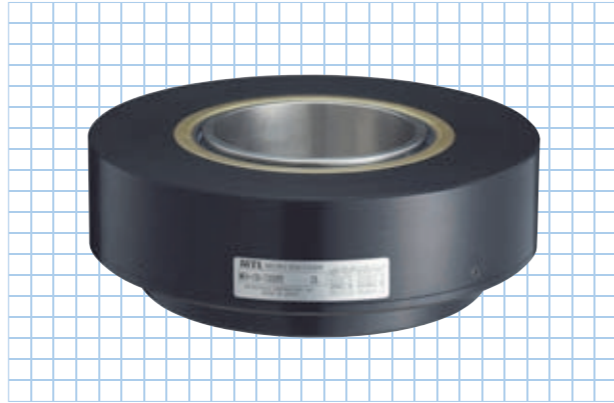


# MEH-180-P series

[Square Wave/Incremental]

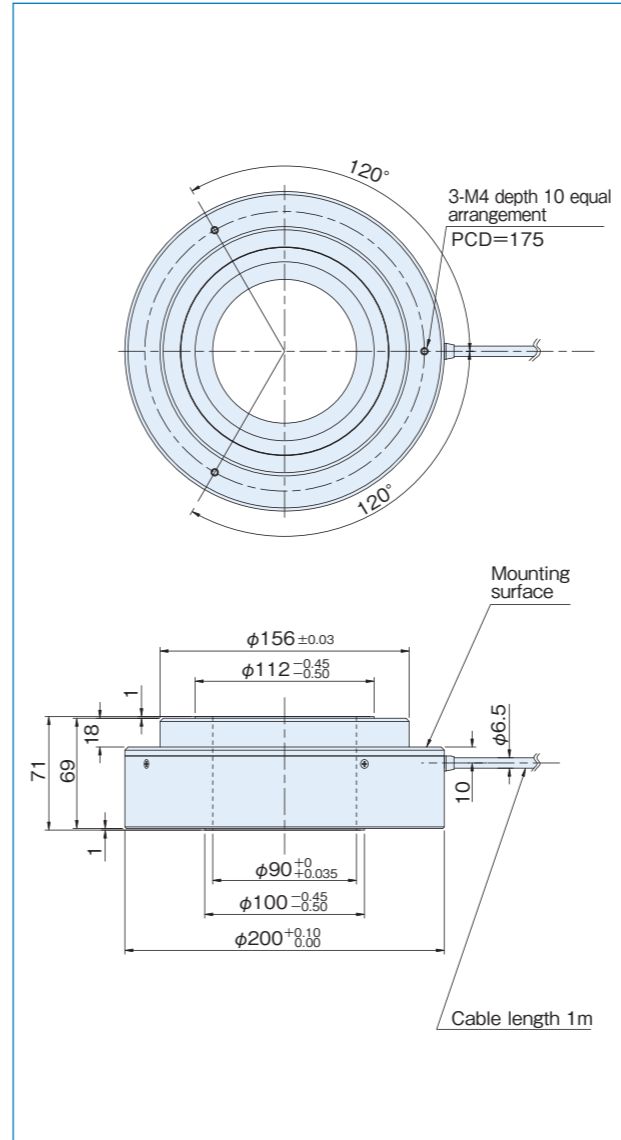


## Specifications

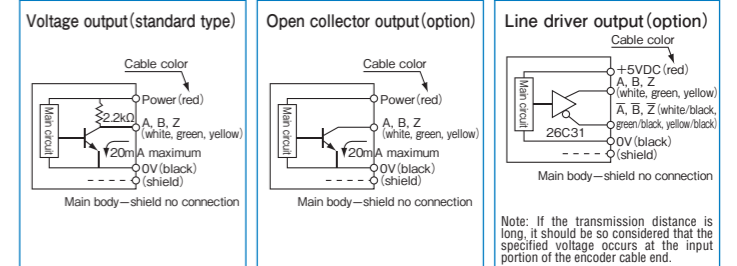
Type name		MEH-180- <input type="checkbox"/> P <input type="checkbox"/>		
Item		Pulse number: <input type="checkbox"/> Output circuit: ●No entry=voltage output ●C=open collector output ●E=line driver output ●ST <input type="checkbox"/> (2-4-5-8-10-16-20)		
		<b>Square wave</b>	<b>Built-in multiplication circuit (x2·x4·x5·x8·x10·x16·x20)</b>	
Supply voltage		Voltage:DC5V-5%~12V+10% Open collector DC24V:DC24V±10% Line driver:DC5V±5%	Voltage:DC5V-5%~12V+10% Open collector DC24V:DC24V±10% Line driver:DC5V±5%	
Current consumption		Voltage·Open collector output 60mA or less Line driver output 100mA or less	Voltage·Open collector output 100mA or less (under no load) Line driver output 140mA or less (under no load)	
Detection system		Incremental	Incremental	
Output	Output pulse number (Standard) [Pulse number/rotation]	36,000 (*) 54,000 (*) 72,000 (*)	EX 72,000×2 (144,000) 72,000×4 (288,000) 72,000×5 (360,000) 72,000×8 (576,000) 72,000×10 (720,000) 72,000×16 (1,152,000) 72,000×20 (1,440,000)	
	Output phase	A, B, Z phase	A, B, Z phase	
	Output form	Square wave	Square wave	
	Output capacity	Sink current:20mA Residual voltage:0.5V or less (at 10mA)	-	
	Maximum response frequency (response pulse number)	Voltage·Open collector output:100kHz Line driver output:300kHz	Line driver output:100kHz×(by multiplication) Voltage·Open collector output:100kHz	
