MHT Technology Ltd's Tank Gauging Hardware

Field Display

MHT Technology Ltd

Digital Transformation with Human Design

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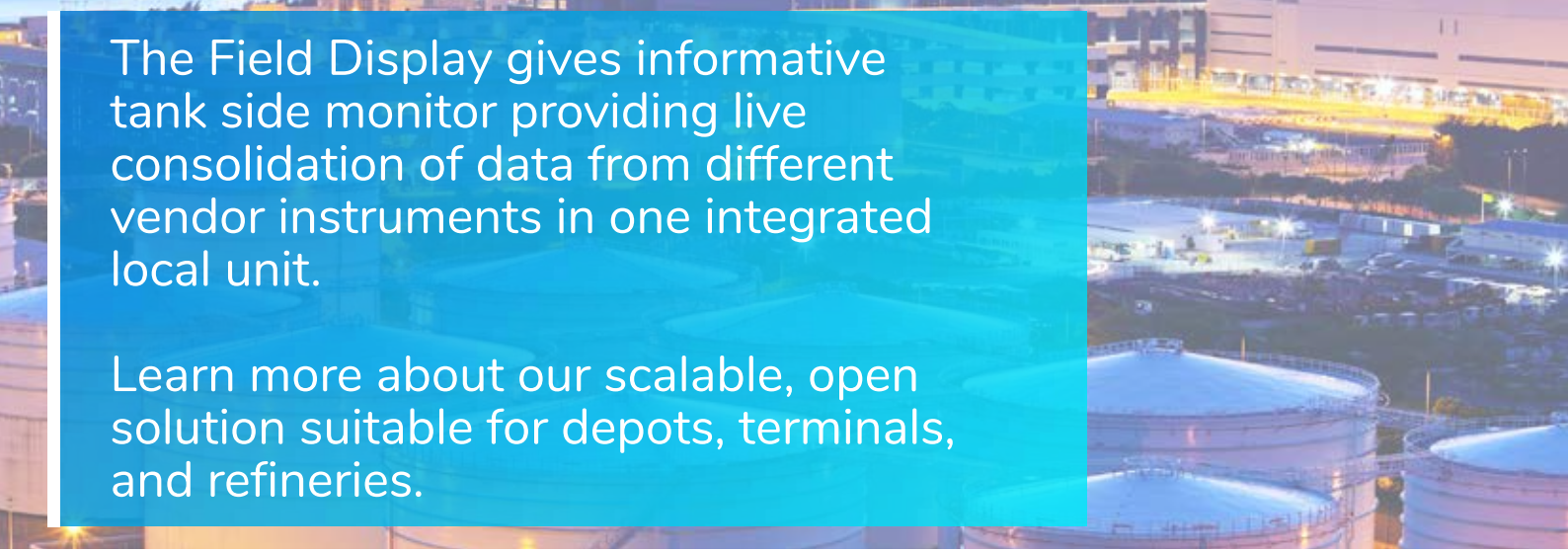

The Field Display gives informative tank side monitor providing live consolidation of data from different vendor instruments in one integrated local unit.

Learn more about our scalable, open solution suitable for depots, terminals, and refineries.

Launched in 2006

Trusted by customers for over 7 years

245 Field Displays in use across the world

Display over 100 tanks

Overview

The Field Display from MHT Technology Ltd combines years of experience and expertise in legacy field bus technologies and protocols to bring an intelligent field display that can interface to a wide range of different vendors' sensors, transmitters and instruments. Where traditionally instruments from different vendors have had proprietary interfaces and protocols demanding separate displays for each instrument, this unit can display all their data through one integrated unit.

The device can also display data from more than one tank. Consequently, the cost of providing field indication in tank gauging and tank inventory applications can now be significantly reduced. A single Field Display can accept serial data inputs from up to a maximum of 4 different field bus technologies. The currently available field bus technologies are:-

- Enraf BPM
- Saab TRL/2
- Whessoe Current Loop
- Sakura (E+H) V1
- Motherwell 2800
- Varec
- L&J
- Scientific Instruments LTD
- Whessoe 1146 LTD
- HART
- Modbus RTU

Displays exist to show the main data items available from each of the above devices as well as the ability to drill down into more detailed information for each instrument. Typically the Field Display is configured to listen to data on a field bus produced by a client polling multiple server devices. By enabling the Field Display's fallback mode, if the client system fails it can take over as client maintaining the display of data and even allowing the user to initiate gauge commands from the display.

In Listen mode the device can automatically build a map of all instruments on the field bus through a learning mode. The user can then configure via the display which tank each detected device belongs to. A gauge emulation feature, which supports many protocols, allows legacy systems to interoperate with new instrumentation. The Field Display has applications in Refineries, Oil Terminals and Depots, LNG storage and the wider bulk liquid storage industry. Its ability to capture data from multiple field bus technologies simplifies installation, reduces costs, and improves operational performance.

The Field Display features a graphical LCD display to clearly present the data from each instrument. A menu structure allows the user to navigate the various displays using a magnetic key attached to the display.

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Key Features

Simplicity

Presents a simple, interactive display of live tank gauging information in the field. It makes different vendors' gauges appear together in the same unit, hiding the complexities of differences in radar, capacitance probes and servo gauges.

Sweat your assets

Need to integrate new gauges into an old system? A Field Display can convert the protocol making new gauges compatible with old, often for less than the cost of upgrading SCADA/DCS systems.

Easy setup

The Field Display can listen and learn. By connecting the device to a bus being actively polled it can analyse the communications and automatically build a list of instruments; all you have to do is name the tanks.

Control in the field

As well as displaying data from your level gauges, the field display can send commands to them as well. For instance, you can servo check a gauge and monitor the displacer from the tank side.

