

Small condition monitor
VM-25 Series

Online monitoring for balance of plant machines!

VM-25



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A digital, compact and versatile BOP* monitor

*BOP : Balance of Plant

Available pre-configured or customized to your requirements!

IoT continues to increase machine connectivity and data-driven decision making. In addition to monitoring critical machines, operators are seeking solutions for balance of plant equipment. Online monitoring is often costly and over-spec, forcing operators to rely on manual or route-based data collection methods that are less accurate and efficient. The VM-25 addresses these shortcomings with its compact, field configurable design that will not break the bank!



Key Features

Digital

Easily connect to your PLC or DCS via a Modbus/TCP. For added convenience, a recorder output or isolated recorder output is also available.

Optimized

Choose from 14 pre-configured monitors or custom order and select input ch. and digital output (relay) based on your machine requirements.

Versatile

The monitor can be expanded to 5 modules yet its smaller than a lunch box, enabling easy installation and field configuration.

System Configuration

Input Transducers



Velocity transducer
Acceleration transducer



Displacement transducer

2ch Vibration Measurement per Module

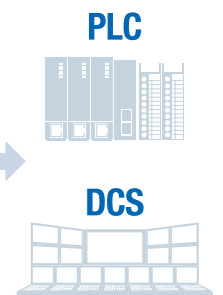


Output to Host

4 points isolated recorder output
4 to 20 mA / 1 to 5 V

4 points relay output

Modbus/TCP communication



Modules

2ch vibration measurement

2ch displacement/velocity/acceleration transducer vibration measurement enables you to measure shaft vibration or casing vibration of rotating machinery.

4 points isolated recorder output

Each vibration module can accept eddy current and velocity/acceleration transducers. Each module can provide 4 points isolated recorder output.

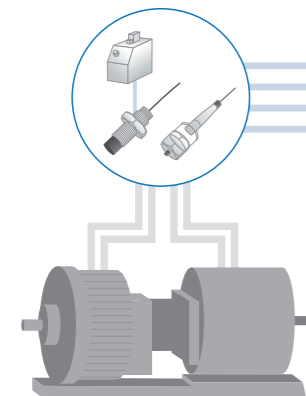
4 points relay output

Each vibration module has 4 relay output which can be programmed for AND/OR relay logic.

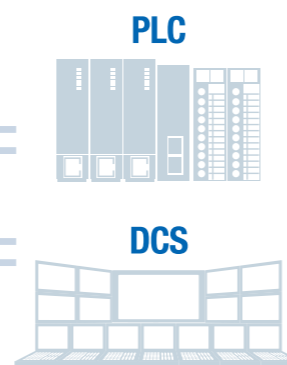
Modbus/TCP communications

Digital Communication Output via Modbus and TCP using Ethernet.

Common Applications



Applications
pumps, fans, electric motors, blowers, compressors and turbines.



Technical Specification

2ch vibration measurement	
Number of inputs	2ch
Monitoring parameter	displacement vibration, velocity vibration, acceleration vibration
Input Transducer *1	
Eddy current transducer	FK-202F Displacement vibration measurement
Velocity transducer	CV-86, CV-87 Velocity vibration measurement or displacement vibration measurement
Acceleration transducer	CA-302 Acceleration vibration measurement or velocity vibration measurement
Other transducer	Voltage signal

