

The level solutions catalogue

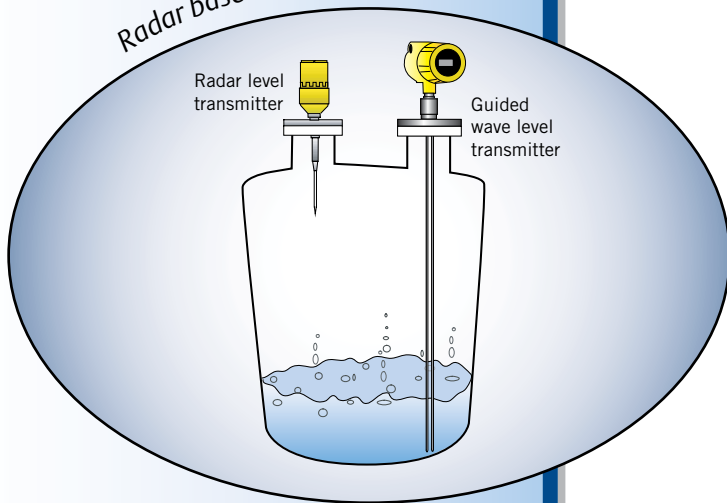


mobrey


EMERSON[™]
Process Management

Precision level measurement

Radar based level measurement



Radar level transmitters

Choose from leading edge 2 wire loop powered radar level transmitters with Dual Port technology, or 4 wire FMCW instruments for the most demanding of applications.

Options include the unique process seal antenna for total vessel integrity.

Guided Wave Radar level transmitter Coming soon

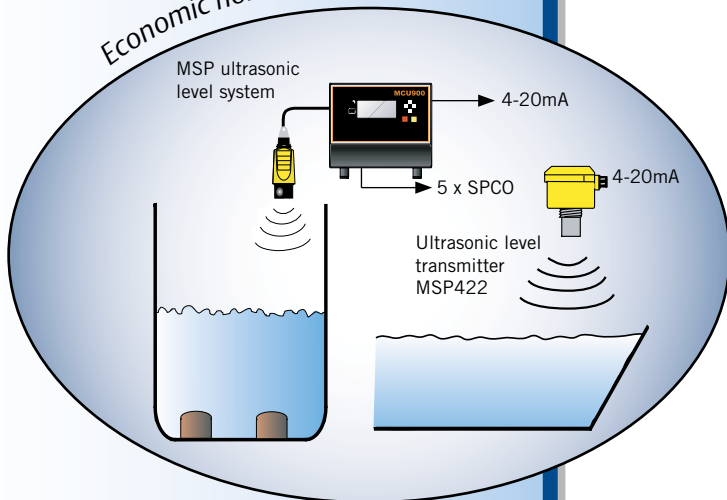
Reliable and cost effective measurement in applications where other loop powered transmitters cannot be used. GWR technology combined with advanced signal processing enables both level and interface measurement data from the same transmitter.

Ultrasonic level transmitters and systems

Ultrasonic level transmitters and control systems for applications where reliability and repeatability are required at the most economic price.

Duties include inventory control, process vessel level and wetwell/sump control.

Economic non-contact solutions



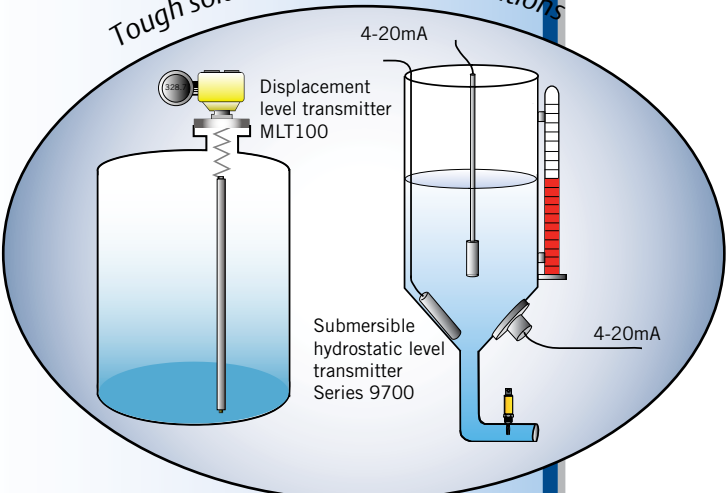
Displacer level transmitters

One of the most advanced displacer based devices on the market, coupling the time proven buoyancy principle with state of the art electronics in an instrument of high reliability and stability to measure level, contents or interface.

