

Measuring what matters

Advanced monitoring solutions for water treatment, wastewater treatment and environmental monitoring

Thermo Fisher Scientific offers a wide range of measurement and monitoring instrumentation for water quality in treatment plants and other industries.

Our solutions for **water quality measurement and monitoring** include water quality meters, consumables, probes, analysers and online monitoring instruments, with solutions tailored for drinking water, wastewater/discharge, and environmental monitoring.

We measure all the key parameters for water quality including pH, DO, conductivity, turbidity, chlorine, nutrients, algae, temperature, depth, flow and many more.

We're here to help you measure water quality at every critical control point; safeguarding supply, protecting the environment, improving efficiency, meeting regulatory compliance, and giving operators peace of mind.

We also help you **look after your assets,** providing a range of tools and sensors **condition monitoring and preventative maintenance,** helping you minimise downtime and reduce operating costs.

Your personal safety is also our primary concern; **Ione worker situations and potential exposure to toxic or asphyxiating gases** are potential hazards in this industry. We have solutions to keep everyone safe with personal gas detectors, fixed gas detectors, gas loggers, and lone worker devices with advanced monitoring solutions.

For facilities producing and capturing biogas, we provide biogas monitors and analysers.

(1) The products showcased in this brochure are only a small sample of our full range. Please contact us for more information.



Contents

Portable and laboratory instruments Online and real-time continuous monitoring	4
Biogas monitoring	22
Gas detection and lone worker safety	24
Portable gas detection	25
Gas detection / Lone worker safety	26
Asset protection	27
Fixed gas detection	27
Area gas monitoring	27
Preventative maintenance	28
Solar powered desalination	30
Technical service	31

Portable and laboratory instruments

Whether in-field or in a laboratory, you need reliability, accuracy, and ease of use. Thermo Fisher provide a wide range of high quality instruments and consumables – because your results matter.

Thermo Scientific[™] Orion Star[™] A329 Portable Multiparameter Meter

Everything you need for benchtop accuracy in a rugged portable format.

- pH, ion concentration, conductivity, dissolved oxygen and temperature
- Protective rubber boot for drop resistance, IP67 waterproof
- 5000 point sample log with date/time, sample ID and user ID options so none of your data goes missing
- Calibration and high/low limit alarms to let you know when something is wrong
- Password-protected measurement methods so each operator can have the instrument configured to their preferences
- On-screen text prompts for step-by-step calibration and guided setup instructions making this meter very easy to use

The A329 is just one of a large family of portable meters ranging from simple single parameter meters to the premium A329, with a wide selection of electrodes to meet your needs.

Knick Portavo Portable Meters with Memosens® technology

Rugged portables with advanced features of Memosens connection technology for measuring pH, ORP, conductivity, and dissolved oxygen.

- Memosens digital data connection between meter, cable and sensor with no exposed electrical contacts; 100% waterproof. Auto-sensor recognition means plug and play simplicity with replacement of pre-calibrated sensors in seconds
- Models with ATEX approval for use in Hazardous Locations up to Ex Zone 0/1
- IP66 / IP67 protection
- Robust and chemical-resistant housing survives standardised drop test from 1 metre onto concrete
- Multi-functional hook ensures freedom of movement by allowing the meter to be hung up or positioned upright
- 3-year warranty

Thermo Scientific[™] Elite PCTS Pocket Testers

These pocket-sized testers are designed to provide easy on-the-go measurements of conductivity, TDS, salinity and temperature testing; in a compact, travel-ready design.

- Measure pH, conductivity, TDS or salinity with temperature
- Large back-lit graphic display
- Uses 4 x AAA alkaline batteries
- Average 150 hours of battery life
- Wide leak-proof cap serves as stable base
- Replaceable sensors











Lovibond[®] MD 610 Multi-Parameter Colorimeter with Bluetooth[®]

The MD 610 is a modern, mobile photometer/colorimeter for rapid, reliable water testing.

- Bluetooth[®] interface allows connection to iOS[®] and Android[®] smart phones and tablets, with a free app for data management and email delivery
- More than 120 pre-programmed methods for powder, tablet and liquid reagent chemistries covering all the tests you need to do daily, weekly, or monthly
- All the important water analysis parameters from A(luminium) to Z(inc) including nitrogen, chlorine, phosphate and COD
- Rugged, IP68 waterproof design
- Store up to 1,000 readings with location ID, time and date stamp, so none of your measurements go missing

From the simple and ever-popular single parameter MD 100 chlorine DUO, to the advanced MD 610, Lovibond have a wide range of colorimeters/photometers, complemented by an extensive range of reagents, to suit your application.

bbe AlgaeTorch*

A light, handheld measuring instrument for the simultaneous detection of the chlorophyll-a of blue-green algae (cyanobacteria) and the total chlorophyll-a content of all microalgae present in the water.

