

VM-5 SERIES MONITOR SPECIFICATIONS

MODEL VM-5T DUAL THRUST MONITOR



Model Code / Additional Spec. Code (No entry if additional spec. code is not specified.)

VM-5T- 0 -

| Monitor range | Input signal | Frequency response | Polarity*1 | Recorder output | Alarm reset (DANGER) | Alarm reset (ALERT) | Alarm reset (OK) |
|-----------------------|-----------------------------------|--------------------|------------|------------------------------------|----------------------|---------------------|------------------|
| 1 -0.5 to 0 to +0.5mm | 1 VK-202A, VK-202P, FK-202F | 0 DC to 0.5Hz | 1 Direct | 0 4 to 20mADC | 0 AUTO-RESET | 0 AUTO-RESET | 0 AUTO-RESET |
| 2 -1.0 to 0 to +1.0mm | | | 2 Reverse | 1 1 to 5VDC | 1 SELF-HOLD | 1 SELF-HOLD | 1 SELF-HOLD |
| 3 -2.0 to 0 to +2.0mm | | | | 2 Output card (IIS□ or RE□ option) | | | |
| 4 -25 to 0 to +25mils | 2 VK-302P,FK-302F | Note) *1 FK/VK | | | | | |
| 5 -40 to 0 to +40mils | 3 VK-452A,FK-452F | | | | | | |
| 6 -80 to 0 to +80mils | 4 VK-602P,FK-602F | | | | | | |
| | 5 VC Series (Voltage output only) | | | | | | |

Note) When using monitor range 2(-1.0 to 0 to +1.0mm) or 5(-40 to 0 to +40mils), combined with input signal 1 and intrinsically safe explosion proof construction, the OK alarm set point falls within the range. Therefore, use the monitor within 90% of the range.

| Polarity | Indication and rec. output | |
|----------|----------------------------|------------------|
| | Toward sensor | Away from sensor |
| Direct | Increase | Decrease |
| Reverse | Decrease | Increase |

VC

| Polarity | Indication and rec. output | |
|----------|----------------------------|------------------|
| | Toward sensor | Away from sensor |
| Direct | Decrease | Increase |
| Reverse | Increase | Decrease |

| Relay mode (DANGER) | Relay mode (ALERT) | Relay mode (OK) | Alarm Delay time (DANGER) | Alarm delay time (ALERT) | Alarm output type | First out*2 |
|-------------------------|-------------------------|-------------------------|---------------------------|--------------------------|--|---------------|
| 0 NORMALLY DE-ENERGIZED | 0 NORMALLY DE-ENERGIZED | 0 NORMALLY DE-ENERGIZED | 0 3 sec. | 0 3 sec. | 1 CH1 : 2 points(DANGER1,ALERT1)H,L are OR output CH2 : 2 points(DANGER2,ALERT2)H,L are OR output | 0 OFF 1 ON |
| 1 NORMALLY ENERGIZED | 1 NORMALLY ENERGIZED | 1 NORMALLY ENERGIZED | 1 1 sec. | 1 1 sec. | 2 CH1 : 4 points (H-DANGER,H-ALERT,L-ALERT, L-DANGER) | |
| | | | 2 6 sec. | 2 6 sec. | 3 CH2 : None | |
| | | | 3 None | 3 None | 4 Voting logic DANGER : AND output of CH1,2 ALERT : OR output of CH1,2 | |
| | | | | | 5 Voting logic DANGER : OR output of CH1,2 ALERT : AND output of CH1,2 | |
| | | | | | Special alarm logic(option) | |

Note) *2 It is necessary to set all monitor units in the same rack in first out function ON when it is used first out function.

/(IS or RE)/5G /TRP/EX /LG

| Isolate output | Recorder output option | Input power supply requirements | Tropical spec. | Sensitivity correction | Special alarm logic |
|----------------|------------------------|---------------------------------|----------------|------------------------|---------------------|
| 0 4 to 20mADC | 2 0 to -10VDC | 0 85 to 264VAC | | 1 TIIS(IEC) | 1 |
| 1 1 to 5VDC | 3 0 to 10VDC | 1 24VDC | | 2 FM | |
| 2 0 to -10VDC | 4 0 to -5VDC | 2 110VDC | | 4 CSA | |
| 3 0 to 10VDC | 5 0 to 5VDC | | | 5 ATEX | |
| 4 0 to -5VDC | | | | | |
| 5 0 to 5VDC | | | | | |

When recorder output code 2 is selected, specify this option code.

