





Bulletin 00A01A21-31E

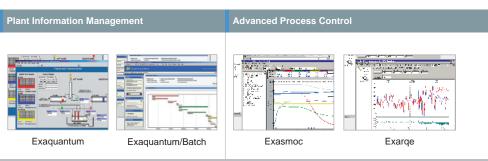
## Your Single-Source Partner for Operational Excellence

vigilantplant.®

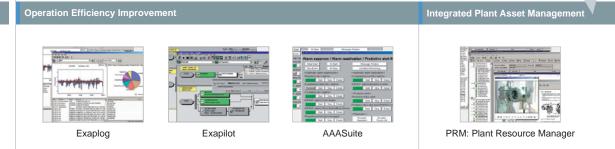
Yokogawa VigilantPlant solutions help you to Measure, Control, and Optimize your processes, ensuring plant-wide integration.



## **Production Management**



## Asset Management and Operational Efficiency



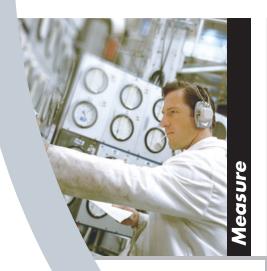


## **Production and Safety Control**

Integrated Production Control	Integrated Safety Control	SCADA and Hybrid PLC/RTU
CENTUM VP	ProSafe-RS	FAST/TOOLS  STARDOM

## **Data Acquisition and Logic Control**

PLC/PAC	Paper and Paperless Recorder	Data Acquisition Equipment	Controller and Conditioner
			- 5500 - 5500 - 5500 - 60 0 (2) (2000)



## Sensing and Actuation



**Technical Partners**' **Products** 





#### 4-wire Magnetic Flowmeter ADMAG AXF and AXW

#### Easy maintenance

- Diagnostic function to detect the adhesion level on the electrodes
- Replaceable electrodes structure realizes easy maintenance Error messages and diagnostic instructions simplify and optimize maintenance

#### **User-oriented functionality**

- Clear and versatile indications
- The status and version indications and without opening cover flexible electrical connection direction Multiple status alarms

#### High performance

- Achieves stable measurement of fluids involving high concentration slurries or low conductivity by "Enhanced Dual Frequency Excitation"

  Low conductivity(1µS/cm)

  High accuracy (0.35% of rate, 0.2% of rate with option)

  High speed pulse output (up to 10,000 pulses per second)

### **Expansion of Product Lineup**

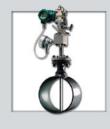
- Large size magnetic flowmeter for stable water measurement (Up to 1800mm)
- Wide range of liners and electrode materials
  A variety of process connections (incl. sanitary)



#### 2-wire Magnetic Flowmeter ADMAG AXR

- flowmeter)
  Achieves stable measurement, zero stability and quick

- opening cover
   SIL2 Safety Integrity Level (IEC 61508) certified



## Averaging Pitot Tube Verabar [Product of Veris, Inc.]

- Verabar senses and averages the natural differential
- Verabar series and averages in Flatinal uniferrital pressure created by the velocity profile
   Verabar measures gas, liquid and steam, and measures volumetric flow with EJA/EJX DP transmitter and mass flow with EJX910A multivariable transmitter.
- Improved accuracy and turndown, superior signal stability Eliminates clogging of sensor ports Lower drag force and increased structural strength

- Lower energy costs



## Compact Orifice System ORIFLOW [Product of Bopp & Reuther Messtechnik GmbH]

- Volume or mass flow measurements with EJA and EJX transmitters for gas, steam and liquid
   Modular and proven concept
   No moving parts, extremely rugged and stable
   Easy to install without impulse piping
   Available from 1/2" to 4" (standard), other sizes on required.

- Conformance to ISO 5167
- Integrated temperature sensor for mass flow



- No extra AC power supplyPower saving (1 to 4% of typical 4-wire magnetic
- response times by "Dual Frequency Excitation" High accuracy (0.5% of rate) Magnetic switches for parameters setting without



#### **Manifold and Direct Mounted Manifold** [Product of Tyco Valves & Controls LP (Anderson Greenwood Instruments)]

- 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



#### Vortex Flowmeter digitalYEWFLO

- Universal flowmeter for Liquids, Gas and Steam High accuracy (±0.75% of rate)
- Stable measurement of low flow by "Spectral Signal
- Many options, such as High Process Temperature Version(450°C), Cryogenic Version(-196°C), Reduced Bore Type, and Stainless Steel Housing



#### Instrument Connection Systems [Product of Cameron International Corporation (TBV)]

- Pre-engineered, pre-tested, pre-fabricated modular instrument installation with EJA and EJX differential pressure and pressure transmitters
  The optimum measurement technology with proven
- mounting practices (close coupling) and hardware
- Eliminate hydrostatic error and reduce installed costs

......