- Switch-on, dip-in, read-off; results in less than 15 seconds with no sample-taking or preparation
- Measurement of algal concentrations via fluorescence
- Ideal for clean and dirty water thanks to the automatic turbidity compensation

Real Tech BOD/COD and TOC/DOC Field Meters – no reagents, results in less than 30 seconds

Fast, simple and cost effective testing of water or wastewater, in the field or in the lab.

- No reagents required test as often as needed, wherever is needed, without the costs of purchase and disposal of hazardous and toxic reagents
- Easy to use with fast 90 second warm up time
- · Accurate and precise results within seconds
- No zeroing to DI water before each test
- Patented technology provides superior measurement performance across multiple wavelengths using UV and visible LED's
- Rugged for field testing with optional Battery Pack
- Increase accuracy and robustness of measurement with the optional Liquid Ai Data Management PC Software for advanced data model (calibrations) capabilities







6

Real Tech P-series UV254/UVT Field Meter

Fast measurement of organics in water, in the field or in the lab.

- Wastewater to high purity test ranges
- Practical, accurate and affordable
- Extremely easy to use with fast 90 second warm up time
- Measures in UVT or UVA with simple toggle feature
- · Accurate and precise results within seconds
- No zeroing to DI water before each test
- Rugged for field testing with optional Battery Pack

bbe AlgaeLabAnalyser*

Quick and simple chlorophyll measurement with algal class differentiation.

- Direct measurement without sample preparation by filtration or dissolution
- Quantification of algal classes: green, blue-green (cyanobacteria), brown (diatoms and dinoflagellates), cryptophytes
- Turbidity compensation up to 200 FTU
- Yellow substances (CDOM) measurement to correctly calculate the total chlorophyll content
- Optional hard case and external battery for mobile deployment

Microfloc Platypus Jar Tester

The Platypus Jar Tester is a world class product for assessment of the physical and chemical treatment of surface and ground waters including coagulants, polymers, alkalinity treatment | oxidation | settlement rates | pre-treatment for flotation tests | reaction kinetics | mixing and flocculation power evaluation | metal residuals.

It is versatile and easy to use featuring

- · Easy to operate LED speed, time, alarm and status displays
- Three programmable flocculation stages
- Independently programmable duration and speed at each station
- Speed controlled to set point
- Advanced LED backlighting
- Splash-proof, tactile membrane decals
- Relevant European, US and AS/NZ EMC test certification
- Low voltage internal power

7

- Square jar geometry for plant emulation
- 1L or 2L Jars with or without supernatant sample taps







Thermo Scientific[™] Orion Star[™] A210 series benchtop meters

Our most popular selling benchtop meter, giving the perfect balance of features and ease of use with price.

- Available in versions for pH/ORP, ion concentration (eg. fluoride), conductivity, dissolved oxygen, and also a combination of pH/ORP with any other single parameter above
- 2000 point sample log with date/time, sample ID and user ID options
- On-screen text prompts for step-by-step calibration and guided setup instructions giving you an easy-to-use measurement solution
- Calibration and high/low limit alarms so you know when something is out of the ordinary

For even more capability consider the Orion[™] Versa Star[™] Pro series. For more economical options consider our Eutech[™] range of meters.

Thermo Scientific[™] Orion[™] AquaMate[™] Visible and UV-Visible Spectrophotometers

The AquaMate[™] II is the most advanced and user friendly spectrophotometer designed to meet the needs of water and wastewater analysis laboratories.

- Large 7-inch colour, high definition (800 × 1280 pixels), glove-friendly touch screen so you don't need to keep taking gloves on and off during lab-work
- 260+ pre-programmed methods spanning multiple reagent brands including Orion AQUAfast, Merck, and CHEMetrics so you don't need to switch from your favourite tests even if it is from another brand
- More than 1000 user defined methods
- Magnetically retained sample holders "snap-in snap-out" for easy cleaning and fast changeover, saving you the cost of an instrument when the inevitable spill happens
- Multiple data connectivity options (WiFi, LAN, USB)
- Low cost of ownership with long-lasting user-replaceable lamps

IDEXX Tecta[™] B4/B16

TECTA[™] is a fully automated microbiological platform that rapidly and accurately detects and measures E. coli, Total Coliforms, Faecal Coliforms and Enterococci contamination in water and biosolids.

- Simple, sensitive and flexible, allowing for testing of samples on site at any time
- Confirmed positive result in as little as 2 hours
- Automatically transmits results by email, and stores them securely on board
- Can be used by anyone no technical or scientific experience needed
- No sample preparation required
- NATA accreditable method
- Available in models for testing 4 or 16 samples simultaneously







Lovibond[®] EComparator EC 2000 Pt-Co

Take the uncertainty out of colour measurement. Replace subjective visual results with reliable electronic measurement, eliminating human error.

