

VM-21 SERIES
SPECIFICATIONS

VM-21A
VIBRATION SIGNAL CONDITIONER



Model Code

VM-21A - -

Power supply		Measuring range *1		Input transducer		Frequency response *2			Wave Output *3		Output		Conditioner socket	
1	24VDC	11	0~100 μ m pk-pk	A	CA Series (100mV/9.8m/s ² pk)	0	10Hz~2kHz(-3dB)	1	Velocity	1	1~5VDC	0	Without	
2	100-240VAC/DC	12	0~200 μ m pk-pk			1	5Hz~1kHz(-3dB)	2	Acceleration	2	4~20mADC	1	Include	
		21	0~25mm/s pk	V	CV-86 or CV-88 (3.94mV/mm/s pk)	2	5Hz~10kHz(-3dB)	3	Displacement					
		22	0~50mm/s pk			3	10Hz~1kHz(-3dB)							
		23	0~100mm/s pk			4	10Hz~5kHz(-3dB)							
		61	0~2g pk			5	1kHz~10kHz(-3dB)							
		62	0~5g pk											
		63	0~10g pk											
		64	0~20g pk											
		71	0~20m/s ² pk											
		72	0~50m/s ² pk											
		73	0~100m/s ² pk											
		74	0~200m/s ² pk											

Standard

Note) *1 Input transducer is A : Can not select 11 and 12 of measuring range.
 Input transducer is V : Can not select 61 and 64,71 and of measuring range.
 *2 When the input transducer V, frequency response code 0(standard) , 3 or 4 is highly recommended.
 When the frequency response code 1 or 2 is selected , an excessive vibration output may result at low-frequency.
 *3 Input transducer is A : Can not select 3 of waveform output.
 Input transducer is V : Can not select 2 of waveform output.

SPECIFICATIONS

Input Transducer	CA-302,CA-721,CA-722 or CV-86,CV-88
Input Sensitivity	100mV/9.8m/s ² pk (100mV/g pk REF.)(standard), 3.94mV/mm/s pk(nonstandard)
Input Resistance	50k Ω
Measuring Range	See Model Code above
Output (isolated)	1 to 5VDC(output resistance : 250 Ω) or 4 to 20mADC(permissible load resistance : 600 Ω or less)
I/O Conversion Accuracy	\pm 1% of F.S. at 25°C, \pm 2% of F.S. at 0~50°C
Response Speed	τ =500ms 63% response
Frequency Response	5Hz to 1kHz(-3dB), 10Hz to 2kHz(-3dB) or 5Hz to 10kHz(-3dB) 10Hz~1kHz(-3dB), 10Hz~5kHz(-3dB), 1kHz~10kHz(-3dB)
Burn-down Function	Detects transducer failure and causes the 4 to 20mADC(1 to 5VDC) output to go to less than 0.8mADC(0.2VDC)
Buffered Output	Input signal is outputted via a buffer amplifier. Signal level : 2 to 22VDC Output impedance: 100 Ω
Wave Output	5Vpk-pk at F.S.(Sine wave)
Power Supply Output	24VDC (4mA constant current)
Supply Permissible Voltage	24VDC \pm 10% or 85 to 264VAC/DC (50/60Hz)
Power Consumption	24VDC: 3.5W, 100-240VDC: 3.5W, 100-240VAC: 10VA
Insulation Resistance	100 M Ω minimum at 500VDC between input-output-power-GND mutually.
Withstand Voltage	2000VAC for one minute between input-output-power-GND mutually. (With VM-21H: 1,000VAC between output-GND.)
Operating Temperature	0 to 50°C (32 to 122°F REF.)
Relative Humidity	10 to 90%RH (no condensation)
Casing Material (color)	Modified polyphenylene oxide (black)
Weight	Approx. 110g (0.24lb)
CE Marking	Only as for 24VDC power supply specifications.