



通順展實業有限公司

TOPENGIN CO., LTD.

ABOUT US

電話/TEL: 07-3388-301

傳真/FAX: 07-3388-307

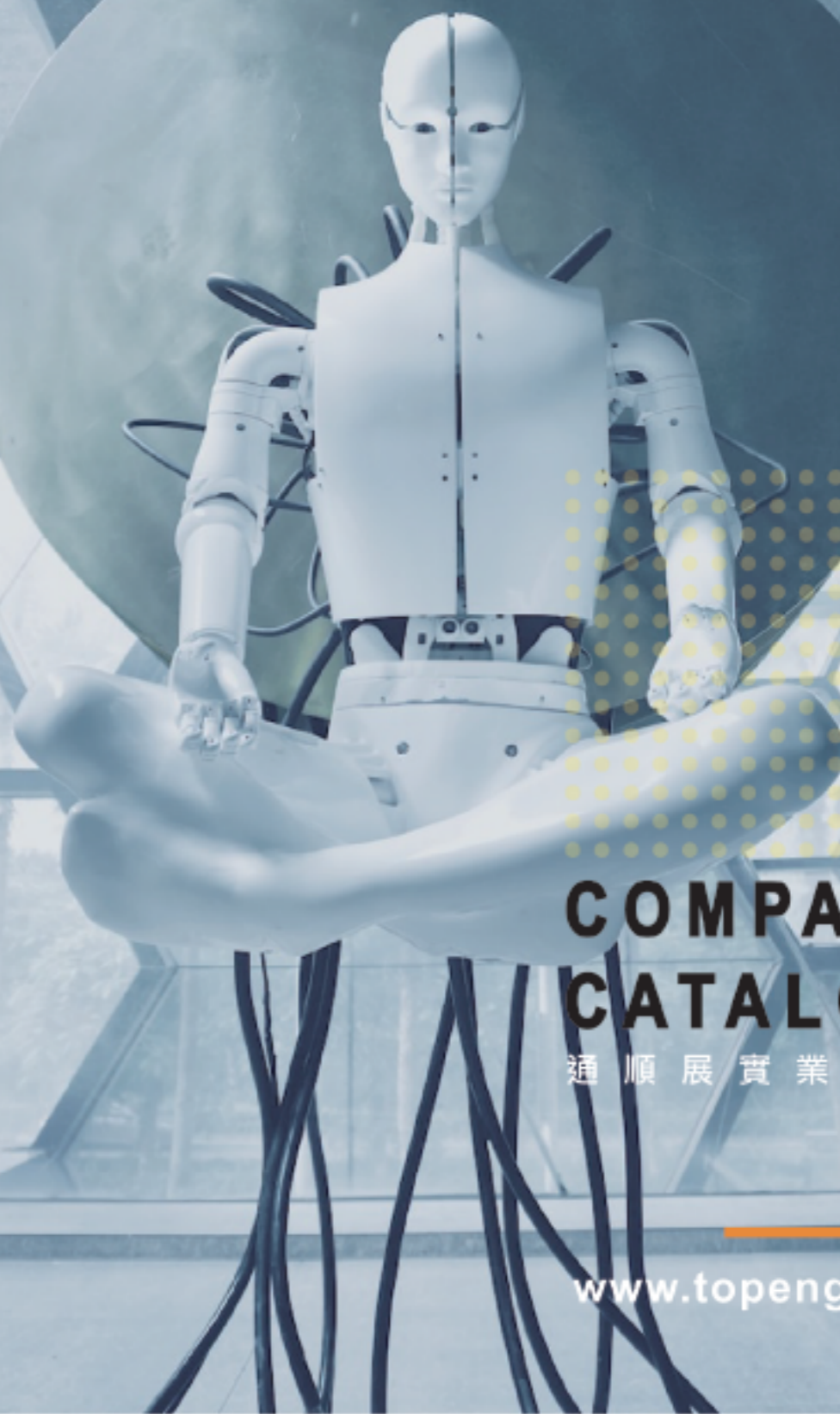
地址: 高雄市前鎮區民權二路8號14樓之1

ADDR: 14F.-1, No.8, Minquan 2nd Rd.,

Qianzhen Dist., Kaohsiung City 80661, Taiwan

TOPENGIN

CO., LTD.



**COMPANY
CATALOGUE**

通順展實業產品型錄

www.topengin.com.tw

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關於我們



ABOUT TOPENGIN

不只是儀器代理商，更提供客製監測系統整合；

不只是設備提供者，更包含後續維修保養服務；

不只有應用諮詢服務，更協助提出最佳解決方案。



SURPASS YOUR EXPECTATIONS FOR ANALYTICAL MEASUREMENT.

