

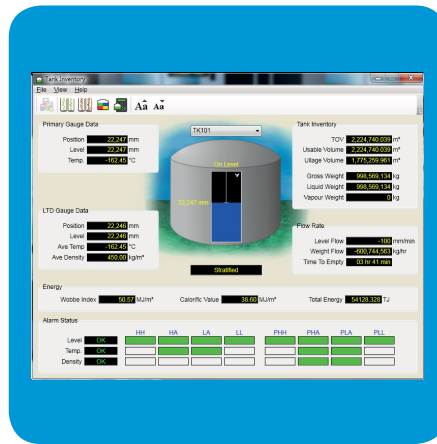
Temperature Multiplexer



Multi-spot temperature transmitter capable of accepting up to 16 RTD inputs, intended for use within hazardous areas



Temperature Multiplexer



LMS



LNG Facility

Overview

The Temperature Multiplexer is a multiplexer and transmitter designed to be mounted within a hazardous area which can accept up to 16 RTD inputs.

For larger numbers of RTDs, multiple units can be multi dropped seamlessly onto the same fieldbus.

Reliability

Significant cost reductions are made using this device by eliminating runs of expensive cabling from the hazardous area to the safe area for each RTD. Instead, the measurements are performed locally and transmitted over a 2 wire digital field bus.

System reliability can be increased by providing dual redundant field bus ports.

Precision

The internal electronics scale and amplify the input signals before a precision analogue to digital converter, under the control of the processor, digitises the measurements and converts them to engineering units.

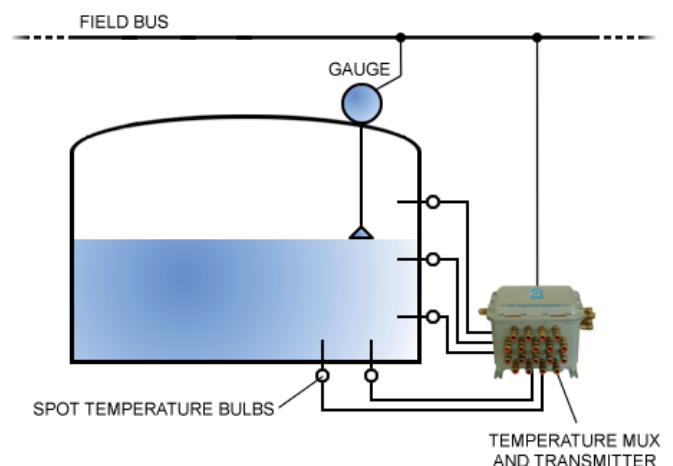
Each intrinsically safe sensor will be continuously scanned and its temperature calculated and stored in an in-memory real-time database.

The unit is given a unique address by which it can be polled from a host system such as LMS.

Flexibility

A number of protocols and field bus technologies are supported allowing the unit to be integrated with old legacy systems or more modern open systems.

Supported protocols include, but are not limited to, Enraf BPM, 'Saab' TRL/2, Whessoe Current Loop, and HART.



Key Features:

- Multi-spot temperature transmitter capable of accepting up to 16 RTD inputs.
- Larger numbers of RTDs can be accommodated by multi-dropping onto the same fieldbus.
- Performs measurements locally, reducing the amount of expensive cabling required.
- ATEX/IECEx Hazardous Area Zone 1 certified.

Applications

The unit is ATEX approved for installation into a Zone 1 hazardous area.

The unit has many applications for accurate temperature measurement within a hazardous or non-hazardous area but has been specifically designed for temperature measurement requirements within a tank gauging system designed for bulk measurement of oil and gas.

Petroleum storage installations such as Refineries, Marketing / Distribution Terminals, and Liquefied

Natural Gas (LNG) storage facilities tend to use these devices for temperature measurement.

The two field bus ports help to support the redundant architectures often demanded by LNG applications, and each port can be polled simultaneously for data by two independent host systems if necessary.

Fieldbus interfaces are available for a range of host systems. Please refer to the table below.

Technical Specifications:

Power:	100-240 Vac 50-60 Hz 25 VA 0.375 A max
Certification:	ATEX II 2 G D EExd IIB [ia] T6
Environment:	Hazardous Area Zone 1
Operating temperature:	-20 °C to +55 °C
Storage temperature:	-40 °C to +85 °C
Enclosure:	Aluminium alloy Painted RAL 7035 grey epoxy
IP rating:	IP66
Entries:	M20 threaded entries Quantity 23 off
Terminations:	Screw terminals 2.5 mm ² capacity

External dimensions:	365 x 320 x 280 mm
Fixings:	To suit M8 bolts, 4 positions
Weight:	14 kg
RTD Input:	3 wire Copper or Platinum
Resolution:	0.1 °C
Accuracy:	0.1 °C
No. of host ports:	2 ports
Interfaces supported:	RS-232, RS-422/485, Enraf BPM, 'Saab' Emerson/Rosemount TRL/2, Whesoe Current Loop, Varec Mark/Space, Modbus RTU, L&J Tankway, Motherwell, HART®, Scientific Instruments.

External dimensions:

