

OpreX™ Components

Multi-Sensing Remote I/O VZ20X Analog Sensing Unit

Realize Non-Stop Production

manufacturing equipment

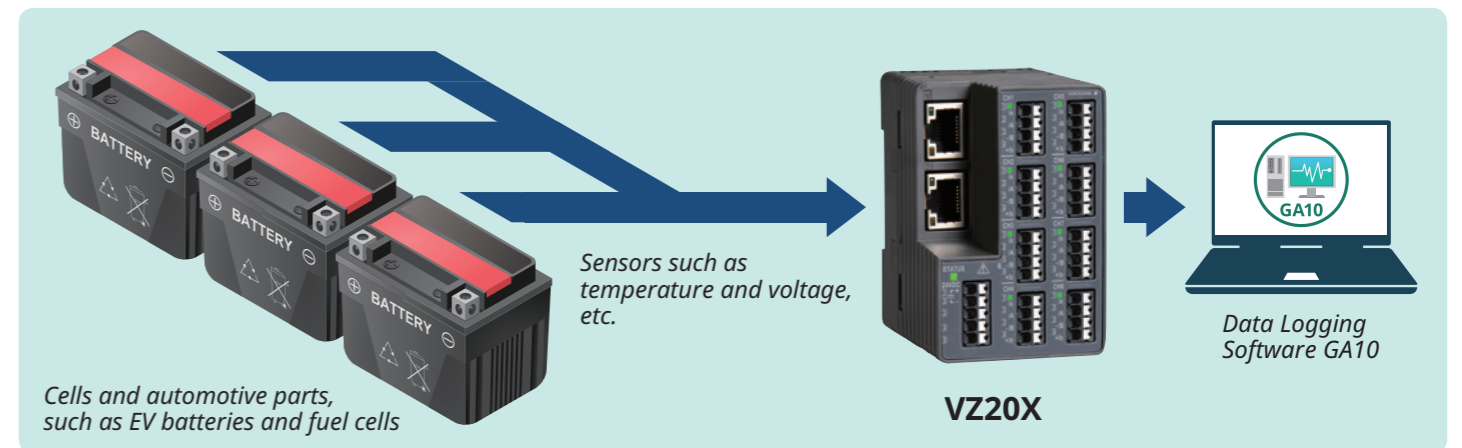
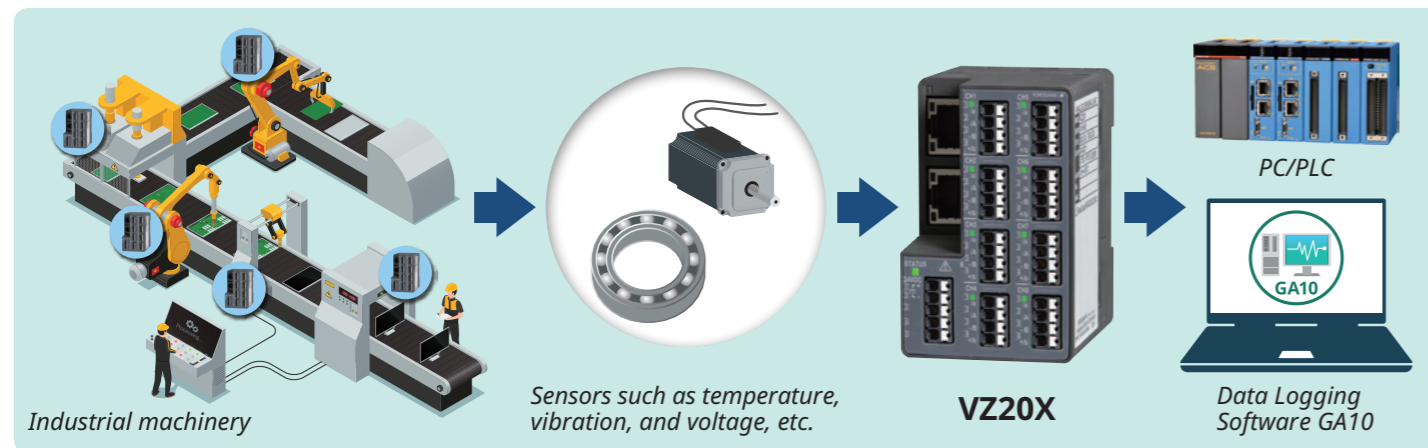
The VZ20X Analog Sensing Unit provides compact and reliable sensing for production equipment experiencing sudden performance degradation or downtime resulting in reduced utilization rate and safety, and helps customer visualize and improve operations on site.

◆ Equipment maintenance solution ◆

Problem	Solution	Benefit
Customers want to inspect and replace industrial machinery in a timely manner.	Visualizes the signs of equipment degradation through high-speed simultaneous measurement.	Provides reliable data Reduces maintenance labor and opportunity loss
Customers want to perform a deterioration diagnosis, but they don't have any device which can be installed on their current industrial machine in terms of size and performance.	Offers a compact unit that can be installed in a variety of facilities with sufficient performance for diagnostics.	Acquires diagnostic information for continuous improvement regardless of the industrial machines in use.
Customers want to prevent breakdowns in industrial machinery in noisy environments.	Offers a highly noise resistant and highly accurate measurement unit.	Enables cause analysis with highly reliable data

◆ Product and component evaluation solution ◆

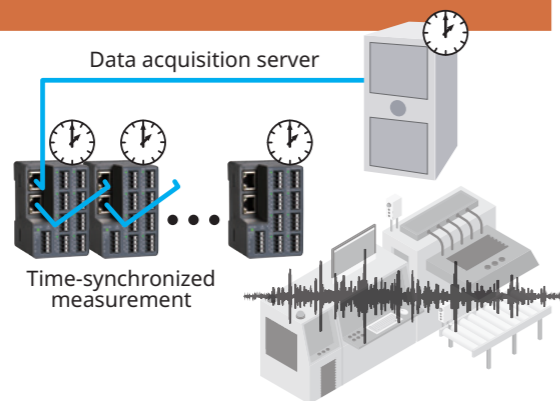
Problem	Solution	Benefit
Customers want to accurately judge the production quality of products and components.	Enables high-quality inspection with high-speed and high-accuracy measurement.	Provides reliable data Prevents product defects
Customers want to be able to test regardless of product/component characteristics and test environment.	Enables safe testing with insulation between input channels and noise resistance.	Prevents problems Reduces troubleshooting work



Features

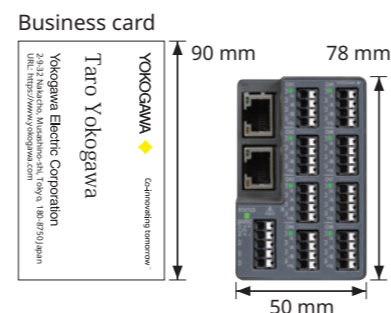
Reliable Sensing

- Measures 8 channels of analog input on a single unit with high-speed (1 ms) sampling.
- Multi-channel time-synchronized measurements (up to 15 units and 120 channels).
- Isolated input channels for reliability even in noisy environments.



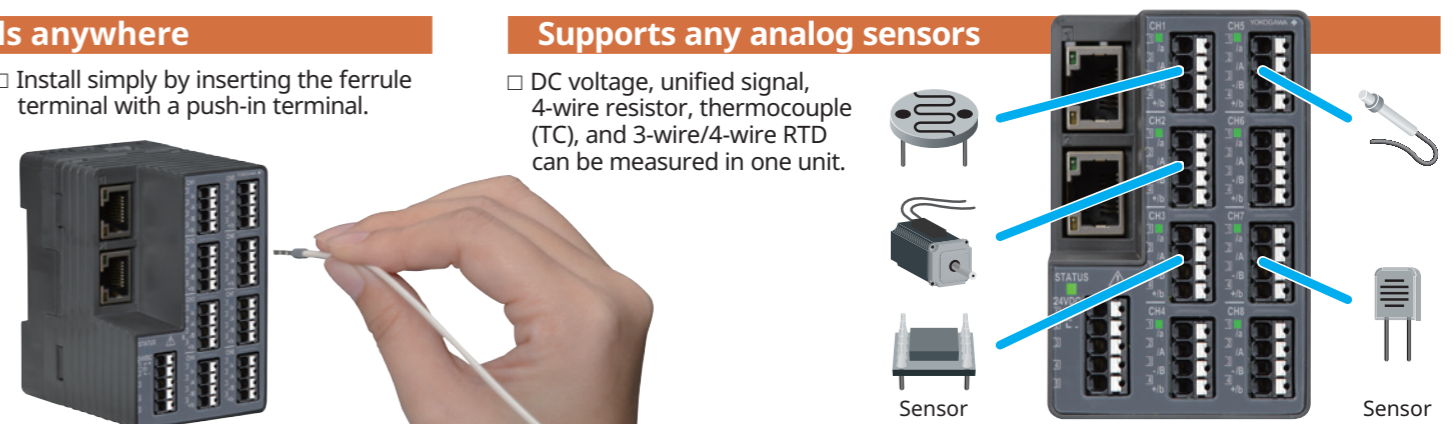
Compact, installs anywhere

- Compact enough to fit between production equipment.



Supports any analog sensors

- DC voltage, unified signal, 4-wire resistor, thermocouple (TC), and 3-wire/4-wire RTD can be measured in one unit.



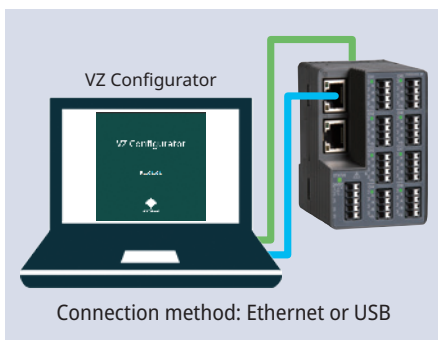
Model and Suffix Codes



Model	Suffix Code	Descriptions
VZ20X	-1N1ND	Analog Sensing Unit • 8 Universal inputs (DC voltage, Standard signal, Resistance, Thermocouple (TC), Resistance Temperature Detector (RTD)) • Ethernet communication 2-port • 24 VDC power supply

Product Overview

Item	Specification
Number of inputs	8 channels
Input types	DC voltage, unified signal, 4-wire resistor, thermocouple, and 3-wire/4-wire RTD
Data acquisition interval	1 ms (fastest), 8 channels simultaneous measurement
Meas. synchron. accuracy	Within $\pm 100 \mu\text{s}$ (between input channels, between units)
Measurement accuracy	0.025% of FS (with DC voltage, and power supply frequency noise removal filter enabled)
Withstanding voltage	3,000 VAC (50 Hz/60 Hz) 1 min. (between analog input channels, analog input-to-internal circuit)
Power supply	24 VDC or USB (Type C)
Operating temperature/humidity	-10~55°C (DIN rail-mounted), -10~50°C (on desktop installation) /5~90% RH
Wiring	Push-in terminal, Ferrule terminal
Size	Height (H) 78 x width (W) 50 x depth (D) 65 mm
Ethernet communication	2 ports, protocol: Modbus/TCP, GA10 dedicated protocol
Installation	DIN rail-mounted, On desktop installation



VZ Configurator Tool (Free download)

Function	Description
Parameter settings	Input range/scale, Ethernet communication conditions
Monitor function	Real time monitoring Self-diagnosis
Maintenance	Firmware update Input adjustment

*For the general specifications (GS 77V01B01-01EN), see our website or Partner Portal.

Web site

See the general specifications for details.
For questions on the VZ20X, see our FAQ.



<https://www.yokogawa.com/ns/vz/>

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