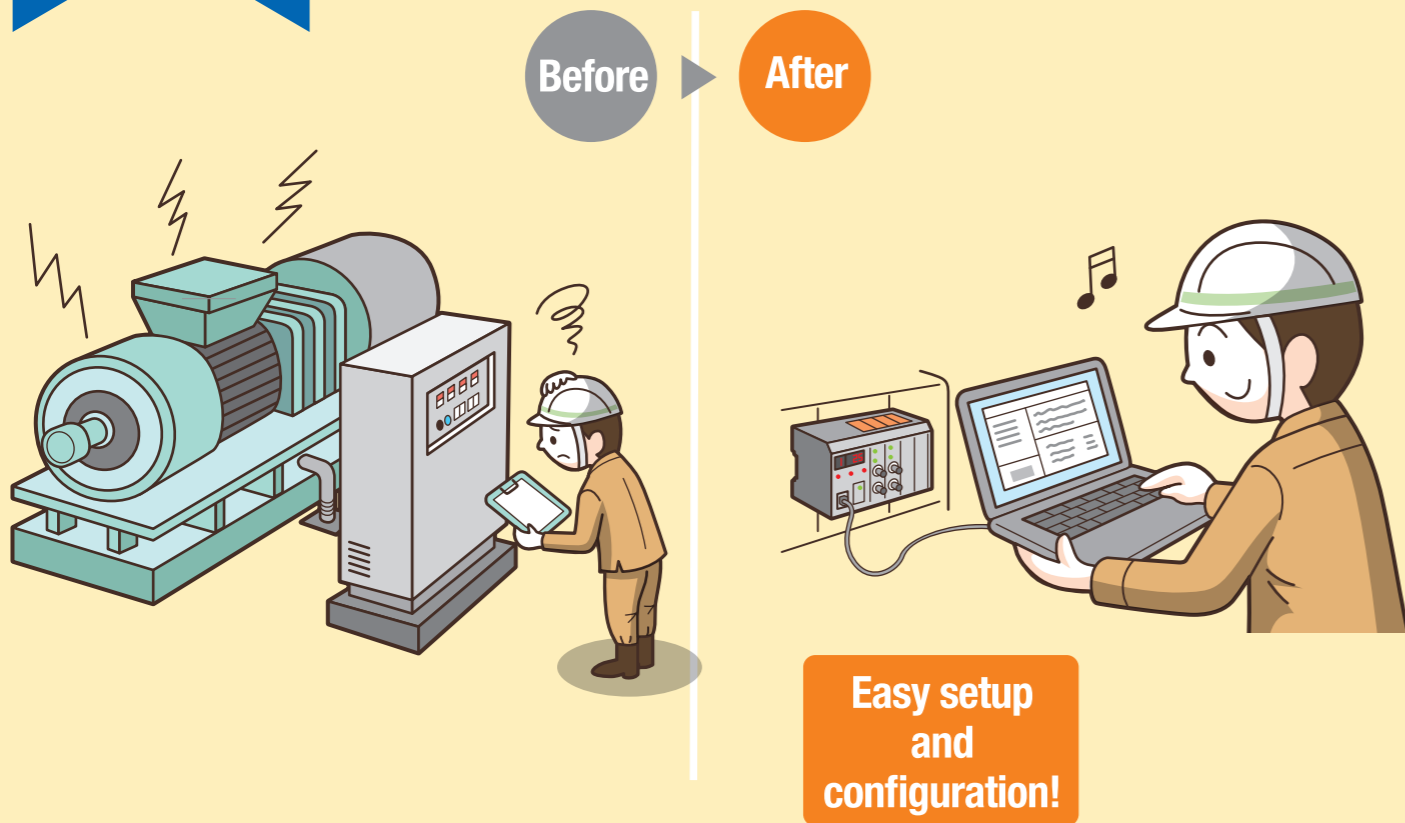
4ch Isolated recorder output function	
Output points	4ch / slot
Recorder output range	4 to 20 mA, 1 to 5 V
4ch relay output function	
Output points	4ch / slot
Contact type	Dry contact (SPDT)

*1 : Use VM-25S01 software to configure device (optional).

* The content of this brochure may change without prior notice.