Mounting may be either directly into a vessel or externally mounted in a chamber.

Mobrey displacer transmitters will operate in many difficult level measurement applications from condensate drums to knock-out pots.

Tough solutions for tough applications



Hydrostatic level transmitters

Tank contents transmitters and accessories designed to perform in the arduous conditions of today's industrial measurement applications. They provide the measurement solution where in-tank problems such as foaming, vapour layers and temperature gradients prohibit the use of other instrumentation.

Magnetic level gauges

The magnetic level gauge measures liquid levels directly, including corrosive or dangerous liquids, in pressurised vessels.

Constructed from stainless steel with options of PVC and PVDF for corrosive chemicals, these self-powered gauges give clear contents indication.

Optional fittings include a 4-20mA transmitter and site adjustable alarm switches.

ment & control...with products that perform



Radar transmitters

- 2 Wire loop powered
- 4 Wire FMCW option
- 316 Stainless steel wetside with PTFE rod antenna
- 1" Threaded mounting
- HART digital communications
- Certified for use in Zone 0 hazardous areas
- Horn antenna option for difficult applications
- Process seal antenna for non-invasive installation
- Measuring range up to 35m
- Operating temperature from -40°C to +400°C
- Operating pressure full vac to 40b
- Reference accuracy +/- 3mm
- Resolution +/- 3mm

GWR level transmitters

- 2 Wire loop powered
- Rod or cable antenna
- Measuring range up to 23m
- Level or interface measurement
- Reference accuracy +/- 5mm
- 4-20mA / HART output



Ultrasonic level transmitters and systems

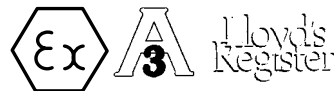
MSP400 and MSP900

- 2 Wire 24V dc loop powered
- Reference accuracy +/- 3mm
- Resolution +/- 1.6mm
- Measuring range up to 11m
- Contents measurement displayed may be in any units, easily programmed by the customer
- 4-20mA / HART output
- Control systems with 5 relay outputs:
Relays and current are field programmable
- Certified for use in zone 0 hazardous areas
- Open channel flow measurement capability
- Differential level for screens/ filters



Hydrostatic level transmitters Series 9700

- Flush mount ceramic sensor in tough 316SS body
- 2 Wire 24V dc loop powered
- 4-20mA output proportional to level and contents
- Option of remote non-interactive zero and span
- Ideal for industrial or marine applications
- Wide range of mounting options
- Low cost installation
- Range to 100m H₂O
- Certified for use in zone 0 hazardous areas
- Submersible models
- Flanged or threaded connections
- 3A approved models for hygienic applications



Displacer level transmitter MLT100

- Level, contents or interface duty
- 2 Wire 24V dc loop powered
- 4-20mA output
- HART digital communications
- Hazardous area certification
- Fast and simple calibration in tank or on bench
- Non-interactive zero and span
- Direct or external chamber mounting
- Optional local indicator
- Range to 3m (longer on request)
- Pressure and temperature to 200 bar and 300°C



Magnetic level gauge

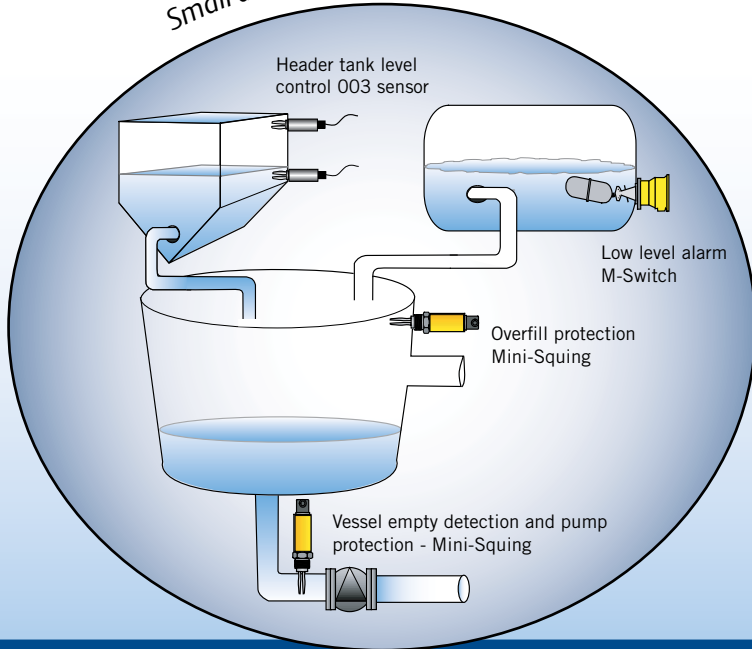
- Reliable, accurate & robust
- Wide range of models
- Materials: stainless steel, PVC, PVDF, PTFE
- Continuous indication
- Flaps or slider indication
- External side or top mounting
- DIN / ASA flanges
- Suitable for toxic liquids
- 4-20mA output option
- Alarm switch option

Liquid level switches for a

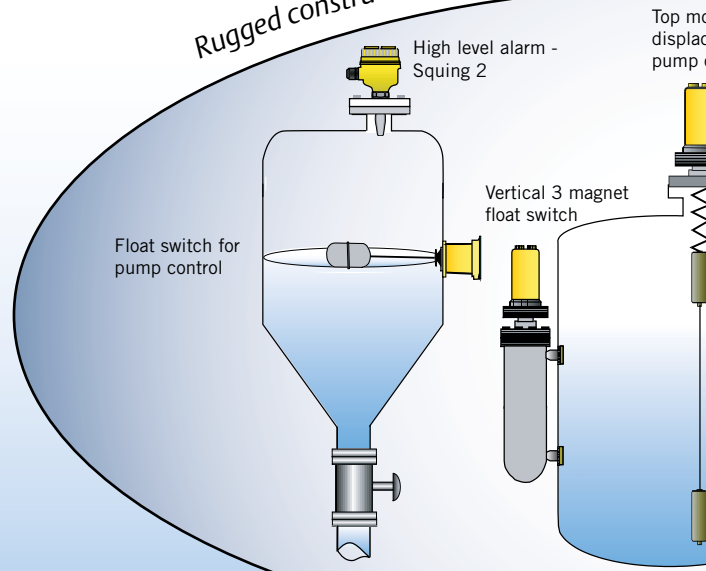
These economical and reliable switches are ideal for small tank or pipe mounting. Particularly well suited to general industry and OEM markets

A range of robust, reliable level switches for high and low alarm duties or pump control applications. Choose from traditional float switches, either side or top mounting, ultrasonic switch systems or vibrating fork switches

Small and lightweight



Rugged construction for tough process duties



Ultrasonic gap switch 003

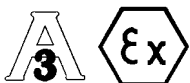
- One piece moulded PPS body
- 24V dc powered with relay or solid state output from encapsulated electronics
- 1" or 3/4" BSPT threaded mounting
- Pressure and temperature to 20b and 105°C
- Factory fitted with 3m connecting cable

Vibrating fork level switches

- Stainless steel wetside
- 24-264V dc or ac powered with relay or solid state output
- 1" or 3/4" BSPT threaded mounting
- Pressure and temperature to 100b and 150°C
- 3A Approved models with hygienic connections
- Extended length to 3m available
- I.S. and explosionproof options

Float level switch - M-Switch

- Stainless steel wetside and body
- Glandless construction
- Snap-action switching rated 15A
- 2" BSPT threaded mounting
- Pressure and temperature to 50b and 130°C
- Explosion proof options EExd



Horizontal 2 magnet float switch

- Simple, rugged and reliable
- Side or top mounting
- Direct or chamber mounting
- Electrical or pneumatic switching
- Weatherproof to IP66
- Submersible IP68 models available
- Materials of construction to suit most liquids
- Hazardous area models EExd and EEx ia
- Marine approvals



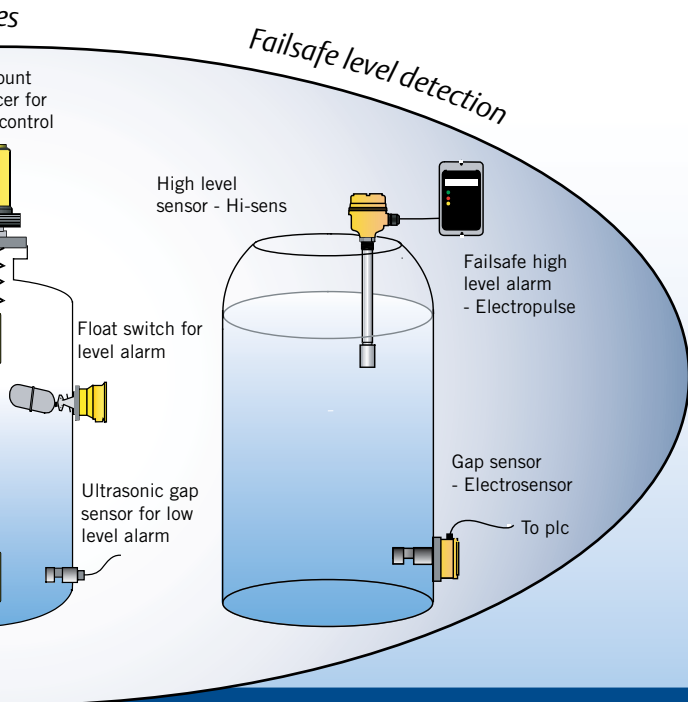
Ultrasonic level switch system

- No moving parts
- Wide range of materials of construction to suit most applications
- Extensive custom design expertise
- Sensors to suit most liquids and applications:
 - Clean liquids
 - Dirty liquids
 - Corrosive liquids
 - Cryogenic liquids
 - Interface detection
 - Pressure to 280b
 - Temperature to 250°C

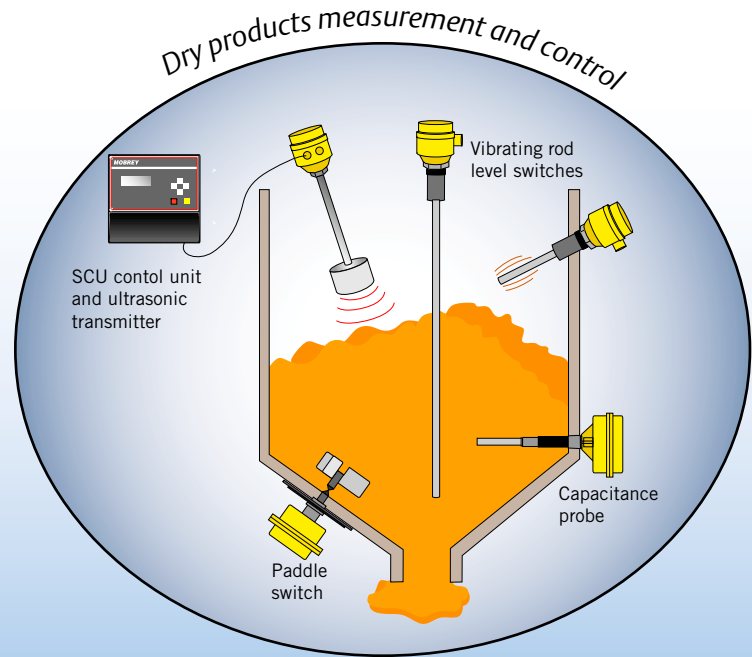


Alarm and pump control

A wide range of standard or custom designed ultrasonic sensors and remote control electronics for use with a variety of liquids in all applications. Failsafe high or failsafe low systems available.



A range of alarm and limit switches specifically designed for use on dry products ranging from powders to aggregates. Powerful ultrasonic transmitters give reliable level measurement and indication in most silos.



Vertical 3 magnet float and displacer switch

- Direct or external cage mounting
- Up to 4 switch points
- Wide standard range or custom design up to ANSI #2500 rating
- Unique 3 magnet latching switches with no springs

Mobrey failsafe ultrasonic level switch systems comprise a liquid level sensor and control electronics:
Ultrasonic sensors

- Select a sensor to suit the liquid and process conditions:
 - Gap sensor for low level
 - Unique patented Hi-Sens for high level

Control electronics

- Select the style of electronics required:
 - Electrosensor to allow interface to standard plant control system (8/16mA switching)
 - Electropulse for ultimate fail safety in critical applications



Dry products measurement and control

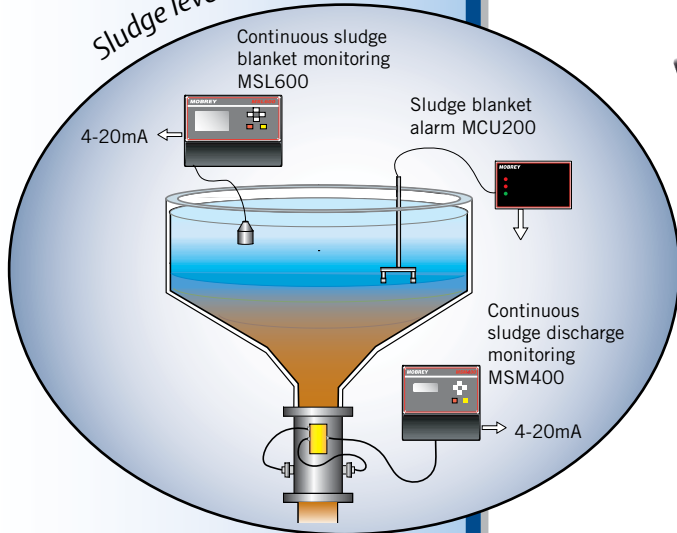
A range of technologies available:

- Paddle switch
 - High and low level detection of most free flowing bulk solids and powders
 - Top or side mounting
- Capacitance probe
 - For reliable use in free flowing and sticky dry products
 - Material build up compensator
 - Self calibrating
 - Adjustable time delay
 - Top or side mounting
 - Rigid or flexible probe
- Vibrating rod switch
 - For free flowing materials, eliminates problems of clogging and bridging
 - High & low level fail-safe
 - Adjustable time delay
 - Extended probe option
 - Top or side mounting
- Ultrasonic measurement
 - Non-contacting level transmitter, top mounted on the vessel
 - 4-20mA/HART/RS485 output
 - Integral alarm relay
 - Ranges of 15, 30 and 60m
 - Integral aiming device
 - 24V dc or 115/230V ac models

