

Threshold relay for resistive level sensor RNL35L

Resistive level probe Type : SNL

LOREME

• Multi-level probe for conductive liquids.

fully static design

Up to 5 levels (adjustable length electrodes)

Maximum pressure 6 bar

Peak temperature 150 ° C (HT version)

Waterproof IP66, cable output or connection head

316L Stainless Steel Electrodes wrapped with Teflon

• Application

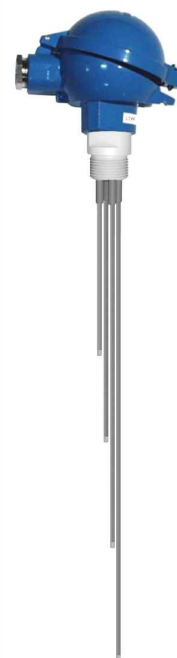
Level control or regulation

For tank or duct

Monitoring the presence or absence of fluid

(tank overflow , leak detection , pump control,)

Level relay
Type RNL35L



Resistive level sensor based on the change in electrical resistance caused by the presence of fluid between two electrodes. This resistance is transformed into an digital signal through the relay level.

Level sensor description (SNL)

The sensor operates according to the principle of conductivity between a common electrode and one or more level electrodes. The presence of fluid is detected by a resistance change between electrodes.

Each sensor is composed of three parts:

- The measuring electrodes: from 1 to 5 according to model, (SS316L , Teflon coated) they will be cut to the desired height. Supplied in standard length of 1000 mm (Maximum length. 6000 mm) Sliding insulating separators are disposed every 300mm for holding the electrodes.
- The fitting assembly 3/4" also acting as an insulator between the electrodes themselves and the tank (Teflon material)
- The connection head Type DanV IP66 with cable gland output, or output cable (length on request)

Technical specifications : (SNL probe)

Maximum temperature : electrodes, 180°C , connection head, 100°C

Maximum pressure : 6 bar @ 20°C (1 bar @ 100 °C)

Process connection : 3/4 " (optional mounting bracket)

environment : For any conductive liquid

materials : electrode holder: Teflon

Electrodes: 316L stainless steel

(Teflon sheath to prevent conductive bridges)

Electrical connection: up to 30 meters

Maintenance:

For proper operation of the probe, it is advisable to occasionally check the condition of the electrodes. (no deposits)

The probe itself require very little maintenance, during assembly, it is necessary to check the tightness of the cable gland and the head to prevent moisture penetration.

In case of malfunction, check the electrical continuity between the end of the electrodes and the terminal block.

Level control relay description (RNL35L)

Input :

- Resistance 0.....100 kohms, resolution +/- 1Kohms

Front panel :

- Led display 7 segments 3 digits (1100 pts)
green LED , digits high : 10 mm
Showing resistance of each electrode.
- 2 green LED indicating the level reached and relay status
- 2 push buttons under the front panel allowing device configuration

Relays:

- 2 configurable relay (threshold, hysteresis and delay)
changeover output contacts 10A potential free
usable alarm, pump control,

Performance / Environment

- Long-term stability 0.1 %/an.
- Operating temperature up to 70 °C
- Excellent EMC performance.
- Resistant, protected against shock and vibration

Assembly and connection

- Mounting on DIN rail according to EN 50022
- Connection on spring terminals max section : 1 mm²
- Galvanic isolation: power / input / relay
- IP20 protection and electronics Tropicalization.

Version and order code : (resistive level probe)

SNLxxx-y

- xxxx : length of the electrodes en mm (6000 mm maxi)
(default length 1000 mm)
- y: number of level electrodes (maxi 5) Adjustable length

option /HT: high temperature 130 ° C no head Version

Version and order code: (Level control relay)

- RNL35L/R1: - 1 electromechanical relay 10A (one level control)
- RNL35L/R2: - 2 electromechanical relay 10A (two level control)

it is possible to use several relay for probes over 2 levels

Specifications (resistive level probe) : SNL
Measuring electrodes

Maximum number of electrodes	5 + common
maximum length	6 meters
material	stainless steel 316L
covering	Teflon sheath
operating temperature	150°C
maximum pressure	6 bars

Connection head
Version standard:

cast aluminum with epoxy coating, protection IP66
 cable entry gland
 operating temperature: -20....95 °C (105°C peak)
 Teflon fitting 3/4 "
 optional stainless steel bracket mounting

High temperature version (/ HT):

without connection head , cable output (length on request)
 operating temperature: -20....110 °C (130°C peak)

**Specifications (level relay) : RNL35L
ENTREE**

TYPE	Range	Precision
(2 inputs) Résistance	1kohms ...100Kohms	+/- 1% of range

RELAYS

Isolated changeover contact	1500 Vac
Switching capacity	10 A / 250 V
response time	100mS
Repeatability	± 1%

POWER SUPPLY

230 Vac 50-60 Hz +/- 15 % , other on request
 consumption < 1.5 VA

RECOMMENDED OPERATING CONDITIONS

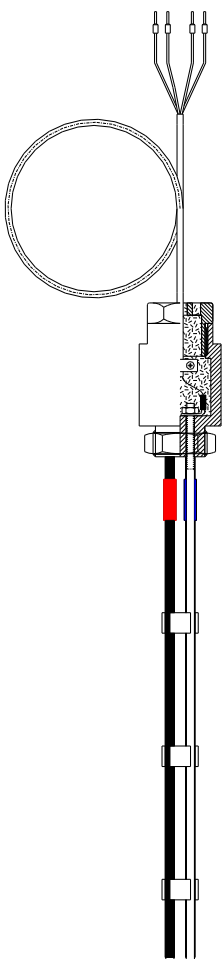
Operating temperature:	-20 à 65 °C
Storage temperature:	-40 à +85 °C
drift:	< 0.02 % / °C
Hygrometry:	85 % not condensed
Protection: (according : EN 60 529)	IP 20
weight:	150 g

Electromagnetic compatibility

Generic standards: **NFEN50081-2 /NFEN50082-2**



EN55011	meet	group 1 / classe A
EN61000-4-2	no influence	B EN61000-4-3 < +/- 5 % A
EN61000-4-4	< +/- 5 %	B EN61000-4-6 < +/- 5 % A
EN61000-4-5	< +/- 5 %	B
EN61000-4-8	no influence	A
EN61000-4-11	< +/- 5 %	B DBT 2006/95/CE

WIRING AND DIMENSIONS:
Type: SNL-HT

Type: SNL