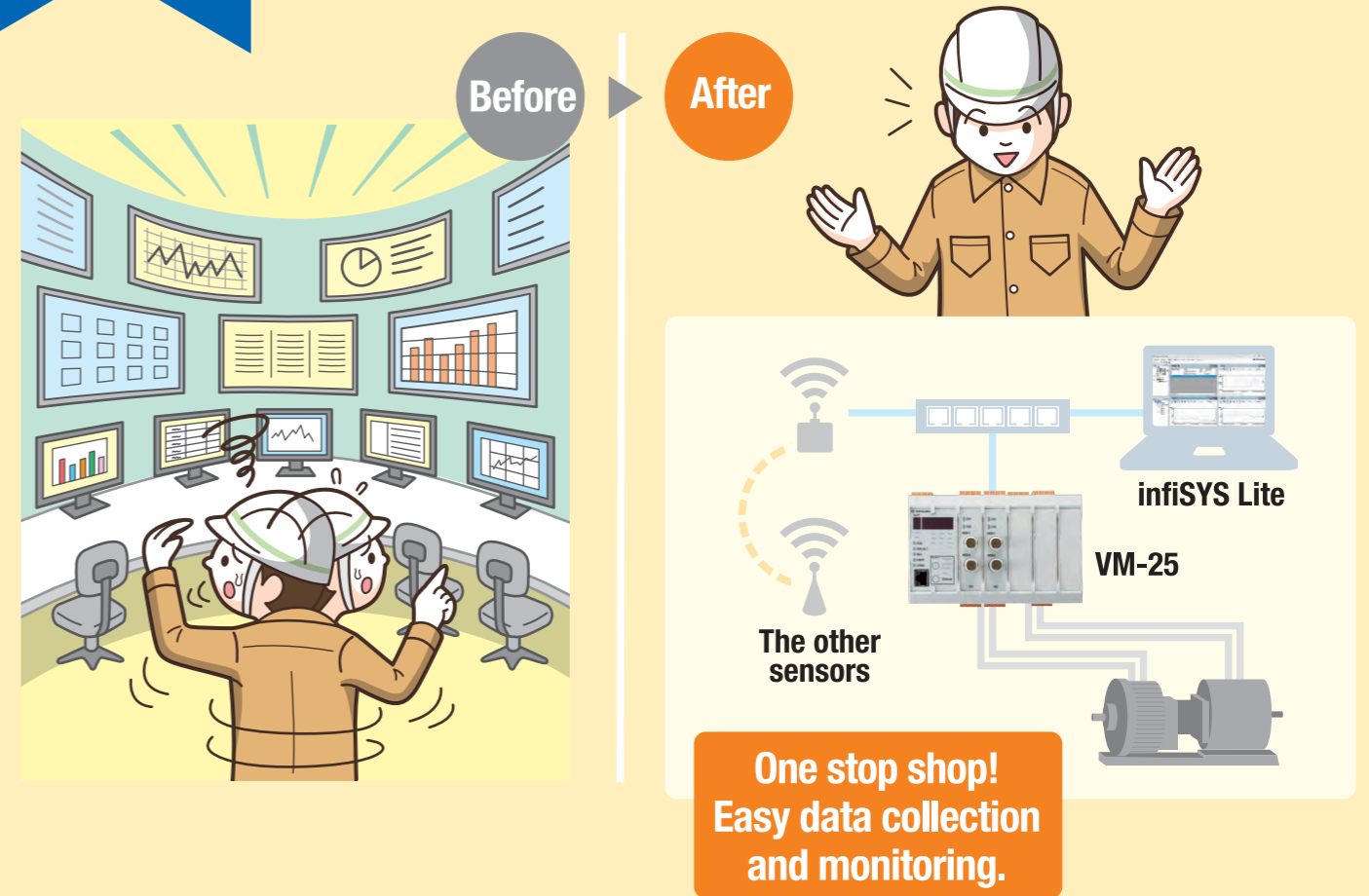
VM-25
Digital Data
Collection!

**Avoid surprises from time or
route-based monitoring!**



VM-25
Online
Monitoring!

