powdery media and granular materials. The medium to be measured should have a density of at least 0.05 kg/dm³. The single rod design prevents deposit formation. The rod is self-cleaning, as the vibrations shake off the medium.

The combined vibrating switch is in successful service in the following applications:

- Plastics industry: powders and granular material
- Chemical industry: powders, pellets and crystals
- Foodstuffs: grain, maize, flour, animal feed
- Paper making: cellulose, wood chips
- Recycling: plastic granules, paper shavings
- Power stations: flue dust, lime, coal
- Stones and earth: coal, stone powder
- Building and construction industry: cement, sand, lime

Selection criteria

The system is set at the factory for a medium density of 0.3 kg/dm³. When the medium has a low density, the sensitivity can be set to this density with a DIP switch. The level switch is inserted in the medium to be monitored for this purpose.

Technical Data

Probe length: 207 mm (standard)
 pipe extended version: up to 3 m
 cable extended version, PE coated: up to 20 m

Process connection: G 1½ or 1½" NPT

Housing material: Aluminum, powder coated

Material for wetted parts: 1.4571 (AISI316Ti) for vibrating probe
 PE cover for cable

Sensor surface: bright

Medium temperature: -30 °C... +110 °C standard probe
 -30 °C... +80 °C (NVI-5)
 -30 °C... +160 °C high temperature

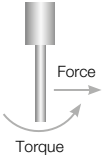
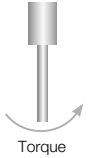
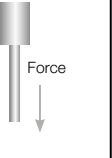
Ambient temperature: -30 °C... +60 °C

Maximum pressure: 25 bar (NVI-1/2/3/4)
 6 bar (NVI-5)

Minimum density of medium: 0.05 kg/l

Max. grain size: 10 mm

Max. load:

Version	Standard	Pipe extended	Cable extended
High limit switch	Side mounted	Top mounted	Top mounted
Low limit switch	Side or bottom mounted		
Loadability			
Force	500 N	-	45 kN
Torque	100 Nm	100 Nm	-

Switching delay (selectable):

< 1.8 s or 5 ± 1.5 s
 with covered rod
 < 2 s or 5 ± 1.5 s
 rod swings freely

Output: changeover contact 250 V_{AC}/8A

Power supply: 20 ... 255 V_{AC/DC}; ≤ 2.5 VA/2 W

Electrical connection: 2 x M20 x1,5

Protection: IP67

Weight: approx. 1.9 kg (NVI-1/2)
 approx. 3.3 kg (NVI-3/4)
 approx. 2.5 kg (NVI-5)

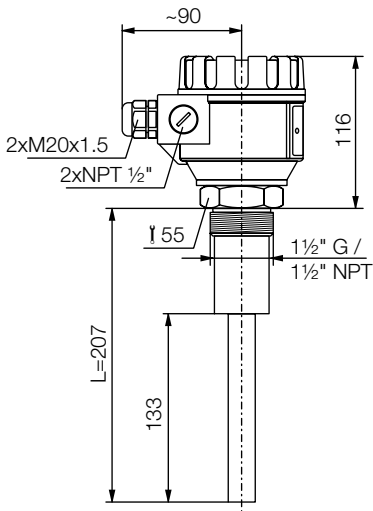
Order Details (Example: **NVI-1 305 R**)

Model	Version	Power supply	Connection
NVI-	1 = standard probe 2 = standard probe, high temperature	305 = 20...255 V _{AC/DC}	R = G 1½ N = 1½" NPT
	3* = pipe extended 4* = pipe extended, high temperature		
	5* = cable extended		

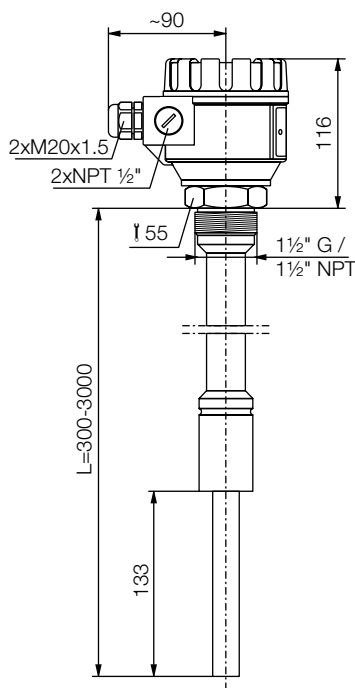
* Mention desired length in clear text (in mm)

Dimensions [mm]

Standard probe



Pipe extended probe



Cable extended probe

