



PR-03-S

PR-03-H



**TECHNICAL SPECIFICATION**

Power Supply	Push-Pull	8-30VDC
	Line Driver	5VDC
Current Consumption	Max 42.5mA	
Pulse/Revolution	25-2048 Pulse/Revolution	
Wave Form Output	2-phase+Index Position A,B,Z and $\bar{A}$ , $\bar{B}$ , $\bar{Z}$	
	Duty Ratio 50%	
Rise/Fall Time	100 ns.	
Max Frequency Response	200kHz	
Max Speed	20,000 RPM	
Operating Temperature	-10 °C to 70 °C	
Storage Temperature	-30 °C to 85 °C	
Operating Humidity	0-80%RH	
Degree of Protection	IP50	
Vibration	10-55Hz	
Weight	150 g.	
Shaft Diameter	6 mm.	
Hollow Shaft Diameter	6 mm.	
Housing Diameter	38 mm.	
Cable	50 cm. Shield Cable	
Direction of Rotation	Positive Direction/ Negative Direction	
Material	Cover	Steel
	Encoder	Aluminium
	Shaft	Stainless

**DESCRIPTION**

- It is a device to convert the axis of the shaft of the Encoder into an electrical pulse, compact size of 38 mm.
- Number of Pulse/Revolution can be selected from 25-2048 Pulse/ Revolution
- Push-Pull output can be used for both NPN, PNP Open Collector and Line-Driver.
- Push-Pull output signal (A, B, Z) and Line-Driver (A,  $\bar{A}$ , B,  $\bar{B}$ , Z,  $\bar{Z}$ )
- Power supply 8-30 VDC (Push-Pull) and 5 VDC (Line-Driver)

**OPERATION**

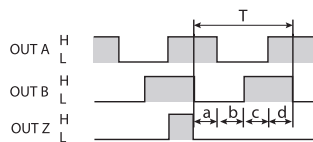
Connect the shaft of the Encoder PR-03 to the motor shaft or the work to be measured. When the PR-03 shaft rotates according to the motor, it sends a pulse signal according to the pulse per round of the model PR -03-S-100 will be divided into 100 parts per 1 round. As the shaft moves, it sends the pulse out of the rotating parts. Signal A and Signal B Lead / Lag angle 90 degrees by the electric clockwise rotation A will lead B, but if turn counterclockwise B will be ahead of A, which will be useful to check the direction. The Signal Z will have 1 Pulse to inform you of the anniversary

If the line - driver output signal is 6 Signal is A,  $\bar{A}$ , B,  $\bar{B}$ , Z,  $\bar{Z}$  by A will invert with A,  $\bar{B}$  will invert with B and  $\bar{Z}$  will invert with Z displayed by Signal Graph