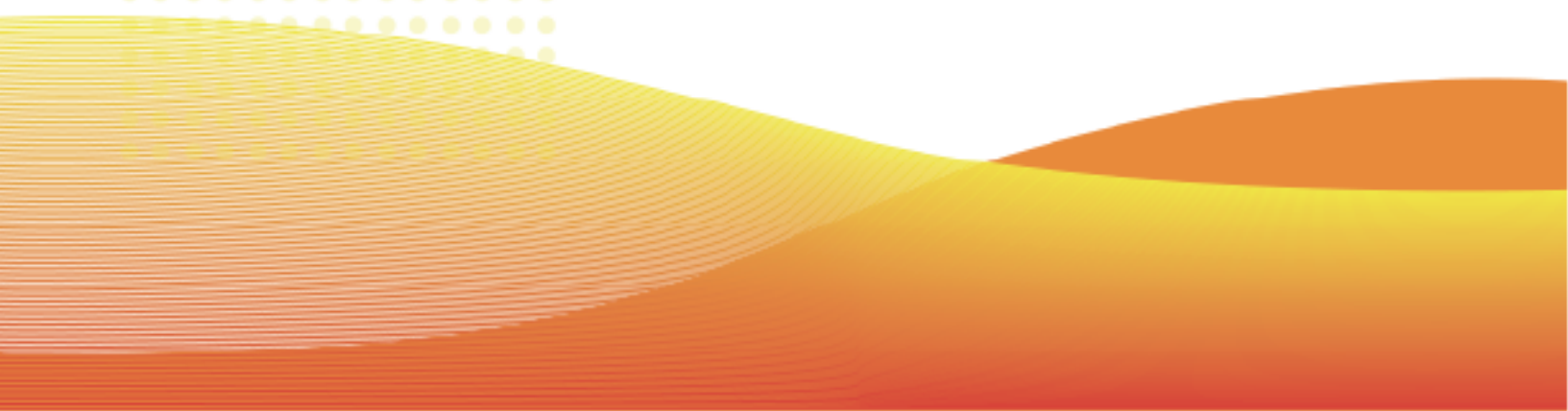


CONTENT

GAS ANALYZER

WATER MONITOR

**INDUSTRIAL
INSTRUMENT**





GAS ANALYZER

Oxygen & Multi-Component Gas

*Built to meet the challenge of
hot and hazardous/safe gas
analysis environments*



氧氣分析儀 Oxygen Analyzer



SERVOTOUGH OxyExact 2200

The OxyExact oxygen analyzer combines high precision Paramagnetic O₂ sensing technology into a flexible and robust safety-enhanced design, optimized to meet the needs of demanding process monitoring applications.

FEATURES & BENEFITS

- Zone 1 Certified to ATEX Cat 2, IECEx and FM/CSA Class 1 Div 1
- Three enclosure systems allow sampling of any flammable gas up to 100% O₂ and pressures of up to 40psi
- High-temperature version eliminates the need to condense hot sample prior to analysis

APPLICATIONS

- Oxidation control reactions
- EO, PTA and EDC manufacturing
- Catalyst regeneration
- Solvent recovery

SERVOMEX 
a spectris company

多成分氣體分析儀 Multi-Component Gas Analyzer



SERVOTOUGH SpectraExact 2500

Servomex's iconic industry-leading Photometric analyzer delivers flexible single and multi-component gas analysis capability for corrosive, toxic and flammable sample streams. The reliable, accurate and stable real-time online process analysis makes it ideal for a range of process, combustion and emissions gas analysis applications.

FEATURES & BENEFITS

- Zone 1 Certified to ATEX Cat 2, IECEx and FM/CSA Class 1 Div 1
- Three enclosure systems allow sampling of any flammable gas up to 100% O₂ and pressures of up to 40psi
- High-temperature version eliminates the need to condense hot sample prior to analysis

APPLICATIONS

- Water in EDC/solvents
- Ethylene production
- TDI production
- Chlorine production

SERVOMEX 
a spectris company

氧氣及可燃氣體分析儀 O₂ & Combustibles Analyzer



SERVOTOUGH FluegasExact 2700

The FluegasExact 2700 analyzer uses industry-leading patented technologies (Zirconia cell and Thick Film Catalytic sensor) for ultra-accurate and reliable measurement. The long life, low-drift sensing technologies make it more reliable and extend calibration intervals.

FEATURES & BENEFITS

- Zone 2 Certified to ATEX Cat 3, IECEx and FM/CSA Class 1, Div 2
- Simple installation and low maintenance requirements
- Extractive sampling design protects from harsh process conditions, extending product life.

APPLICATIONS

- Process control
- Combustion
- Robust O₂ and CO₂ analysis meets diverse application needs
- Configurable sampling options for exact fit

SERVOMEX 
a spectris company

雷射氧氣分析儀 Combustion Oxygen Analyzer



SERVOTOUGH Laser 3 Plus

The SERVOTOUGH Laser 3 plus is a revolution in TDL Absorption Spectroscopy analysis: a highly compact gas monitor for in-situ cross stack applications, which delivers exceptional performance benefits in a revolutionary compact design.

FEATURES & BENEFITS

- ATEX, IECEx hazardous area approvals
- Process temperatures from 700°C up to 1500°C
- A compact analyzer specifically optimized for the fast, accurate and responsive measurement of NH₃

APPLICATIONS

- Hot Oxygen Analysis
- Process heaters
- Incinerators
- Power stations
- Furnaces

SERVOMEX 
a spectris company

安全區用氧氣分析儀 Safe Area Oxygen Analyzer



SERVOPRO **MonoExact DF310E**

The MonoExact DF310E analyzer has been designed specifically to accurately measure oxygen in various industrial gas (IG) applications. Combining Servomex's latest advances in sensing technology and analyzer design into an advanced new platform, the DF310E is easy to operate and integrate into a wide range of systems.

FEATURES & BENEFITS

- Large library of compatible gases
- Intuitive icon driven touchscreen user-interface
- Up to 5-year coulometric sensor warranty
- Non-depleting coulometric and paramagnetic sensors

APPLICATIONS

- Industrial gas manufacturing (Nitrogen, Argon & Hydrogen)
- Tanker transfil
- Specialty gas blending

SERVOMEX 
a spectris company

安全區用多成分氣體分析儀 Safe Area Multi-Gas Analyzer



SERVOPRO **MultiExact 4100**

With a strong combination of features and benefits, the MultiExact 4100 is a highly adaptable analysis solution that meets a range of needs. It uses a wide range of Servomex's proven, reliable and accurate sensing technologies to provide up to four simultaneous gas stream measurement, meeting the challenges faced by industrial and medical gas manufacturers.

FEATURES & BENEFITS

- Uses industry-leading, ultra-sensitive and reliable Paramagnetic, GFx Infrared, SBSW Infrared, SBDW Infrared, Zirconia and Aluminum Oxide sensing technologies
- Field upgradeable relay, alarm and communication protocols.

APPLICATIONS

- Product purity/control on air separation plant
- Monitor trace CO₂ on scrubbed air inlet to air separation process
- Validation of medical O₂, N₂, air and He Mobile labs

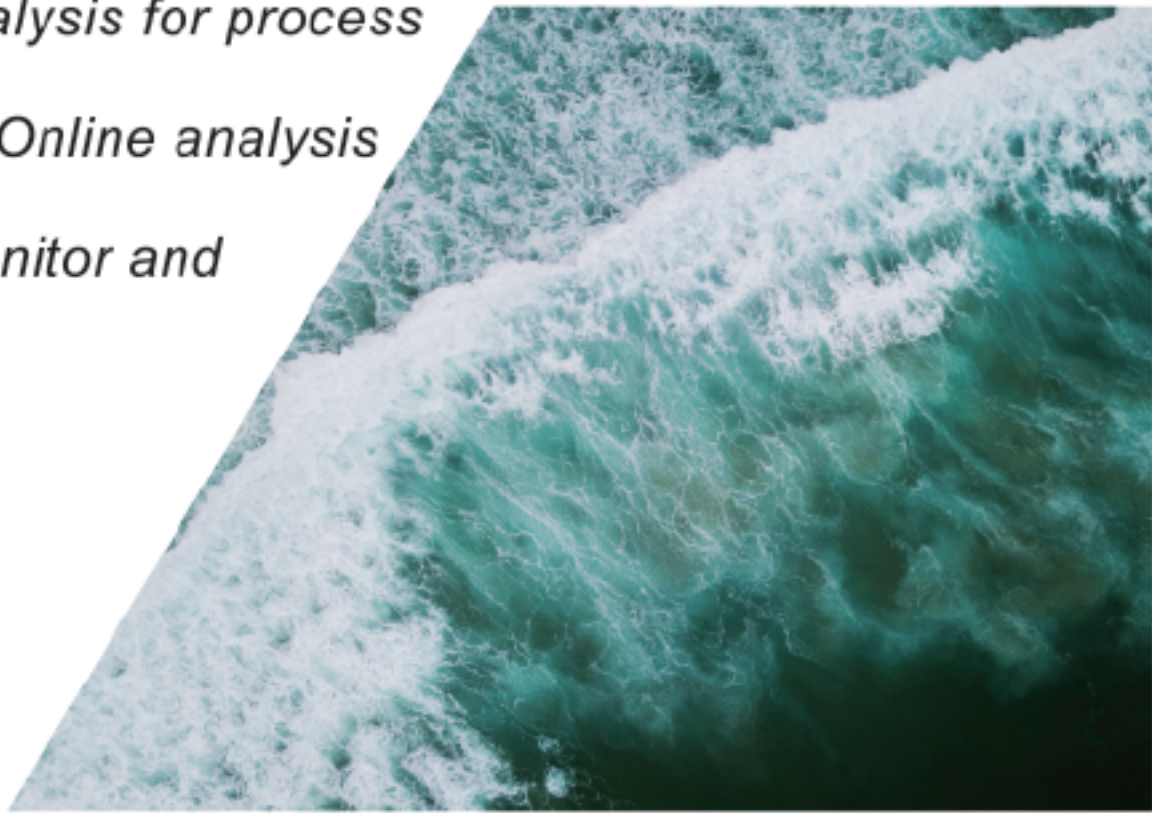
SERVOMEX 
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WATER MONITOR

Drink Water & Waste Water

*Continuous analysis for process
water control / Online analysis
solutions to monitor and
control your
process water*



化學/生物需氧量/總有機碳分析儀 COD/BOD/TOC Analyzer



UV254 Analyzer CT200

Based on UV absorbance measurement (SAC 254) to determine the concentration of dissolved organic matter (COD, TOC, etc.) in 20 seconds, with no reagent. SAC 254 analyzers designed to monitor SAC COD and manage water treatment in real time.

FEATURES & BENEFITS

- Online UV 254 measurement
Measuring ranges: 0-200 Abs / m (river, drinking water)
0-1000 Abs / m (effluents, purification)
- Functional on dirty water
Large-section hoses limit the risk of clogging.
Optical turbidity compensation.
- Long-term reliability of the measurement
Automated cleaning system
and zero adjustment.

APPLICATIONS

- Storm water and river monitoring
- Drinking water production
- Industrial effluent control
- Treatment plants



線上型濁度計 Online Turbidity Meter



Turbiggo

Rugged online turbidity analyzer. Continuous measurement of Turbidity and Total suspended solids (T.S.S). Turbiggo provides a cost-efficient solution for turbidity monitoring, and for real time water treatment, reliable for any type of application.

FEATURES & BENEFITS

- Measuring ranges: from 0.01 to 1000 FNU, adjustable depending on whether you want better precision at the low end or high end.
- Reliable measurement without interference related to water color by the use of an infrared source.
- A wide measurement range which allows measurement of charged water.

APPLICATIONS

- Stream water monitoring
- Drinking/rain water production
- Industry & industrial effluent control
- Urban waste water treatment plants



四合一水質分析儀 pH/Conductivity/Turbidity/ORP Analyzer



AWT420

The AWT420 dual-channel transmitter provides true flexibility for measuring a wide variety of parameters in a single device. Packed with a host of features including Bluetooth® connectivity, dual PID control and EZLink sensor connection, water analysis has never been easier.

FEATURES & BENEFITS

- Mix-and-match a wide range of analog and advanced digital EZLink™ sensors
- Plug-and-play digital sensor connection using EZLink technology
- Integrated Bluetooth® for direct connection to your smart device
- Advanced self-diagnostics conforming to NAMUR NE 107 provide harmonized indication of device status

APPLICATIONS

- Drinking water
- Wastewater
- Industrial water
- Powertrrol



TBX5 - pH, ORP sensors with diagnostics

The sensors are easily applied to most industrial measurement needs. They are renowned for their ability to outperform conventional sensors in the industries' toughest process applications.



TB404 - Conductivity sensors

Toroidal Conductivity sensors are designed to measure from 400 microsiemens per centimeter to 1,999 millisiemens per centimeter.



ATS 430 - Turbidity and total suspended solids sensors

A compact, yet extremely robust turbidity sensor capable of measuring turbidity and total suspended solids (TSS) concentrations up to 4,000 NTU or 100,000 mg/L. Available in stainless steel (optional integral cleaning) or titanium, these rugged sensors are suitable for use in a wide range of process control applications.

氨氮分析儀 Ammonia Analyzer



AAM631

It uses a robust gas sensing ammonia electrode to provide accurate and reliable continuous on-line analysis of ammonia levels in waters up to 1000 ppm NH₃.

Measurement results are updated every 2 seconds to the large, full color graphical display where process trends can be viewed locally.

FEATURES & BENEFITS

- Continuous measurement using ISE technology
- Automatic 2-point calibration
- Helpful maintenance diagnostics screens
- Web- and ftp-enabled for easy data file access, remote viewing and configuration
- Email capability

APPLICATIONS

- Drinking water treatment
- Industrial effluents
- Wastewater
- River water



餘氯分析儀 Residual Chlorine Monitor



AW400

Residual chlorine monitoring system incorporates the features our customers need to monitor and control residual chlorine levels accurately and affordably. The design enables users to either connect up to three residual chlorine monitoring sensors to the system or to combine pH, ORP and residual chlorine sensors; thus reducing the cost of each measurement considerably.

FEATURES & BENEFITS

- Reagentless operation reduced operating costs with reagentless operation at a pH of 7.5 or less
- Self-cleaning sensor assembly prolongs sensor life and maintains accuracy
- Instant response to changes of residual chlorine, unlike batch / DPD methods
- No additional plumbing required to ensure optimum sample delivery rate and pressure

APPLICATIONS

- Drinking water
- Cooling water for power stations and industrial facilities
- Fruit and vegetable disinfection baths
- Tertiary treated waste water
- Swimming pools and spas



線上型濃度計 Inline Refractometer



L-Rix

It's an optical inline refractometer for the determination of the refractive index (RI) in liquids based on Snell's law of refraction. It can be immersed directly in the production liquid. It continuously displays the refractive index (or sugar concentrations) at process temperature allowing 24-hour concentration measurements and production control.



FEATURES & BENEFITS

- Real-time predictive tool for the final concentration.
- The robust stainless steel construction meets all requirements of the process environment.
- Fully CIP/SIP capable.
- Integrated self-diagnosis.
- Multiple connection choice: VARIVENT® N, CAN interface to mPDS 5 or Pico 3000 RC or to be equipped with Pico 3000 built into the electronics housing

線上型密度計 Inline Density Meter



L-Dens

The series combines high accuracy and a compact design, making it the first choice for precise density and concentration measurements. Thanks to the modular system and the wide range of integration options, these instruments can be easily integrated into measurement systems or production equipment.



FEATURES & BENEFITS

- Accurate and reliable even under changing process conditions.
- Use the instruments, which are built with different oscillator materials, to measure non-corrosive and aggressive liquids, even in hazardous environments.
- Maintenance-free and non-consumables
- Easy to commission, easy to operate
- Rely on comprehensive database to find out the best measure the concentration of required liquid.

線上水中油分析儀 Inline Oil in Water Analyzer



EASZ-2

A full-bore inline/online highly accurate product designed to continuously monitor the water content in a flowing hydrocarbon media (oil). It is inline because it can be easily fitted into an existing pipeline and online because it continuously monitors and transmits data.

FEATURES & BENEFITS

- Highly accurate: Up to $\pm 0.05\%$
- Digital RS485 and analogue 4-20 mA
- Ingress Protection IP66
- ATEX and IECEx available
- High visibility OLED display and LED status background (Green, Amber and Red)
- Sensor pipe all in 316 stainless steel
- A wide range of pipe sizes



APPLICATIONS

- Available to all industries that need to monitor water in oil or fuel in real time.



線上油品監測系統 Oil Condition Monitoring System



WearSens®

Early indication of oil changes leads to optimum loading and/or timely preventative maintenance. The result, huge savings in money downtime and man hours. Change in oil is one of the precursors of particle shearing and pitting in the bearing raceway. Early detection can warn of potential damage states, before damage occurs.

FEATURES & BENEFITS

- Optimizes load, reduces wear
- Detect change before wear damage
- More sensitive than vibration monitoring, more sensitive than lab analysis
- Easy to install or retro-fit
- Web based, decentralized monitoring
- Condition Based Maintenance
 - large cost savings

APPLICATIONS

- Wind turbine gearboxes
- Contamination detection
- Roller bearing wear detection
- Oil deterioration monitoring
- Oil Condition monitoring solution



水中油層控制器 Oil On Water Smart Controller



SLC-220

A digital signal processor that interfaces with Leakwise ID-220 Series Sensors to report hydrocarbons spill/leak alerts, including layer buildup and thickness, to users via a wide variety of outputs and communication interfaces for local or remote reporting.

FEATURES & BENEFITS

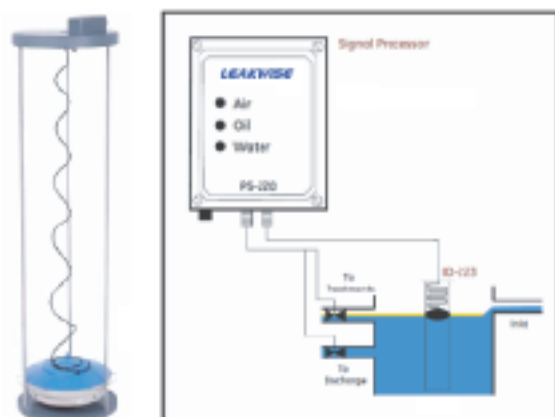
- Low-power consumption with wired/wireless connection to customer's main control system.
- Low-cost Cellular wireless operation by text messaging to cellphones.
- Centralized control of multiple sensors using multiple controllers connected.
- Built-in self-diagnostics of the Sensors and Controller.
- Processor firmware updates can be simply downloaded by the user for keeping the product updated.

APPLICATIONS

- Oil spill/leak monitoring in tank farms/sumps
- Discharge from wastewater treatment plants
- Hydrocarbon pipeline pumping stations
- Hydroelectric and fossil fuel power plants



水中油層感測器 Oil Sheen Sensor



ID-223

It has a high frequency transmitter mounted on a float built in a guiding cage. The floating sensor maintains its position precisely at the liquid/air interface, despite fluctuations in the liquid level.

FEATURES & BENEFITS

- Can detect as little as 0.3 mm (0.01 in) oil on water reliably, repeatedly, and without false alarms.
- Can also monitor on-line changes in oil layer thickness up to 20 mm (0.8 in).

APPLICATIONS

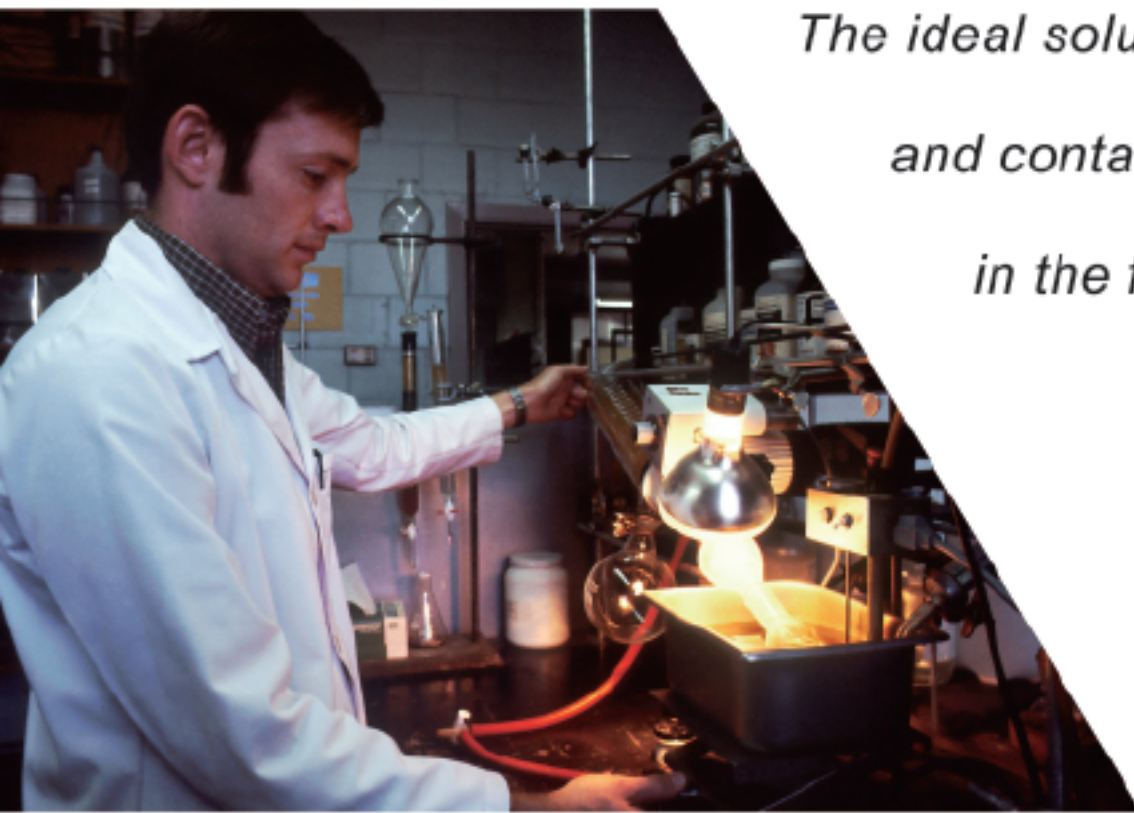
- Above-ground oil storage tanks
- Transformer sumps in switchyards and remote
- Oil/water separators
- Wastewater sewer systems
- Cooling water systems and trenches
- Storm water run-off



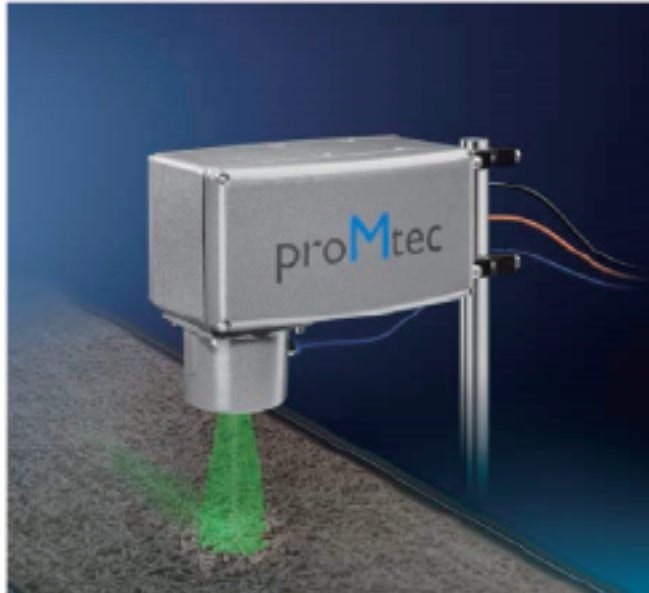
MATERIAL ANALYZER

**Real-time, Non-destructive
NIR Material Analysis**

*The ideal solution for mobile
and contactless analysis
in the factory or field.*



固體水份分析儀 Online Moisture Analyzer



OMC 2500

The OMC 2500 measures the moisture of your product with highest reliability and precision. The measurement is done contactlessly and directly during the process. This allows an immediate reaction regarding variations of the material moisture.

The reliability of the unit is neither effected by material variations such as particle size, material height and color, nor by ambient light, temperature or humidity.

