



Level & Density Measurement

“Our unique non-invasive ultrasonic technology has been developed and built upon over the last 35 years, and is proven throughout the world across a vast number of installations”

Talk to the experts...

- Ultrasonic technology with wide ranging and unique applications for several industries
- Heritage deeply rooted in the brewing and distilling industry, with an illustrious reputation across the Scotch Distilleries market
- The world's only 100% non-invasive liquid level measurement:
 - Zero modifications to your vessels
 - No downtime for installation and commissioning

Industries & Applications:

Beverage:

- CO₂ control/monitoring in beer & sparkling wine
- Alcohol strength measurement
- Beer, water, spirit vat level measurement

Petrochemical:

- Chemical treatment process automation
- Acid bath strength, level and batching
- Chemical manufacture/production

Oil & Gas:

- Fuel storage tank level measurement (LPG, gasoline, diesel, kerosene...)
- Liquid level/interface detection in oil processing

Transport:

- Truck cargo monitoring
- Offloading fuel identification systems
- Fuel tank theft prevention

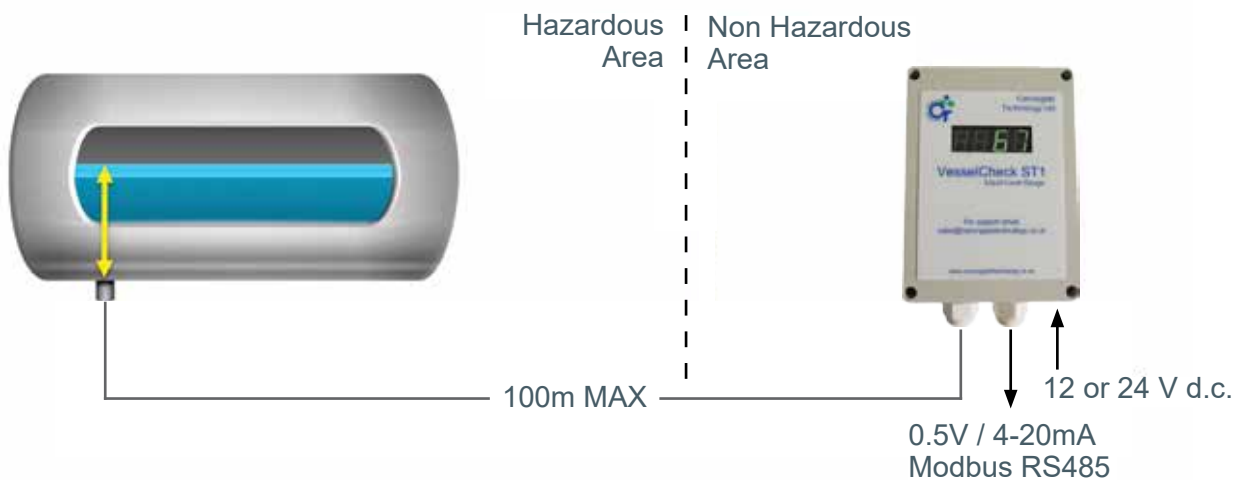


Level Measurement

Non-Invasive Tank Level Gauge

VesselCheck ST1

- Used extensively across Oil & Gas, Beverage, Chemical and Pharmaceutical industries
- Truly non-invasive
- Sensors bonded to outside of tank
- Fits tank of most shapes and sizes
- Output to Telemetry system – various options
- Low cost, reliable & accurate tank gauging
- Not affected by pressure
- Easy installation – no tank break-in
- Simple retrofit to existing tanks
- No down-time during installation
- No moving parts – no maintenance
- Temperature integrated sensors available



