

VM-21 SERIES

SPECIFICATIONS

VM-21T DISPLACEMENT INPUT
THRUST SIGNAL CONDITIONER

Model Code No.

VM-21T - -

Power supply	Measuring range*1*2	Input transducer	Intrinsically safe	Polarity*3	Output	Conditioner socket
1	24VDC	B FK-202F VK-202A (787mV/100 μ m)	0 Non-intrinsically safe spec.	0	1	0
2	100 to 240VAC/DC			1	2	1
	21 Non-intrinsically safe spec. : 0 to 2mm intrinsically safe spec. : 0 to 1.8mm	C FK-452F VK-452A (394mV/100 μ m)	1 Intrinsically safe spec.	1	1	1
	22 Non-intrinsically safe spec. : 0 to 4mm intrinsically safe spec. : 0 to 3.6mm			2	4	2

 Standard

Note) *3 Polarity

Polarity	Display and recorder output	
	In the direction toward the sensor	In the direction away from the sensor
Direct	Increase	Decrease
Reverse	Decrease	Increase

Note) *1 In the case of Intrinsic safety specification,
measuring range 0~90% / 1~5V (4~20mA)

*2 Input transducer is B: Don't select 22 of Measuring range.
Input transducer is C: Don't select 21 of Measuring range.

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Input Transducer	FK-202F , VK-202A , FK-452F , VK-452A
Input Sensitivity	787mV/100 μ m (FK-202F , VK-202A) , 394mV/100 μ m (FK-452F , VK-452A)
Input Resistance	50k Ω
Measuring Range	See Model Code No. above
Output (isolated)	4 to 20mADC (max. load resistance : 600 Ω) or 1 to 5VDC (output resistance : 250 Ω)
I/O Conversion Accuracy	$\pm 1\%$ of F.S. at 25 $^{\circ}$ C, $\pm 2\%$ of F.S. at 0 to 50 $^{\circ}$ C
Response Time	$\tau = 50\text{ms}$, 63% response(input change 10 to 90%)
Burn-down Function	When the signal conditioner detect transducer failure or causes, the 4 to 20mADC (1 to 5VDC) output to go to less than 0.8mADC (0.2VDC).
Buffered Output	Input signal is output via a buffer amplifier. Signal level : -2 to -22VDC Output impedance: 100 Ω
Power Supply Output	-24VDC (30mA with short-circuit protection)
Zero-shift	-20%($\pm 5\%$) to 0 to +20%($\pm 5\%$) of F.S.
Supply 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.
Withstanding Voltage	2000VAC for one minute between input-output-power-GND mutually. (With VM-21H: 1,000VAC between output-GND.)
Operating Temperature	0 to 50 $^{\circ}$ C (32 to 122 $^{\circ}$ 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.