- Easy Transition from Visual to Electronic Measurements
- Dual view of colour difference with on-screen colour and on-screen numerical display
- On-Screen "Traffic Light" Warning System; Green|Amber|Red| for In|At|Out of tolerance
- Programmable create multiple projects with individual tolerance settings
- Touch Screen Technology for easy programming and instinctive on-screen menus
- Easy storage and sharing of results; large data storage (> 20,000 readings) and USB connectivity
- Single Scale Measurement Platinum Cobalt/Hazen/Apha Colour (ASTM D 1209)

Lovibond® TB 350 Portable Turbidimeter

Lovibond[®]'s newest turbidimeter is portable with the capabilities of a laboratory instrument.

The TB 350 uses Lovibond's innovative Multipath 90° BLAC[®] (Backscattered Light Absorbing Cavity) technology to achieve the highest standards of stray light elimination, delivering unsurpassed accuracy over the complete measuring range up to 4,000 NTU. Turbidity measurement has never been easier!

- Outstanding convenience
- ISO and US EPA compliant (available with infrared or white light LED)
- Delivers superior accuracy at low & high turbidities; 90° nephelometric detection over the complete measuring range from 0.01 up to 4,000 NTU
- Easy, full colour touchscreen user interface that provides animated & guided procedures and straightforward data management
- Visual alert if the reading is out of tolerance
- 3 different modes: Single, Signal Averaging, Fast-Settling
- Data transfer made easy share your measurement results via USB flash drive
- Supplied ready-to-use with sample cells, silicone oil and T-CAL[®] calibration standards





Online and real-time continuous monitoring

Real-time monitoring is the only way to capture and react to changes as they happen. Whether it's a normal variation or an unexpected event, real-time monitoring allows optimal management of plant efficiency and costs, as well as allowing early detection and reaction to events.

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HF Scientific CLX online chlorine analyser

Proven, reliable and economical, colorimetric DPD (N,N-diethylp-phenylenediamine) chemistry is the most accurate method for measuring free or total residual chlorine.

- Small footprint (326 x 311 x 129mm WxHxD) and rugged enclosure allows for a simple installation that will fit in almost any space
- Removable sample cuvette allows for simple cleaning and maintenance
- Viewable sample chamber allows a clear view of the sample cuvette while the instrument is sampling
- User selectable cycle times from 60 seconds up to 10 minutes
- Low volume reagent and sample chamber means low reagent consumption and co:
- Standard Outputs: 4-20 mA and bi-directional ModbusRS-485 with Modbus TCP
- USB-C for data log downloads and firmware updates
- User Alarms: 2 User Selectable Alarms for Sample Concentration (Form C 240VAC 2A)



Dosatronic® DOSAControl DCW 230 advanced package

One of a wide range of customisable packages from Dosatronic, the DCW 230 advanced package provides a very cost-effective measurement of free chlorine, temperature and pH.

- Advanced programmable 2-channel controller
- pH, free chlorine and temperature probes
- No reagents are required as the free chlorine is measured by the amperometric method

The Dosatronic product range is highly versatile to suit your needs; from single to 4 channel controllers, and a range of sensors for many other parameters.



Real Tech Analysers

Affordable and reliable single parameter monitoring with Controller and ByPass sensor combined into a single unit; for wastewater to high purity water applications.

- Optical measurement requiring no reagents
- UVT/UV254, Permanganate, Colour, TSS, Nitrite
- Automatic chemical cleaning for long term accuracy and low maintenance
- Long life light sources

Real Tech Bypass and Probe Sensors

Bypass and Probe sensors are the ideal solution for monitoring organics and other compounds, from wastewater to high purity water applications. They come in a wide variety of configurations from single to multiple parameter monitoring and concentration ranges, so you can have the best solution for your needs.

- Accurate and reliable real-time monitoring of single or multiple parameters including BOD/COD, TOC/DOC, UV254/UVT, TSS, Colour, Nitrate, Nitrite, Permanganate, Ozone, Benzene, Hydrocarbons...
- Bypass Sensors: The sample is supplied to the sensor from a pressurised source or from an open-channel using an accessory pumping system
- Probe Sensors: Ideal for open channel applications, high suspended solids sample matrix or non-pressurised applications. Available with titanium body options
- Long life LED light sources
- Connect to the Real Tech range of Controllers

Real Tech Controllers, Accessories, Data Services & Software

Real Tech offer a range of accessories to maximise the reliability and ease-of-use of your systems, while minimising downtime and manual tasks. These include Controllers, Pump Systems, Clean Systems, Combined Pump+Clean systems, Dual Feed Systems, and Data Services & Software.

- Plug-and-play controllers provide you easy access to your water quality data. Various communication outputs are available to make integration with your system simple and straightforward
- Pumping systems help provide reliable sample supply to By-Pass Sensors for open channel or non-pressurised applpications
- Cleaning Systems ensure that your By-Pass or Probe systems are being automatically and regularly cleaned for maximum uptime and accuracy of results
- Dual Feed Systems provides the ability to monitor two separate streams with a single instrument
- The Liquid Ai[®] platform is a suite of services provided by Real Tech to bring intelligent insights to your water quality monitoring application, including Remote Monitoring, Calibration Monitoring and Anomaly Detection





Liquid **Ai**™



Thermo Scientific[™] Orion[™] 8010cX Process Ammonia Analyser

The 8010cX is an easy to use, accurate, reliable and low maintenance solution for online ammonia monitoring. The analysis is based on the standard salicylic acid method.

- Designed to meet wastewater discharge regulatory requirements and process control needs
- Auto-ranging 0.02-2, 0.1-15, 0.5-30, 2-100, 30-500mg/L
- Feature-rich software and intuitive graphical user interface
- Minimised interference from colour and turbidity
- Compact size, small installation footprint
- Choose between continuous monitoring or interval monitoring modes that
 meet your needs
- Reagents last 60 days with 2 hour measurement interval with minimum waste (4L)
- IP65 protection



The 2109XP offers accuracy, reliability and ease of use to best meet the demands of your fluoride analysis.

- Uses a recognized EPA method for fluoride analysis using an ion selective electrode (ISE)
- Configurable to your facility's desired level of performance
- Password protected
- Easy to install, allowing your plant to be up and running in minutes
- Eliminates problems with turbidity and suspended solids in samples
- Provides true accuracy in measuring total fluoride, with a detection limit of 10ppb
- Offers continuous fluoride monitoring in a wide variety of samples
- Limits unnecessary calibration cycles due to drift with superior Orion fluoride electrode technology
- Minimises operator time and maintenance without the use of complicated moving parts or pumps that often require frequent attention and expensive spare part expenditures





Lovibond® PTV Low Range Online Turbidimeter

Designed by a team of globally recognised turbidity experts, the PTV addresses all of the issues customers struggle with while using their current turbidity systems.

These advancements, along with the addition of state-of-the-art communications and user interface make the PTV 1000 and PTV 2000 series the next generation of process turbidimeters.

- Mobile device app replicates the full control panel enabling easy operation independent of the location of the instrument
- Consistent flow rate of 4.8 L/hr reduces bubble creation
- Unique bubble trap that eliminates bubble interference with turbidity reading
- Advanced optics and flow cell design brings unsurpassed accuracy at low turbidity levels
- T-CALplus[®] calibration system and standards eliminates many errors with other turbidity systems and ensures zero contact between operator and chemicals

bbe AlgaeOnlineAnalyser*

The best solution for continuous online monitoring of algae in rivers, lakes and reservoirs.

- Detection of different algal classes by excitation with coloured LED's
- Yellow substances (non-algal fluorescence) measurement and compensation
- Turbidity compensation up to 200 FTU
- Integrated cleaning unit protects against growth problems during long term measurement

Applications include: Intake monitoring | dam monitoring | waterway analysis and assessment | environmental assessment | desalination plants.

Thermo Scientific[™] AquaPro[™] Multi-Input Intelligent Process Analyser

Accurate, user-friendly in-line monitoring of process applications in water and wastewater. The AquaPro Multi-Input Intelligent Process Analyser is far more than a 4-wire multi-input meter. It is a sophisticated and highly flexible analysis platform.

- Large colour display for easy data viewing
- Up to four sensor inputs, with up to eight current outputs
- Up to six alarm/control relays that can be used to alarm operators
- Multiple digital communication protocols, such as MODBUS and relay
 pulse signal
- USB port for easy data access







Thermo Scientific[™] Orion[™] pHR Process ROSS[™] Electrode

Save time and money while achieving fast, accurate pH measurements in a variety of samples.

- The ROSS[™] reference sensor provides a drift-free measurement system with accurate results
- Minimal maintenance and a longer lifetime
- Replaceable salt bridge that extends sensor life
- High performance, reliability and longevity
- Used extensively in all online water applications, from wastewater to drinking water
- Use with the AquaPro[™] Multi-Input Intelligent Process Analyser

Thermo Scientific[™] AquaSensors[™] DataStick[™] Wide-Range Turbidity Measurement System

Monitor wastewater and surface water turbidity 0 - 4000 NTU.