	Output phase difference	A, B phase difference 90°±45° (T/4±T/8) Z phase T±T/2 (see Output Waveform)	Refer to the figure on the right	
	Waveform rise/fall time	Voltage·Open collector output:2μs or less Line driver output:0.5μs or less (When used with output cable of 1m or less)	Voltage·Open collector output:2μs or less Line driver output:0.5μs or less (When used with output cable of 1m or less)	
	Allowable load of shaft (electrical)	Radial	29.4N (3kgf)	29.4N (3kgf)
		Thrust	19.6N (2kgf)	19.6N (2kgf)
	Maximum allowable revolutions (mechanical)		300r/min	300r/min
Working ambient temperature/humidity		0°C~50°C RH35%~90% no dewing	0°C~50°C RH35%~90% no dewing	
Storing ambient temperature		-20°C~80°C	-20°C~80°C	
Vibration resistance		Durability 55Hz, double amplitude 1.5mm 2 hours each in X, Y, and Z directions	Durability 55Hz, double amplitude 1.5mm 2 hours each in X, Y, and Z directions	
Impact resistance		Durability 500m/s <sup>2</sup> (about 50G) 3 times each in X, Y, and Z directions	Durability 500m/s <sup>2</sup> (about 50G) 3 times each in X, Y, and Z directions	
Cable		Outside diameter φ6.5 14-core AWG28 Insulated shield cable (length 1m)	Outside diameter φ6.5 14-core vinyl wire AWG28 Insulated shield cable (length 1m)	
Mass		5kg	5kg	

\*Handled by built-in multiplier circuit

## Outside dimensions

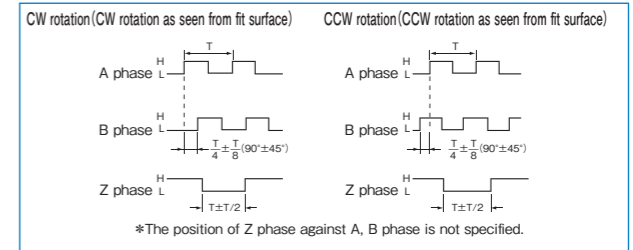


## Output circuit diagram

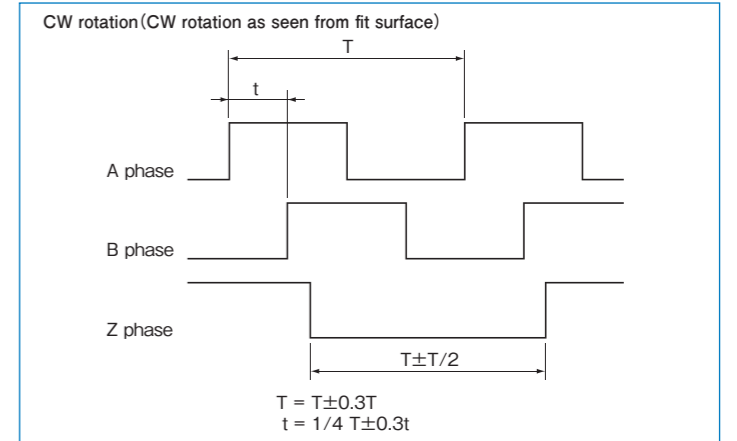


A capacitor (0.1μF) is connected between 0V and FG (frame ground).

## Output waveform (Square wave)



## Output waveform / Built-in multiplication circuit (x2·x4·x5·x8·x10·x16·x20)



## Spring flange MEH-180 (Option)

