

VM-5 SERIES MONITOR SPECIFICATIONS

MODEL VM-5K DUAL VIBRATION MONITOR



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

VM-5K- -

Monitor range	Input signal	Low cut-off frequency *3	High cut-off frequency *3	Rectification	Recorder output	Alarm reset (DANGER)	Alarm reset (ALERT)	Alarm reset (OK)
1 0 to 100 μ m pk-pk	1 VK-202A, VK-202P, FK-202F	1 5Hz or less	1 100Hz	0 Average value	0 4 to 20mADC	0 AUTO-RESET	0 AUTO-RESET	0 AUTO-RESET
2 0 to 125 μ m pk-pk		2 9.5Hz Seismic filter *1	2 500Hz	1 pk to pk	1 1 to 5VDC	1 SELF-HOLD	1 SELF-HOLD	1 SELF-HOLD
3 0 to 200 μ m pk-pk		3 14Hz Seismic filter *1	3 1kHz	2 rms (additional spec./RMS)	2 Output card (/ISO or /REC option)			
4 0 to 400 μ m pk-pk	2 VK-302P, FK-302F	4 15Hz Seismic filter *1	4 4kHz					
5 0 to 500 μ m pk-pk		5 40Hz(36dB/oct) Pipe filter *1	5 10kHz					
6 0 to 3mils pk-pk	3 VC Series (Voltage output only)	6 60Hz(36dB/oct) Pipe filter *1						
7 0 to 5mils pk-pk								
8 0 to 10mils pk-pk								
A 0 to 15mils pk-pk								

Note) *1 A filter card (option) is required for use of seismic and pipe filters.
The seismic filter can be turned ON/OFF (IN/OUT) by an external contact signal.
(Preset to OFF (OUT)) At seismic filter is OFF(OUT), the low cut-off frequency is 2Hz.
The pipe filter is normally ON(IN); it cannot be set to OFF(OUT).
Note) *3 Select so that [high cut-off frequency] \geq Low cut-off frequency $\times 10$

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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) CH2 : 2 points (DANGER2,ALERT2)	0 OFF
1 NORMALLY ENERGIZED	1 NORMALLY ENERGIZED	1 NORMALLY ENERGIZED	1 1 sec.	1 1 sec.	2 CH1 : 4 points (DANGER1,DANGER2,ALERT1,ALERT2) CH2 : None	1 ON
			2 6 sec.	2 6 sec.	3 Special alarm logic(option)	
			3 None	3 None		

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.

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

rms. rectification	Isolate output		Recorder option output		Input power supply requirements		Tropical spec.		Sensitivity correction		Special alarm logic			
											DANGER		ALERT	
											1CH	2CH	1CH	2CH
When rectification code 2 is selected, specify this option code.	0	4 to 20mADC	2	0 to -10VDC	0	85 to 264VAC	1	TIIS(IEC)	1	>DANGER	>DANGER	>ALERT	>ALERT	
	1	1 to 5VDC	3	0 to 10VDC	1	24VDC	2	FM		>DANGER	NOT OK	>ALERT	<ALERT	
	2	0 to -10VDC	4	0 to -5VDC	2	110VDC	4	CSA		NOT OK	>DANGER	<ALERT	>ALERT	
	3	0 to 10VDC	5	0 to 5VDC			5	ATEX		—	—	>ALERT	NOT OK	
	4	0 to -5VDC								—	—	NOT OK	>ALERT	
	5	0 to 5VDC												
	When recorder output code 2 is selected, specify this option code.								2	>DANGER	>DANGER	>ALERT	>ALERT	
										>DANGER	>ALERT	>ALERT	<ALERT	
										>ALERT	>DANGER	<ALERT	>ALERT	
										>DANGER	NOT OK	>ALERT	NOT OK	
									NOT OK	>DANGER	NOT OK	>ALERT		

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

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Ordering Information			Standard Specifications	
ALARM SET VALUE	DANGER1 : _____ ALERT1 : _____ DANGER2 : _____ ALERT2 : _____ Unless specified otherwise, preset to : DANGER : 100% of monitor range ALERT : 90% of monitor range		ALARM INDICATOR	DANGER : (red LED) ALERT : (yellow LED) OK : (green LED)
SEQUENCE SET VALUE (to increase alarm set value during operation of the sequence circuit)	: _____ $\times 1.0$ to 10.0 ($\times 0.1$ step) Preset to $\times 1.0$ unless specified otherwise. CAUTION : Set the alarm set value so that its designated multiple is within 110% of the measurement range during operation of the sequence circuit. If set to more than 110%, alarm may not be output.		ABNOR. ALARM INDICATOR	OK : (green LED)
SUPPRESSION FUNCTION SET VALUE	: _____ 0.0 to 10.0 % of monitor range (0.1 % step) Preset to 2.0 % unless specified otherwise. CAUTION : When the measurement value is not more than suppression function set value, indication and recorder output value shall be as 0 %.		BYPASS INDICATOR	BYPASS : (red LED)
Standard Specifications			TRANSDUCER INPUT	VK-202A,VK-202P,FK-202F,VK-302P,FK-302F,VC Series Number of input points : 2 points
ALARM SET POINT	4 points (DANGER1,ALERT1,DANGER2,ALERT2)		INPUT IMPEDANCE	Approx. 50k Ω
ALARM SET RANGE	0 to 110% of monitor range		EXTERNAL CONTACT INPUT (FROM REAR PANEL)	Contact type : Dry contact Contact for external reset Contact for sequence
ALARM SET ACCURACY	$\pm 1.0\%$ of F.S. or less		BAR GRAPH METER	Recorder output conversion accuracy $\pm 2.5\%$ of F.S.
ALARM SET REPEATABILITY	$\pm 0.1\%$ of F.S. or less		DIGITAL METER	Recorder output conversion accuracy $\pm 1.0\%$ of F.S.
ALARM OUTPUT	5 points (DANGER1,ALERT1,ALERT2,DANGER2,OK) or 6 points (DANGER1,ALERT1,ALERT2,DANGER2,OK1,OK2)		RECORDER OUTPUT CONVERSION ACCURACY	$\pm 0.5\%$ of F.S. at 100Hz at 25°C (77°F REF.) $\pm 2.0\%$ of F.S. at 100Hz at 0 to 65°C (32 to 149°F REF.)
MEASURED VIBRATION 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.		RECORDER OUTPUT (FROM REAR PANEL)	Voltage or current output proportional to monitor range 1 to 5VDC (output impedance : 250 Ω) 4 to 20mADC (max. load resistance : 500 Ω) 0 to -10VDC*, 0 to 10VDC*, 0 to -5VDC*, 0 to 5VDC* (output impedance : 100 Ω) (*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 : 100 Ω (load resistance 50k Ω 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 (max.1.6lb REF.) (including single unit instrument rack : max.2.5kg (max.5.5lb REF.))
			OTHERS	