- Modbus RTU over RS485 communications adaptor
- Polycarbonate sensor body with 316 stainless steel to be used in any harsh environment
- Factory calibrated infrared sensor with 180-degree transmission compensation
- Optional head wash provides self-cleaning mechanism on the sensor, reduces manual maintenance
- Replaceable, pre-calibrated (for turbidity and temperature) sensor head that reduces the ongoing consumable cost compare to others in the market
- Plug-and-play capability via the Thermo Scientific[™] DataStick[™]

Communications Adapter, available in multiple protocols, for interactive measurement, calibration, configuration and diagnostics with the Thermo Scientific[™] AquaPro[™] Multi-Input Intelligent Process Analyser or AquaSensors[™] AV38 local display and connects directly to a PLC and SCADA systems.

Thermo Scientific[™] AquaSensors[™] RDO[™] Pro-X Optical Dissolved Oxygen Sensor

Continuously monitor dissolved oxygen (DO) in municipal and industrial applications.

- 0 to 20ppm measurement range that covers most water and wastewater applications
- No membranes; only annual field replaceable caps
- Resists photo-bleaching and abrasive process media
- No "poisoning" by sulfides
- No cross sensitivity to carbon dioxide, ammonia, pH, sulfide, sulfate, chloride or hydrogen sulfide
- Plug-and-play design with digital network interface
- For local display, connect to AquaPro[™] Multi-Input Intelligent Process Analyser or AquaSensors[™] AV38 local display







Knick Process Analytics Solutions

Versatile solutions for measuring pH, ORP, conductivity and dissolved oxygen in online environments, tailored for your application.

- Wide range of transmitters (controllers) for data communication and control
- Extensive range of fittings to integrate sensors into your measuring point



Transmitters (Controllers)

- Choices from a DIN rail transmitter to a fully modular system
- 2- or 4-wire configuration
- Ex zone approved options
- Bus communication: HART, FOUNDATION Fieldbus, Profibus DP and PA
- Robust industrial housing with high IP protection
- Suitable for outdoor applications
- For analog and digital sensors
- · Easy and intuitive operation

Fittings

- Static and Retractable (automatic and manual)
- Immersion, flow through and inline
- Ex approved options
- Process wetted materials include Stainless Steel, Polymer, Hastelloy, titanium, PFA
- Pipes, Vessels, open channel applications
- High pressure and high temperature options

MemoSuite Sensor Management Software

- Allows quick and easy pre-calibration of Memosens sensors in the laboratory
- Eliminates need for calibrations to be carried out on-site, just a quick and uncomplicated swap of the used sensors with pre-calibrated sensors

- Automatic in-place sensor cleaning and calibration solutions
- Long lasting analogue and Memosens digital sensors



Sensors

- Analog and digital (Memosens) sensors
- Intelligent preventive diagnostics with Memosens
- Multiple designs, sensor lengths and a wide range of connection possibilities
- Suitable for a large selection of Knick fittings, such as SensoGate and Ceramat as well as inline, flow-through and immersion fittings
- Conductivity sensors include 2-electrode, 4-electrode, inductive. For all measuring ranges from ultrapure water to concentrated acid and alkaline solutions
- Dissolved Oxygen sensors include amperometric and optical. Measuring ranges from trace to saturated

Automatic Cleaning and Calibration Systems

- Fully automatic in combination with the Protos process analysis system and a SensoGate or Ceramat retractable fitting
- Ensure highly accurate measurements even with difficult process conditions such as high pressure, high temperatures and high levels of impurities
- Maximum availability of the point of measurement; calibration without disrupting the process, even when measuring directly in a pressure vessel

MACE FloPro XCi

Monitor wastewater, stormwater and trade waste flows in full pipes and partially full pipes (open channel).

- Applications include: Wastewater | Stormwater | Industrial and Environmental flows
- Unique ceramic pressure sensor that survives in high solids water applications
- Small footprint area velocity sensor eliminates turbulence in the flow
- Now with 4G telemetry access

Whether you need to measure flow as well as conductivity, pH and rainfall, or utilise a downward looking ultrasonic depth sensor to measure pond levels, the FloPro is fully expandable to your needs and is easily interfaced to telemetry/SCADA systems.

Mace HVFIo Portable Waterproof Logging Flow Meter

The HVFlo portable logging flow meter features MACE field proven Doppler velocity and level measurement sensors.

Advanced spectrum signal processing allows HVFlo to produce superior results under a very wide range of hydraulic operating conditions.

Even under full pipe, surcharge, or reverse flow conditions, HVFlo will produce accurate, repeatable results every time. HVFlo offers optional telemetry interface for long-term monitoring applications.