**Make your BOP machines visible
with online monitoring!**

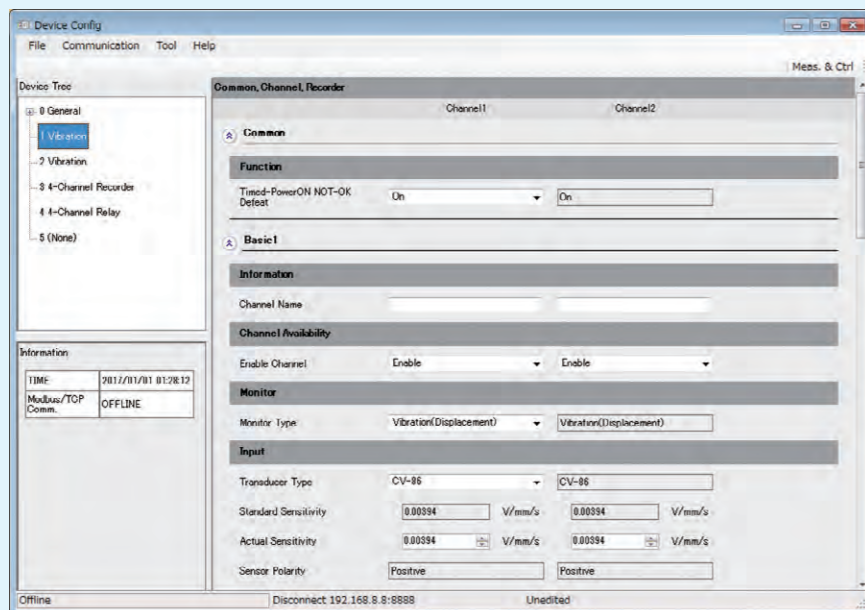
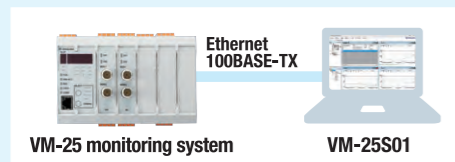


Configuration software

**VM-25S01
Device config**

Model code : VM-25S01(option)

- Configure monitor settings in the field*
- Easily change measurement range and input transducer type



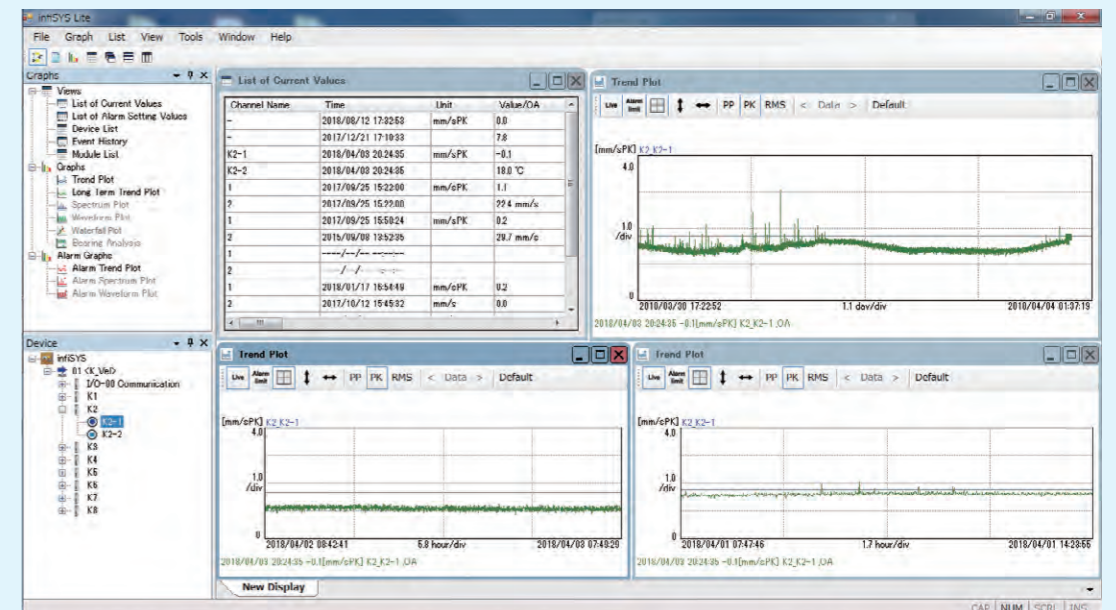
*Configure device with optional software.

