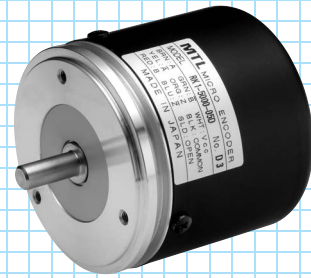


MES-45 series

[Square Wave/Incremental]

- Old model: RK1/RKW1
- Strong type
- Environment resistance



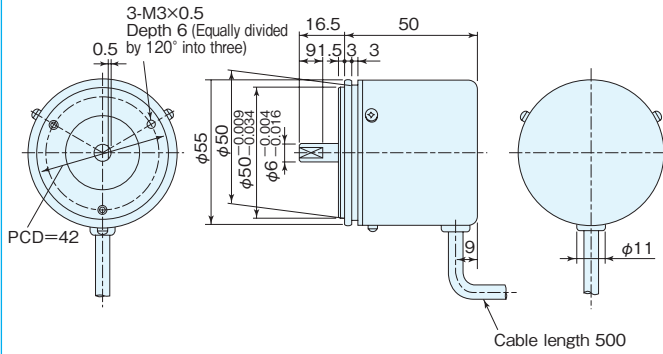
Old model: RK1・RKW1

Specifications

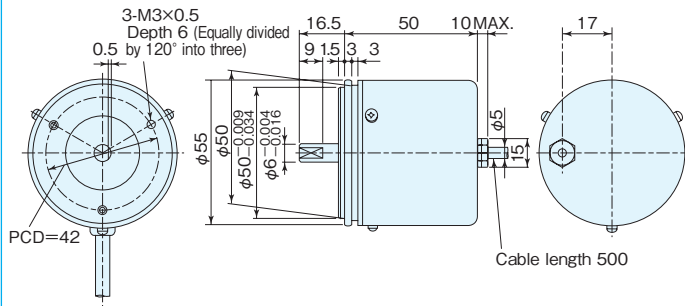
Type name	MES-45-1000-05C			
Item	<ul style="list-style-type: none"> No entry=standard type W=drip-proof type 	Resolution	Input voltage ●05=5V ●12=12V ●24=24V	Output circuit ●No entry=voltage output ●C=open collector output ●D=differential driver output
Supply voltage	DC5V -5%~12V+10% (voltage output/differential driver output) DC5V -5%~24V+15% (open collector output)			
Current consumption	120mA max (voltage output) 100mA max (open collector output) 150mA max (differential driver output: driver no load)			
Output pulse number (Standard) [Pulse number/rotation]	360	1,024	3,000	
	500	1,200	3,200	
	512	1,500	3,600	
	600	1,800	4,096	
	720	2,000	5,000	
	800	2,048	6,000	
	1,000	2,500	9,000	
Maximum response frequency	200kHz			
Allowable load of shaft (electrical)	Radial	49.0N (5kgf)		
	Thrust	29.4N (3kgf)		
Maximum allowable revolutions (mechanical)	6,000r/min (simultaneous)			
Working ambient temperature/humidity	-10°C~70°C / RH95%max no dewing			
Storing ambient temperature	-30°C~80°C			
Vibration resistance	Durability 0-500Hz, double amplitude 1.52mm 2 hours each in X, Y, and Z directions			
Impact resistance	Durability 490m/s ² (about 50G) 3 times each in X, Y, and Z directions			
Cable	Outside diameter φ5 5-core vinyl wire Insulated shield cable (length 500mm)			
Mass	280g			

Outside dimensions

MES-45 (Standard type)

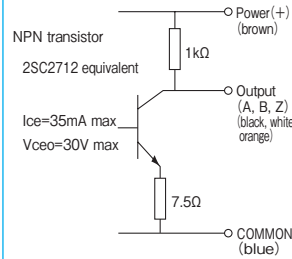


MESW-45 (Option; drip-proof type)

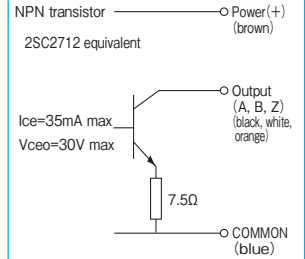


Output circuit diagram

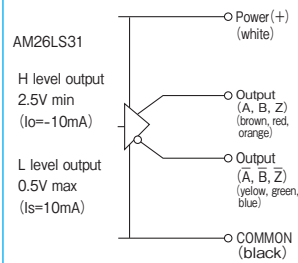
Voltage output (standard type)



Open collector output

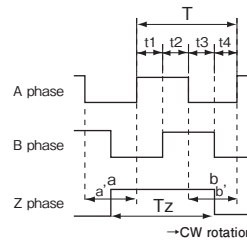


Differential driver output



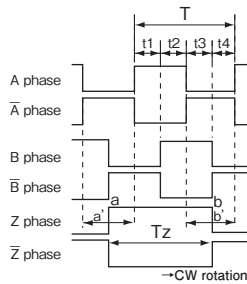
Output waveform

Voltage output/open collector output



- Duty accuracy
 $t1+t2=0.5T \pm 0.1T$
 $t2+t3=0.5T \pm 0.1T$
- Phase accuracy
 $t1, t2, t3, t4=0.25T \pm 0.07T$
- Z phase
 $Tz=T \pm 0.5T$
- The point of variation "a" is within the range "a" of A-phase output.
- The point of variation "b" is within the range "b" of A-phase output.
- $T = 360^\circ / \text{resolution}$

Differential driver output



- Duty accuracy
 $t1+t2=0.5T \pm 0.1T$
 $t2+t3=0.5T \pm 0.1T$
- Phase accuracy
 $t1, t2, t3, t4=0.25T \pm 0.07T$
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