



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 signals.



IEC



Features

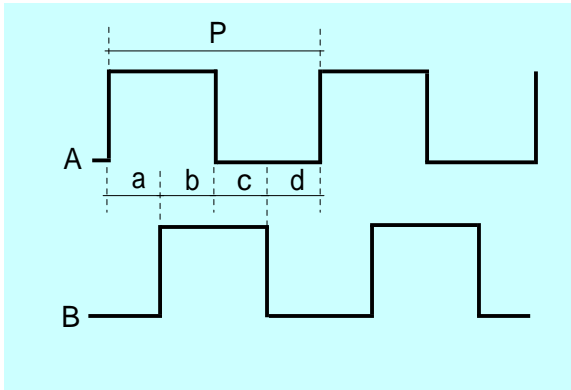
- Easy direct mounting on motor shaft without coupling.
- No adjustment like difficult shaft alignment is required for mounting.
- Magnetic encoder exceeds optical encoder in resistance against harsh environment.
- Strong resistance against vibration and shock..
- Extended line-up JR55 and JR205 series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

TAIHO PRODUCT CO., LTD.

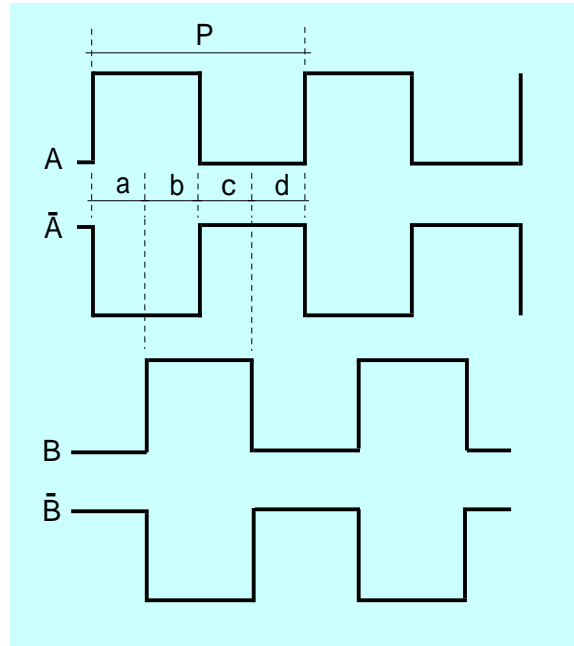
**High reliability, that's a must for an encoder.
You asked for it.....now you got it.**

Output waveforms

JR55A/JR55C



JR55D



Output specification

$a, b, c, d = P/4 \pm P/8$

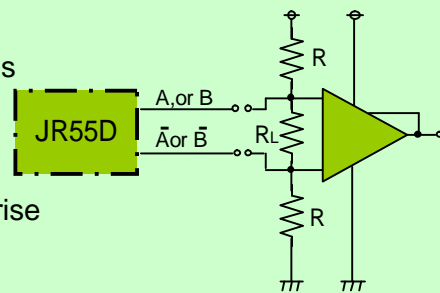
$0.4 \leq (a+b)/(a+b+c+d) \leq 0.6$

$P = 1 \text{ pulse (elec. } 360^\circ) = 1/\text{pulse number per } \dots$

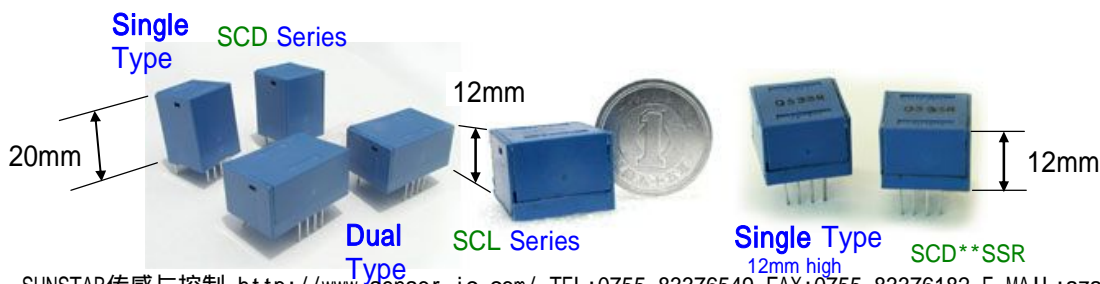
Absolute pitch error $P/10$

Clockwise direction viewed from mounting bracket side is supposed to be the ordinary revolution.

In the case of D type, current consumption and "signal rise and fall times" are measured with the receiving circuitry shown at the right.



Related products, Current Sensor SCL Series and others, for motion controls are available. Open Loop Type for 1.5A - 30A