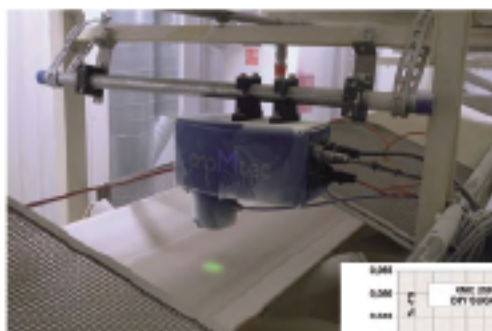
The measured values can be integrated to the process control via various interfaces.

FEATURES & BENEFITS

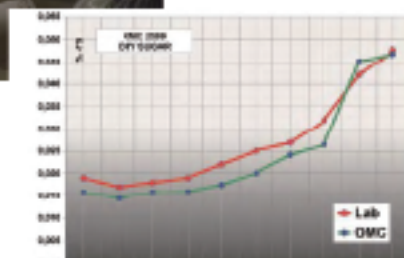
- Real-time & Contactless measurement
- High precision, excellent repeatability
- Sturdy, modular construction
- No limitations
 - Speed
 - Colour
 - Material size

APPLICATIONS

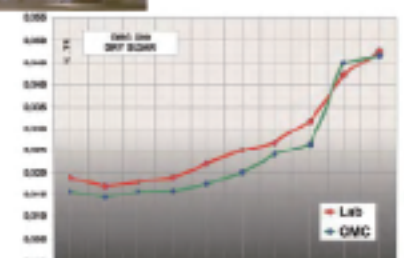
- | | |
|--------------------|------------------------|
| ■ Biomass | ■ Granular Materials |
| ■ Chemical | ■ Powdered Products |
| ■ Food Processing | ■ Product Coatings |
| ■ Forest Products | ■ Synthetic Materials |
| ■ Paper Processing | ■ Translucent Products |
| ■ Plastics | ■ Web Products |
| ■ Textile | |
| ■ Tobacco | |



▲ Dry Sugar



▲ Sugar Beet Pulp



手持式近紅外光譜儀 Handheld NIR Spectrometer



MicroNIR OnSite-W

With integrated battery, button, and Bluetooth, the OnSite-W is the ideal solution for mobile material analysis in the factory or in the field. The powerful software suite presents an intuitive user interface that requires minimum training to operate from a tablet or PC.

The MicroNIR OnSite-W is the smallest fully-integrated NIR spectrometer on the market and is enabled by proven VIAVI linear variable filter (LVF) technology. With no moving parts and IP65/IP67 dust/water ingress rating.

FEATURES & BENEFITS

- Wireless, compact, rugged, and ergonomic design for one-hand operation.
- Multifunction button for one-click data acquisition.
- Internal, rechargeable battery with run time greater than 10 hours
- Bluetooth or USB connectivity to tablet or PC
- Compatible with original MicroNIR OnSite accessories
- Powerful MicroNIR Pro model-building and prediction software
- Intuitive, easy-to-use software interface

APPLICATIONS

- Pharmaceutical raw materials
- Polymers and chemicals
- Narcotics and explosives
- Grain and forage
- Tobacco and agricultural products
- Meat and dairy products



INDUSTRIAL INSTRUMENTS

Pressure, Flow, Level, Temperature

*Offer the best solutions
and products in any
industrial process*



壓力測量 Pressure Measurement



APC-2000ALW

Smart pressure transmitters are applicable to measure the pressure, under pressure and absolute pressure of gases, vapors and liquids. The design of the casing enables the use of a local display, rotation of the casing by 0–340° relative to the sensor, and a choice of cable direction.

FEATURES & BENEFITS

- 4...20 mA output signal + HART 5 / HART 7 protocol (Special version: 0...20 mA or 0...5 mA output signal)
- Display with backlight
- Programmable range, zero shift, characteristic and damping ratio with local panel keys
- Safety version SIL2/SIL3
- Explosion Proof Exia & Exd certificate ATEX, IECEx, FM (USA, Canada)
- Marine certificate – DNV, BV
- Accuracy 0,075% (0,05%, 0,04% on request)
- Gold plated diaphragm (Au)
- MID (Measuring Instruments Directive)
- Material of casing: Aluminum ally cast or 316 stainless steel
- Degree of protection IP66/67



APR-2000ALW

Smart differential pressure transmitters are applicable to the measure the differential pressure of gases, vapors and liquids. The special design of the active sensing element ensures that it is able to withstand pressure surges and overloads of up to 250/ 320/413/700 bar.

FEATURES & BENEFITS

- 4...20 mA output signal + HART 5 / HART 7 protocol (Special version: 0...20 mA or 0...5 mA output signal)
- Display with backlight
- Safety version SIL2/SIL3
- Explosion Proof Exia & Exd certificate ATEX, IECEx, FM (USA, Canada)
- Programmable zero range, shift, characteristic and damping ratio with local panel keys
- Static pressure limit up to 600bar
- Accuracy 0,075% (0,05%, 0,04% on request)
- Gold plated diaphragm
- Marine certificate – DNV, BV
- Wetted parts material 316L / Hastelloy C276
- Material of casing: Aluminum ally cast or 316 stainless steel
- Degree of protection IP66/67

溫度測量 Temperature Measurement



APT-2000ALW

Smart temperature transmitters are designed to measure temperature in various branches of industry in normal conditions as well as in conditions of danger the explosion of gas and dust. Transmitters may be equipped with various types of measuring insert casings which allows for their application in various conditions.

FEATURES & BENEFITS

- 4...20 mA output signal + HART protocol
- Programmable range, zero shift, characteristic and damping ratio with local panel keys
- Intrinsic safety (ATEX), Explosion proof (ATEX, IECEx) version
- Resistant or thermocouple measuring element
- Explosion Proof Exia & Exd certificate ATEX, IECEx, FM (USA, Canada)
- MID (Measuring Instruments Directive) – certificate acc. to 2004/22/WE directive and OIML R140:2007 recommendations.