Safety

Field display complies with ATEX and IECEx Zone 1 requirements. Produced in the UK from a manufacturer with over 15 years experience of designing and manufacturing solutions for explosive atmospheres.

Resilience

Where the Field Display normally listens to traffic on the field bus, in the event that the host fails or lines are severed it can automatically assume the role of client, polling the instruments and maintaining the display of tank gauging data.

Field Display, Tank display

Field Display, Ex

Field Display, LNG display

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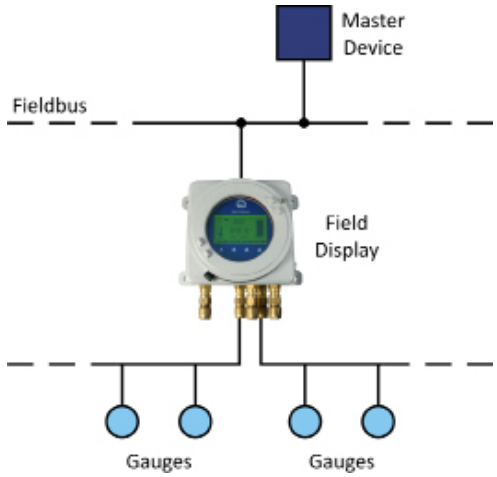
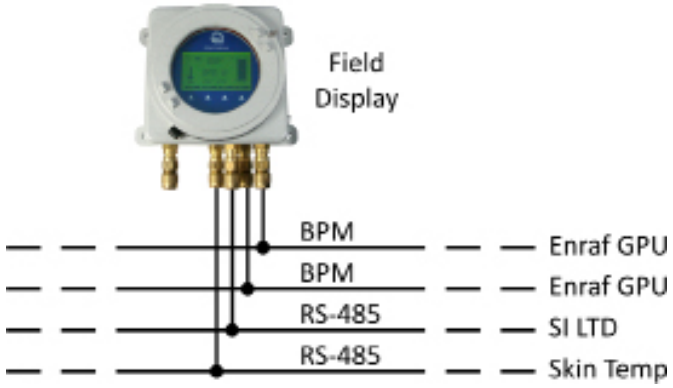
Master mode

The Field Display will send gauge commands and display data of all field devices connected to its fieldbus ports whilst set as master. It can also be configured to service requests from another master device simultaneously.



Listen mode

The Field Display will tap into existing fieldbus signals and display the data polled from the connected field devices. These readings can be used to build a map of all detected field devices when 'Learning Mode' is also configured.

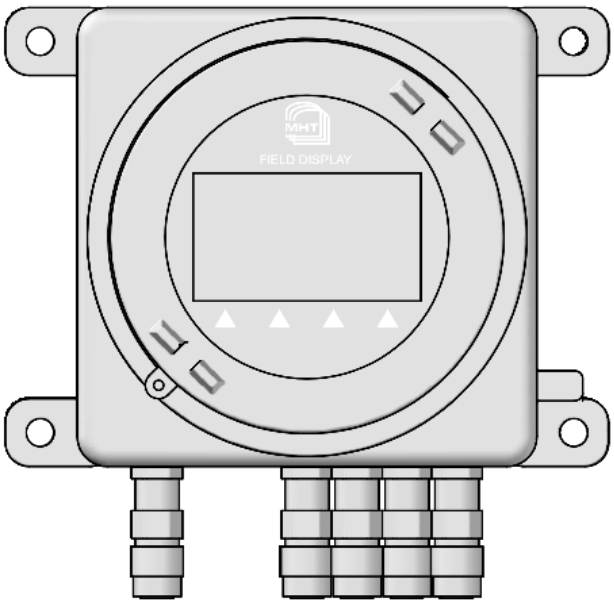


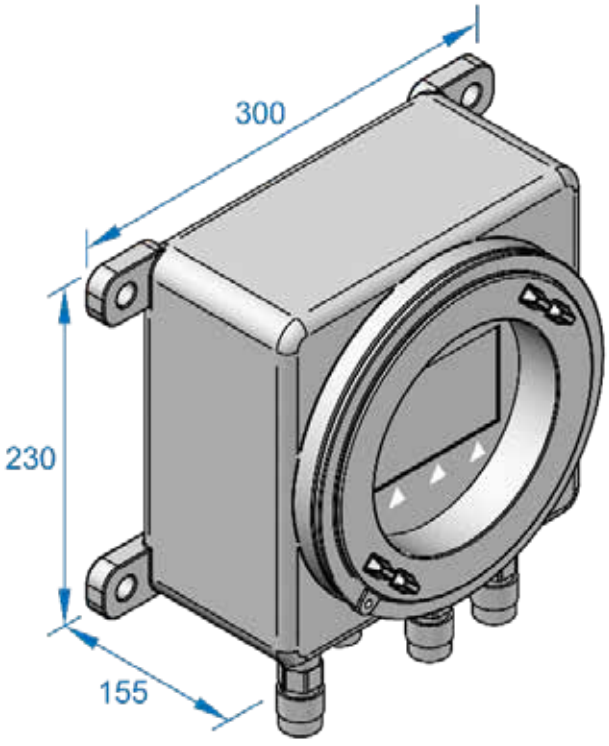
Technical specifications:

Power:	100-240 Vac, 50-60 Hz, 25 VA, 0.375 A max
Certification:	ATEX II 2 G D Ex 'd' IIC T6, IP 66
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 5 off)

Terminations:	Screw terminals, 2.5 mm² capacity
External dimensions:	300 x 230 x 155 mm
Fixings:	To suit M12 bolts, four positions
Weight:	7.5 kg
No. of host ports:	4 Ports

External dimensions:





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