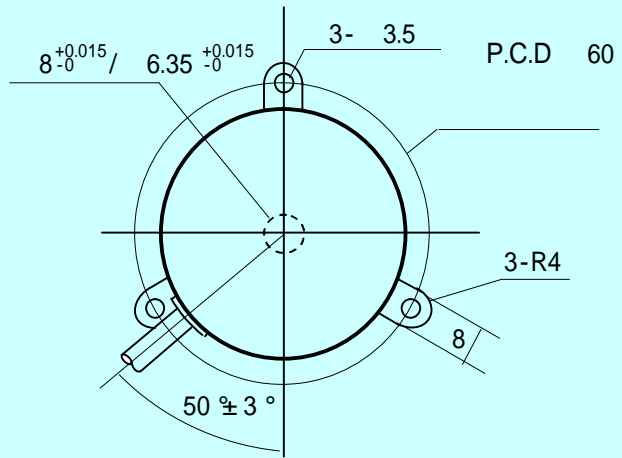
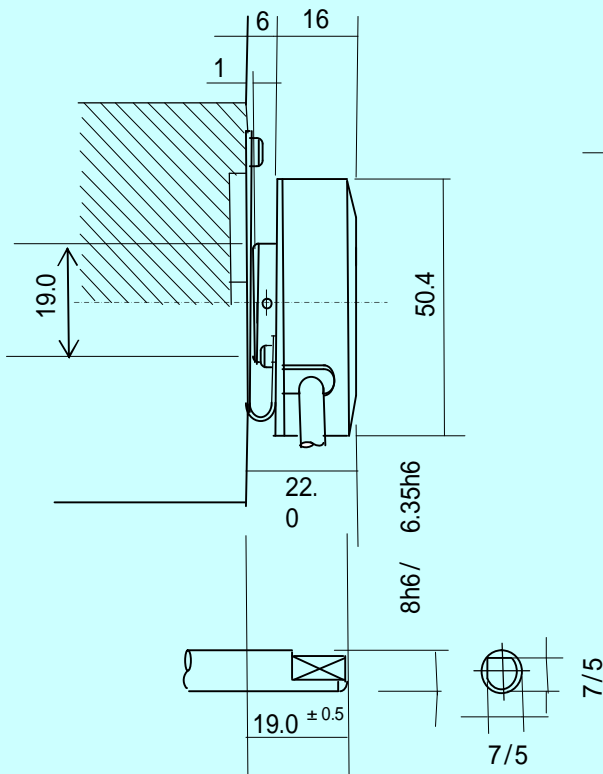


**Line-up to meet wide range applications.
High temperature resistance, fast response speed.**

Specification

Model	JR55A	JR55C	JR55D
Resolution pulse per revolution	300, 360, 500, 600 ppr		
Input voltage	DC4.75V - 26.4V at the end of standard cable	JR55C : DC 4.75V - 5.25V JR55-12C: DC 4.75 - 13.2V JR55-24C: DC21.6 - 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.		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 (positive logic)	Voltage output (positive logic) (output pull-up resistance: 2k Ω)	Line driver output
Circuitry withstanding voltage	+30 V max.	—	—
Sink current	20 mV	—	—
Frequency response	Electric Circuitry 0 ~ 100kHz, Actual max. is 60kHz in the case of 600ppr x 6000rpm.		
Signal rise and fall	1 μ sec. max.		1 μ sec. max. refer to the left page bottom
Operating temperature	-10 ~ +80 No dew condensation permit		
Storage temperature	-30 ~ +85		
Permissible vibration	1 hour each in X,Y, and Z directions under 50Hz/10G's		
Permissible shock	3 times in X,Y and Z directions under 100G/11msec.		
Starting torque	30g·cm max.		
Permissible shaft load	Radial direction : 1Kg, Axial direction : 0.5N		
Moment of inertia	40g·cm ² max.		
Slew speed	6000rpm		
Hollow shaft bore	8.00mm ^{+0.015} ₀ / 6.35mm ^{+0.015} ₀		
Standard cable length	500mm		
Weight	100g (including mounting bracket, dust cap and standard cable)		

JR55 Drawing for Installation (unit: mm)

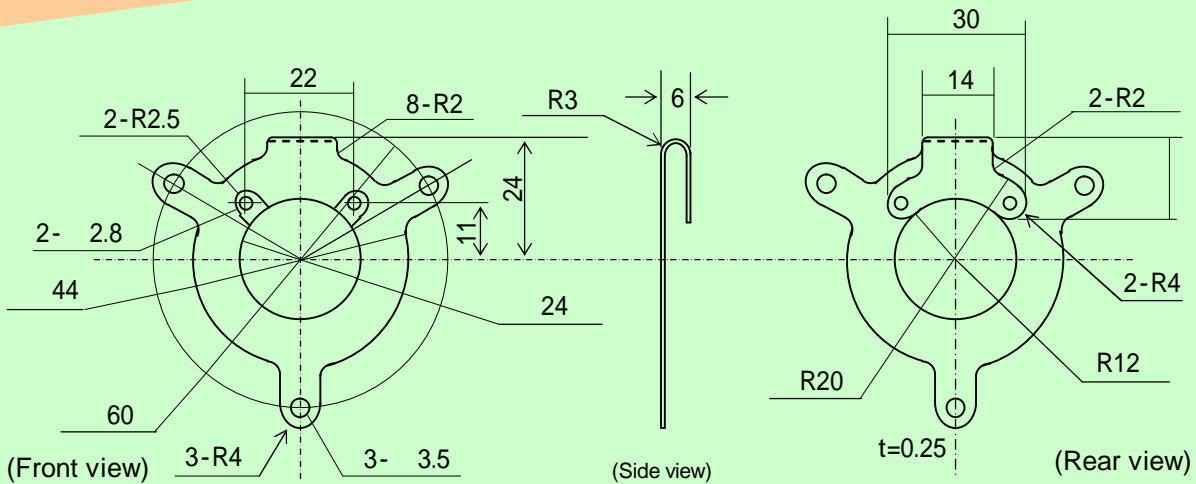


Mounting shaft specification

- (1) Shaft diameter: 8mm h6/ 6.35mm h6
- (2) Shaft length: 19⁰ mm
- (3) Shaft deflections: 0.05mm max
- (4) Shaft end play: Recommended: ±0.1mm
Permissible: ±1.0mm
- (5) Perpendicularity between shaft and mounting surface: 0.1mm max

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Standard bracket dimensions (unit: mm)



Marketed by
ASTEC Co., LTD.

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