- The HVFlo operates under a very wide range of hydraulic conditions, and will produce accurate, repeatable results even under full pipe, surcharge or reverse flow conditions
- Lightweight for easy handling
- Rechargeable battery offers long-life without costly new batteries
- Excellent data storage, typically 240 days (@ 15 minute logging)
- Typically 150 days battery discharge cycle (@ 15 minute logging)
- IP68 to 3 metres

MACE velocity and area/velocity sensors

Utilising continuous wave Doppler ultrasound, the MACE velocity sensors measure the speed of dirt, bubbles and other particles in the stream flow.

In full or partially full pipes, the velocity of the stream flow varies markedly across the cross-section of the pipe. MACE Doppler ultrasonic sensors receive reflected frequencies from particles moving at these different velocities. The average velocity of the stream is therefore calculated by averaging those frequency reflections received across the whole stream profile.

Suitable for partially-filled / filled pipes or open channels to 3m, customised installation options available.









Surface and ground water monitoring

Our range of rugged field-deployable sondes can be used for manual on-the-spot measurements, or left unattended to continuously measure and log water quality parameters for lengthy periods.

In-Situ Aqua TROLL 400

Water quality sonde with fixed sensors and a field replaceable pH/ORP sensor that measures...

- Actual and specific conductivity, salinity, total dissolved solids, resistivity and density
- Optical Dissolved Oxygen (optical RDO)
- pH/ORP
- Temperature
- Water level and water pressure (absolute)

Rugged and compact, the Aqua TROLL 400 can be deployed for months of unattended operation in harsh field conditions.

In-Situ Aqua TROLL 500 and 600

Fully customisable 4 sensor, 1 port sonde with interchangeable sensors and accessories across the In-Situ Aqua TROLL water quality sonde range including the newly released Aqua TROLL 700 and 800.

- Customised for a wide range of fixed and portable applications
- The Aqua TROLL 500 requires external power, Aqua TROLL 600 has the additional benefit of internal logging and internal battery
- Suitable for coastal applications with depth to 250m
- Complete set up via the VuSitu application (iOS(R) and Android(R))
- The Aqua TROLL 500 and 600 series seamlessly integrate with the Vulink Telemetry System and the **newly released Rugged Monitoring Buoy**
- Optional wiper for long-term deployments or anti-fouling measures
- Sensor options include temperature, absolute and gauged pressure, conductivity, pH/ORP, rugged dissolved oxygen (RDO[®]), turbidity, chlorophyll A, phycocyanin (BGA-PC), phycoerythrin (BGA-PE), rhodamine WT, fluorescein WT, FDOM, crude oil, ammonium (ISE), chloride (ISE) and nitrate (ISE)

In-Situ Aqua TROLL 700 and 800

Fully customisable 6 sensor, 7 port sonde with interchangeable sensors and accessories across the In-Situ Aqua TROLL water quality sonde range.

- Customised for a wide range of fixed and portable applications
- The Aqua TROLL 700 requires external power, Aqua TROLL 800 has the additional benefit of internal logging and internal battery
- Suitable for coastal applications with depth to 250m
- Complete set up via the VuSitu application (iOS(R) and Android(R))
- The Aqua TROLL 700 and 800 series seamlessly integrate with the Vulink Telemetry System and the **newly released Rugged Monitoring Buoy**
- Optional wiper for long-term deployments or anti-fouling measures
- Sensor options include temperature, absolute and gauged pressure, conductivity, pH/ORP, rugged dissolved oxygen (RDO[®]), turbidity, chlorophyll A, phycocyanin (BGA-PC), phycoerythrin (BGA-PE), rhodamine WT, fluorescein WT, FDOM, crude oil, ammonium (ISE), chloride (ISE) and nitrate (ISE)







In-Situ VuLink

VuLink revolutionses remote monitoring with a cellular NB-IoT telemetry device that will change the way you think about remote monitoring.

- Our turnkey solution is easy to set up, works from anywhere and delivers longlasting power. So, you never have to worry about your equipment or your data
- VuLink has an in-built barometric sensor that automatically compensates for atmospheric pressure, and a hydrophobic filter for maintenance-free vented systems in a sub-2 inch design
- VuLink is part of the most complete monitoring solution available. Instrumentation, telemetry and software work together within In-Situ's shared ecosystem to make it easier than ever to collect, access and manage your data

In-Situ Rugged Monitoring Buoy

Reliable, cost-effective monitoring platform for long term deployments of instrumentation and telemetry in a pond, lake, river, bay and coastal near shore environments.

- Fully assembled and ready to be deployed out of the box
- Anti-rolling design with convenient carry strap
- Designed for easy installation of the complete In-Situ water quality and telemetry instrumentation







bbe Fluoroprobe*

Field deployable instrument for analysis of chlorophyll with algae class determination.