#### Differential Pressure Transmitter DPharp EJX/EJA-E Series with Orifice Plate

- A field proven, best-selling differential pressure
- transmitter series featuring silicon resonant sensor ISO-compliant (JIS Z8762) orifice design for
- measuring various fluids
  The variety of orifice type and materials are available
  Nominal size: 15 to 3,000 mm (0.5 to 120 inches)



#### Vortex Flowmeter digitalYEWFLO (Multivariable Type)

- The world's first 2-wire multivariable vortex flowmeter with built in temperature sensor
  Mass flow calculation by temperature correction is

- High accuracy (±2.0% of rate)
  Superior measurement of saturated steam



#### Ultrasonic Flowmeter US300 Series Fixed or Portable Type with Clamp-on Transducers

- · Quick and easy setup with matched-pair flow
- calibrated no-zero-offset transducers High accuracy realized by our patented digital signal
- processing technology
  High tolerance against the measurement under air bubbles or entrained solids in the fluid



### Multivariable Transmitter DPharp EJX910A

- Multivariable transmitter to measure differential Modification from the source of the referring pressure, static pressure and temperature and 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



### **Coriolis Mass Flowmeter ROTAMASS 3 Series**

- High accuracy mass flow and density meter SIL2 certified Measures (liquid or gas) mass flow, density, concentration and temperature

## and temperature Flow ranges between 10.5 g/h up to 600 t/h Insensitive to entrained gas up to 50% and more High performance, unaffected by pipe stress and/or vibration due to unique box in box design Largest wall thickness of measuring tubes in the market Seamless Tubes no welding for pressure rates up to 440 bar Self draining in vertical installation Wide temp. range; -200°C to +350°C with optional insulation Indicator.....



#### Variable Area Flowmeter ROTAMETER™

- Rugged and durable, all 316SS and glass designs
  Special material, Hastelloy, Monel, Titanium, PTFE
- Easy to install and maintain
- Local indicator, no power required, limit switches Patented blocked float indication system HART® and Profibus PA communication
- Various hazardous area approvals, SIL2 High temperature capability: -200°C to +370°C High pressure versions up to 700 bar



#### Smart HART® Loop Interface and Monitor [Product of Moore Industries-International, Inc.]

- "Break Out" up to three analog signals proportional to a HART® primary, second, third or fourth variables of multivariable transmitters
  High/Low process and loop diagnostic alarms
  Sets up as a primary or secondary master, or in "Listen"
- mode
- Large, 5-digit display
- Isolated output channels



#### Fieldbus Segment Indicator FVX110

- Field indicator for Foundation Fieldbus™ devices Switch and display up to 16 indicated values 32 lines x 84 columns full dot-matrix LCD with LED backlight
- · Easy to scroll display with scroll knob on side of amplifier case
- High visualization with bar graph and scroll bar

### Temperature.....



#### Differential Pressure and Pressure Transmitter **DPharp EJX Series**

- Ultra-high performance pressure transmitter, the flagship model of DPharp family Fast response 90 ms
- Contact output which can be used for pressure alarm (Optional)
- SIL2 certified by TÜV
- Light and compact design fits to direct mount
  Multi-sensing (Differential pressure and Static pressure)
  Multi-functional indicator (optional)



#### Temperature Transmitter YTA110, YTA310, and YTA 320

- A highly accurate temperature transmitter with BRAIN, HART® or Foundation™ Fieldbus
- Sensor type is selectable from 12 Thermocouples, 6 RTDs, ohms, or DC milivolts

- Dual compartment housing for harsh environments
   Dual input bumpless change over
   Integral indicator provides both a digital readout and
- percent bargraphSIL2 certified by TÜV NORD



## Differential Pressure and Pressure Transmitter DPharp EJA-E Series

- The newest line-up of DPharp pressure transmitter
- A strong successor of field-proven, best-selling EJA series pressure transmitters
- High accuracy and excellent long term stability slashes maintenance cost
- Easy-to-use compact design
- Fast response expands the variety of application
- SIL2 certified



#### Temperature Transmitter YTA50 and YTA70

- A head mount temperature transmitter with HART<sup>®</sup> communication protocol
- Dimension conforming to DIN form B standard
  Sensor type is selectable from 12 Thermocouples, 2 RTDs, ohms, or DC milivolts
  • Isolated Input/Output signals



#### **Rugged Pressure Transmitter** [Product of GP:50 Ltd.]

- HART® communication, 4-20 mA loop powered
   0-5 Through 0-100,000 PSI ranges in PSISG, PSIA, Vacuum options with 5:1 ranging
   NEMA 4X 316 SS enclosure

- Factory sealed, conduit seal not required FM and CSA approved explosion proof with Class I, II, III, Division I, II, Groups A, B, C, D, E, F & G



## FieldConnex® Temperature Multi-Input (Product of Pepperl+Fuchs GmbH)

- 8-channel for T/C, RTD, resistance and millivolt signals via FOUNDATION Fieldbus H1
  For signals in any hazardous area
  Intrinsically safe, FISCO or Entity

  December 2015

- Pre-engineered enclosure solutions, pre-wired, certified, ready for installation
- Wire and sensor diagnostics



#### **Differential Pressure Transmitter with Remote** Diaphragm Seal DPharp EJX/EJA-E Series

- Ideal for measuring the levels and densities of corrosive and high temperature fluids
  Small flange size model also available



#### Thermocouple and Resistance Temperature Detector CM/CH/CP/CS/CN/RM/RH/RS/RN Series

- The sensor type and measurement range can be set The serisor type and measurement range according to the purpose
   Superb reliability and proven track record
   Fully compliant with IEC and JIS
   Variety of mounting hardware available



#### Level Transmitter DPharp EJA-E/EJX Series

- Flange-mounting, compact differential pressure
- transmitter
  Direct mounting to a tank
- Small flange size model also available



#### **Industrial Temperature Assemblies** [Product of WIKA Instruments Ltd.]

- 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
  YTA series can be installed onto the industrial

- assembly or within the termination head Unique explosive environment approvals allow transmitters installation on-site



### **Remote Seals for Differential Pressure and Gauge Pressure Transmitter** [Product of WIKA Alexander Wiegand GmbH &

- Diaphragm seal to combine with EJA and EJX series
- pressure and differential pressure transmitters Intended for corrosive, contaminated, hot or viscous
- pressure media
  Various process connections, wetted materials and





## Valve Products...



- Valve Positioner YVP110 High performance Foundation™ Fieldbus-enabled digital valve positioner improves valve characteristics and
- A wealth of functions such as auto-tuning to effectively use the combined valve

- use the combined valve
  Employs a unique non-contact position sensor to
  achieve high precision and high reliability
  Available for both single and double acting cylinder
  The ValveNavi utility software greatly facilitates the
  process of setting up, tuning, and maintaining the
  YVP110





### Field Wireless System (ISA100.11a protocol)

- **Pressure Transmitter DPharp EJX B Series**
- Temperature Transmitter YTA510
- Multi-Input Temperature Transmitter YTMX580
- Integrated Gateway YFGW710
  Management Station YFGW410
- Media Converter YFGW610 Access Point YFGW510

#### Control proof

- Quick update time of 0.5 second for EJX
- Redundant star network for control applications
  AES 128 bit security mechanism by NIST approval

- 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 : Modbus/TCP&RTU, OPC



## GE Masoneilan

- Masoneilan provides customers with the highest
- quality products and services through unmatched creativity and commitment to excellence Masoneilan products include process control valves, regulators, actuators, instruments, and associated
- software solutions Products and services are provided globally with manufacturing plants and sales offices located worldwide



## FLOWSERVE'S VALTEK CONTROL VALVES

- Flowserve provides the industry's broadest portfolio of rotary and linear control valves for both general service and severe service applications, backed by the industry's largest network of company-owned service and repair centers to provide fast, on-time, and high quality support
   First in the industry with digital technology and predictive diagnostics
- The market leader in engineered-to-order control valve solutions for complex and difficult applications

Bopp & Reuther Messtechnik GmbH, Cameron International Corporation (TBV), GP:50 Ltd., Moore Industries-International, Inc., Pepperl+Fuchs GmbH, Tyco Valves & Controls LP (Anderson Greenwood Instruments), Veris, Inc., and WIKA Alexander Wiegand GmbH & Co. KG are Yokogawa's preferred vendor or technical partner who supplies the indicated products under its own brand name or tradema Dresser Masoneilan, Flowserve, Metso and SAMSON are Yokogawa's Vigilant Integration Partners (VIP) Initiative members.