LI-24ALW

The temperature transmitters are applicable to converting resistance of temperature or voltage of thermocouple sensor to standard current signal 4-20mA. The transmitter has two separate channels enabling measurement of temperature difference, average, and average with redundancy, max. or min. temperature. Transmitter has compensation of ambient temperature influence and compensation of thermocouple cold junction using internal/external (Pt100) sensor or constant temperature.

FEATURES & BENEFITS

- 4...20 mA output signal + HART protocol
- Galvanic insulation (In, Out)
- Programmable sensor type and measuring range
- Thermoresistance line compensation
- Compensation of thermocouple cold junction
- Auto diagnostic system
- Explosion Proof Exia & Exd certificate (ATEX, IECEx)
- Safety version SIL2/SIL3

溫度測量 Temperature Measurement



MWIR-BORESCOPE-640

It enables a continuous and clear view, even though heavy smoke and hot furnace atmospheres, which is not possible with visual furnace camera systems. With a clear view through smoke and furnace gases, the MWIR-B-640 allows highly accurate and fully radiometric temperature measurement image data to be taken, stored, and trended over the lifetime of the furnace/boiler expensive belt.

FEATURES & BENEFITS

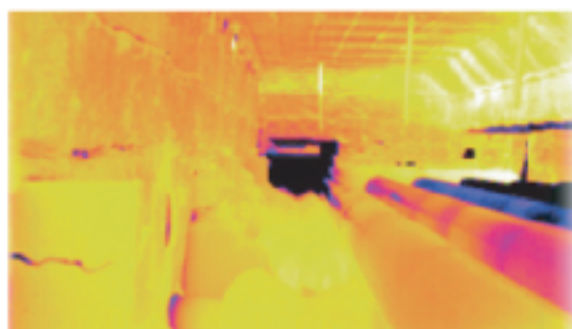
- Advanced Spectral Filtering
 - enabling a clear view through dusty/smoky and hot furnace atmospheres, working in the mid Infrared range
- High-temperature measurement accuracy
 - enables optimum furnace and boiler control through enhanced furnace thermal imaging.
- Advanced image processing software – control, monitor, analysis and capture data from the thermal imaging camera with IMAGEViewer and IMAGEPro.
- Real-time thermal data combined with high-resolution, low noise visual image
 - allows true real-time furnace optimization and the opportunity to improve energy efficiency without degrading furnace/boiler lifetime
- Safe 24 hour, 7 day monitoring
 - guarantees accurate, reliable data from a safe remote position without risk to the operators.



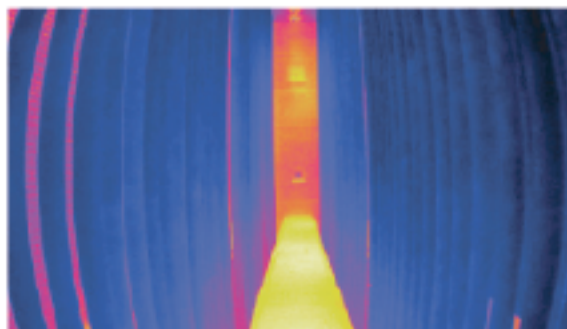
▲ *Advanced Spectral Filtering*



▲ *24/7 Operation and Remote Process Monitoring*



▲ *Fully-Radiometric and Highly Accurate*



▲ *Patented Background Compensation*

流量測量 Flow Measurement



ProcessMaster FEP300

ProcessMaster sets the standard for the process industry. It meets the various requirements of NAMUR. ProcessMaster is a universal device according to the Pressure Equipment Directive. In compliance with the requirements of NAMUR, the devices are categorized under category III for pipelines.

As a result, ProcessMaster can be used universally. This reduces costs and increases safety.

FEATURES & BENEFITS

- Advanced data storage inside the sensor eliminates the need to match sensor and transmitter in the field.
- The "Easy Set-up" function reliably guides unpracticed users through the menu step by step.
- The backlit display can be easily rotated without the need for any tools. The contrast is adjustable and the display fully configurable.
- ProcessMaster is designed and manufactured in accordance with international quality procedures (ISO 9001) and all flowmeters are calibrated on nationally-traceable calibration rigs to provide the end-user with complete assurance of both quality and performance of the meter.



CoriolisMaster FCB400, FCH400

The CoriolisMaster is the cost-effective and easy ABB mass flowmeter with a new modular transmitter. The CoriolisMaster operates in accordance with the Coriolis principle.

The design offers the following benefits:

- Space-saving, robust design.
- Variety of process connections.
- Modular, flexible output concept.

FEATURES & BENEFITS

- Automatic firmware update.
- Integrated solutions for filling operations and concentration measurement.
- Lower pressure loss.
- Predictive maintenance in the process.

流量測量 Flow Measurement



FF1225

Series of ultrasonic flare gas flow meters designed and manufactured for accurate flare gas metering. Lesser meter technologies, not "Fit for Purpose" are at times selected in a cost cutting effort. These inferior solutions can result in inaccurate flow measurements and higher maintenance costs. It delivers accurate gas flow measurement over a wide range with minimal maintenance intervention. The flow meters are offered with several options including local or remote mount transmitter, temperature and pressure transducers, and a multi-path version that provides flow uncertainty of better than 1%. Both the local or remote LCD display shows velocity, flow rate, total flow.

FEATURES & BENEFITS

- Accurate, slack to super-fast gas flows
- Insensitivity to Presence of Liquid and Dirt
- Transducers removable under pressure
- Variety of Pressure Ratings

INSTALLATION



▲ 6", flare gas, oil battery



▲ 12", flare gas, drilling rig



▲ On pipe 42" flare gas

液位測量 Level Measurement



FEATURES & BENEFITS

- Programmable zero shift, range and damping ratio
- 4...20 mA output signal + HART protocol
- Accuracy 0,16%
- Local display
- Intrinsic safety certificate (ATEX, IECEx)

APC-2000ALW/L

The APC-2000ALW/L level probe is applicable to measure liquid levels in tanks, deep wells or piezometers.

