

Description

Level Sensor NR 100 is designed to monitor liquids, granules, and powder. It is especially suitable for aggressive media and foodstuffs. Available as MIN or MAX monitor.

Features

- MIN or MAX sensor
- transistor output
- max. medium temperature +130 °C
- LED status indication
- sanitary probe

Ordering information

Type No.	
NR 100	Sanitary Level Sensor
Voltage rating	
DC 24 V	
Mounting method	
STD	for use with compression nut (to be ordered separately)
G1A	thread to DIN 13, part 6, ISO 228/1
1"NPT	thread to ANSI B1.20.1
Probe and fitting material	
B4	PTFE Teflon®
Function (factory preset)	
MIN	minimum sensor
MAX	maximum sensor
Cable (type LVCC, AWG16, 3x1,31 mm²)	
standard without cable	

NR 100 - DC24V - G1A - B4 - MAX ordering example

Mating connector supplied with the product.

Accessories

- 0Z121Z000034 compression nut (for STD), consisting of
- slotted nut
 - pressure spring
 - threaded bush

Options

AC voltage ratings and relay outputs:
only with power supply NG 03 (see page 149)



Technical data

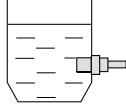
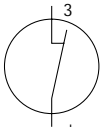

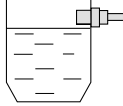
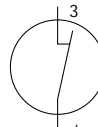

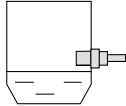
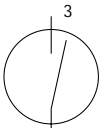

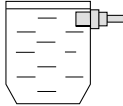
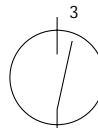



Input voltage	DC 24 V ± 25 % or with power supply NG 03
Power consumption	typically 30 mA
Output max. load	PNP transistor, high side switching, max. 0.3 A (0.5 A short-time) short-circuit and overload protected with free-wheeling diode
Voltage drop	approx. 2 V
Ambient temperature	-20 °C...+85 °C -4 °F...+185 °F)
Medium temperature	-20 °C...+130 °C (max. +150 °C short-time) -4 °F...+266 °F (max. +302 °F short-time)
Response delay	approx. 1 s
Degree of protection to IEC 529/DIN 40050	IP 65 housing (with mating connector)
Cable gland	PG 9 (for 6.5 ... 8 mm cable dia.)
Pressure resistance	2 bar/29.4 PSI, with PTFE *)
Connection	screw terminals max. 1.5 mm ²
Reverse polarity protection	built-in
Material	probe PTFE *) fitting PTFE *) housing PTFE *) connector PBTB gv
Material spec.	PTFE = teflon® Polytetrafluorethylene PBTP gv = Polybutylene terephthalate with glass fibre
Mounting method	see dimension diagram
Mounting attitude	optional
Cable length	standard without cable 300 m max. Observe voltage drop!
Switching point hysteresis (depending on medium viscosity)	horizontally mounted: 30 mm/32.5 mm max. (probe dia.)
Mass	approx. 180 g

*) Polyamide PA 12 to special order (pressure resistance 25 bar/367.5 PSI)

CE mark to demonstrate compliance with applicable directive.

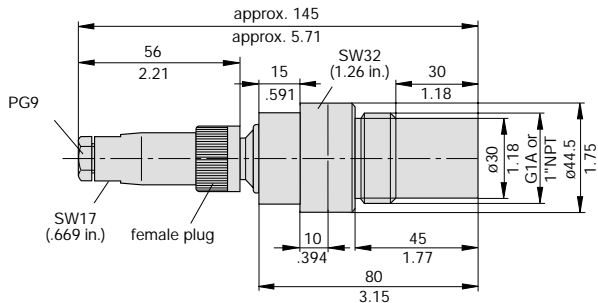
Status indication factory preset for MIN or MAX

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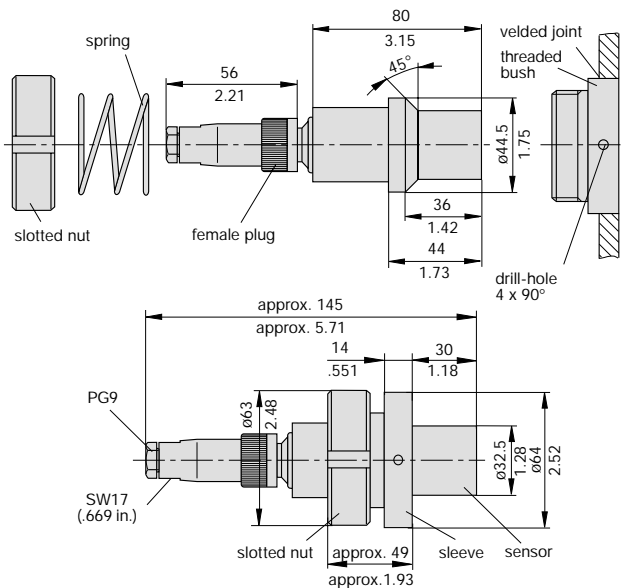
Minimum			Maximum		
medium level	transistor output	LED green	medium level	transistor output	LED green
					
					
short-circuit in the load circuit:					

Dimensions

G1A or 1"NPT

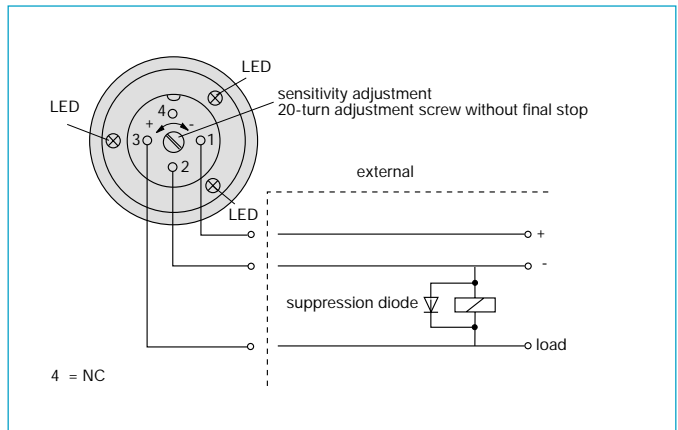


STD (with compression nut) 0Z121Z000034

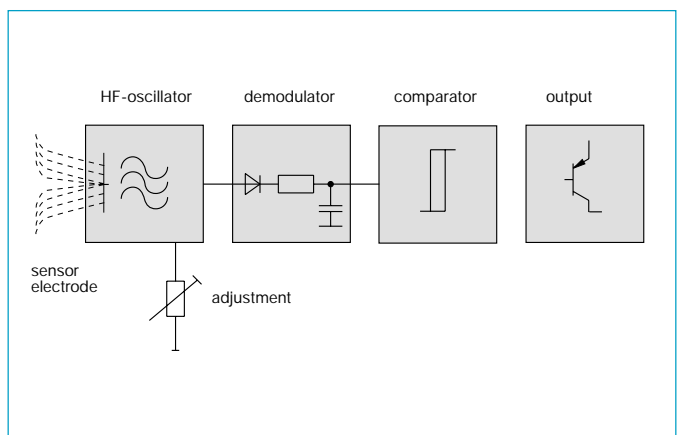


This is a metric design and millimeter dimensions take precedence ($\frac{\text{mm}}{\text{inch}}$)

Connection diagram



Schematic diagram



All dimensions without tolerances are for reference only. In the interest of improved design, performance and cost effectiveness the right to make changes in these specifications without notice is reserved. Product markings may not be exactly as the ordering codes. Errors and omissions excepted.