Mini Receiver

Innovative tank inventory management system which consolidates devices from multiple vendors in a single unit

8 port, wall mount, touch screen

20 port, rack mount, touch screen

20 port, rack mount, rear view

Overview

Designed as a direct successor to the field-proven Datacon range of products, the Mini Receiver advances the existing platform of reliability, flexibility and longevity by offering an intelligent and visual solution for directly interfacing with up to 400 devices simultaneously. Whilst retaining a compact profile, the Mini Receiver provides a comprehensive and intuitive tank gauging solution, featuring inventory calculations that comply with full API / ASTM standards. Available in a choice of enclosure materials, the stainless steel option is suitable for wall mount applications, and the aluminium option is suitable for installation within standard 19-inch rack cabinets.

Highly configurable

Tank inventory data can be displayed on an optional 7" touch screen display, with screens that are entirely customisable to suit individual site requirements. Audible alarms can be configured either via the integrated configuration tools, or alarm set points can be entered by using the integrated touch screen. Where supported, the display can also be used to invoke a range of gauge commands which include Servo Check / Test, Stow / Lock, Unstow / Unlock, Water Dip and Density / Temperature Profile.

Service monitoring

An internal watchdog can be enabled to monitor the operation of critical services and should any fail, the system can be configured to automatically restart, ensuring maximum up-time.

Communication options

The wall-mount Mini Receiver offers a maximum of 8 serial communication ports which are configurable as either host or field ports, whereas the rack-mount options can accommodate a maximum of either 8 or 20 serial communication ports. Each option has standard RS-232 / RS-422 / RS-485 serial ports available to be configured for host interfaces.

Networking functionality

Whereas the 8 port options offer a single external ethernet port, the 20 port option features dual ethernet ports, allowing for redundancy at the network level. Each port has an autosensing connection which can be configured for different IP addresses. A web server can also be enabled to provide a comprehensive view of tank data to desktop browsers connected to the network.
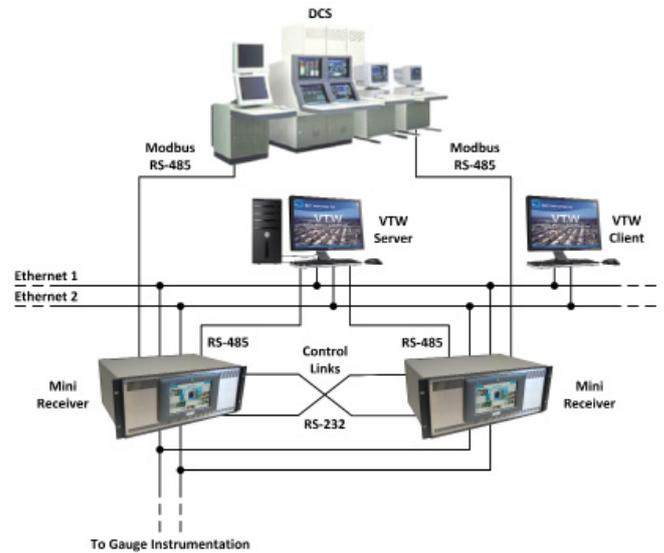
Reliability and flexibility

All firmware is stored on a flash drive for maximum reliability, and integrated tools used to create custom configurations that suit individual site requirements are included as standard with each Mini Receiver. To further extend the flexibility of the Mini Receiver, different vendors tools can also be utilised to configure gauges by tunneling through the Mini Receiver. The Mini Receiver can also be used as a foreign device gateway to higher level DCS and site wide business information systems by providing an open interface to older legacy and proprietary protocols and interfaces.

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Redundancy support

The Mini Receiver can be supplied as a standalone unit, as part of a larger system, and/or as a redundant pair. All models of the Mini Receiver support a fully redundant architecture. No additional configuration is required to set up the redundancy.

For example, if two identically configured Mini Receivers within a redundant system arrangement are booted up, one will automatically assume the function of being the master. The master Mini Receiver will poll for data whilst the slave Mini Receiver polls the master for the data. If communication is lost, the slave Mini Receiver will automatically take over polling for data.

Technical specifications

CPU:	Intel® ATOM™ 1.6 GHz
Memory:	2 GB RAM
Disk:	2 GB Compact Flash as C drive 1 GB on HDD module as D drive
Operating system:	Windows Embedded Standard 2009
Optional display:	7" widescreen module, 640 x 480 px
Input:	Touch screen keyboard
Serial comms 1-4:	RS-232, RS-422 or RS-485 only
Serial comms 5+:	RS-232, RS-422, RS-485, Enraf BPM, TRL/2, Current Loop, Mark / Space, Scientific Instruments, Contrec SLIP, GPE, Hectronic, L&J Tankway, HART®
Host interface support:	Modbus TCP via Ethernet, Modbus RTU Slave, OPC Data Access Server, Enraf ASCII Host, Whessoe ASCII Host, 'Saab' TankMaster

Ethernet: **8 port options:** **20 port option:**	 1 port, 10/100 Mbps, auto-sensing 2 ports, 10/100 Mbps, auto-sensing
Power supply:	100-240 Vac
Power consumption:	30 W, no interfaces, no display 40 W, no interfaces, touch screen 30-70 W, interfaces, touch screen
USB:	2 external ports, USB 2.0 compliant
Comms status:	Tx / Rx LEDs for each port
IP rating:	IP20
Operating temperature:	0 to 40 ºC
Storage temperature:	0 to 85 ºC
Mounting:	To suit M6 bolts, four positions
Weight:	4.5 - 6 kg
Approvals:	CE

External dimensions