

Advanced online, laboratory and field instruments for water quality analysis & monitoring

- Drinking Water
- Wastewater
- Aquaculture & Agriculture
- Environmental



Thermo Fisher Scientific offers a full range\* of water quality meters, probes, analysers and online monitoring instruments, with solutions tailored for drinking water, wastewater/discharge, aquaculture, agriculture, and environmental monitoring.

Our product range addresses all the key parameters for water quality, including pH, DO, 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.

Your personal safety is also our primary concern as you carry out this vital work. We know that lone worker situations and potential exposure to toxic or asphyxiating gases are potential hazards in this industry; we have solutions to keep you safe.

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



# Portable & 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 - 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 so 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.



## 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, 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

The MD 610 is just one of a family of colorimeter/photometers, complemented by an extensive range of reagents for almost any application.



#### Thermo Scientific™ Orion™ AQ4500 Turbidity Meter

An advanced Turbidity Meter, with dual light sources to meet ISO and U.S. EPA method requirements.

- White Light LED to comply with EPA 180.1 requirements
- Infrared (IR) LED to comply with ISO 7027 requirements
- Reads from 0 up to 4000 NTU in IR ratio mode. Various modes/units are available: NTU, FAU, FNU, ASBC and EBC
- IP67 waterproof
- 100 data point memory
- Average battery life of 2500 hours intermittent use so your meter is read to go when you need it
- Includes SDVB primary standards (AC45ST) samples vials and sturdy field case for easy storage and transport

The AQ4500 is complemented by the IR only versions; the AQ3010, and the TN-100 pocket IR turbidimeter.



#### New Lovibond® Turbidimeter series for the Field & Laboratory

The new TB Series of portable turbidimeters from Lovibond® Tintometer® will combine a state-of-the-art optical system with ease of use and flexibility for a wide range of testing applications. Available early 2021.



#### 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



#### 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, 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 & UV-Visible Spectrophotometers

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

- Large 7-inch color, 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 incl.
  Orion AQUAfast, Merck, and CHEMetrics so you don't need to switch from your favourite tests even if it is from another brand
- >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



#### Tecta<sup>™</sup> B4/B16

TECTA™ is an automated microbiological platform that rapidly and reliably detects E. coli, Total Coliforms, Faecal Coliforms and Enterococci contamination.

- Available in models for testing 4 or 16 samples, simultaneously; the B4 being perfect for portable use
- Designed for operators with no microbiological training
- Simple, sensitive and flexible, allowing for testing of samples at any time of the day
- Automatically transmits data allowing for notification on electronic devices, such as mobile phones or laptops, as soon as a contamination event is detected
- See a confirmed positive result in as little as 4 hours



#### bbe PhycoLabAnalyser\*

Quick, simple chlorophyll measurement with algal class differentiation.

- Direct measurement without sample preparation by filtration or solvent,
- Indicator for cyanotoxins as well as flavours and odorous substances by phycocyanin measurements
- Turbidity compensation up to 200 FTU
- Yellow substances (CDOM) correction to correctly calculate the total chlorophyll content
- Optional hard case and external battery for mobile deployment

# Online & Real-Time monitoring

While laboratory data is important for compliance and other reasons, 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 reaction to events.

24/7



#### Real Tech Multi-Wave SA Probe Sensor

An affordable and accurate solution for real-time organics monitoring using a submersible probe.

- Robust submersible probe for in-situ measurement
- Simple to install and easy to operate
- Accurate and reliable monitoring of organic loading; real-time UVT, UV254, DOC, TOC, COD, BOD, colour and TSS
- Automatic compressed air cleaning
- Long-life LED light sources
- Connect to Real Controller or Real Controller Pro

The SA probe sensor is one of a large family of solutions from Real Tech for organics monitoring which includes Probes, By-Pass Sensors and controllers.



#### Real Tech Spectrum GL Bypass Sensor

The GL sensor utilizes UV-VIS light for measurement of organic matter, nitrate and other compounds in water or wastewater, continuously scanning the water with multiple wavelengths, configurable up to 40 between 200-750 nm.

