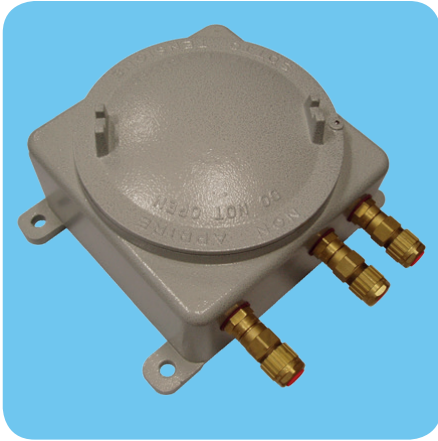


Gauge Emulator



Intelligent protocol converter and data concentrator that emulates multiple gauges and integrates seamlessly into existing systems



Gauge Emulator, Ex



Gauge Emulator, non-Ex



Gauge Emulator, front view

Overview

There are a number of reasons why a site may need to replace a tank gauging device. Previously, the site would have to replace like-for-like due to infrastructure constraints, but this is now no longer the case. The Gauge Emulator allows the seamless integration of vendor A's tank gauges into an existing infrastructure intended only for vendor B's equipment, eliminating 'vendor lock-in' and giving the freedom of choice back to the site.

Field ports

As standard, the unit is supplied with two field ports, one for talking to the foreign device and the other for sitting on the fieldbus of the existing tank gauging system and emulating the behaviour of the other gauges. The field ports are plug in units and available with a number of different electrical interfaces allowing connection to most of the major proprietary and open field bus technologies available within the tank gauging industry market.

Data access

The unit polls the foreign device continually for data maintaining an in-memory real-time database. It also services the field bus master for data on demand taking data from the real-time database as required. In addition, the system will carry out any gauge commands supported by the host system and the foreign device.

Key features

- Allows tank gauges to communicate effectively within any vendor's existing system.
- Easy 'plug & play' installation process.
- Ability to convert most vendor protocols.
- Concentrate data gathered from connected gauges locally within one field device.
- Releases any obligation to use only one supplier.
- MHT offers bespoke gauge emulation, customising a Gauge Emulator to fit unique vendor protocols.
- ATEX Hazardous Area Zone 1 certified.

Configuration

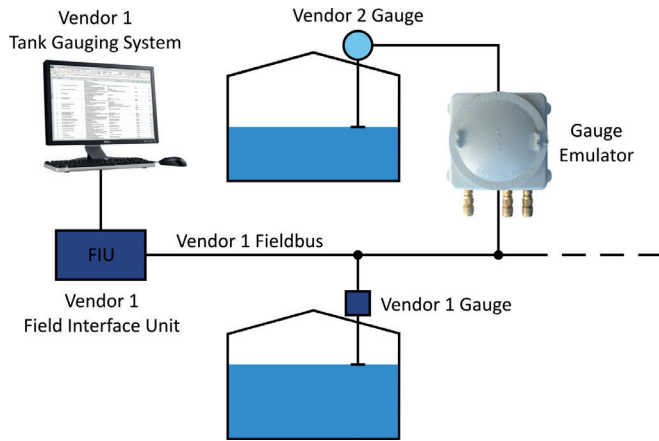
The Gauge Emulator can be installed with ease due to its 'plug & play' capability. It can also be configured using HyperTerminal or equivalent software. Another added benefit is that it can be configured remotely using Modbus protocol.

Compatible gauge manufacturers

- Endress+Hauser
- Honeywell Enraf
- Whessoe
- 'Saab' Emerson/Rosemount
- Motherwell
- Varec
- L&J
- Scientific Instruments
- HART®

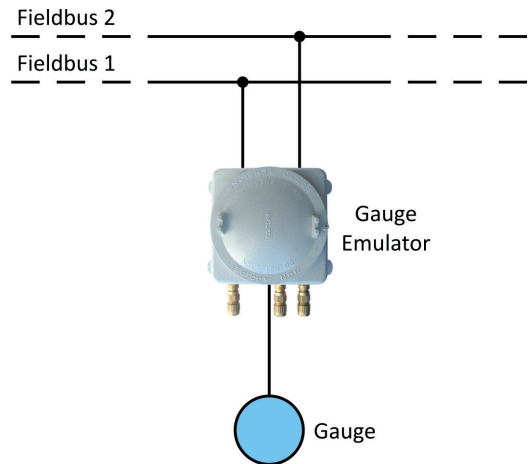
Typical application

Consider the situation whereby certain gauges, supplied by vendor 1, were not performing to expectations. The ideal solution may be to replace these devices with alternate products from vendor 2, even though they are unlikely to be compatible. Using a Gauge Emulator eliminates vendor incompatibility, allowing the seamless introduction of different devices into the existing system.



Redundant fieldbus systems

In applications where dual redundant fieldbus ports are required, some leading gauge manufacturers only provide a single fieldbus output. The Gauge Emulator can be used to solve this problem, by using a master port to poll the gauge and two slave ports to service requests from the redundant fieldbus.



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 mm ² capacity

External dimensions:	300 x 230 x 165 mm
Fixings:	To suit M12 bolts, four positions
Weight:	7.5 kg
No. of host ports:	4 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:

