YOKOGAWA ◆

Co-innovating tomorrow™

OpreX™ Measurement

**Excellence in
Process Measurement**

HART
FOUNDATION fieldbus
PROFIBUS
BRAIN
ISA100
Modbus
Ethernet-APL

Production Management

Plant Information Management

Exaquantum

Exaquantum/Batch

Advanced Process Control

Platform for Advanced Control and Estimation (PACE)

Production Control and Safety Management

Integrated Production Control & Safety Management

CENTUM VP

ProSafe-RS

Inherent Failsafe Logic Solver

ProSafe-SLS

Collaborative Information Server and Network Control System

CI Server

STARDOM

Sensing and Actuation

Flow

Pressure

YOKOGAWA   Co-innovating tomorrow

Communications

Fieldmate Device
Management Wizard

Communications

Technical Partner's Products

Flow Primary Elements

Transmitter Manifolds

Remote Seals

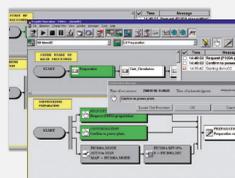## Your Single-Source Partner for Operational Excellence

Industry leaders striving for operational excellence will benefit from a new approach to plant automation.
Yokogawa solutions help you to Measure, Control, and Optimize your processes, ensuring plant-wide integration.
A worldwide network of committed experts supports your operations 24/7 for life-cycle optimization.

Asset Management and Operational Efficiency

Operation Efficiency Improvement

Integrated Asset Management

Exaquantum/ARA

Exapilot

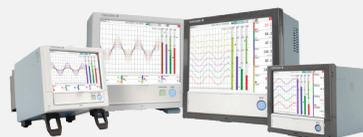Field Asset Analytics
(InsightSuiteAE)

PRM: Plant

Data Acquisition and Control

Programmable
Logic Controller

Paper and
Paperless Recorders

FA-M3R

GX10/GX20

Data Acquisition and Control

Data Acquisition Equipment

GM10

VZ20X

Controllers

YS and UTAdvanced

Pressure and Temperature

Remote Seals

Multivariable

Temperature

Liquid and Gas Analyzers

Analysis and
Quality Control

Liquid Analyzer

Gas
Analyzer

Sampling
Systems

Advanced
Analyzer

Measuring Instruments

Process
Calibrators

Process
Multimeter

ADMAG Total Insight magnetic flowmeter

ADMAG AXG 4-wire

Predictive diagnostics
- Electrode adhesion detection
- Electrode corrosion detection
- Empty pipe detection
- Low or conductivity decrease
- Bubbles or slurries detection
- SIL2 Certified
- Unique "built in" meter verification

User-oriented functionality
- Multi-line, large, backlit and full dot-matrix LCD
- Wizard for easy setup, multilanguage
- Easy-to-install rotatable primary (transmitter)
- HART®, BRAIN, Modbus, Foundation™ Fieldbus, Profibus, Ethernet/IP

High performance
- Dual frequency excitation
- 1 μS/cm conductivity minimum
- High grade accuracy: 0.15% of rate
- Standard accuracy: 0.3% of rate from 0.15 to 10 m/s
- High-Speed Pulse Output (up to 10,000 pps)

Enhanced Product Lineup
- PFA, Ceramic, Polyurethane liners
- Wide range of electrode materials
- From 2.5 mm to 400 mm
- 3A and sanitary connections compliance

ADMAG AXW 4-Wire
- Dual frequency excitation
- 1 μS/cm conductivity minimum
- Sizes from 25 mm to 400 mm diameter (1" to 16")
- 0.35% of flow rate from 0.3 to 10 m/s
- PTFE, Hard or soft rubber, Polyurethane
- Robust, IP67 or IP68 (submersible version)
- HART®, BRAIN, Modbus, Foundation™ Fieldbus, Profibus, Ethernet/IP
- SIL2 Certified
- Unique "built in" meter verification

Vortex Flowmeter VY series
- Universal flowmeter for liquids, gas and steam
- Best "in-situ" performance; ±0.75 % of flowrate
- Line size from DN15 (1/2") up to DN400 (16")
- Superior low flow stability and flow noise immunity through Spectral Signal Processing
- Highest temperature capability; -196 °C to +450 °C
- Highest pressure rating available: 2500 lbs (PN420)
- Optional temperature and pressure compensation
- Unique "built-in" meter verification
- SIL2 certified
- HART®, Modbus or Foundation™ Fieldbus

Multivariable Transmitter DPharp EJX930A/EJX910A
- Multivariable transmitter to measure differential pressure, static pressure, temperature to calculate dynamically compensated mass flow
- 1.0 % mass flow rate accuracy
- Dual output capability; analog 4-20 mA and pulse
- PC-based FSA120 EJX-MV Configuration DTM supports the configuration for calculating mass flow
- HART®, BRAIN, Foundation™ Fieldbus, Modbus
- Conformance to ISO 5167
- Integrated temperature sensor for mass flow

Averaging Pitot Tube
- Senses and averages the natural differential pressure created by the velocity profile
- Improved accuracy and turndown, superior signal stability
- Eliminates clogging of sensor ports
- Lower drag force and increased structural strength
- Lower energy costs

Compact Orifice Plate
- Modular and proven concept
- No moving parts, extremely rugged and stable
- Easy to install without impulse piping
- Sizes from 1/2" to 4" (standard), other sizes on request

ROTAMASS Total Insight Coriolis mass flow and density meter

Essential & Ultimate Transmitter
- 2 specialized transmitters with common platform
- Wizard for easy setup and guidance through the main configuration, multilanguage
- Hart®, Foundation™ Fieldbus, Modbus RTU, Profibus PA, Profinet over APL
- Universal power supply
- Data mobility by microSD card for easy data transfer & remote service
- NAMUR NE95 compliant
- SIL2 Certified
- "Tube Health Check" & "Total Health Check" for in-line meter verification
- "Features On Demand" for easy expansion of functions
- Dynamic Pressure compensation
- In-line density and concentration measurement
- Net Oil Computing acc. API standard
- Viscosity function, Batching function

Rotamass Prime Sensors
- Superior turndown with cost-effective ownership
- Process connections: from 3/8" to DN125(5")
- Max flow Rate : 255 t/h
- High flat spec accuracy for wide range of standard applications
- Compact and drainable design, low pressure loss
- Stainless steel 316L wetted parts

Rotamass Supreme Sensors
- Superior performance under demanding conditions
- Max flow Rate : 170 t/h
- Process connections: from DN15 (1/2") to DN150(6")
- Smart Power Management ensures optimum performance under extreme aeration conditions
- Optimum decoupling of core measuring element from external influences by proven box-in-box design
- Stainless steel 316L or Hastelloy C wetted parts

Rotamass Nano Sensors
- For low flow rate: from <1 kg/h to 1,5 t/h
- Line sizes: 1/4", 3/8" DN15 (1/2"), 25 (1"), 40 (1.5").
- Process connections: up to PN420 (2500lbs)
- Smallest dual bent tube for highly accurate measurement at lowest flow.
- Drainable design
- Stainless steel 316L or Hastelloy C wetted parts

Rotamass Giga Sensors
- Flexible installation for high flow applications
- Typical line sizes: DN100 (4") up to DN250 (10")
- Max flow Rate : 1100 t/h
- Drainable design
- Patented low Reynolds number compensation

Rotamass Hygienic Sensors
- For food & beverage, biotechnology and pharmaceutical utility
- 3A or EHEDG approvals
- Typical sizes: DN25(1"), DN40, DN50, DN65, DN80(3")
- Max flow Rate : 76 t/h
- Surface Roughness 0,8 μm (optional 0,38 μm)
- Low flow velocity and low excitation frequency
- Wide range of hygienic process connections

Flow meters

Rotamass Intense Sensors
- For high pressure applications
- Typical line sizes: 9/16", 1/2", 1", 2"
- Max Flow Rate: 50 t/h and Process connection up to 50 mm (2")
- Pressure rating: Up to 700 bar g (10.000 psi g)
- Dynamic pressure compensation

Rotameter™ is a trademark of Rota Yokogawa GmbH & Co. KG, a subsidiary of Yokogawa Electric Corporation, Japan. Except in the United Kingdom where Rotameter™ is a trademark of Roxboro Group PLC.

Variable Area Flowmeter ROTAMETER™
- Rugged and durable, all 316SS and glass designs
- Low friction, hysteresis free local indication
- Linearised current output with float blocking detection
- Remote configuration using the HART® protocol
- Suitable for use in Zone 1 and 2 hazardous locations
- Digital communication through HART®
- SIL assessment by FMEDA report
- Available with ASME B31.3 compliance

Field Communication

FieldMate Versatile Device Management Wizard
- PC-based field device management tool
- Multi-vendor, multi-protocol support - Foundation™ Fieldbus, HART®, PROFIBUS, BRAIN and ISA100.11a
- Automatic device data acquisition upon connection to a device or a segment (Segment Viewer)
- Easy acquisition and diagnosis of device status (Device Viewer)
- Support device database and history information
- Multi-parameter set-up (Parameter Manager)

HART® - FieldMate Communicator YHC 5150X
- Intrinsic Safe Handheld which allows the user to download directly from the manufacturer in the original DD's native format, including registered or unregistered devices

Pressure

Pressure & Differential Transmitter DPharp EJX & EJA Series
- Ultra-high performance, 0.04 % (opt. 0.025 %) accuracy
- 200 to 1 turndown
- Multi-sensing (Differential pressure + Static pressure)
- Fast response 90 ms
- Multi-functional indicator (optional)
- Alarm output for measured and static pressure (opt.)
- Digital communication through HART®, BRAIN, Foundation™ Fieldbus
- SIL2 certified by TÜV IT
- ISA100 wireless models available

Manifold and Direct Mounted Manifold
- 3, 5-Valve manifolds for differential pressure and 2-valve in-line manifolds for gauge pressure
- Low profile for the bottom connection available
- Compact design with fewer potential leak points
- Ease of installation and large number of options
- Direct mounted manifolds are connected and supported at the differential pressure taps
- Hook-up for Enclosure solutions, heat tracing

Diaphragm Seals for Differential Pressure and Pressure Transmitter
- Diaphragm seal to combine with EJA and EJX series pressure and differential pressure transmitters
- Intended for corrosive, contaminated, hot or viscou pressure media
- Various process connections, wetted materials and pressure ranges are available

Level Transmitter Digital Remote Sensor (DRS)
- Flange-mounting, compact differential pressure transmitter
- Direct mounting to a tank
- Small flange size model also available
- Two pressure sensors, master (high pressure side) and slave (low pressure side)
- Monitoring or parameter, remotely done via HART® communication.

Temperature

Temperature Transmitter YTA610 & YTA710
- A highly accurate temperature transmitter with BRAIN, HART® or Foundation™ Fieldbus communication
- Sensor type is selectable from 12 Thermocouples, 7 RTDs, ohms, or DC millivolts
- Dual compartment housing for harsh environments
- Dual input bumpless change over
- Integral indicator with both a digital readout and percent bargraph
- Choice of the latest digital communication protocols
- Improved self-diagnostics and sensor diagnostic functions
- Local parameter settings
- SIL3 Capable

Industrial Temperature Assemblies
- Pt100 RTD: 3-, 4-wire, single or dual configuration
- Thermocouple: Type J, K, E, T , 2-(dual), 4-(single) wire with single or dual configuration
- Thermowell style: tapered, straight or stepped
- Complete quality assurance program of NDT's (Diepenetrant inspection, X-ray and Ultrasonic testing)
- Single or duplex sensor configurations available
- YTA series can be installed onto the industrial assembly or within the termination head
- Unique explosive environment approvals allow transmitters installation on-site

Temperature

Temperature Transmitter YTA70
- A head mount temperature transmitter with HART® communication
- Dimension conforming to DIN form B standard
- Sensor type is selectable from 12 Thermocouples, 2 RTDs, ohms, or DC millivolts
- Isolated Input/Output signals

DTSX1 fiber optic heat detector
- Cost-effective and easy-to-install all-in-one solution
- Able to measure data from 4 cables up to 16 km in length
- Ready-to-use GA10 templates for monitoring facility status
- Certified for EN54-22 by VdS

Fiber Optic Distributed Temperature Sensing (DTSX)
- Measure up to 50 km distance using fibre optic cable
- Operating Temperature range from -200°C till 300°C
- Top-level Resolution of 0.03°C
- Compact modular Industrial design
- Certified for Zone 2
- Low power system
- Optional 2, 4 & 16 channel optical switch
- Temperature profiles easy integrated in GA10 & CI Server
- Direct I/O capability
- Ethernet and Serial ModBus Communication
- Embedded Alarm Management Tool

Wireless

Field Wireless System
- ISA100.11A Protocol
- Temperature Transmitter YTA510
- Pressure Transmitter DPharp EJX B Series
- Field Wireless Gateway
- Field Wireless access point YFGW510

Control proof
- Quick update time of 1 second
- Redundant star network for control applications
- AES 128 bit security mechanism by NIST approval
- Transmission rate of 250 kbps with wireless frequency bandwidth: 2400 to 2483.5 MHz

Power proof
- Unique battery housing compartment and battery pack design for devices
- Battery pack design exchangeable in hazardous area and replaceable internal cells

Future proof
- IPv6-based wireless protocol for expandability of existing plant network architecture in the future
- Upper communication protocol: Modbus/TCP & OPC

Hastelloy is a trademark of Haynes International Inc. Monel is a trademark of Inco Alloys International Inc. HART® is a trademark of the HART® Foundation™. Foundation™ Fieldbus is a trademark of Fieldbus Foundation™. PROFIBUS PA is a trademark of PROFIBUS PA.

Field Wireless Communication Module FN120
- Built-in high-performance wireless communication function module has excellent radio sensitivity and low power consumption, provides a stable wireless communication platform with excellent power saving capabilities

Field Wireless Multi-Protocol Module FN310
- HART® or Modbus communication protocol can be selected
- Various wired legacy device required by plant operation can be converted into a wireless device as required
- Direct support of SENCOM communication for analytical sensors

Field Wireless Multi-Function Module FN510
- Analog input, digital input/output or pulse input are selectable

Wireless Temperature Transmitter YTA510
- The high performance temperature transmitter YTA510 accepts Thermocouple, RTD, ohms or DC millivolts inputs

Liquid Analyzer

FLXA402: Multi sensor multi input analyzer
- pH, ORP, Conductivity, resistivity, inductive conductivity and Dissolved Oxygen
- 4-wire modular transmitter
- Unique Easy to use Color touchscreen
- Advanced Sensor diagnostics
- connecting up to 5 sensors simultaneous
- HART7, Ethernet, Bluetooth, Modbus RTU & TCP

pH/ORP Electrodes & Fittings
- FU20 4-in-1 wide body electrode best sensor for most applications
- FU20-FTS differential pH sensor with virtually no maintenance
- SC25 pH sensor with proven high degree of stability
- FU24 with integrated automatic pressure compensation
- PR10 retractable fitting, one model for all parameters

PH91, PH92 & SC92 Pocket Meters
- "One-touch" auto-calibration
- Long term reliability
- Auto power off function
- Water resistant and durable
- Easy cleaning
- Manual or automatic temperature compensation
- Including redox (PH92)

SA11 SENCOM SMART Adapter & Sensors
- Automatic Sensor recognition
- Automatic buffer recognition
- Calibration data stored in the sensor
- Re-usable electronics
- pH/ORP, conductivity and Dissolved Oxygen
- SA11 can connect directly to PLC, DCS, Data Acquisitions systems etc.