- Wastewater to high purity measurement ranges
- Multiple parameter configuration available Parameters include BOD, COD, TOC, DOC, UV254, UVT, TSS, nitrate, nitrite, permanganate, colour
- Accurate and reliable monitoring of organic loading; real-time UVT, UV254, DOC, TOC, COD, BOD, colour and TSS
- Innovative Split-Sense Pro technology compensates for lamp drift and fluctuations, providing an accurate and stable output over time
- · Simple optical measurements, no reagents
- Requires Real Controller or Real Controller Pro





#### Thermo Scientific™ Orion™ 2109XP Fluoride Analyser

Thermo Scientific<sup>™</sup> Orion<sup>™</sup> 2109XP Fluoride Analyser 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
- Minimizes 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 Process Turbidimeter

Designed by a team of globally recognized 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 PhycoSens online Algae Analyser\*

Online rapid analysis of chlorophyll and unbound phycocyanin (free PC) concentration in water.

- Detection of different algal classes by excitation with coloured LEDs
- Yellow substances (CDOM) measurement to adjust the calculation of the total chlorophyll content
- Turbidity compensation up to 200 FTU
- Integrated cleaning unit protects against growth problems during longterm measurement

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



#### Thermo Scientific™ AquaPro™ Multi-Input Intelligent Process Analyzer

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

- Large color 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 Analyzer



## 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 to reduce manual maintenance
- Replaceable, pre-calibrated (for turbidity and temperature) sensor head that reduce 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 Analyzer 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 with unique countdown system when the fresh membrane is changed
- 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 Analyzer or AquaSensors™ AV38 local display



#### **MACE FloPro XCi**

Monitor wastewater, stormwater & 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 solid water applications
- Small footprint area velocity sensor eliminates turbulence in the flow

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.



# Portable and unattended field deployment

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 multiparameter sonde with interchangeable sensors and a smartphone interface.

- Customised for fixed and portable applications
- Aqua TROLL 500 requires external power, Aqua TROLL 600 has the additional benefit of internal logging and internal battery
- Sensors are interchangeable between the Aqua TROLL 500 and 600
- Options include temperature, pressure, conductivity, pH/ORP, Rugged Dissolved Oxygen (RDO®), turbidity, chlorophyll A, Phycocyanin (BGA-PC), Phycoerythrin (BGA-PE), Rhodamine WT, ammonium (ISE), chloride(ISE) and nitrate (ISE)

The In-Situ range of water quality instrumentation consists of a shared Eco-System of cabling and communication. They are compatible with the iOS° and Android® mobile devices.



#### bbe PhycoProbe\*

Field deployable instrument (to 100 m depth) for the in vivo analysis of chlorophyll in real microalgae and blue-green algae (cyanobacteria)

- Highly sensitive
- Individual profiles for the different algal classes
- Measurement of the amount of unbound phycocyanin (free PC) which reflects the release of blue-green algae contents like toxins as well as flavours and odorous substances
- Yellow substances measurement and compensation
- Automatic turbidity correction
- Hydro-Wiper unit prevents biofouling when deployed from moored platforms

# 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.

The QED Environmental range of fixed and portable biogas analysers are IECEx certified for use in hazardous zones around Australia and New Zealand.

The analysers measure CH<sub>4</sub>, CO<sub>2</sub> and O<sub>2</sub> as a standard, and have the option of H<sub>2</sub>S, CO and H<sub>2</sub>. The portable instrumentation has the expanded offering of NH<sub>3</sub> and H<sub>2</sub> compensated CO.



#### 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 CH<sub>4</sub>, CO<sub>2</sub> and O<sub>2</sub> as a standard
- IECEx certified for hazardous environments
- Optional CO, NH<sub>3</sub>, H<sub>2</sub>S and H<sub>2</sub> sensors
- 3 Year Warranty



#### **Fixed BIOGAS 3000 Online Analyser**

The QED Environmental IECEx BIOGAS 3000 Online Gas Analyser maximizes 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 CH<sub>4</sub>, CO<sub>2</sub> and O<sub>2</sub> as a standard
- IECEx certified for hazardous environments- zone 2
- Optional CO, H<sub>2</sub>S and H<sub>2</sub> sensors
- Optional heater, automated moisture removal drain, and profibus or profinet communication

# Personnel Safety

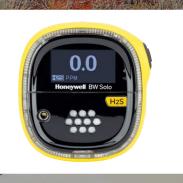
#### Portable Gas Detection\*\*

An extensive range of portable gas detection equipment designed to monitor a wide variety of toxic and combustible gases, such as methane, hydrogen sulphide, carbon monoxide, carbon dioxide and oxygen deficiency. Our product offering is comprehensive and includes our own 'OdaLog' brand loggers designed for Wastewater Monitoring as well as a large selection of portable gas detectors for Confined Space Monitoring and other Occupational Health and Safety applications.