Hazardous Area Non-Invasive Tank Level Gauge

VesselCheck ST1AD

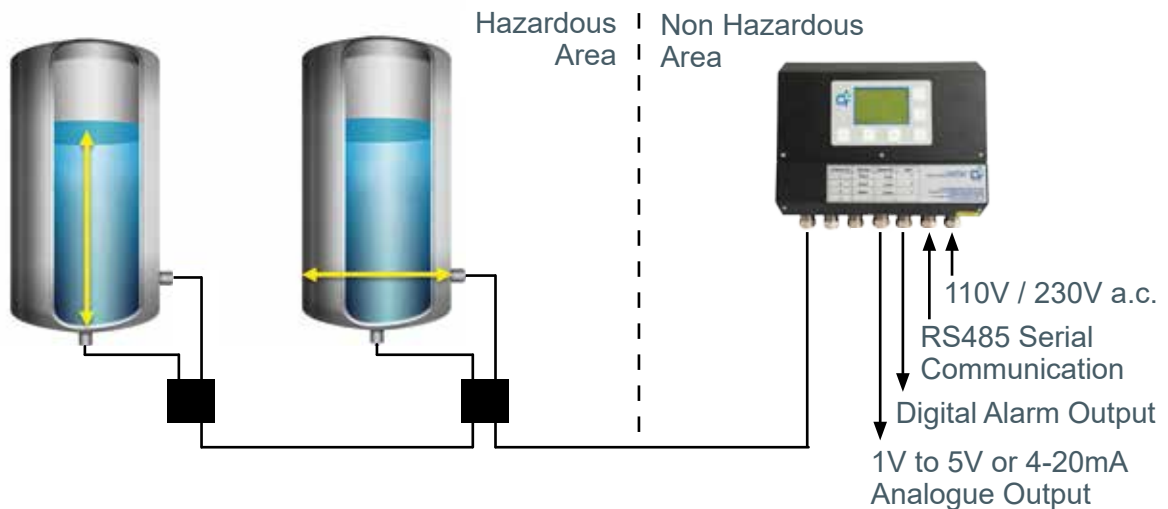
- Approved for hazardous area
- Used extensively across Oil & Gas, Beverage, Chemical and Pharmaceutical industries
- Truly non-invasive
- Transceiver bonds to outside of tank
- No tank break-in
- Easy installation
- Ambient temperature compensated (temperature measurement in display unit)
- No down-time during installation
- Suitable for tanks of most shapes and materials
- Not affected by pressure
- No moving parts – no maintenance
- Low cost & reliable tank gauging



Non-Invasive Tank Level Measurement System

VesselCheck ST2

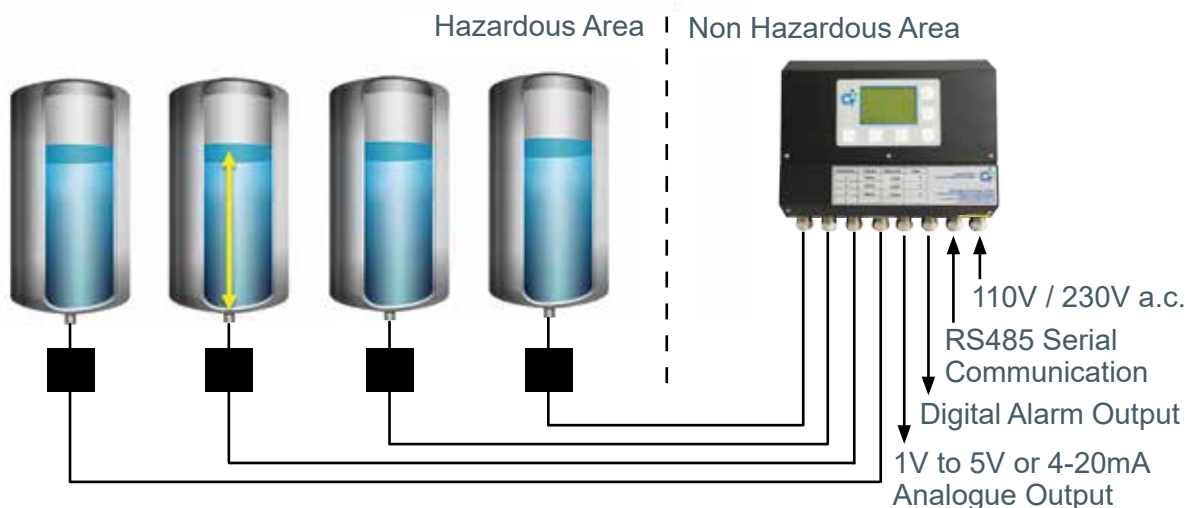
- Level measurement for 2 tanks
- Truly non-invasive technique
- Sensors bonded to outside of tank base and side wall
- 20 point calibration table
- 4 - 20mA / 1.5 V analogue outputs
- RS485 / 232 Modbus serial communications
- ATEX/ IECEx approved sensors for hazardous areas available
- Optional local display keypad
- Fast, reliable and accurate tank contents measurement
- Easy installation – no tank break-in
- Easy retrofit to existing tanks
- No down-time during installation
- No moving parts – little or no maintenance required



Non-Invasive Tank Level Measurement System

VesselCheck ST4

- Level measurement for up to 4 tanks
- Truly non-invasive technique
- Sensors bonded to outside of tank base and side wall
- 20 point calibration table
- 4 - 20mA/ 1 - 5V analogue outputs
- RS485 / 232 Modbus serial communications
- ATEX / IECEx approved sensors for hazardous areas available
- Optional local display & keypad
- Fast, reliable and accurate tank contents measurement
- Easy installation – no tank break-in, easy retrofit to existing tanks
- No down-time during installation
- No moving parts - little or no maintenance required



Non-Invasive Point Level Detector for Tanks & Pipes (Hi-Lo Alarm)