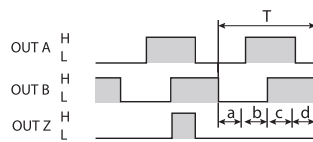
**SIGNAL OPERATION GRAPH**

PR-03-S

Push-Pull  
Positive Direction

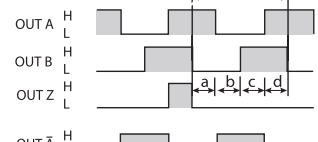


Negative Direction

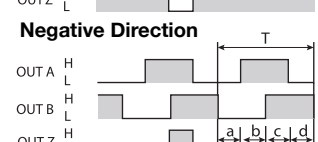


PR-03-S-L

Line Driver  
Positive Direction

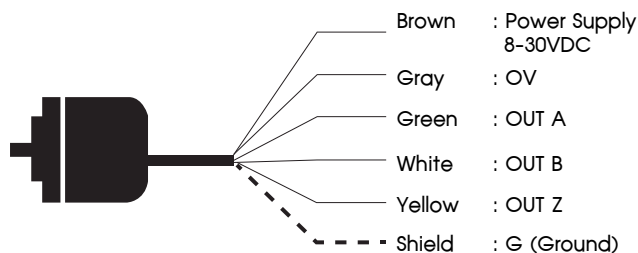


Negative Direction

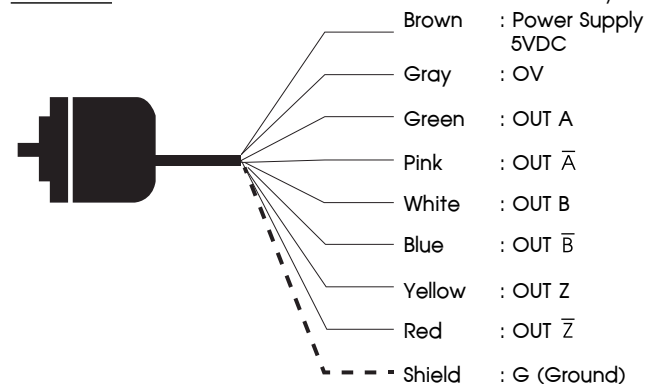


**WIRING DIAGRAM**

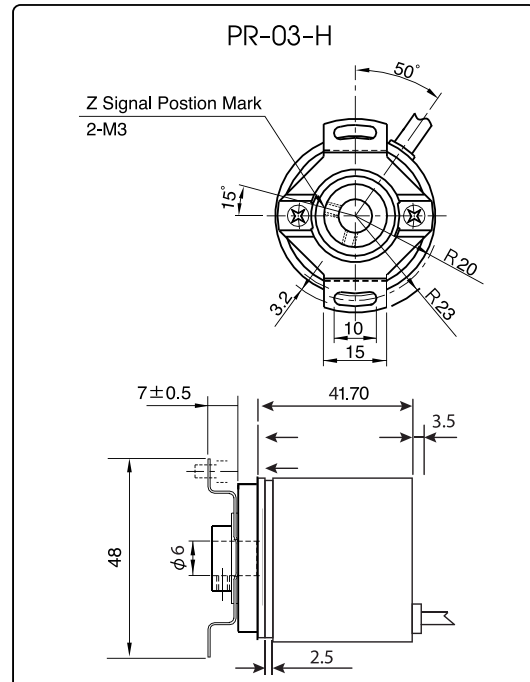
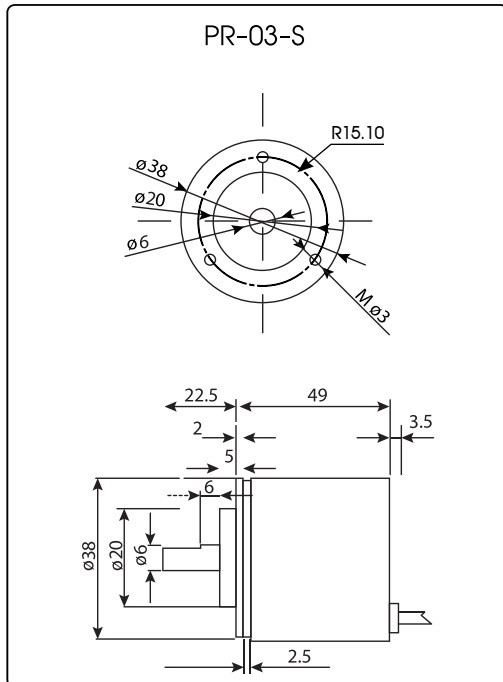
Push-Pull The Shielded Wire is Connected to the main body.



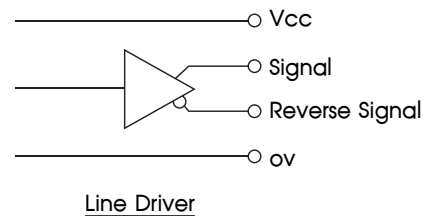
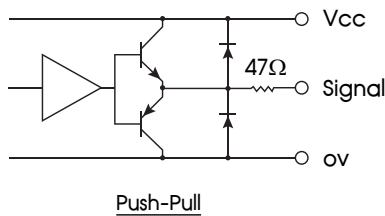
Line Driver The Shielded Wire is Connected to the main body.



**DIMENSION**



**CIRCUIT OF OUTPUT SIGNAL**



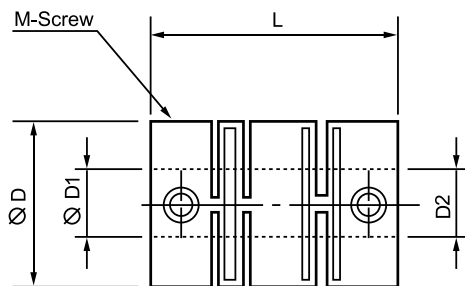
**ACCESSORY**

**PR-02-06  
COUPLING for PR-03-S**



- For PR -03 - S
- It is a connector for welding the Encoder to Load or Motor.

**DIMENSION**



Model	D1/D2	L	D	Torque	Angular	Material
PR-02-06	6/6 mm.	21 mm.	15 mm.	0.8 N.m.	5 ๓๗1	Polyester Resin

**ORDERING CODE**

PR-03- [ ] - [ ] - [ ]

TYPE	
S	Shaft
H	Hollow-Shaft

SIGNAL OUTPUT	
None	PUSH-PULL 8-30VDC (Supply)
L	LINE-DRIVER 5VDC (Supply)

PULSE/REVOLUTION	
25	25 Pulse/Revolution
50	50 Pulse/Revolution
100	100 Pulse/Revolution
128	128 Pulse/Revolution
200	200 Pulse/Revolution
256	256 Pulse/Revolution
400	400 Pulse/Revolution
500	500 Pulse/Revolution
512	512 Pulse/Revolution
1024	1024 Pulse/Revolution
2048	2048 Pulse/Revolution

**ORDERING CODE**

Accessories Coupling

PR-02-06

\*\*\*Remark : Coupling is used with PR-03-S only