Monitoring software

infiSYS Lite

Model code : WS-1ASW(option)

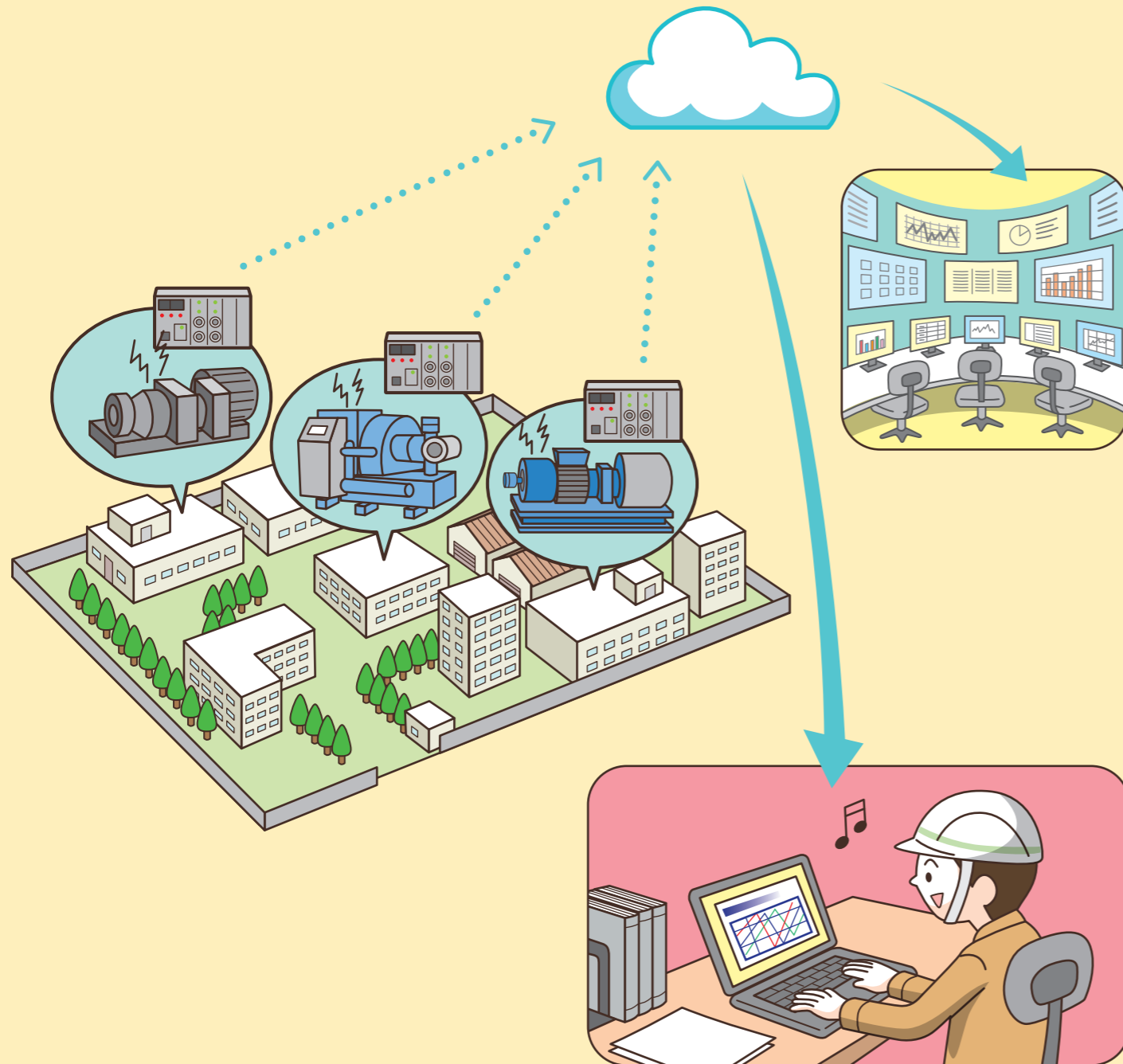
- Overall-value trend monitoring
- Add other machine data for analysis
- Easy to install on laptop or pc



*Spectrum Plot, Waveform Plot, Waterfall Plot and Bearing Analysis are not available in case of the data acquisition from VM-25.

