



JR55



JR205

Magnetic Rotary Encoder – Solution for harsh environment.
Compact, flat design, easy direct mounting on a shaft.

Magnetic Rotary Encoder

AB Digital Signals

JR 55 SERIES

Refer to JR205 brochure for ABZ



Features

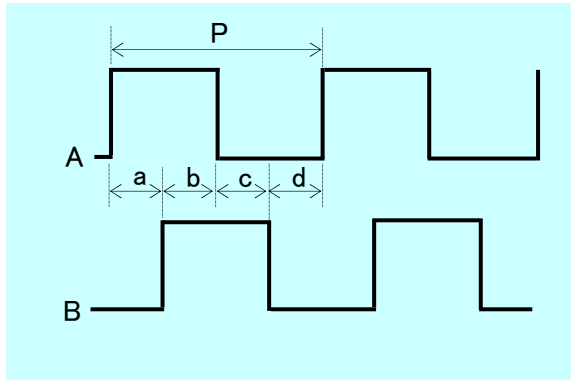
- Easy direct mounting on motor shaft without coupling.
- No adjustment like difficult shaft alignment is required mounting.
- Magnetic encoder exceeds optical encoder in resistance against harsh environment.
- Strong resistance against vibration and shock..
- Extended line-up JR55 and JR205 series to meet wide range applications.
- Conforming to EC Directive to be accepted in European market also.

TAIHO PRODUCT CO.,LTD.

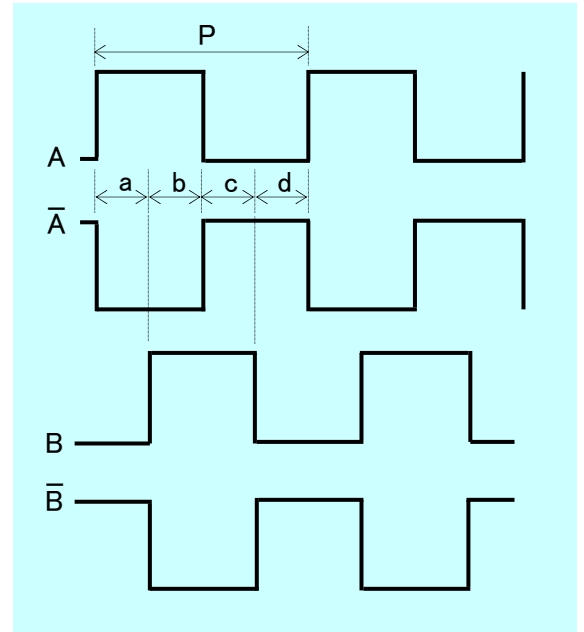
High reliability, that's a must for an encoder,
You asked for itnow you got it

Output waveforms

JR55-24A/JR55C,JR55-12C,JR55-24C



JR55D



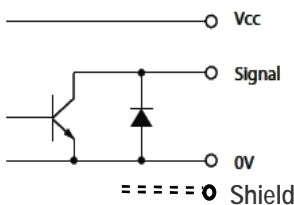
Output specification

Direction of rotation :CW
(as viewed from mounting bracket side)

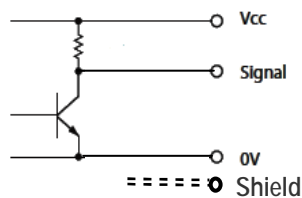
- $a, b, c, d = P/4 \pm P/8$
- $0.4 \leq (a+b)/(a+b+c+d) \leq 0.6$

Output circuit diagram

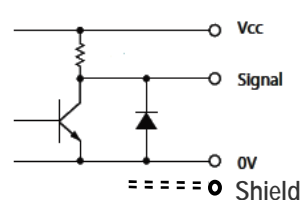
JR55-24A



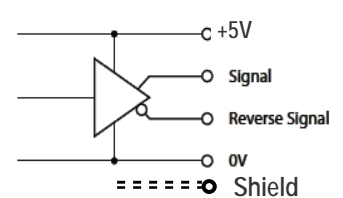
JR55C



JR55-12C
JR55-24C



JR55D



Special specification on request

- Extended cable length:
(Standard 500mm+ 500mm × n)

Notes:

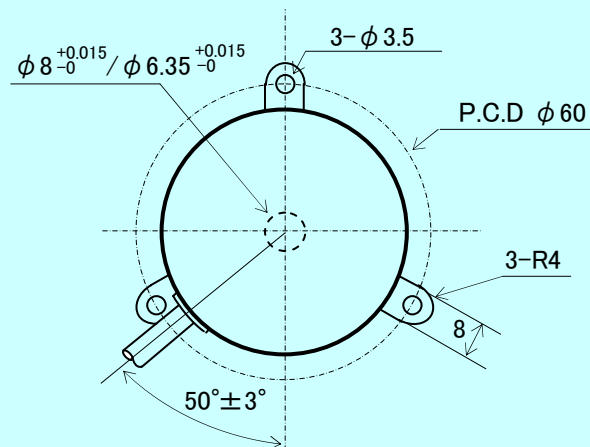
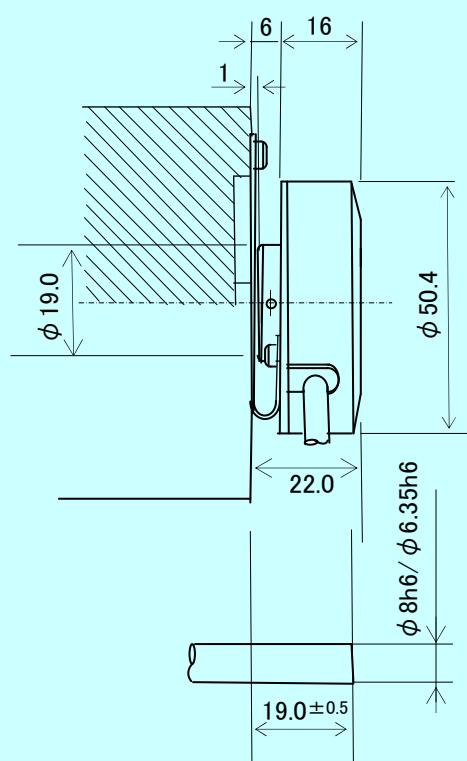
In the case of D type, current consumption and "signal rise and fall times" are measured using "the parallel method" which have the parallel termination consists of a 110Ω resistor connected across the differential inputs at the RS422 receiver (26C32).