Liquid Analyzer

pH/ORP/Conductivity/Inductive Conductivity/ Dissolved Oxygen FLXA21 and FLXA202
- 2-wire Modular Transmitter
- Menu structure & graphical display with touch screen
- Redundant system configuration possible
- One or two sensor modules can be installed
- Digital communication through HART®

Conductivity Sensors & Fittings
- SC4A conductivity sensor for low conductivity and Pharma applications
- SX42 high temperature (up to 250 °C) and high pressure (up to 40 bar) conductivity sensor
- SC42 electrode with 2- and 4-electrode design with a wide range of sensors to suit most applications
- Easy mounting, servicing and installation by using a wide range of installation options and materials

Inductive Conductivity Sensors & Fittings
- Inductive Conductivity technique
- Elimination of fouling and polarization errors
- Maintenance free construction
- Wide conductivity measuring range

Dissolved Oxygen Sensors & Fittings
- Visiferm Optical SMART DO in a 12 mm design
- Oxyferm and Oxygold ppm and ppb DO sensors ruggedized design
- PB30 floating ball holder ensures minimum user maintenance

UM33A-S: Single sensor multi input analyzer
- Easy-to-read, 14-segment large color LCD display
- Scrolling text feature for parameters
- Automatic buffer recognition
- Automatic sensor recognition
- 4-20mA output with BURN function

Surface Scattering Light Turbidity Detector TB820D/TB830D
- High turbidity (up to 2000 NTU) version available
- Check tool for easy & quick calibration
- Combine with FLXA402T analyzer with additional sensor input
- Long lifetime LED
- Analog or digital output
- Automatic cleaning with ultrasonic oscillator

Free Available Chlorine Sensor Unit FC800D/RC800D
- Reagent free option for free chlorine measurement
- Availability residual, combined, and free chlorine measurement type analyzer
- Virtually maintenance free due to self-cleaning rotating gold electrode
- Combine with FLXA402T analyzer with additional sensor input
- Combine with pH sensor to measure pH independent free chlorine concentration
- Continuous measurement

Gas Analyzer

Tunable Diode Laser Spectrometer TDLS8000 / TDLS8200
- SIL2 TruePeak combined with smart laser technology
- Area classification Zone2/Div2 or Zone1/Div1
- Intuitive touchscreen HMI
- Various molecule measurement possible
- Dual laser for O2 + CO/CH4
- HART® and Modbus TCP communications standard
- 8-stage auto-gain adapts to difficult applications
- Reference cell lock the right absorption peak
- Fully field repairable with 50 days of data and spectra storage
- Cross stack type for long optical path
- Probe type with one single flange for easy installation
- Reflective type for small pipe installation
- Extractive type for remote installation

In Situ Zirconia Oxygen Analyzer ZR802 / ZR22/ ZR202
- Long-life, high-reliability Zirconia sensor
- Online zirconia sensor diagnostic
- LCD touch-screen for ease of operation
- The integrated type integrates both probe and converter, to reduce wiring, piping, and installation costs
- Explosion proof approval
- Remote maintenance using HART® communication

OX400 Low Concentration (ppm) Zirconia Oxygen Analyzer
- Long life, high reliability Zirconia sensor
- Wide range from 0-10 ppm to 0-100 vol% O2
- Multi-selector function allowing measurement up to three streams
- Pump or aspirator sampling

Infrared Gas Analyzer IR800G / IR810G / IR810S
- Simultaneous measurement of up to five components
- Active Zero-drift Cancellation Mechanism
- Built-in automatic blowback and validation functions
- LCD touch-screen for easy operation
- Explosion proof approval
- LCD touch-screen for easy operation
- Explosion proof approval

Analyzer Solutions

Process Gas Chromatograph GC8000
- The GC8000 has a built-in 12-inch color touchscreen display that simplifies operations. At the touch of the screen, the technician can access all the analytical parameters and measurement results; displayed in easy-to-understand graphical color screens.
- GC8000 analytical possibilities are greatly expanded through the multi-oven capability of the analyzer. GC8000 is recognized for its reliable and precise performance.
- GC Applications are executed in GC laboratories in the Netherlands, Japan, China, USA and Singapore.