**VM-25
Remote
Analysis!**

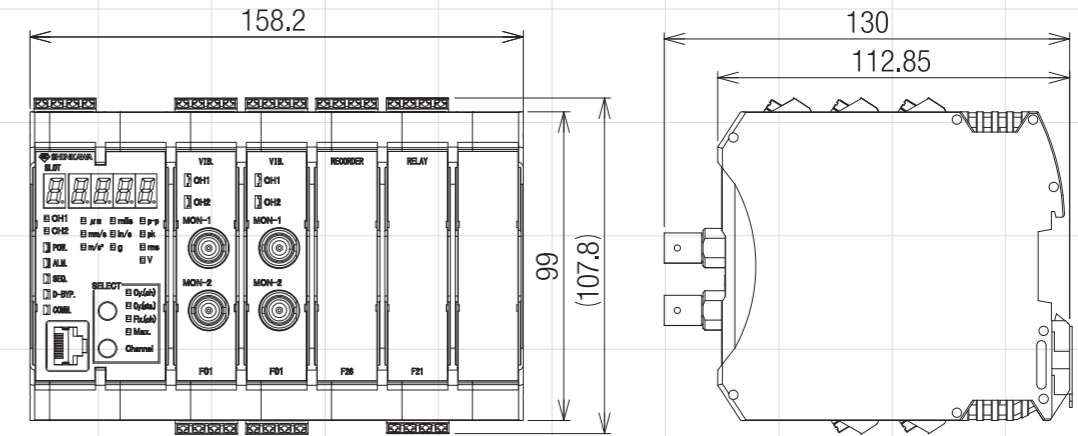
Monitor BOP machine data from one central location!



Remotely monitoring using SCADA* and shut-down equipment using the digital output relay.

※SCADA : Supervisory Control And Data Acquisition

Monitor Dimensions



Pre-Configured Modules

Vibration measurement function [VM-25F01]			Recorder Output (Isolated) [VM-25F26]	Relay Output [VM-25F21]	Model Code
Input Channel	Recorder Output (Non-isolated)	Monitor Output			
2ch	2ch	2ch	0ch	0ch	VM-25M00-151-01-00-00-00-00
2ch	2ch	2ch	0ch	4ch	VM-25M00-151-01-00-21-00-00
2ch	2ch	2ch	4ch	0ch	VM-25M00-151-01-00-26-00-00
2ch	2ch	2ch	4ch	4ch	VM-25M00-151-01-00-26-21-00
4ch	4ch	4ch	0ch	0ch	VM-25M00-151-01-01-00-00-00
4ch	4ch	4ch	0ch	4ch	VM-25M00-151-01-01-21-00-00
4ch	4ch	4ch	0ch	8ch	VM-25M00-151-01-01-21-21-00
4ch	4ch	4ch	4ch	0ch	VM-25M00-151-01-01-26-00-00
4ch	4ch	4ch	4ch	4ch	VM-25M00-151-01-01-26-21-00
4ch	4ch	4ch	4ch	8ch	VM-25M00-151-01-01-26-21-21
6ch	6ch	6ch	0ch	0ch	VM-25M00-151-01-01-01-00-00
6ch	6ch	6ch	0ch	4ch	VM-25M00-151-01-01-01-21-00
6ch	6ch	6ch	8ch	0ch	VM-25M00-151-01-01-01-26-26
8ch	8ch	8ch	0ch	0ch	VM-25M00-151-01-01-01-01-00

Digital Communication (Modbus/TCP)

Input / Output data	
Data transmitted from VM-25 to host network	Measurement value, Gap/Bias voltage value Alarm status DANGER ALERT OK Alarm set value DANGER ALERT OK
Data received by VM-25 from host network	Date and Time data
Function of VM-25 that can be controlled from host network	Channel bypass status ON/OFF Danger bypass status ON/OFF Sequence mode ON/OFF Alarm reset Peak hold reset

Other Specifications

Temperature range	
Operating temperature	-20 to +65°C
Relative humidity	20 to 90%RH(non-condensing)
Power Supply Voltage	
Rated Power Supply Voltage	24 VDC
Power consumption	24 W(Max.)
Mounting Method	
35mm DIN rail	
Mass	
All full load	Max. 0.9 kg
Display function	
Display	4 digits 7-segment Red LED display
Hazardous Area Approvals	
CSA C/US	Class I, Division 2, Groups A, B, C, D T4 Ex ec nC II C T4 Gc (For Canada) Class I, Zone 2, AEx ec nC II C T4 Gc (For US)
ATEX	Ex ec nC II C T4 Gc
IECE x	Ex ec nC II C T4 Gc

※ The specifications and other items indicated herein are subject to change without notice.