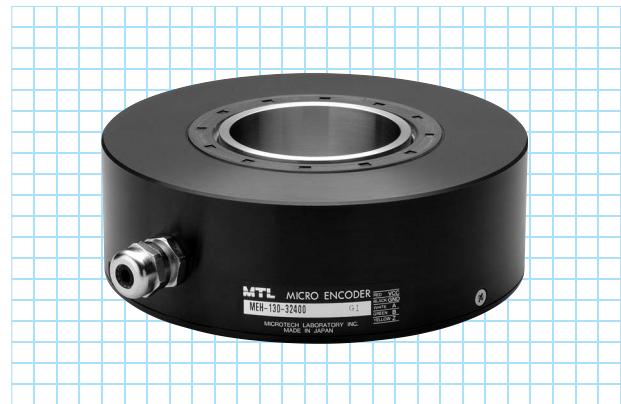


MEH-130-P series

[Square Wave/Incremental]



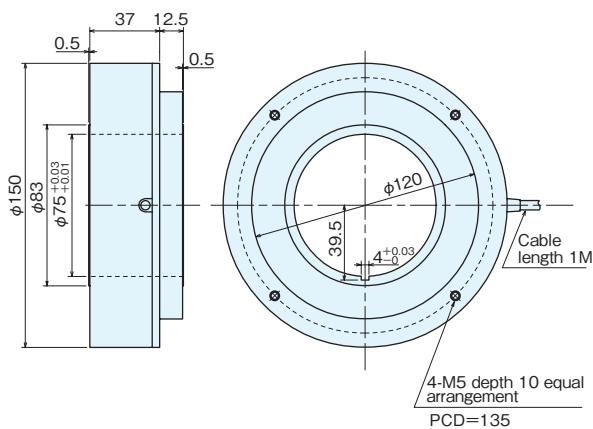
Specifications

Type name	MEH-130-[]P[]		
Item	Pulse number Output circuit	●No entry=voltage output ●C=open collector output	●E=line driver output ●S=sine wave output ●ST□(2·4·5·8·10·16·20)
Square wave		Built-in multiplication circuit(x2·x4·x5·x8·x10·x16·x20)	
Supply voltage	Voltage／Open collector:DC5V-5%~12V+10% Open collector DC24V:DC24V±10% Line driver:DC5V±5%		Voltage:DC5V-5%~12V+10% Open collector:DC5V-5%~24V+10% Line driver:DC5V±5%
Current consumption	1,024 pulse or less 60mA or less 4,500 pulse or more 100mA or less(under no load)		150mA or less(under no load)
Detection system	Incremental		Incremental
Output	Output pulse number (Standard) (Pulse number/rotation)	360 5,000 28,125(※) 512 9,000 32,400(※) 600 11,250(※) 36,000(※) 1,024 20,250(※) 4,500 25,000(※)	EX 32,400×2(64,800) 32,400×4(129,600) 32,400×5(162,000) 32,400×8(259,200) 32,400×10(324,000) 32,400×16(518,400) 32,400×20(648,000)
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)	100kHz		Line driver output:75kHz×(by multiplication) 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	2μs or less(output cable 1m or less)		—
Allowable load of shaft (electrical)	Radial	19.6N(2kgf)	19.6N(2kgf)
	Thrust	9.8N(1kgf)	9.8N(1kgf)
Maximum allowable revolutions (mechanical)	1,000r/min		1,000r/min
Working ambient temperature/ humidity	0°C~60°C RH35%~90% no dewing		0°C~60°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/s²(about 50G) 3 times each in X, Y, and Z directions		Durability 500m/s²(about 50G) 3 times each in X, Y, and Z directions
Cable	Outside diameter φ4.2 vinyl wire(1024P/R or less) Outside diameter φ6.5(14-core)vinyl wire(4500P/R or more) Insulated shield cable (length 1m)		Outside diameter φ6.5 14-core vinyl wire Insulated shield cable (length 1m)
Mass	3kg		3kg