#### Metso's Valve products

- Wide range of Neles, Jamesbury and Mapag® control, on/off and ESD valves and valve related services. Neles ND9000™ intelligent valve controller for control
- applications
- Neles ValvGuard™ for intelligent ESD-valve partial stroke testing applications

  Neles SwitchGuard™ for intelligent high cycle on-off
- applications
- Available in HART®, Foundation™ Fieldbus and PROFIBUS PA
- On-line diagnostics and predictive maintenance capabilities



#### **SAMSON flow control solutions**

- Sliding stem and rotary control valves, actuators, regulators and steam conditioning solutions
- Smart Series 373x positioners and ESD-valve partial stroke testing solutions
- Smart on/off valve controllers with integrated partial stroke testing Limit switches, solenoid valves and accessories HART®, FOUNDATION™ Fieldbus and PROFIBUS
- communications Integrated On-Line diagnostics for life cycle predictive maintenance and monitoring

#### Field Accessories.



#### FieldConnex® Compact Power Hub (Product of Pepperl+Fuchs GmbH)

- 8-segment, redundant Foundation<sup>TM</sup> Fieldbus H1 power
- supply, also available with 4 segments
  Redundant connectors (ALF111) suit cable no. AKB336
  Redundancy with single-channel integrity for high
  availability and low-cost spares holding
- Completely engineered, pre-wired cabinet installation Advanced physical layer diagnostics for automated commissioning, online monitoring and troubleshooting with expert system support, integrated into PRM



#### FieldConnex® Fieldbus Junction Boxes (Product of Pepperl+Fuchs GmbH)

- Delivered installation including accessories ready with short lead times Connections and explosion protection for all hazardous areas. Junction
- Connections and explosion protection for all hazardous areas. Junction box certified as an unit. 
  Intelligent fieldbus: diagnostic-enabled device couplers for superior plant availability 
  Segment Protectors\* for ensuring continual segment availability even on field device 
  short circuit. Can have contact bounce protection, jabber protection integrated. 
  Fieldbarrier\* to interface FISCO and Entity Foundarion\* MFieldbus field devices 
  mounted in hazardous areas. Measurement of physical layer parameters on each 
  individual spur possible. This includes contact bounce and jabber protection. 
  Enclosure leakage sensor and surge protectors with integrated diagnosis connectable.
- .....



#### Optical Fiber Sensing **Distributed Temperature Sensor DTSX200**

- Monitoring temperature on Optical Fiber up to 6km Measuring Temperature : -200 to +800 deg.C (Depending on Optical Fiber Sensor)
  Easy to integrate in process control system

- - Best Outdoor solution
    (Wide Operating Temperature: -45 to +65 deg.C)
    (Compact and Low power consumption: 10W)
    (Outdoor housing with Solar Panels/Batteries/Wireless communication is applicable)



#### FieldMate Versatile Device Management Wizard

- PC-based field device management tool
- Multi-vendor, multi-protocol support BRAIN, Foundation™ Fieldbus H1, HART®, PROFIBUS 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)

- Categorization, sorting and filtering (History)
  Multi-parameter set-up (Parameter Manager)



#### **Hand-held Terminal for BRAIN Communication** BT200

- Easy to use for setting, changing, displaying, and printing out parameters A large display (21 characters by 8 lines) eases setup
- and alteration procedures Self-diagnostics function ensures proper operation of
- the instruments Other features include security code protection, low
- battery voltage alarm, and automatic power-off





# Dissolved Oxygen

- 2-wire transmitter

- connecting two sensors.

  One or two sensor modules can be installed.