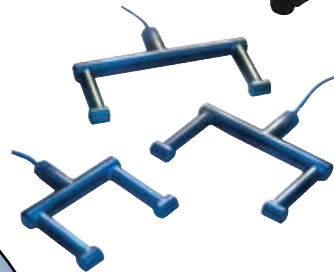
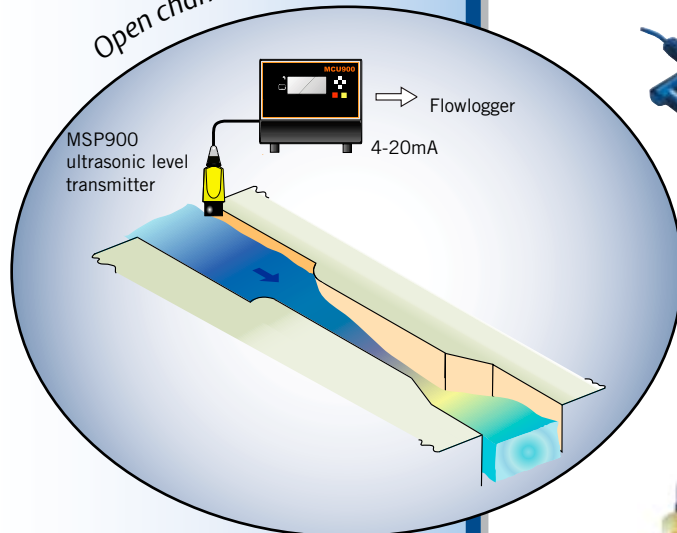
Level measurement for the water industry

A comprehensive range of instrumentation to satisfy the needs of both the potable and waste water industries is available. This extensive portfolio includes suspended solids monitoring, ultrasonic sludge blanket level, control and pressure transmitters and open channel flow monitoring equipment

Sludge level control



Open channel flow



Suspended solids monitoring and control

With over 30 years experience Mobrey is a recognised leader in the field of ultrasonic suspended solids detection and control.

Our feature rich instruments offer

- Built-in display, control and alarm options
- Simple menu driven programming
- Local programming via a membrane key pad
- Continuous sludge blanket monitoring
- Fully configurable output functions
- Local readout of percentage suspended solids
- IP65 wall mounting enclosures
- 4-20mA output options

Open channel flow measurement and control

Mobrey's expertise in ultrasonics and pressure has produced a new generation of level measurement instrumentation specifically designed to cater for the requirements of the water industry.

Mobrey is a renowned authority in the use of level instrumentation for open channel flow applications.

- Flow measurement in accordance with BS3680 Part 4
- Customised user profiles for complex tank shapes and flow structures
- Internal or external temperature compensation
- Process variable displayed in any engineering units
- 4-20mA output
- 5 Relays for wetwell pump control
- IP65 enclosure
- RS232 Comms options available
- Wall, rack and panel mounting

Steam boiler level control... fit and forget

From float level controls and electrode probes through to high integrity electronic gauging systems, Mobrey instruments offer the complete package for steam boiler level control

Hydrastep electronic gauging system

The Hydrastep electronic gauging system is the ideal fit and forget solution for monitoring drum water level in steam generating plant. Failure to detect low water levels in steam raising plant can have costly and potentially disastrous consequences. Reliable water level detection is vital to prevent damage to plant and personnel.

Designed for totally reliable operation, Hydrastep is both fail-safe and fault tolerant.

- Continuous fail-safe monitoring
- Fault indication on all displays
- Zero maintenance
- Local & remote displays
- Exceptional reliability
- Approved by insurance companies
- No missed incidents

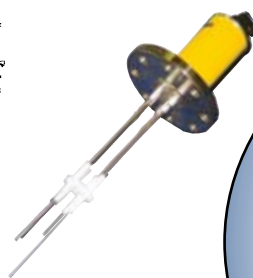
Hydratect steam/water detection system

Hydratect is for use wherever the detection of water or steam is vital for safe and efficient operation