#### 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



#### Honeywell BW" Solo Single Gas Detector

- Next-generation datalogging, single-button, single gas detector
- Wide range of gas models from Cl<sub>2</sub> to H<sub>2</sub>S to NH<sub>3</sub>
- Easy sensor replacement, in the field, with no tools



#### 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



#### Thermo Fisher Scientific OdaLog H<sub>2</sub>S Logger

- Single gas logger designed for harsh wastewater environments, at manholes, rising mains, fence-lines
- Longer battery life, lasting up to 12 months
- Certified intrinsically safe to use in most commonly found hazardous environments
- Now with Bluetooth data access

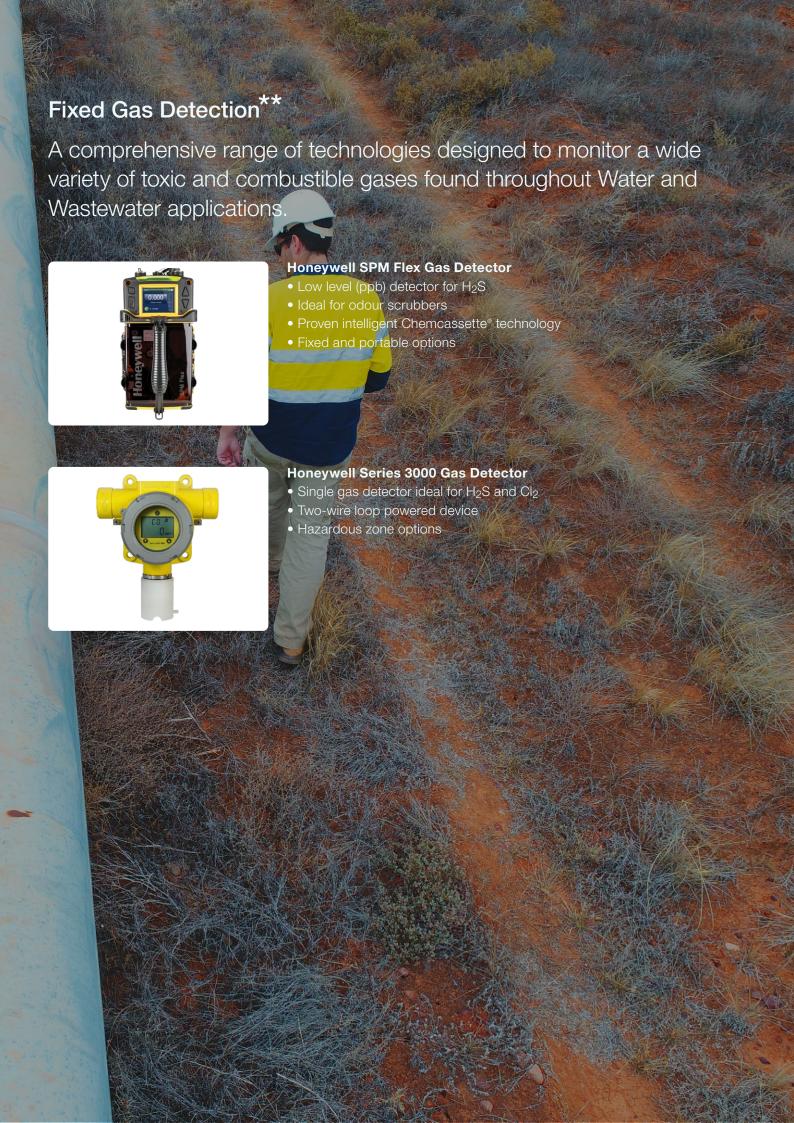
### **Lone Worker Safety**

Blackline Safety G7 product line incorporates 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**

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





- \* bbe Moldaenke products available in Australia only
- \*\* Honeywell products available in Australia only

#### In Australia:

For customer service, call 1300-735-292 To fax an order, use 1800-067-639 To email an order, ordersau@thermofisher.com

Find out more at

thermofisher.com

#### In New Zealand:

For customer service, call 0800-933-966 To fax an order, use 0800-329-246 To email an order, ordersnz@thermofisher.com

Find out more at

thermofisher.com