- Deployable to a depth of 100m (optionally 1000m)
- Highly sensitive
- Fast up to 4 measurements per second
- Determination of green algae, blue-green algae (cyanobacteria), diatoms and cryptophytes, with individual profiles for the different algal classes
- Yellow substances (non-algal fluorescence) measurement and compensation
- Automatic turbidity correction
- Internal rechargeable batteries and datalogger
- PC software for data analysis
- Optional Hydro-Wiper unit to prevent biofouling when operated for extended periods from moored platforms, submersed from buoys or fixed measuring stations

bbe PhycoProbe*

All the capabilities of the Fluoroprobe plus measurement of unbound phycocyanin (free PC).

- Deployable to a depth of 100m
- Measurement of free phycocyanin reflects the release of blue-green algae contents like cyanotoxins as well as flavours and odorous substances









Biogas monitoring

Biogas monitoring at wastewater treatment plants is becoming ever more important as plants capture methane from anaerobic digestion, to generate heat and electricity on site.

Portable BIOGAS 5000 Monitor

QED Environmental Portable BIOGAS 5000 Monitor is a field instrument to measure anaerobic digester gases with repeatable accuracy on wastewater treatment facilities.

- Measures CH₄, CO₂ and O₂ as a standard
- IECEx certified for hazardous environments
- Optional CO, NH₃, H₂S and H₂ sensors
- 3 Year Warranty

Fixed BIOGAS 3000 Online Analyser

The QED Environmental IECEx BIOGAS 3000 Online Gas Analyser maximises gas production yield and protects expensive capital equipment from the damaging contaminant gases contained within the production process.

- Measure from up to 4 sample points
- Measures CH₄, CO₂ and O₂ as a standard
- IECEx certified for hazardous environments zone 2
- Optional CO, H₂S and H₂ sensors
- Optional heater, automated moisture removal drain, and Profibus or Profinet communication

Fugitive Emissions of Methane

The Huberg Laser One by QED Environmental is a professional instrument for the detection and localisation of methane gas leaks. It is selective and it requires no gas cylinder. Applications include the detection of leaks in underground and above ground pipelines.

The instrument can be used for better quantification of CH_4 emissions from infrastructure and has great results even with biogas leaks in biogas plants, thanks to the high precision of tunable diode laser technology. Equipped with GPS antenna and Bluetooth for data transfer from the instrument to a PC or PDA.

- Rapid start-up and detection
- In-built GPS tracking
- ATEX certified
- No cross-gas or false readings
- No additional devices for operation
- No flame or external hydrogen required
- · Accurate reporting which meets and maintains compliance requirements







Gas detection and lone worker safety

An extensive range of portable and fixed gas detection equipment to monitor toxic, combustible and asphyxiating gases, complemented by advanced lone worker solutions, to ensure worker safety on and off site.

Portable gas detection

Honeywell BW[™] Icon/Icon+ Four Gas Detector*

- Fixed life (Icon) and Serviceable (Icon+) next-generation datalogging, single-button, four gas detector
- Simple icons for gas levels and device status. That means no live gas readings for workers to interpret and no time-consuming training
- Ideal for confined space monitoring
- 2 months battery runtime
- Bluetooth for access from smartphone

Honeywell BW[™] Solo Single Gas Detector*

- Next-generation datalogging, single-button, single gas detector
- Wide range of gas models from Cl₂ to H₂S to NH₃
- Easy sensor replacement, in the field, with no tools
- Bluetooth option for access from smartphone

Honeywell BW[™] Ultra Five Gas Detector*

- Serviceable next-generation datalogging, single-button, five gas detector
- · Measures the standard confined space gases, plus one toxic gas
- Integral sample pump
- Ideal for confined space monitoring
- Bluetooth for access from smartphone

MSA Altair® 4XR Four Gas Detector

- Rugged gas detector, IP68 and drop-tested
- Long-life, fast XCell Technology with end-of-life indicator
- 4 or 5-year warranty

MSA Altair[®] 5X Six Gas Detector

- Rugged gas detector, IP65 and drop-tested
- Ideal for wastewater sites, with PID and $\rm NH_{_3}$ Sensor options
- · Long-life, fast XCell Technology with end-of-life indicator
- Integral pump











25

Gas detection / Lone worker safety

Blackline Safety G7 product line incorporates an SOS trigger, fall-detection, no-motion detection, missed check-in detection and advanced location technology, along with cellular and satellite communications to ensure seamless monitoring. From lone worker monitoring to gas detection and 24/7 response management, G7 has your team covered.

Blackline G7c gas detector and lone worker monitor

- Always-connected cellular real-time lone worker monitor with fall-detection, no-motion detection, missed check-in detection, SOS emergency trigger and gas alert
- Communication via text, voice or push-to-talk
- Combine with up to 5 gas sensors to provide full connected worker safety

Don't need lone worker alerts?

