Technical Information TI 191F/00/en

Operating Instructions 017255-1000

Capacitive Level Measurement Rod probe 11 400

PE fully insulated rod probe for pressures up to 30 bar





















Application

The 11 400 rod probe is used for capacitive level measurement and limit detection of bulk solids and liquids at temperatures up to +80 °C (175 °F) and pressures up to 30 bar (440 psi). For corrosive products depending on the chemical resistance of the materials selected for the probe.

Versions

- Process connection
- G $1^{1}/_{2}$ A or NPT $1^{1}/_{2}$ " threaded boss
- DIN (DN 50 to DN 100) or ANSI (2" to 4") flange

Materials

• steel rod, PE fully insulated

Housing

- Aluminium IP 66
- Aluminium IP 66, plastic coated
- Polyester (PBTP) IP 66



Technical Data

Operating data

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Relationship between
permissible operating
pressure and temperatu-
re
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1 bar = 14.5 psi x °C = $(x \cdot \frac{9}{5} + 32)$ °F

Capacitance of probe

Materials

Most material specifications are given on Page 4.

- Threaded boss: galvanized steel or SS 304
- Flange: primed steel or SS 316 Ti
- Probe rod in steel
- Full insulation: PE
- Housing: aluminium (AlSi12), plastic coated aluminium (especially resistant to corrosion, for use in aggressive atmospheres) or polyester (PBTP)

probe at +20°C and static load

Lateral load on the

1 Nm = 0.74 ft lbs

Housing versions

Order code A Aluminium housing IP55 with standard cable gland PG 16

Order code B Aluminium housing IP66 with cable gland PG 16

Order code R Aluminium housing IP66, plastic coated with cable gland PG 16

Order code K Polyester (PBTP) housing IP66 with cable gland PG 16

Dimensions and Accessories

Rod probe 11 400 with threaded boss

Dimensions in mm 1 in = 25.4 mm 100 mm = 3.94 in

Probe length

L _{min.} : 100 mm, L _{max.} : 4000 mm Usual length: 350 mm

Probe length tolerances

Probe length	Tolerance
up to 2 m	+0 mm, -10 mm
up to 4 m	+0 mm, -20 mm

Accessories

- Gasket for thread G 1¹/₂ A: in elastomer/fibre (asbestos free), as supplied
- All-weather cover for aluminium housing
- Material: polyamide
- Maximum ambient temperature: 100 °C

All-weather cover

When mounting in the open, the all-weather cover protects the probe in the aluminium housing from high temperatures and from condensation in the housing caused by wide temperature variations.

Product Structure

Fully insulated rod probe 11 400

Proc	cess connection / material
G1 G2 H1 H2 K1 K2 P1 P2 Q1 Q2 R1 R2 Y9	Thread G $1^{1}_{/2}$ A / steel Thread G $1^{1}_{/2}$ A / SS 304 Thread NPT $1^{1}_{/2}$ / SS 304 Flange NPT $1^{1}_{/2}$ / SS 304 Flange DN 50 PN 16 / steel Flange DN 50 PN 16 / SS 316 Ti Flange DN 100 PN 16 / SS 316 Ti Flange ANSI 2" 150 psi / steel Flange ANSI 2" 150 psi / SS 316 Ti Flange ANSI 4" 150 psi / SS 316 Ti
	Material, rod A Steel, PE fully insulated Y Others on request
	Length of probe (100-4000 mm) 1 mm probe length (state length in mm) 2 350 mm (usual length)
	Housing / cable glandAAluminium, IP66 / PG16 (IP55)BAluminium, IP66 / PG16 (IP66)CAluminium, IP66 / NPT $^{1}/_{2}$ "DAluminium, IP66 / M20x1.5FAluminium, IP66 / HNA24x1.5KPBTP, IP66 / PG16 (IP66)LPBTP, IP66 / PG16 (IP66)LPBTP, IP66 / M20x1.5PPBTP, IP66 / M20x1.5PPBTP, IP66 / M20x1.5RAluminium, coated IP66 / PG16 (IP66)TAluminium, coated IP66 / G $^{1}/_{2}$ "UAluminium, coated IP66 / M20x1.5WAluminium, coated IP66 / M20x1.5WAluminium, coated IP66 / M20x1.5WAluminium, coated IP66 / M20x1.5WAluminium, coated IP66 / M20x1.5UAluminium, coated IP66 / M20x1.5UAluminium, coated IP66 / M20x1.5UAluminium, coated IP66 / M20x1.5WAluminium, coated IP66 / M20x1.5UAluminium, coated IP66 / M20x1.5UAluminium, coated IP66 / M20x1.5UAluminium, coated IP66 / HNA24x1.5UAluminium, coated IP66 / HNA24x1.5UAluminium, coated IP66 / M20x1.5UAluminium, coated IP66 / M20x1.5UAluminium, coated IP66 / HNA24x1.5UAluminium, coated IP66 / HNA24x1.5UAluminium, coated IP66 / HNA24x1.5
	A None E with EC 11 Z C with EC 17 Z G with EC 37 Z H with EC 47 Z B with EC 61 Z F with EC 72 Z Y Others on request
400-	Product designation State length of probe in mm

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