


PET18-5

Transmission coupler

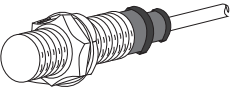
■ Features

- Loop powered type
The signal is transmitted by magnetic coupling of coils.
- Superior with environmental resistance
Non-malfunction for oil or dust on transmission part
- Applications
Drilling, Machine table, Robot arm, Conveyor belt and Various revolution axis.

 Please read "Caution for your safety" in operation manual before using.



■ Type

Appearances		Model
M18		PET18-5

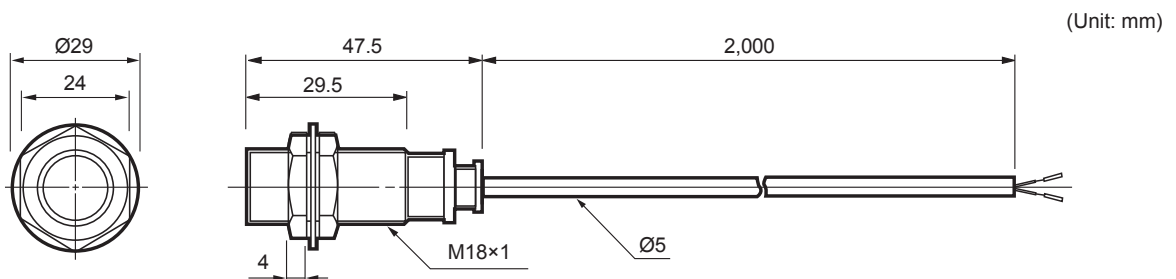
■ Specifications

Model		PET18-5		
Transmitting distance		5mm		
Set transmitting distance		1 to 4.5mm		
Response time		Max. 1ms		
Insulation resistance		Min. 50MΩ(at 500VDC megger)		
Dielectric strength		1,500VAC 50/60Hz for 1minute		
Vibration		1mm amplitude at frequency of 10 to 55Hz in each of X, Y, Z directions for 2 hours		
Shock		500m/s²(50G) in each of X, Y, Z directions for 3 times		
Environ-ment	Ambient temperature	-25 to 70℃, storage: -30 to 80℃		
	Ambient humidity	35 to 95% RH, storage: 35 to 95% RH		
Protection		IP67(IEC standards)		
Cable		Ø5, 2-wire, 2m(AWG22, Core diameter: 0.08mm, Number of cores: 60, Insulator out diameter: Ø1.25mm)		
Material		Case and nut: Nickel-plated brass, Washer: Nickel-plated steel, Sensing part: PBT, General cable(Black): Polyvinyl chloride(PVC)		
Weight※1		Approx. 133g(Approx. 121g)		
Application of proximity sensor	PR18-5DN	PRCM18-5DN	PRL18-5DN	PRT18-5DO
	PR18-5DP	PRCM18-5DP	PRL18-5DP	PRT18-5DC
	PR18-5DN2	PRCM18-5DN2	PRL18-5DN2	PRCMT18-5DO
	PR18-5DP2	PRCM18-5DP2	PRL18-5DP2	PRCMT18-5DC
	PRW18-5DN	PRWL18-5DN	PRCML18-5DN	
	PRW18-5DP	PRWL18-5DP	PRCML18-5DP	
	PRW18-5DN2	PRWL18-5DN2	PRCML18-5DN2	
	PRW18-5DP2	PRWL18-5DP2	PRCML18-5DP2	

※1: The Weight with packaging and the weight in parentheses is only unit weight.

※Environment resistance is rated at no freezing or condensation.

■ Dimensions

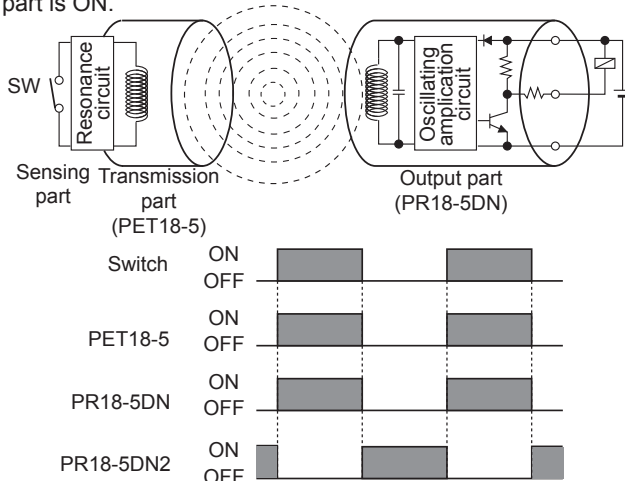


Transmission Coupler

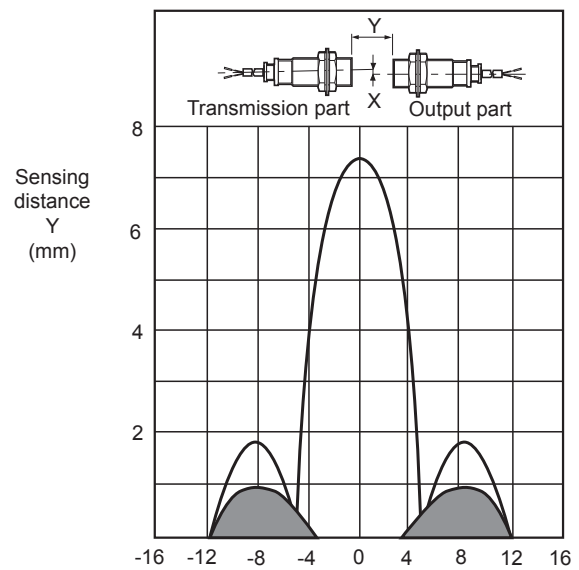
Operation mechanism

It transmits ON/OFF signal with a magnetic coupling of coils.