#### Liquid Analyzer FLXA21 pH/ORP SENCOM Sensor FU20F, SC25F

- 2-wire transmitter
- HART® communication
  Easier calibration and maintenance by FU20F, SC25F digital sensors



## pH/ORP/Conductivity/Inductive Conductivity EXA450 Series PH450G / SC450G / ISC450G

- Unique HMI(Human Machine Interface) with menu structure and high resolution graphical display with touch screen
- Process data trending up to 2 weeks
  Interactive display with choice out of 6 languages



## Conductivity/Dissolved Oxygen EXA402 Series DC402G / DO402G

- · 4-wire converter
- Event logbook in software
- Four configurable contact outputs



#### **Near Infrared Spectrometer** NR800 Fourier Transform Near-Infrared Analyzer

- Real-time monitoring of multi-components
- High resolution
  Up to 4 multi-stream channels with no wearing parts
- Stability and Reliability



#### Gas Chromatograph GC8000 Process Gas Chromatograph

- · High-speed analysis with multi-oven structure
- Improved operation with a large touch panel display
   Broad range of application
   Stability and Reliability
   Highly sensitive TC detector

- Easy operation via Local display or network



#### **Tunable Diode Laser Spectroscopy Analyzer** TruePeak TDLS 200

- In situ analysis
- Interference free
- Rapid measurement (As fast as 2 seconds)

- Process pressure up to 2 MPa
  Process temperature up to 1500 °C
  Optical measurement no sensor contact with process
  Flexible installation options
  Aggressive applications high particulate, corrosives, and more



## Oxygen Analyzer Direct In Situ Zirconia Oxygen Analyzer ZR402G / ZR22G, S / ZR202G, S

- Long-life and high-reliability Zirconia sensor
- LCD touch-screen for ease of operation The integrated type consisted of probe and converter, to reduce wiring, piping, and installation costs Explosion-proof approval
- Remote maintenance using HART® communication



## Liquid Analyzer FLXA21 pH/ORP/Conductivity/Inductive Conductivity/

- Menu structure and graphical display with touch
- screen and 12 languages.
  Redundant system configuration is possible with
- HART<sup>®</sup>communication



#### Oxygen Analyzer **Averaging Converter AV550G**

- Handles input of up to 8 oxygen detectors
  "Hot swap" of channel cards so the analyzer remains
- on line while maintenance is performed Full color touch screen for ease of operation
- Multiple display modes shows average data, single detector or all detector gas concentrations
   Remote maintenance using HART® or FOUNDATION TM
- Fieldbus communications



#### Gas Density Meter GD402/GD40

- Resistant to external vibrations
- Outstanding stability against sudden changes in gas
- The multi-mode self-oscillation circuit minimizes drift caused by oil mist, dust, moisture, etc. sticking to the
- Explosion-proof approval
- Easy to operate and maintain



## Infrared Gas Analyzer IR200 / IR400

- Measurement of NO<sub>2</sub>, SO<sub>2</sub>, CO<sub>2</sub>, CO, CH<sub>4</sub> and O<sub>2</sub>
- Simultaneous measurement of up to 5 components including O<sub>2</sub>
- Maximum range ratio of 1:25
- Modbus interfaceEasy to operate and maintain

#### PLC/PAC.....



#### Leading Edge Controller FA-M3V

- Ultra-fast Processing Speed
  100,000 steps of ladder program scanned per 1ms
  and minimum scan time of 100µs
  Postcard-size Controller
- Compact 147(W)  $\times$  100(H)  $\times$  88(D)mm size handles 192 I/O points
- Universal I/O Range Achievable with One PLC Controls up to 8,192 points and contain devices of up to 856K words per system

#### Paper and Paperless Recorder .....



#### SMARTDAC+ GX10/GX20

- Up to 30 or 100 universal input channels
- Expands the input channels up to 500 by using GX60
- Campliant with FDA 21 CFR Part 11: login function/audit trail/electronic signature function (/AS option)
- Custom display (/CG option) LOG scale function (/LG option)
- SSL communication on HTTP/FTP/SMTP protocols



#### SMARTDAC+ GP10/GP20

- Up to 30 or 100 universal input channels Expands the input channels up to 500 by using GX60 (Large memory type)
  Compliant with FDA 21 CFR Part 11: login function/audit
- Compilati with FDA 21 CFR Part 11: login function/at trail/electronic signature function (/AS option) Custom display (/CG option) LOG scale function (/LG option) SSL communication on HTTP/FTP/SMTP protocols