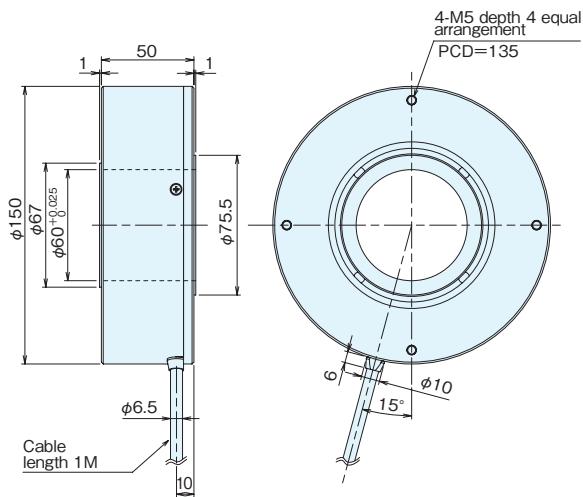
※Handled by built-in multiplier circuit

Outside dimensions

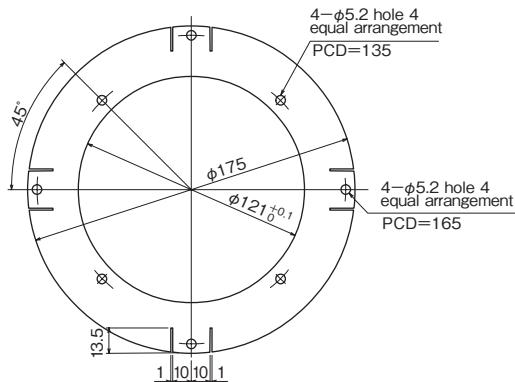
MEH-130-P
※1,024 pulse or less



MEH-130-P (4,500 pulse or more)
MEH-130-PS, MEH-130-PST

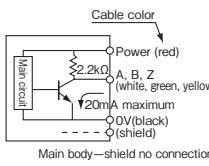


Spring flange MEH-130 (Option)



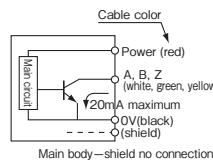
Output circuit diagram

Voltage output (standard type)



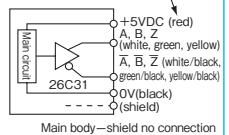
Main body—shield no connection

Open collector output (option)



Main body—shield no connection

Line driver output (option)

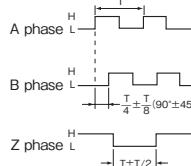


Note: If the transmission distance is long, it should be considered that the specified voltage occurs at the input portion of the encoder cable end.

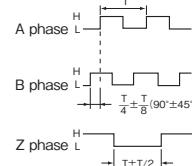
A capacitor (0.1μF) is connected between 0V and FG (frame ground).

Output waveform (Square wave)

CW rotation (CW rotation as seen from fit surface)



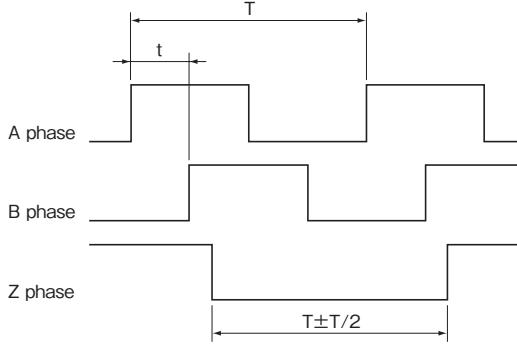
CCW rotation (CCW rotation as seen from fit surface)



*The position of Z phase against A, B phase is not specified.

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

CW rotation (CW rotation as seen from fit surface)



$$T = T \pm 0.3T$$

$$t = 1/4 T \pm 0.3t$$