ROTARY ENCODERS

GLOSSARY

■ PROTECTION GRADE

- Protection grade applies to the environment of rotary encoder use.
- The Protection grade aims at water protection. For the oil or various types of liquid, please be reminded that the degree of protection is different.

IP □		
International Protection	T	
[First characteristic numeral]	[Second chracteristic numeral]	
Level of protection against contact and penetration	Level of protection against the penetration	
of solid bodies.	of liquids.	

Grade	Degree of protection		
0		No protection	
1		Protected against solid foreign objects such as hands of ϕ 50 mm and greater.	
2	Protected against solid foreign objects such as finger of φ 12.5 mm and greater.		
3		Protected against solid foreign objects such as tools or wires of (ϕ or thickness of) 2.5mm and greater.	
4		Protected against solid foreign objects such as tools or wires of (ϕ or thickness of) 2.5mm and greater.	
5		Protected against such dust as damages the equipment operation.	
6		Dust-tight	

[Related standards]

IEC (The International Electrotechnical Commission) standard IEC 60529

Degrees of protection provided by enclosures

JIS JIS-C-0920

JIS(Japanese Industrial Standards) standards JIC-C-0920 Test to prove protection against ingress of water and degree of protection

Grade	Category	Degree of protection	
0			No protection
1	Drip-proof I type	÷	Protected against vertically falling water drops.
2	Drip-proof Ⅱ type	:: \(\frac{1}{2}\)	Protected against vertically falling water drops when enclosure is tilted up to 15°.
3	Rain-proof type	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Protected against rainfall when enclosure is tilted up to 60°.
4	Splash- proof type	···> <u>\</u> <····	Protected against splashing water.
5	Water-jets- proof type	→	Protected against water jets.
6	Waterproof type	→ -	Protected against powerful water jets.
7	Watertight type		Protected against the effects of temporary immersion in water.
8	Underwater type		Protected against the effects of continuous immersion in water.