

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

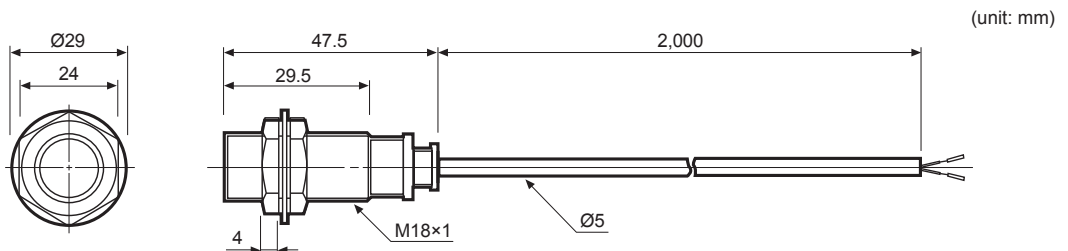
■ Specifications

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/s ² (approx. 50G) in each of X, Y, Z directions for 3 times			
Environment	Ambient temperature	-25 to 70°C, storage: -30 to 80°C		
	Ambient humidity	35 to 95%RH, storage: 35 to 95%RH		
Protection structure	IP67 (IEC standards)			
Cable	Ø5mm, 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 PR18-5DP PR18-5DN2 PR18-5DP2 PRW18-5DN PRW18-5DP PRW18-5DN2 PRW18-5DP2	PRCM18-5DN PRCM18-5DP PRCM18-5DN2 PRCM18-5DP2 PRWL18-5DN PRWL18-5DP PRWL18-5DN2 PRWL18-5DP2	PRL18-5DN PRL18-5DP PRL18-5DN2 PRL18-5DP2 PRCML18-5DN PRCML18-5DP PRCML18-5DN2 PRCML18-5DP2	PRT18-5DO PRT18-5DC PRCMT18-5DO PRCMT18-5DC

*1: The weight includes packaging. The weight in parentheses is for unit only.

*Environment resistance is rated at no freezing or condensation.

■ Dimensions

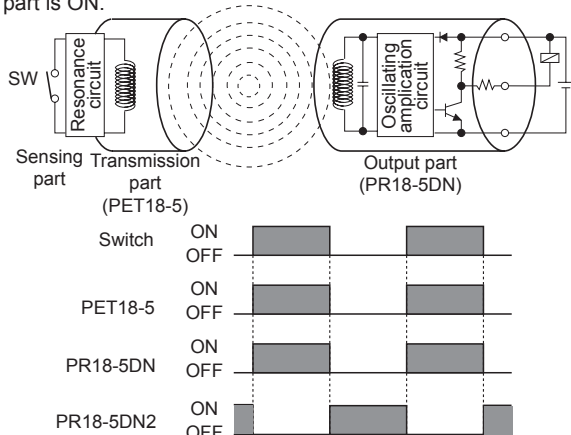


Transmission Coupler

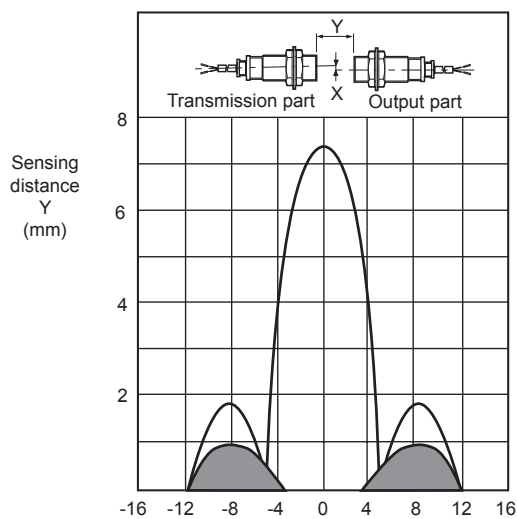
Operation Mechanism

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.

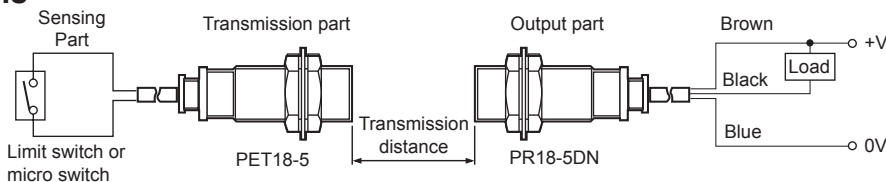


Feature Data



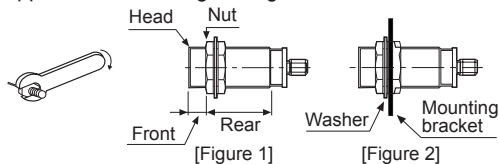
Please note the proximity sensor detects the surrounding cover of the sensing side of transmission coupler even the connection switch is OFF in sensing part.

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. ($\varnothing 5$: 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.



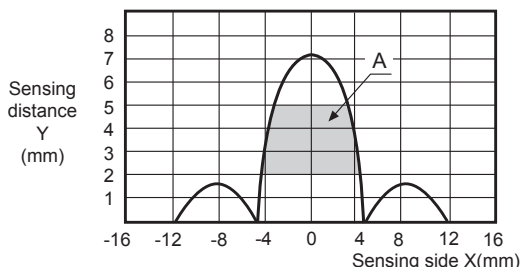
[Table 1]

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].

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.



(A)	Photo electric sensor
(B)	Fiber optic sensor
(C)	Door/Area sensor
(D)	Proximity sensor
(E)	Pressure sensor
(F)	Rotary encoder
(G)	Connectors/ Connector Cables/ Sensor Distribution Boxes/ Sockets
(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 mode power supply
(Q)	Stepper motor & Driver & Controller
(R)	Graphic/ Logic panel
(S)	Field network device
(T)	Software
(U)	Other