

Manual Pulse Generator



RE45B series



Outline

RE45B series are optical manual pulse generator developed for NC machine tools

Features

- Eco friendly: RoHS compliant
- Comfortable wide knob
- Various Options
- Printing Logo type on the wheel cover upon request
- Long life use

Specifications

Application	5V input	2V input	Differential line	Photo coupler
Power Voltage	DC5V±10%	DC12V±10%	DC5V±10%	DC10.8V to 26.4V
Current power (pull up)	≤ 80mA	≤ 60mA	≤ 150mA (90mA _{typ})	≤ 60mA
Current power(Open collector)	≤ 30mA	≤ 40mA		
Output	330ΩPull-up or Open collector	2.2KΩPull-up or Open collector	RS-422A (Line driver) Terminating register at receiver :100Ω/phrase	Open collector (Current output type)
Output voltage	1 level:(Power voltage −0.5V) ≤			1level:Transistor/ON
Output voltage (pull up)	0 level: ≤ 0.4V (No-load)			0level:Transistor/OFF
Collector voltage	≤ DC30V			≤ 30V
Collector voltage (Open corrector)	≤ 40mA			≤ 50mA
Pulse per revolution	100pulse/100Click or 25pulse/100Click			
Click torque	A,B,C : 8 ~ 16mN.m D: 32 ~ 64mN.m			
Rotational Durability	Over a million rotations			
Water resistance	D type only: 2m water resistant (2h) (Do not push or rotate under the water)			
Operating Temperature	-10℃		~	60℃
	14F			140F

Part number designation

<u>RE45B</u>	<u>A</u>	<u>1</u>	<u>R</u>	<u>5</u>	<u>B</u>
	①	②	③	④	⑤
① Type					
A: With ϕ 80 dial / mounted by 3 nuts			④ Supply Voltage		
C: With ϕ 66 dial / mounted by 1 nut			5: 5V		
D: Without Dial			1: 12V		
			2: 24V		
② Number of pulses					
1: 100PPR			⑤ Dial Knob (color:black)		
2: 25PPR			B: 15mm, with Tosoku logo		
			C: 15mm, without logo		
③ Output			D: 15mm, with customer logo		
R: Voltage Output			H: 24mm with Tosoku logo		
O: Open Collector			J: 24mm without logo		
D: Line Driver			K: 24mm, with customer logo		

Models	Supply		Pulse Per Revolution
RE45B_1R5	5V	5V	100PPR
RE45B_1R1	12V	12V	100PPR
RE45B_1O5	5V	OC	100PPR
RE45B_1O1	12V	OC	100PPR
RE45B_1O2	24V	OC*	100PPR
RE45B_1D5	5V	Differential Line*	100PPR
RE45B_2R5	5V	5V	25PPR
RE45B_2R1	12V	5V*	25PPR
RE45B_2O5	12V	OC	25PPR
RE45B_2O1	12V	OC	25PPR
RE45B_2O2	24V	OC*	25PPR
RE45B_2D5	5V	Differential Line*	100PPR

*Differential Line: Connect with terminating resistance 100Ω (Based on RS-422 line receiver).

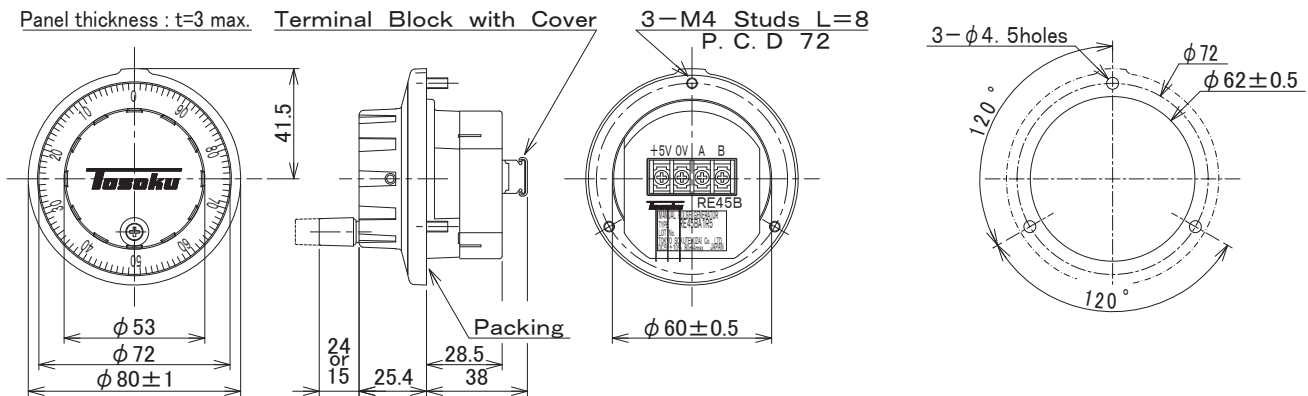
*5V: Supply voltage=12V, Output voltage=5V

