

Vibrating fork level detector NIVOSWITCH



- Compact models for liquids
- 1 or 2 changeover contacts
- Continuous auto-diagnostic
- Unaffected by liquid properties
- Unaffected by turbulences

APPLICATIONS

NIVOSWITCH is used for level detection, overflow protection, leak detection or dry run protection of pumps. It is suitable for most liquids such as lime milk, solvents, oil, wine, etc.

DESCRIPTION

These detectors apply the principle of the tuning fork vibrating at a predetermined resonance under piezoelectric excitation. When in contact with the product, the frequency varies and causes the output relay to switch.

This simple and robust measurement system NIVOSWITCH, operates independently of the chemical and physical properties of the liquid. It works in difficult operating conditions as it is not affected by conductivity, clogging, turbulences, flows and air bubbles.

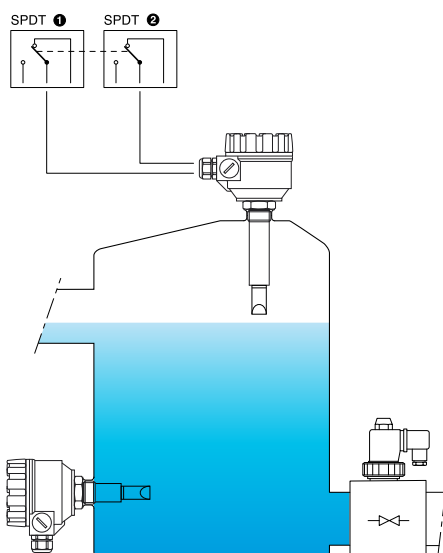
The sensor does not require any adjustment even with the change of liquid, or maintenance; It is supplied with one or two contact outputs.

TECHNICAL FEATURES

Fork length	From 69 mm up to 3,000 mm
Fork material	AISI 316 Ti (Option: PFA coating)
Fitting	BSP 1" (Option: NPT or Flange)
Liquid temperature limits	At 40 bar: -40 ... +100 °C At 25 bar: -40 ... 130 °C (ambient T° Max. 35 °C) At 6 bar with PP flange: -20 ... 50 °C
Ambient temperature limits	-30 ... 70 °C (liquid Max. at 95 °C) <i>Refer to the diagrams on page 2</i>
Liquid pressure	At 100 °C: 40 bar; At 130 °C: 25 bar
Liquid S.G.	≥ 0.7
Viscosity	≤ 10 000 mm ² /s (cSt)
Response time	<i>Refer to the diagram on page 2</i>
Power supply	20 ... 255 V AC or 20 ... 60 V DC
Consumption	AC: 1.2 - 17 VA; DC: < 3 W
Output	1 or 2 SPDT relays
Switching power	Relay Nr 1: 250 V AC, 8 A, AC1 Relay Nr 2: 250 V AC, 6 A, AC1
Head housing	Painted aluminum or plastic (PBT)
Electrical protection	Class I
IP protection	IP 67
Mass	About 1.3 kg; Extension: 1.2 kg/m

ATEX version on request Ex II 1 G Ex ia IIB T6...T4 Ga

EC Conformity: The instrument meets the legal requirements of the current European Directives



Examples of use

BAMO INTERNATIONAL

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Vibrating fork level detector
NIVOSWITCH

