

Proximity Sensors

CR Series

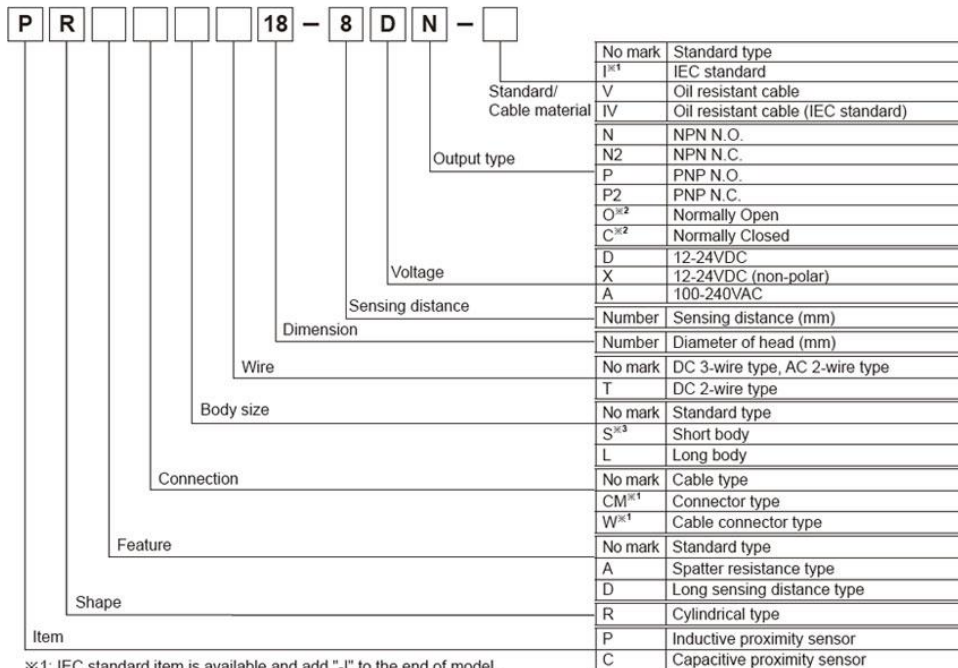


Electric Capacitive Type Proximity Sensor

CR Series features electric capacitive type proximity sensors. These sensors will detect a wide variety of materials with permittivity and can not only detect conductive materials such as iron and metal but also nonconductive materials such as plastic, water, stone and wood. Moreover, built-in sensitivity volume allows users to apply in a diverse area for user convenience.

Features

- * Sensing of iron, metal, plastic, water, stone, wood etc.
- * Long life cycle and high reliability
- * DC type: Built-in surge protection circuit, reverse polarity protection circuit AC type: Built-in surge protection circuit
- * Easy to adjust of the sensing distance with sensitivity adjuster
- * Red LED operation indicator
- * Easy to control of level and position



※1: IEC standard item is available and add "-I" to the end of model.

※2: Normally Open, Normally Closed output are only for DC 2-wire and AC 2-wire type.

※3: Short type is only for DC 3-wire of PR12 type.

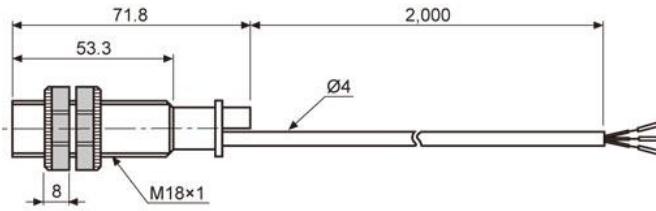
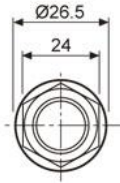
Model	CR18-8DN CR18-3DP CR18-8DN2	CR30-15DN CR30-15DP CR30-15DN2	CR18-8AO CR18-8AC	CR30-15AO CR30-15AC
Sensing distance	8mm	15mm	8mm	15mm
Hysteresis	Max. 20% of sensing distance			
Standard sensing target	50×50×1mm (Iron)			
Sensing distance	0 to 5.6mm	0 to 10.5mm	0 to 5.6mm	0 to 10.5mm
Power supply (Operating voltage)	12-24VDC (10-30VDC)		100-240VAC 50/60Hz (85-264VAC)	
Current consumption	Max. 15mA		—	
Leakage current	—		Max. 2.2mA	
Response frequency ^{※1}	50Hz		20Hz	
Residual voltage	Max. 1.5V		Max. 20V	
Affection by Temp.	Max. ±10% for sensing distance at ambient temperature 20°C			
Control output	Max. 200mA		5 to 200mA	
Insulation resistance	Min. 50MΩ (at 500VDC megger)			
Dielectric strength	1,500VAC 50/60Hz for 1minute			
Vibration	1mm amplitude at frequency of 10 to 55Hz (for 1 min) in each of X, Y, Z directions for 2 hours			
Shock	500m/s ² (approx. 50G) in each of X, Y, Z directions for 3 times			
Indicator	Operation indicator: Red LED			
Environment	Ambient temperature: -25 to 70°C, storage: -30 to 80°C Ambient humidity: 35 to 95%RH, storage: 35 to 95%RH			
Protection circuit	Reverse polarity protection, Surge protection		Surge protection circuit	
Protection structure	IP66 (IEC standard)	IP65 (IEC standard)	IP66 (IEC standard)	IP65 (IEC standard)
Cable	Ø4mm, 3-wire, 2m / Ø5mm, 3-wire, 2m / Ø4mm, 2-wire, 2m / Ø5mm, 2-wire, 2m (AWG22, Core diameter: 0.08mm, Number of cores: 60, Insulator out diameter: Ø1.25mm)			
Material	CR18 - Case/Nut: PA6, Standard cable (Black): Polyvinyl chloride (PVC) CR30 - Case/Nut: Nickel plated Brass, Washer: Nickel plated Iron, Sensing surface: PBT, Standard cable (Black): Polyvinyl chloride (PVC)			
Weight ^{※2}	Approx. 88g (approx. 76g)	Approx. 243g (approx. 206g)	Approx. 82g (approx. 70g)	Approx. 237g (approx. 200g)

※1: The response frequency is the average value. The standard sensing target is used and the width is set as 2 times of the standard sensing target, 1/2 of the sensing distance for the distance.

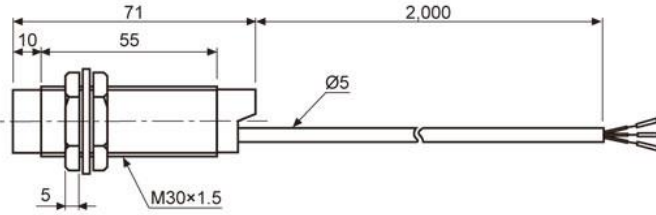
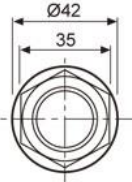
※2: The weight includes packaging. The weight in parentheses in for unit only.

※Environment resistance is rated at no freezing or condensation.

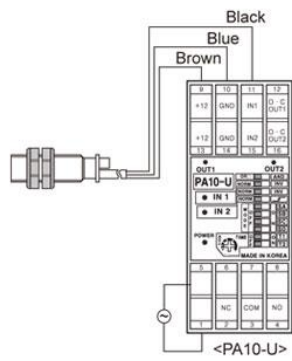
● CR18-8 □ □



● CR30-15 □ □



◎ DC 3-wire type



◎ AC 2-wire type