Note) Input abnormal alarm is not applicable in case of VC input signal.

| Ordering Information | | Standard Specifications | |
|-------------------------|---|--|---|
| ALARM SET VALUE | H-DANGER1 : _____ H-ALERT1 : _____ L-ALERT1 : _____ L-DANGER1 : _____ H-DANGER2 : _____ H-ALERT2 : _____ L-ALERT2 : _____ L-DANGER2 : _____ Unless specified otherwise, preset to : H-DANGER : 100% of monitor range H-ALERT : 90% of monitor range L-ALERT : 10% of monitor range L-DANGER : 0% of monitor range | ALARM INDICATOR | DANGER : (red LED) ALERT : (yellow LED) OK : (green LED) |
| | | ABNOR. ALARM INDICATOR | |
| | | BYPASS INDICATOR | BYPASS : (red LED) |
| | | TRANSDUCER INPUT | VK-202A,VK-202P,FK-202F,VK-302P,FK-302F, VK-452A,FK-452F,VK-602P,FK-602F,VC Series Number of input points : 2 points |
| | | INPUT IMPEDANCE | Approx. 50kΩ |
| | | EXTERNAL CONTACT INPUT (FROM REAR PANEL) | Contact type : Dry contact Contact for external reset |
| | | BAR GRAPH METER | Recorder output conversion accuracy ±2.5% of F.S. |
| | | ZERO SHIFT | 0 to 100% of monitor range |
| | | DIGITAL METER | Recorder output conversion accuracy ±1.0% of F.S. |
| | | RECORDER OUTPUT CONVERSION ACCURACY | ±0.5% of F.S. at 25°C ±2.0% of F.S. at 0 to 65°C |
| | | RECORDER OUTPUT (FROM REAR PANEL) | Voltage or current output proportional to monitor range 1 to 5VDC (output impedance : 250Ω) 4 to 20mADC (max. load resistance : 500Ω) 0 to -10VDC*, 0 to 10VDC*, 0 to -5VDC*, 0 to 5VDC* (output impedance : 100Ω) (*option) Number of output points : 2 points |
| | | MONITOR OUTPUT (FROM FRONT, REAR PANEL) | Input signal is output via a buffer amplifier. Signal level : -0.8 to -22VDC(VK), 0 to 5VDC(VC) Output impedance : 100Ω (load resistance 50kΩ or more) |
| | | TEMPERATURE RANGE | Operating temperature : 0 to 65°C (32 to 149°F REF.) Storage temperature : -30 to +85°C (-22 to +185°F REF.) Relative humidity : 20 to 95% (noncondensing) |
| | | MATERIAL AND FINISH | Face plate : Aluminum Munsell N-4.0 (equiv.) |
| | | MASS | Monitor : max.0.7kg (including single unit instrument rack : max.2.5kg) |
| ALARM SET POINT | 8 points (H-DANGER1,H-ALERT1,L-DANGER1,L-ALERT1, H-ALERT2,H-DANGER2,L-ALERT2,L-DANGER2) | | |
| ALARM SET RANGE | 0 to 110% of monitor range | | |
| ALARM SET ACCURACY | ±1.0% of F.S. or less | | |
| ALARM SET REPEATABILITY | ±0.1% of F.S. or less | | |
| ALARM OUTPUT | 5 points (DANGER1,ALERT1,ALERT2,DANGER2,OK) or 6 points (DANGER1,ALERT1,ALERT2,DANGER2,OK1,OK2) (H,L are OR output) | | |
| MEASURED VALUE | LCD digital meter with 5 digits (7 segments, with back light) LCD bar graph meter (40 segments, with back light) * Measurement value and alarm set value are indicated on the digital meter and bar graph meter simultaneously. | | |
| OTHERS | | | |