The APC-2000ALW/L probe is applicable to measure levels of liquids containing contaminants or suspensions. A typical use for this probe is the measurement of levels of liquid waste in intermediate pumping stations, fermentation chambers, settling tanks etc. Because in submersible part of level probe is mounted only measuring sensor level probe can be used for measuring hot liquids max. 100°C.



FEATURES & BENEFITS

- Programmable zero shift, range and damping ratio
- 4...20 mA output signal + HART protocol
- Accuracy 0.1%
- Integrated internal overvoltage protection circuit
- Intrinsic safety certificate (ATEX)
- Marine certificate DNV

SGE-25.Smart

The probe measures liquid levels, basing on a simple relationship between the height of the liquid column and the resulting hydrostatic pressure.

The pressure measurement is carried out on the level of the separating diaphragm of the immersed probe and is related to atmospheric pressure through a capillary in the cable.

The active sensing element is a piezo resistant silicon sensor separated from the medium by an isolating diaphragm. The electronic amplifier, which works in combination with the sensor, is additionally equipped with an overvoltage protection circuit, which protects the probe from damage caused by induced interference from atmospheric discharges or from associated heavy current engineering appliances.

液位測量 Level Measurement



FEATURES & BENEFITS

- Each flap in the indicating rail is fitted with a permanent magnet which makes our level gauge unaffected by shocks, vibrations, high temperatures, moisture and / or an aggressive environment.
- Instead of level switches a reed chain transmitter can be mounted, this reed chain has an standard output signal of 4-20 mA.
- Suitable for interface reading

Pointer D, F, M, R, L

Magnetic level gauges work on the principle of communicating vessels, therefore the level in the measuring chamber will be the same as the level in the vessel. The measuring chamber is fitted with a float, which has a magnet inside. The float with magnet will float on the medium and the magnet in the float will turn the flaps of the indicating rail. Beside the above mentioned types we can manufacture special models. We can make models with a coating (lining) from E-CTFE, PFA or ETFE, models made from plastic, Hastelloy, Monel, Titanium or 254 SMO. We also produce magnetic level gauge with (steam) jacket for heating or cooling. For further information please contact one of our technical sales engineers.



Float Switch

Hadro can produce different types of float switches and levelmeters (4-20 mA) with the following options such as: threaded connection, a flange connection (DIN & ANSI).

FEATURES & BENEFITS

- Designs according to client wishes
- Safe, environmental friendly and maintenance free construction
- Pressure less float system
- Temperature till 180°C possible
- Measurement almost unaffected by SG variations
- Standard material Stainless Steel 316, other materials on request
- Temperature transmitter inside the float switch possible



SYSTEM & EQUIPMENT

All Systems & Fire-resistance Seal

*To improve the operation
safe and efficient*



IPA異丙醇溶劑除水系統 Pervaporation Separation Technology



FEATURES & BENEFITS

- High separation selectivity, high water content in permeate
- High permeation flux with stable performance
- Low operation cost and waste discharges
- High quality membrane with long service life (>5 years)
- High thermo stability with long-term running temperature up to 200°C
- Excellent anti-pollution and organic solvent sustainability
- Easy & safe operation with less maintenance
- Convenient and independent membrane & module replacement.

Zeolite Membranes

Pervaporation is a membrane-based separation technology for dehydration of organic solvents/VOCs removal from water/organic-organic separation. Among these applications, the dehydration of organic solvents by pervaporation/vapor permeation have been widely used in industrial processes. Compared to traditional dehydration processes such as azeotropic distillation, extractive distillation and molecular sieve-based PSA technology, the pervaporation process requires neither regeneration nor the introduction of an additional fluid, which shows high energy saving & economic advantages.

APPLICATIONS

Solvent Dehydration and Recycling

- Fine Chemical Industry
- Pharmaceutical Industry
- Electronics Industry
- Semiconductor Industry

WHAT ELSE WE CAN DO FOR YOU

- Process Evaluation
- System Design
- Installation and Maintenance
- PLC Automatic Control

防火填補材料 Fire Resistance Seal



FIL0seal+

Duct sealing system FiloSeal+ is a universal solution for sealing cables and pipes in ducts, drilled holes or transit frames.



FIL0seal+HD



FIL0seal+HD FIRE

FEATURES & BENEFITS

- Gas & Water Tight - Up to 1 Bar
- Resistant to: Hydrocarbons (Petrol, Diesel, Ethanol, LPG, Adblue)
- Resistant to: Methane, H₂S, Chlorine, and many other gases (Nedlab)
- Resistant to Rats & Termites (Mastotermes Darwiniensis) Northern Australian termites.
- Excellent Adhesion, Flexible one component adhesive & sealing compound (MD+)
- Non-Corrosive, Non Hazardous
- Complies with ATEX regulations
- Seals all common materials
- Suitable for retrofit, Re-enterable
- WIMES Compliant, 3.02 (April 2013) Section 6.4.3.2-d

FEATURES & BENEFITS

All the benefits of the FIL0seal+ with the addition of the following features:

- Gas & Water Tight – Up to 2 Bar
- Seals Large LV, MV, & HV cables
- 100kg Pulling force on the cables
- 10xd at 45°, with 1bar pressure

FEATURES & BENEFITS

All the benefits of the FIL0seal+HD with the addition of the following features:

- Fire Resistant up to 4 hours BS EN1366-3 2009 & AS1530.4-2014
- Tested to London Underground - LUL S1085
- Tested to European rail applications - BS EN 45545-2:2013
- Tested to French rail standard Cit NF F16-10
- Tested to Smoke index – ISO 5659-2:2012
- Tested to Wxygen index – BS EN ISO 4589-2:1999
- WIMES Compliant, 3.02 (April 2013) Section 6.4.3.2-b