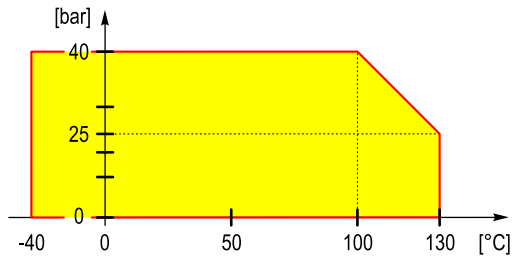
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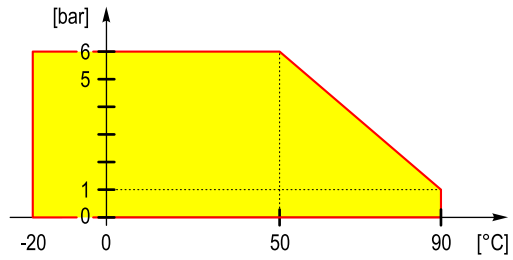
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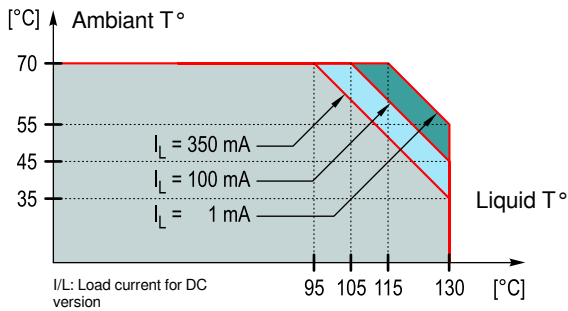
Pressure vs. Temperature: Standard version



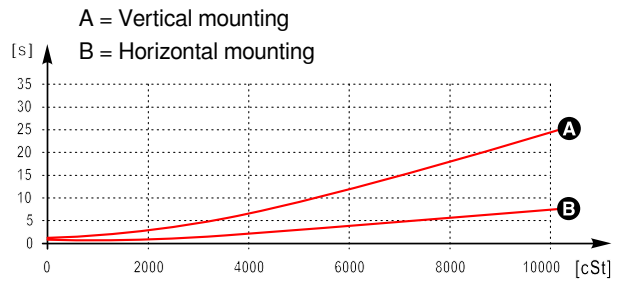
Pressure vs. Temperature: model with PP flange



Ambient temperature vs. Liquid temperature



Response time vs. Liquid viscosity

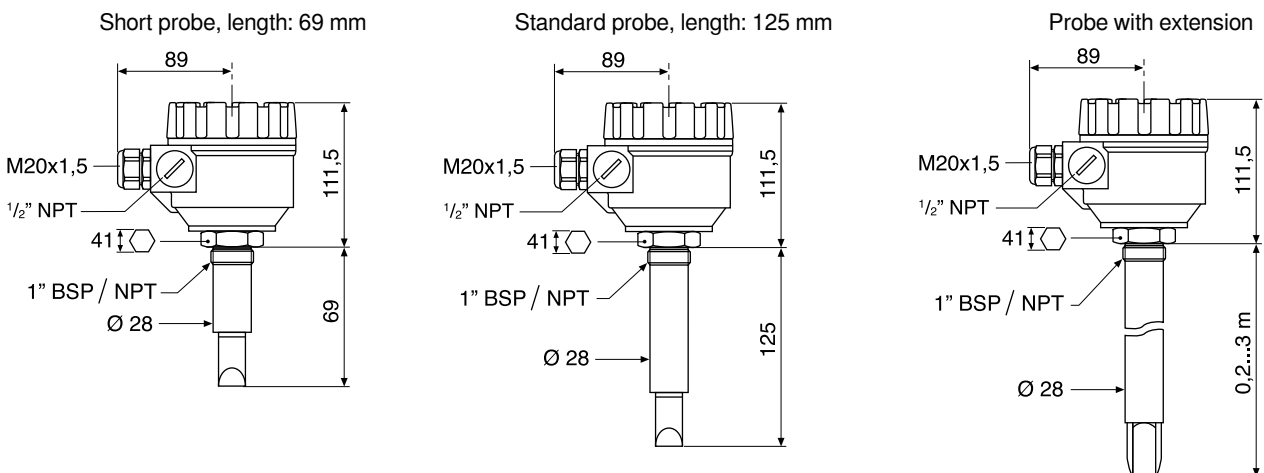


CODE NUMBERS AND REFERENCES

Code	Reference	Fork length	Fitting, BSP	Output
513 100	RFM-500-0	Short probe: 69 mm	1"	1 Relay
513 150	RFM-501-0	Standard probe: 125 mm	1"	1 Relay

Others on request

DIMENSIONS [mm]



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