Line-up to meet wide range applications.
High temperature resistance, fast response speed.

Specification

Model name Specification	JR55-24A	JR55C, JR55-12C, JR55-24C	JR55D
Resolution (pulse per revolution)	300, 360, 500, 600		
Input voltage	DC4.75V ~ 26.4V (at the end of standard cable)	JR55C : DC4.75V ~ 5.25V JR55-12C : DC4.75V ~ 13.2V JR55-24C : DC21.6V ~ 26.4V (at the end of standard cable)	DC4.75V ~ 5.25V (at the end of standard cable)
Current consumption	DC13.2V : 30mA max. , DC26.4V : 60mA max. (excluding sink current)		DC5.25V : 90mA max. (refer to the left page bottom)
Output signals	A, B phases		A, \bar{A} , B, \bar{B} phases
Output types	Open collector (NPN output)	Voltage output (NPN output pull-up: 2k Ω or 3.3K Ω)	Line driver output (26C31 equivalent)
Output capacity	+30 VDC max. (applied voltage)	—	—
Sink current	20 mA max.	JR55C : 17mA max. JR55-12C, -24C : 20mA max.	High level : I_o = -20mA max. Low level : I_s = 20mA max.
Frequency response	0 ~ 100kHz (to be determined by the resolution and maximum speed)		
Signal rise and fall times	1 μ sec. max.		0.1 μ sec. max. (refer to the left page)
Operating temperature	-10°C ~ +80°C No dew condensation permitted.		
Storage temperature	-30°C ~ +85°C		
Vibration resistance	98m/s ² at 50Hz 1 hour each in X,Y, and Z directions		
Shock resistance	980m/s ² for 11msec duration applied 3 times each in X,Y and Z directions		
Starting torque	3×10 ⁻³ N·m max.		
Permissible shaft load	Radial direction : 9.8N max., Axial direction : 4.9N max.		
Moment of inertia	4×10 ⁻⁶ Kg·m ² max.		
Permissible speed	6000rpm max.		
Hollow shaft bore	ϕ 8.00mm ^{+0.015} / ₋₀ / ϕ 6.35mm ^{+0.015} / ₋₀		
Standard cable length	500mm		
Weight	100g (including mounting bracket and standard cable)		

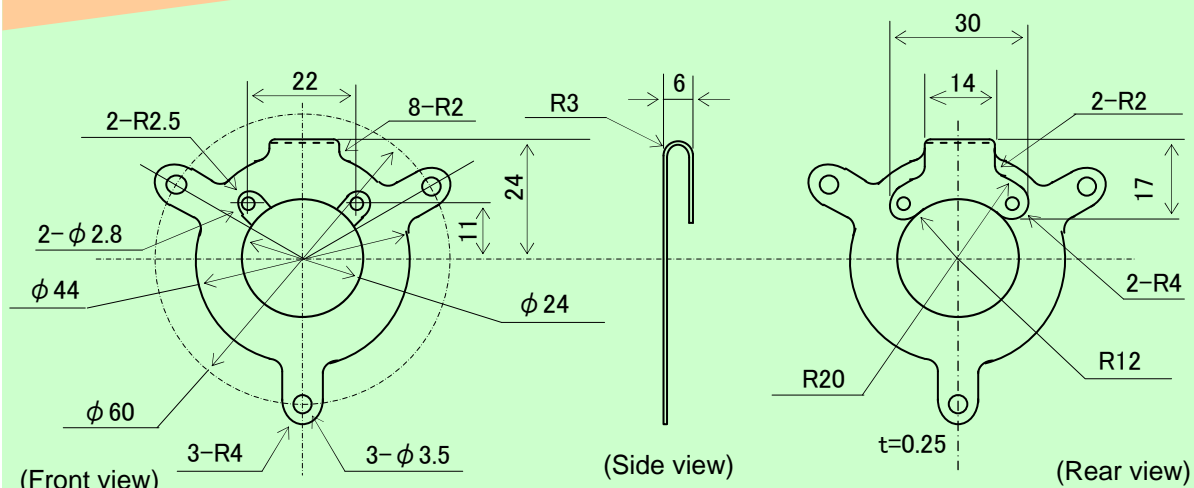
JR55 Drawing for Installation (unit: mm)



Mounting shaft specification

- (1) Shaft diameter: $\phi 8h6 / \phi 6.35h6$
- (2) Shaft length: 19 ± 0.5 mm
- (3) Shaft deflections: 0.05mm max
- (4) Shaft end play: Recommended: ± 0.1 mm
Permissible: ± 1.0 mm
- (5) Perpendicularity between shaft and mounting surface: 0.1mm max

JR55 Standard bracket dimensions (unit: mm)



Marketed by
ASTEC Co., LTD.

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Manufactured by
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