



DATASHEET

Combined Temperature and Water Interface Probe

LATIS



Application

A combined temperature and water-interface sensor for use in tanks storing a wide range of liquids.

- Integrated temperature and continuous water level (Base Sediment Water) monitoring
- Single entry for two sensors: only one 29mm entry required
- Certified for hazardous Area Zone 0 operation
- Maintenance and calibration free, no need for onsite setting up
- High level detection accuracy: +/- 2mm
- Compatible with industry standard level gauges
- Suitable for operation in corrosive environments

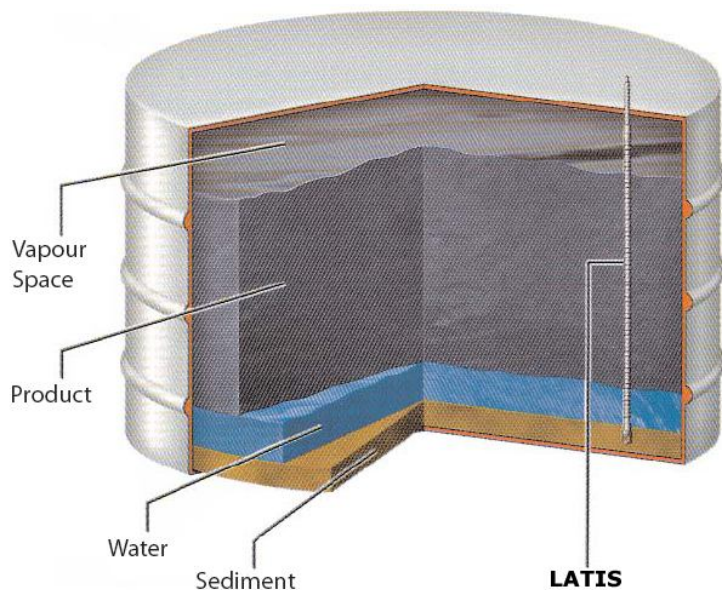
This combined temperature and level capability means that only a single entry on the roof of the tank is needed. Alternatively, the level probe alone can be installed at an angle, on the side of the tank near its bottom.

These features make LATIS ideal for upgrading existing tanks without operational disruption. The +/- 2mm level accuracy qualifies LATIS for use in custody transfer applications according to the international OIML R85 standard.

Construction

The temperature part can consist of up to 13 true averaging elements or up to 14 Pt100 spot elements, providing a continuous temperature profile of the product and vapour.

The level part, made up of stainless steel, PTFE, FEP and VITON, is a capacitive probe, providing a continuous indication of the level of water below the stored product. Probe lengths from 150mm to 1.5m can be chosen. There is no need for on site calibration or set up, whilst the mechanical construction of the probe provides virtually maintenance-free operation over a wide range of products and temperature.



SPECIFICATION

GENERAL DESCRIPTION	Multiple Element Thermometer combined with water interface sensor.	
APPLICATION	Temperature and Water Interface Measurement for Bulk Liquid Storage Vessels Custody Transfer Tank Gauging	
PERFORMANCE	Accuracy	Temperature : +/-0.15 + 0.002 x ltlC Water Interface : +/- 2mm or +/- 0.25% of active probe length
	Repeatability	Water/Oil Level +/- 0.5mm or +/- 0.1% of active probe length
	Environmental	Operating Temperature -20 to +80 C
MECHANICAL / PROCESS	Maximum pressure	Without thermowell : 6 bar With thermowell : up to 450 psi
	Active Level-probe Length	150mm to 1.5m (450mm length is standard)
	Termination	Top fitting with a 12" (305mm) long stainless steel pipe with 10" (254mm) length, 1/2" BSP thread, or to customer specification
	Fittings	1 locking ring and nut as standard Other fittings and flanges can be supplied
	Tank height	2m to 100m
	Construction	Construction The immersed parts are made of AISI 316 stainless steel, PTFE, FEP and VITON for maximum resistance to corrosion.
ELECTRICAL	Output	Level Signal : 4-20mA (@ 10-30Vdc)
	Cabling	Colour-coded sleeved wires (max 10m)
	Safety	ATEX Eexia IIC T4 (Tamb=80 C), certificate number BAS No. EX97D20242X
	Resistance / Temperature Response	Copper version Rt = 90.48 + 0.3809t 100Ω@25 C Platinised version Pt100 Class B ohm 100Ω@0 C



Motherwell Tank Gauging

St Michaels Road
Lea Green Ind Est
St Helens
Merseyside
England WA9 4WZ

Tel : + 44 1744 815211
Fax : +44 1744 814497

sales@motherwelltankgauging.co.uk
www.motherwelltankgauging.co.uk

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