The coil of transmission part and proximity sensor is coupled electronically, the induced current is generated at closed-loop of transmission part influenced by a magnetic field from proximity sensor coil when the switch of sensing part is ON.

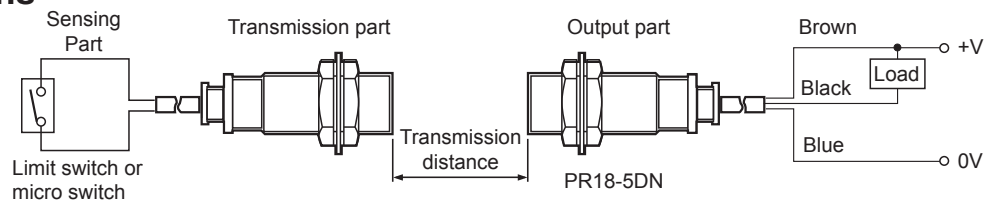


Feature data



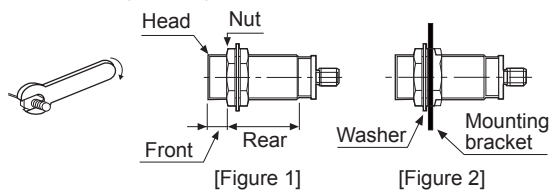
Please note the proximity sensor detects the surrounding cover of the sensing side of transmission coupler even the connection switch is OFF in sensing part.

Connections



Proper usage

1. This equipment shall not be used outdoors or beyond specified temperature range.
2. Do not apply over tensile strength of cord. ($\phi 5$: 50N max.)
3. Do not use the same conduit with cord of this unit and electric power line or power line.
4. Do not put overload to tighten nut, please use the supplied washer for tightening.
5. Please shorten the wiring to avoid noise.
6. Please use the cable written on the specification of the product. If the other cable or a crooked cable is used, the waterproof cannot be maintained.
7. 0.3mm² or larger cable can be extended up to 5m.
8. When the transceiver is attached to the proximity sensor or close to the wires, it may cause a malfunction.
9. The contact switch in the sensing part should not have leakage current when it is OFF.
10. The contact resistance is under 300m Ω , open resistance is more than 10M Ω to satisfy the specification of contact switch. (Limit switch or micro switch)
11. The inductive proximity sensor used in output part may cause a malfunction, if metal particles attach to sensing area.
12. It is able to transmit signal through the plastic or mirror.
13. Please set sensing distance within part A of the below operation range for mounting at the rotator.

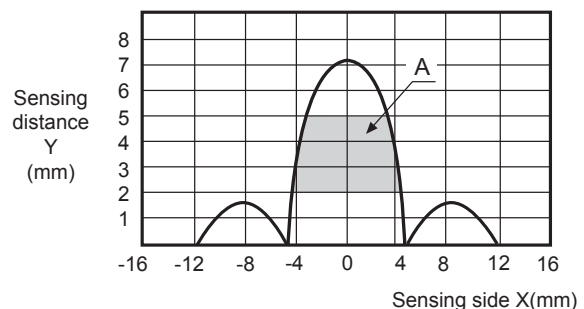


[Table 1]

Model	Strength	Front		Rear
		Size	Torque	Torque
PET18-5	Flush	-	150kgf·cm (14.7N·m)	
	Non-Flush	-		

Note1) Allowable tightening torque of a nut may be different by the distance from the head. For allowable tightening torque and the range of front and rear parts, refer to [Table 1] and above [Figure 1] respectively. The rear part includes a nut on the head side (as the [Figure 1]). Please apply a tightening torque of the front part when the nut on the front is located in the front part.

Note2) The allowable tightening torque denotes a torque value when using a provided washer as above [Figure 2].



- (A) Photo electric sensor
- (B) Fiber optic sensor
- (C) Door/Area sensor
- (D) Proximity sensor
- (E) Pressure sensor
- (F) Rotary encoder
- (G) Connector/Socket
- (H) Temp. controller
- (I) SSR/Power controller
- (J) Counter
- (K) Timer
- (L) Panel meter
- (M) Tacho/Speed/Pulse meter
- (N) Display unit
- (O) Sensor controller
- (P) Switching power supply
- (Q) Stepping motor & Driver/Controller
- (R) Graphic/Logic panel
- (S) Field network device
- (T) Software
- (U) Other