

VM-21SERIES
SPECIFICATIONS

VM-21R
REVOLUTION SIGNAL CONDITIONER



Model Code No.

VM-21R - -

Power supply		Measuring range		No. of input P/R	Input transducer	Out put		Conditioner socket			
1	24VDC	21	0~5,000rpm	(ex.1) 120P/R	D	1	1~5VDC	0	Without		
2	100-240VAC/DC	22	0~10,000rpm	1 2 0		FK Driver	2	4~20mADC	1	Include	
		23	0~15,000rpm	(ex.2) When specifying without an integral numbers.	J			Standard <input type="checkbox"/>			
		24	0~20,000rpm	Z Z Z		MS Magnetic Pickup					
		25	0~50,000rpm	Specify No. of input P/R for the shaft observed by sensor.							
		26	0~100,000rpm	_____ P							

注) *1 VK transducer can not detect break in the sensor system, so RD tachometer driver or FK driver which can detect the wire break shall be recommended.

Note) Normal operating range is,

$$10\text{Hz} \leq \frac{\text{Max. rotor speed(rpm)} \times \text{No. of P/R}}{60} \leq 10\text{kHz}$$

WARNING

This signal conditioner is designed for monitoring but not for controlling the rotor speed.
 • Use the conditioner output only for data recording.
 • Do not use this signal for zero-speed monitoring.

SPECIFICATIONS

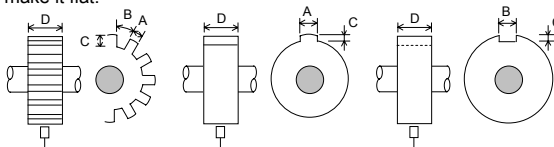
Input Transducer	RD SERIES , FK SERIES , VK SERIES , MS SERIES
Input Resistance	50kΩ(Model Code No. of input transducer "D"), 5kΩ(Model Code No. of input transducer "J")
Input Frequency	Min.Input frequency : 0.01Hz , Max.Input frequency : 10kHz , Min pulse width : 50 μs
Minimum input voltage	2Vp-p
Hysteresis	1Vp-p , 5Vp-p
Output(isolated)	1 to 5VDC(output resistance : 250Ω) or 4~20mADC(permissible load resistance : 600Ω or less)
Measuring Range	See Model Code No. above
I/O Conversion Accuracy	±1% of F.S. at 25°C, ±2% of F.S. at 0~50°C
Buffered Output	Model Code No. of input transducer "D" : Approx. -2 to -22VDC Model Code No. of input transducer "J" : Approx. -10 to -10VDC
Pulse Output	V _L : -1 to +1V, V _H : 4 to 6V
Trigger level setting*2	Automatic(trigger level is adjustable by internal trigger level V.R.)
Power Supply Output	-24VDC, approx. 30mA(for Model Code No. of input transducer "D")
Burn-down Function	4 to 20mADC (1 to 5VDC) output to go to less than 0.8mADC(0.2VDC)
Supply Permissible Voltage	24VDC±10% or 85~264VAC/DC (50/60Hz)
Power Consumption	24VDC: 6.0W, 100-240VDC: 6.0W, 100-240VAC: 10VA
Insulation Resistance	100MΩ 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 / Relative Humidity	0~50°C / 10~90%RH(no condensation)
Casing Material (color)	Modified polyphenylene oxide (black)
Weight	Approx. 110g (0.37lb)
CE Marking	Only as for 24VDC power supply specifications.

*2 Measuring by manual trigger is recommended in case that duty ratio of input signal is without 10 to 90% or input frequency is measured under 1 to 10Hz.

Dimension of Target(Model FK,VK,RD)

Note) To detect projection(gear), provide surface A of projection with a concentric curve. Do not make it flat.

A = _____ mm
 B = _____ mm
 C = _____ mm
 D = _____ mm



	Input	FK-202F VK-202A RD-05A	FK-452F VK-452A	VK-302P	VK-602P
Dimension of target [recommended] (mm)	A	≥ 6	≥ 16	≥ 8	≥ 18
	B	≥ 7	≥ 20	≥ 8	≥ 20
	C	≥ 2.5	≥ 4.5	≥ 2.5	≥ 5.0
	D	≥ 16	≥ 36	≥ 20	≥ 40
Set gap [recommended] (mm)		1.0~1.5	2.5~3.5	1.0~1.5	2.5~3.5