Advanced Reflux Sampler
- Self-acting temperature controller, no electric power supply required
- Dual 360° Cooling coils
- Sample outlet over temperature shut-off valve
- High sample flow rate reduce lag-time

Analyzer Systems
Providing a one-stop solution for analyzer system integration. Being a business partner for complete Life Cycle Management:
- Pre-sales engineering and site surveys
- Detailed engineering and project management
- In house integration, FAT
- Commissioning, start up, SAT, training
- Service and annual maintenance contract

Analyzer Bus System
Comprehensive and centrally located system for remote monitoring of analyzers
- Max 254 analyzers in one network
- Connection to FCS; direct by Modbus TCP/IP, Modbus RTU, OPC
- Centralized analyzer operation, view & maintenance
- Storage of analyzer results
- Interface Unit to reduce wiring of third party analyzers

Network Data Acquisition & Control Solutions

Smartdac+ GX10/GX20, GP10/GP20
- Multi-touch interface, hand-writing function
- Modular universal I/O, easy to extend, up to 450 channels
- Compliant with FDA 21 CFR part11: login function, audit trail, electronic record/signature function (/AS option)
- Webserver for real-time monitoring and configuration
- Network security functions
- Predictive monitoring with AI (Health Monitoring & ProfileFunctions)
- Open Network: OPC UA server & PROFINET communication

Smartdac + GM10 Data Acquisition and Control Unit
- Universal inputs, up to 1000 channels
- Supports SD card for local data storage
- Modbus RTU/TCP for easy integration
- Webserver and Bluetooth interface for real-time monitoring and configuration
- Network security functions
- Advanced mathematical functions
- PID and logic Control Junction

Datalogging and Monitoring software GA10
- Easily Monitor data from anywhere on your tablet & PC by using the Web browser
- On-line monitor and record up to 10000 channels and 2000 math channels
- Up to 50 Custom Displays with interactive control elements
- Communication to Yokogawa data acquisition systems, Sushi sensors and controllers
- Modbus/TCP communication to third party devices
- Remote access for more than 32 client PC's
- AI Anomaly detection & Future pen

DAQstudio software
- Development of custom displays for Smartdac+ paperless recorders or GA10 software
- Trend/Digital/Indicators/Buttons/Text Labels

Industrial AI platform e-RT3 Plus
- Develop customized AI applications
- Linux Ubuntu platform
- Support Python, C and C++ language and open-source libraries
- Seamless API interface with I/O modules
- Industrial hardware platform
- Certificates IoT device for cloud integration (Azure & AWS)

Single-loop Process Controller YS1000
- Uses a full dot matrix color LCD display
- Designed with a lightweight, compact case
- Graphical programming tool for reduction of engineering costs
- Dual CPU and hard manual control as the control output backup function
- Ethernet (Modbus/TCP), Modbus, expansion I/O, and peer-to-peer communication

UTAdvanced Digital Indicating Controllers
- Advanced Control. PID Control — 8 built-in Control Functions / Algorithms. Ladder Sequence Control
- Simplicity. Bright & Easy to read Active Color LCD Display. Multiple language support
- Networking: Ethernet (Modbus / TCP), RS485
- Reliability: IP56
- DIN rail mount version without display available

Compact Signal Conditioner JUXTA VJ
- Compact design for space saving
- Universal input to accept either a thermocouple, RTD or mV signal
- Second isolated current or voltage (pulse) output available
- Modbus (RS-485) communication along with analog output signal from a single unit.
- PC-based parameters setting tool available

Paperless recorder DAQstation DXAdvanced
- Up to 12 or 48 Universal input channels
- Standard-equipped with an Ethernet port
- Sends a variety of informative e-mail messages
- Compliant with FDA 21 CFR Part 11: login function/audit trail/electronic signature function (/AS1 option)

Network Data Acquisition & Control Solutions

Paperless recorder FX1000
- Up to 12 universal input channels
- 5.7" TFT Colour LCD Display with wide viewing angle
- Network functions: E-mail, FTP, web service
- Dust-proof and water-proof front panel (IP65)
- Power measurement option
- Standard PC software for configuration and historical data viewing

STARDOM
- Dual-redundant-configurable hybrid PLC / Intelligent RTU
- Reliable hardware & low power consumption controller
- Wide support of field networks e.g TCP/IP, Foundation™ Fieldbus, Hart®, ModBus and DNP3
- Efficiency Engineering by IEC61131-3 programming languages and libraries
- Seamless integration with CI Server (Collaborative Information Server)