- G7c provides cloud-connected gas detection, complete with an SOS emergency trigger
- At the end of each day, compliance data and measurements are uploaded to the cloud for review, without the need for cables or infra-red dongles

Blackline G7x

• No cellular network reception?

G7x provides a satellite connection for both real-time lone worker monitoring and gas detection



Blackline Live Web Portal

- Whether in real-time or as historical data, Blackline Live shows:
 - where your team are located
 - any alerts that may be present
 - trends of alerts for team members and plant



Asset protection

OdaLog G20 - the first gas logger with smart digital sensors

- Gas logger designed for harsh wastewater environments, at manholes, rising mains, fence-lines
- Predictive maintenance, with fault indication to help identify sensor issues and corrective actions
- Extended field life, to reduce on-going service costs
- Bluetooth, 4G, Cloud and Modbus integration
- IECEx certified for hazardous environments

Fixed gas detection*

A comprehensive range of technologies designed to monitor a wide variety of toxic and combustible gases found throughout water and wastewater S\sites.

Honeywell SPM Flex Gas Detector

- Low level (ppb) detector for $\rm H_{2}S$
- Ideal for odour scrubbers
- Proven intelligent Chemcassette® technology
- Fixed and portable options

Honeywell Series 3000 Gas Detector

- Single gas detector ideal for H₂S and Cl₂
- Two-wire loop powered device
- Hazardous zone options

Area gas monitoring

Honeywell Rig Rat*

- Portable area monitor for up to 6 gases
- Run time of up to 8 weeks
- Optional Bluetooth, Wi-Fi, noise and windspeed monitors

Blackline G7 EXO

- Portable area monitor for up to 5 gases
- Cloud connected
- Run time of up to 12 weeks
- Optional SOS Alert and live monitoring











27

Preventative maintenance

Thermo Fisher understands that you take your preventative maintenance seriously. That's why we have partnered with global leading manufacturers to provide you with the best tools for the job. Preventative maintenance means better performance, lower costs and increased safety. For example - pumps are crucial components at any treatment plant. Vibration monitoring is a cost-effective way to maintain pump and overall machine health, minimise downtime and reduce operating costs.





Solar powered desalination

We don't just measure water quality, we make quality water

Almost 200,000 people in remote Australia don't have access to drinking water that consistently meets health guidelines, and 400,000 more have water that does not meet acceptable aesthetic benchmarks.

Thermo Fisher have teamed up with Boreal Light to help solve these water quality problems in remote and/or offgrid communities, no matter what their current water supply.

With multiple installations across the globe including hundreds in African nations alone, the Boreal Light systems are proven to perform under the harshest climate conditions and can be run 100% directly from solar power. Implicit in the design is the ease and simplicity of regular maintenance tasks.

Designed and manufactured in Germany, the Boreal Light systems can produce anywhere from 1,000 to 100,000 L/hr. They provide a long-term solution with low capital investment, and very low running costs. Learn more at **thermofisher.com/solardesal**



ThermoFisher SCIENTIFIC

Technical service

Thermo Fisher Scientific, your true industry service partner

Thermo Fisher Scientific is your industrial partner, focused on helping you to improve process efficiency and minimise unplanned downtime.

We offer technologically advanced monitoring and measurement instrumentation to enable plants in power, mining, municipal, food and beverage, and more, to improve production efficiency, improve the lifecycle of their existing assets, and ensure environmental compliance. This is backed by our NATA calibration and service support capabilities.

We have service centres in Melbourne, Sydney, Brisbane, Perth and Auckland and offer on-site calibration services that guarantee a convenient servicing location as well as minimising equipment downtime and a cost-effective solution for all your calibration requirements.

Our factory trained technical service team is equipped with the global knowledge and tools to support your organisation when instruments require repair, service and calibration. They're factory trained to ensure we can offer a guarantee on our workmanship with anything we do as well as only using genuine parts to maximise your instrument uptime. Why risk using anyone else when Thermo Fisher stand behind everything we do.

In many cases, we can offer a maintenance agreement to minimise the financial impact on your business by giving you greater working capital increasing your cashflow; talk to us today to find out how we can tailor a service solution to meet your business needs.





Water is life.

Providing clean safe drinking water, treating wastewater, and protecting our environmental waters has never been more important. Our focus is to help our customers in water management achieve their goals efficiently, reliably and safely.

In Australia:

For customer service, call 1300-735-292 Sales enquiries, ANZ.sales@thermofisher.com To email an order, ordersanz@thermofisher.com

In New Zealand:

For customer service, call 0800-933-966 Sales enquiries, ANZ.sales@thermofisher.com To email an order, ordersanz@thermofisher.com

Learn more at thermofisher.com/wateranalysis

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