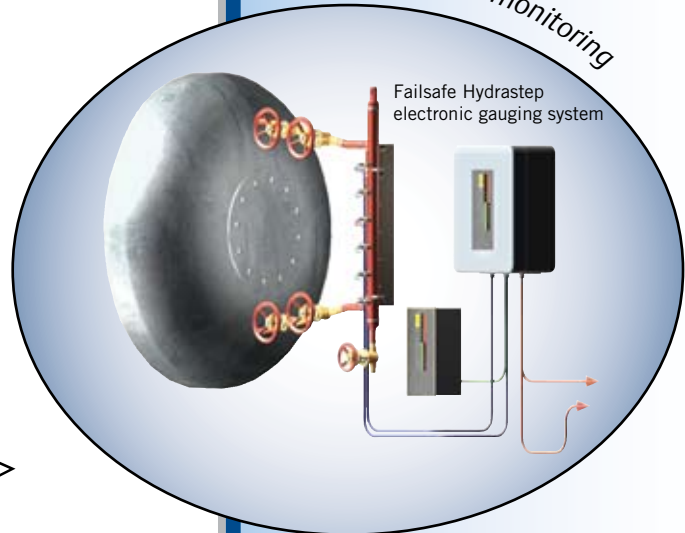
Mobrey and Erab level controls

Float level controls and electrode probe controls covering both point and continuous level applications. The range also includes high integrity self-monitoring equipment to comply with the most onerous boiler house requirements, giving a full range of control and alarm applications on steam boilers.

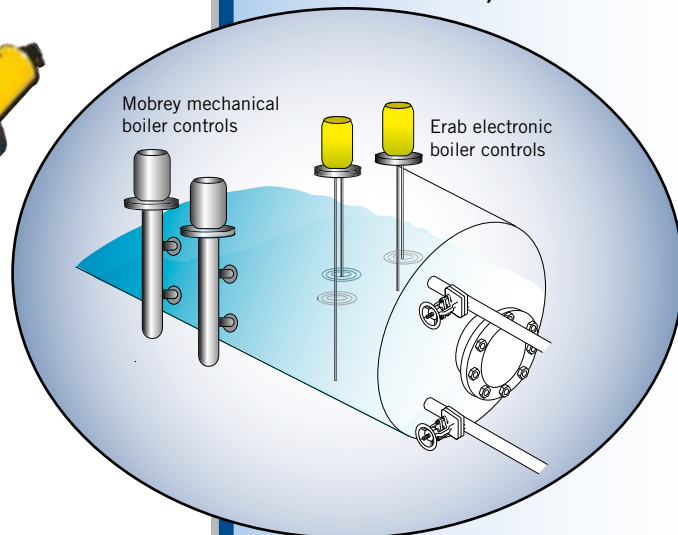
- Compact robust designs
- Self-monitoring, high integrity
- Suitable for pressures up to 62b saturated steam
- Smart, no start if wiring is incorrect
- No head mounted electronics
- May be grouped in various configurations to suit application
- Marine approvals



Boiler water level monitoring



Boiler level control



About us

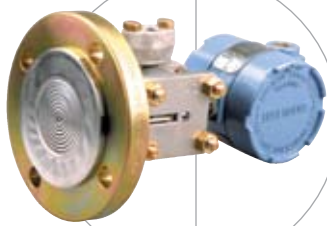
Emerson Process Management, an Emerson business, is a leader in helping businesses automate their production, processing and distribution in the chemical, oil and gas, refining, pulp and paper, power, food and beverage, water, pharmaceutical and other industries.

A division of Emerson, Mobrey Measurement is a leading manufacturer of measurement and control sensors, offering a single-source supply for an extensive range of level, flow, pressure, density, viscosity and other measurement solutions.

Mobrey Measurement's longevity and experience in the measurement industry plays a key role in Emerson's combining of superior products and technology with industry-specific engineering, consulting, project management and maintenance services.

Emerson brands include, PlantWeb®, Mobrey®, Rosemount®, Fisher®, Micro Motion®, DeltaV™, Ovation®, and AMS™ Suite.

Other level products from Emerson Process Management include:-



Rosemount pressure based liquid level transmitters
From the simplest to the most difficult tank configurations there is a wide range available to meet most applications and budgets.



Precision measurements in a variety of tank configurations. For applications requiring the highest levels of accuracy and performance, such as inventory control, material balance, and head box.



Rosemount 5600 Series radar transmitters
An intelligent radar level transmitter using FMCW technology. Its high performance microprocessor allows for smart echo-tracking features. Combined with its high signal to noise ratio, the transmitter can detect and evaluate all echoes within the tank or vessel.

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