Multi-Sensing Remote I/0 VZ20X Analog Sensing Unit VZ20X
- Measures 8 channels of analog input on a single unit with high speed (1ms) sampling
- Multi-channel time-synchronized measurements (up to 15 units and 120 channels)
- Isolated input channels for reliability even in noisy environments
- Compact enough to fit between production equipment
- Install simply by inserting the ferrule terminal with a push-in terminal
- DC voltage, unified signal, 4-wire resistor, thermocouple (TC), and 3-wire/4-wire RTD can be measured in one unit

Industrial Chart Recorders SR10000, μR10000/μR20000
- 100 mm chart recorder with 1-4-pens and 6-dot models (SR1000 and μR10000)
- 180 mm chart recorder with 1-4-pens and 6, 12, 18, 24-dot models (μR20000)
- Configurable inputs (mV/V/TC/RTD/DI)
- Large digital display
- Optional Ethernet and RS422/485 comm. interface
- Optional SD Card support for local back up (uR1000/uR2000 only)

Wireless solution for Industrial IoT (IIoT)

Sushi Sensor
- Industrial IoT(IIoT) sensor for vibration, pressure, Steam Trap and temperature monitoring
- ATEX certified and LoRaWAN compatible
- On premises and cloud solutions for data monitoring
- Easy setup via smartphone Sushi Sensor App

Monitoring & Data Logging software GA10
- Integrated Sushi sensor communication
- AI Anomaly detection & Future Pen included
- On-Premise solution
- Alarm Management functions

Wide Area Monitoring System (WAMS) Cloud solutions
Remote monitoring of information with an easy-to-build dashboard and easy entries to Yokogawa cloud solution. Create new value with various types of connectivity and integrated management
- **Cloud-Based System:** The Wide Area Monitoring System operates in the cloud, enabling centralized data management.
- **Data Collection:** It collects and accumulates data from various sensors across multiple facilities and locations.
- **Data Visualization:** The system offers features for viewing collected data, including trend graph displays.

LoraWAN Gateway
- Sushi Sensors are directly connected to a LoraWAN Gateway
- Long distance LoRa communication
- Encryption keys protect LoRaWAN communication
- Support maximal 2000 (Sushi) sensors.
- Gateway included network server functionality

Test & Measurement

Process multimeter CA450
- The ideal all-in-one tool for the installation and maintenance of process instrumentation such as transmitters, flow meters, signal conditioners and valve positioners
- 2-wire transmitter simulator (20 mA SINK)
- Loop check – Simultaneously provides 24V transmitter power and precisely measures DC mA signal
- HART® mode setting with loop power (250 Ω resistance)
- Step or sweep response test of valve positioners

CA150 - Handheld multifunction process calibrator
- Source: DCV, DCA, Resistance, RTD, TC, Frequency, Pulse
- Measure: DCV, DCA, Resistance, RTD, TC, Frequency, Pulse
- Simultaneous source and measure, Automatic step and sweep
- 24V transmitter loop power supply and current measurement (SINK)
- Internal memory for data and settings

Handheld multifunction calibrators CA51 and CA71
- Source: DCV, DCA, Resistance, RTD, TC, Frequency, Pulse
- Measure: DCV, DCA, ACV, Resistance, Frequency, Pulse (also RTD, TC on CA71)
- Simultaneous source and measure, Automatic step and sweep
- PC communication interface (CA71)

CA300 series – Process calibrators
- CA310 Volt mA calibrator: with loop checking and transmitter simulation (20 mA sink)
- CA320 thermocouple calibrator: simulates 16 types of TC with voltage source and measurement
- CA330 RTD calibrator: with resistance source and measurement

OpreX™

Yokogawa achieves operational excellence by providing products, services, and solutions based on the OpreX comprehensive brand that cover everything from business management to operations.

Represented by:

YOKOGAWA ◆ Co-innovating tomorrow™

www.yokogawa.com/eu