*OC: For photo coupler only, Supply voltage 12 ~ 24V

Dimensions (mm)

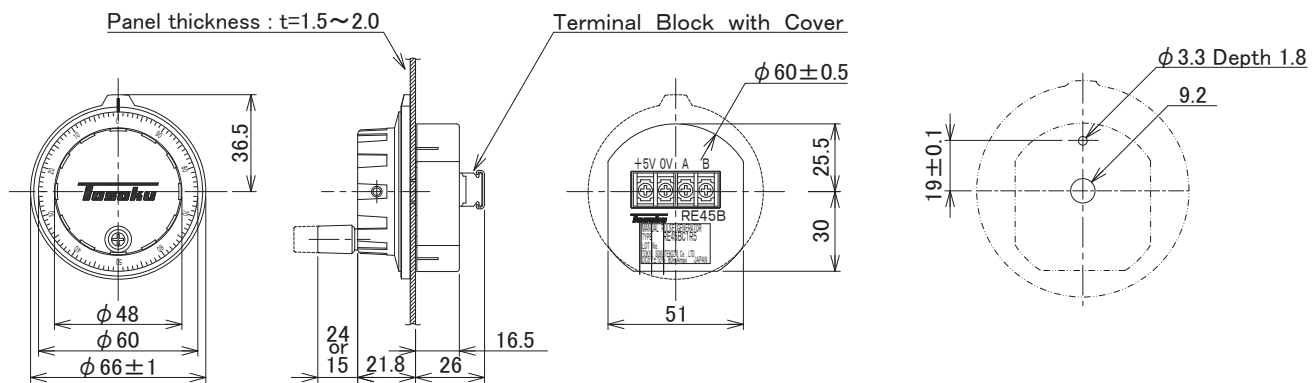
●Type A (with 80 ϕ dial / mounted by 3 nuts)

■Type A, Mounting hole dimensions (mm)

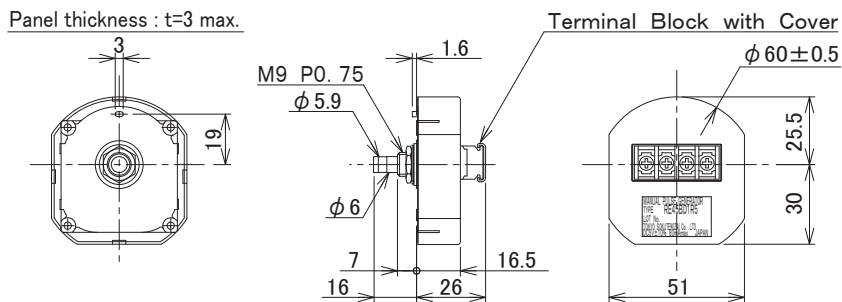


●Type C (with 66 ϕ dial / mounted by 1 nut)

■Type C,D, Mounting Hole Dimension (mm)

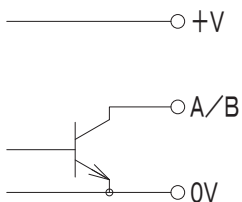


●Type D (without dial)

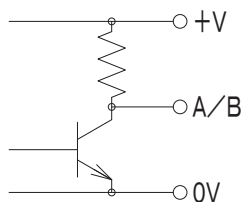


■Circuitry

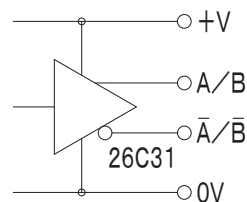
●Open collector (code:O)



●Voltage Output (code:R)



●Line Driver (code:D)



■Output Waveform

- 1) Turning the shaft clockwise would generate the signal A when the signal B outputs a low voltage (0);
- 2) Rotating the shaft counter-clockwise would generate the signal A when the signal B outputs a high voltage(1);