#### Paperless Videographic Recorder Daqstation DXAdvanced DX1000/DX2000

- Up to 12 or 48 Universal input channels
   Connects to DAQMASTER MW100 via Modbus/TCP for up to 240 external 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)
  Touch Screen(DX1000T/DX2000T)



#### **Chart Recorder** Intelligent Industrial Recorders µR10000/ µR20000

- 100 mm high reliable recorder with 1, 2, 3, 4-pen and 6-dot models (μR10000)
  180 mm high reliable recorder with 1, 2, 3, 4-pen and 6, 12, 18, 24-dot models (μR20000)
  Large, VFD full dot matrix display (μR10000:101 x 16, μR20000: 181 x 16)
  Displays a variety of screens for site monitoring

### Data Acquisition & Monitoring Software .....



#### **SMARTDAC+ GA10**

- Connects up to 100 of Yokogawa's major data acquisition instruments or controllers High speed data acquisition and monitoring on up to
- 2000 channels
- Simply select a device to connect to and start monitoring A wide variety of monitor displays such as trend graphs, numerical values, alarm overviews, meters
- Data supplementing function
- Server OS support

### Data Acquisition Equipment .....



#### MX100

#### **PC-based Real Time Data Acquisition System**

- Acquisition data from up to 1200 channels.300ch/100msec (When using Yokogawa's proprietary software "MXLOGGER")
- High –speed measurement of 24ch/10ms or 60ch/100ms
- 60ch/100ms
  Mixed use of three types of measurement intervals is enabled within the system.
  High withstand voltage:3700Vrms for one minute or 600Vrms/VDC continuous.

#### MW100

### Web-enabled Data Acquisition System

- Stand alone type data logger equipment. Supports Compact Flash(CF) card for local data
- Continuous data acquisition is possible on 60 channels at 100ms for approximately ten days with a 2-GB card, or for three months on 60 channels at 1s. Web server function for remote monitoring.
- Wide operating temprature range: -20 to 60 °C

#### Controller and Conditioner.....



#### Single-loop Process Controller YS1000 Series

- Uses a full dot matrix color TFT-LCD display
  Designed with a lightweight, compact case
- Graphical programming tool with program conversion function from SLPC, YS100 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



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## **UTAdvanced Digital Indicating Controllers**

- UT55A/UT52A/ŬT75A Advanced Control
- PID Control 8 built-in Control Functions / Algorithms Ladder Sequence Control 2 loop control (UT75A)
- CP calculation (option/cp for UT75A)
- Simplicity
  Bright & Easy to read Active Color LCD Display
  Multiple language support
- Networking Ethernet (Modbus / TCP), RS485 PROFIBUS-DP, DeviceNet, CC-Link Reliability
- IP56, 3 year warranty



#### **UTAdvanced Program Controllers** UP55A/UP35A

- Organization

  Max Pattern Number 30(UP55A), 4(UP35A)
  Total Segments Number 300(UP55A), 40(UP35A)

  Advanced Control
  PID Controll 8 built-in Control
  Functions /Algorithms (Only UP55A)
  Ladder Sequence Control

  Simplicity
- Simplicity
  Bright & Easy to read Active Color LCD Display
- Multiple Language support Networking Ethernet(Modbus/TCP), RS485 PROFIBUS-DP, DeviceNet, CC-Link
- Reliability
- IP56, 3 year warranty



### **Compact Signal Conditioner JUXTA VJ Series**

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



## Solar Tracking Controller - SolStation (TM) HXS10

- Built-in Solar Position Algorithm
   Excellent Environmental Performance
   Flexible, Customizable Program
   Built to Order
- · High Quality and Reliable Support



# Making critical plant information fully visible is just the beginning of the vigilant cycle

Seeing clearly gives you the knowledge necessary to anticipate the changes required in your process. Knowing in advance brings you the speed and flexibility to optimize your plant in real time. And by acting with agility, you are able to adapt to the ups and downs of your business environment.



VigilantPlant excels at bringing out the best in your plant and your people - keeping them fully aware, well informed, and ready to face the next challenge.









VigilantPlant is Yokogawa's automation concept for safe, reliable, and profitable plant operations. VigilantPlant aims to enable an ongoing state of Operational Excellence where plant personnel are watchful and attentive, well-informed, and ready to take actions that optimize plant and business performance.

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Printed in Japan, 409(KP) [Ed: 11/b]

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