SpotCheck 1000/4000

- Non-invasive liquid level switch for use in applications where avoiding contact is vital
- Uses ultrasonic “footprint” to determine presence or absence of liquids inside a tank or pipe
- Sensor is clamped externally to the wall of the pipe or vessel
- Enables tank high / low level alarm
- Response time of 1 second

Applications include:

- Pump run dry protection
- Pig detection
- Tanker off-load pump control
- Overfill alarm
- Hygienic level switch for foodstuffs, liquids, pharmaceuticals and chemicals



Pneumatic and Electronic Level & Pressure Transmitter

CT Hollege

- Suitable for hygienic applications
- High accuracy
- Long term proven reliability
- Rugged construction
- Simple installation and set-up
- Standard and bespoke units
- Pneumatic systems for hazardous areas
- Liquid and slurry continuous level measurement
- Continuous pressure monitoring
- Low cost, reliable & accurate tank gauging
- Not affected by pressure
- Easy installation – no tank break-in
- Simple retrofit to existing tanks
- No down-time during installation
- No moving parts – no maintenance



Graphic Colour Operator Interface

HMI

- 5. 7" TFT Colour LCD
- 5 Button Keypad
- Resistive Analogue Touchscreen
- RS232/422/485 Comms port
- Integrated Ethernet & web server
- USB Port
- Configured to your application
- High Performance Core
- Integrated Functionality
- To be used with the Canongate VesselCheck series for level measurement



In-Line Measurement

Liquid Concentration Sensor & Transmitter

DensiCheck TX

- Economic measurement of liquid concentration and density through use of ultrasound technology
- Available as non-invasive and invasive formats
- ATEX hazardous area approved
- Zero drift and no re-calibration
- No moving parts
- Lower installation and maintenance costs
- Increased process efficiency
- Improved quality monitoring
- High accuracy and repeatability



Oxygen Measurement

OxyCheck

- Designed for hygienic applications to measure dissolved oxygen content (DO₂) reliably and accurately
- Uses photodiode technology
- Measurement range from 4ppm to 25ppm (0.05% - 300% saturation)
- Low maintenance required
- Electrolyte free and no fragile membrane
- Quick response and not affected by flow rate
- Integrated RS485 Modbus RTU interface



Carbon Dioxide Measurement

CarboCheck

- Accurate monitoring and control of dissolved CO₂ levels in carbonated beverages
- +/-0.02 CO₂ (+/-0.04 g/l)
- Hygienic fitting, can be cleaned in-place
- No sampling or product by-pass lines
- Available as single/ dual channel controller or up to 4 channel monitor
- Low maintenance requirement
- No moving parts
- Improved 'right first time' carbonation figures in-line or in-tank
- More efficient process control



Multi-measurement Controller & Analyser

MultiCheck

- Allows for multiple control & measurement of Carbon Dioxide, Oxygen and Alcohol/Plato
- Comprises of central control unit and sensors, providing a "one-system" measures all approach
- Ensures fast identification of products outside specification
- Very low maintenance required
- +/- 0.05 g/l for CO₂
- +/- 0.02 Plato
- +/-0.05% alcohol by volume
- +/- 5ppb O₂



Beverage Industry Specific Products

Rapid Staining Tests on Seeds

GrainStain

- Rapid Staining test on seeds, particularly barley and wheat
- Precision control of temperature, vacuum and time allows carrying out staining under reproducible and standardised conditions, ensuring optimum staining performance
- Completely self-contained unit with own integral vacuum pump.
- Two and four place versions available
- Independent vacuum gauge and control or each tube
- Integral pump adjustable to 380mm Hg
- Individual tube drain system
- Audible alarm system
- Illuminated mains power on/off switch
- Vacuum pump switch plus indicating LED
- Timers adjustable up to 30 minutes each with indicating LEDs
- Audible alarm system with push button cancel facility
- Heater indicating LEDs
- Individual adjusters for each sample tube temperature measurement



Mashing Bath for Extract Measurement

CT4 Mashing Bath

- Mashing bath for measurement of extract by IOB, EBC and ASBC procedures
- Stainless steel bath with integral pump for circulation of water through heater box and bath
- Beakers in the bath are stirred using magnetic followers and all samples are mashed and cooked together
- Bath is designed to be fully automatic, and manual control is possible if required
- PLC Control
- Colour graphics with touch display
- Programmable delayed start
- Audible alarm
- Bath temperature controlled by internal attemperation unit
- Temperature measured and controlled to +/- 0.2°C
- Low level water cut out
- Accurate water dispense (+/- 5ml) to all beakers in less than 2 minutes
- Simple touch screen access to volume calibrations
- Real time trending of machine sequence
- Remote servicing available via modem
- Two automatic pre-programmed mashing sequences
- Data storage of last 30 processes
- Overview screen to monitor all control I/O operations

