

PROXIMITY SENSOR
CONNECTION BOX

M A N U A L



Thank you very much for selecting Autonics products.
For your safety, please read the following before using.

Caution for your safety

※Please keep these instructions and review them before using this unit.

※Please observe the cautions that follow;

Warning Serious injury may result if instructions are not followed.

Caution Product may be damaged, or injury may result if instructions are not followed.

※The following is an explanation of the symbols used in the operation manual.

△caution: Injury or danger may occur under special conditions.

Warning

1. In case of using this unit with machinery(Ex: nuclear power control, medical equipment, ship, vehicle, train, airplane, combustion apparatus, safety device, crime/disaster prevention equipment, etc) which may cause damages to human life or property, it is required to install fail-safe device. It may cause a fire, human injury or damage to property.

Caution

1. Do not use this unit in place where there is flammable, explosive gas, chemical or strong alkalis, acids.

It may cause a fire or explosion.

2. Do not impact on this unit.

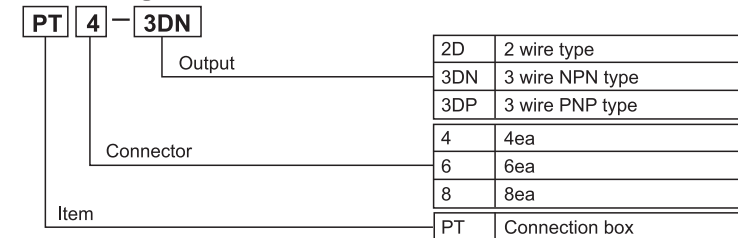
It may result in malfunction or damage to the product.

3. Do not use this connection box with AC power, this is DC power only.

It may result in serious damage to the product.

4. Please avoid wrong wire connection. (Blue: -, Brown: +)

Ordering information



Specifications

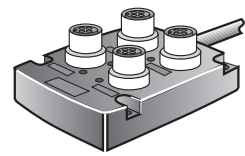
Model	PT4-2D	PT4-3DN PT4-3DP	PT6-2D	PT6-3DN PT6-3DP	PT8-2D	PT8-3DN PT8-3DP
Power supply (Operating voltage)	12-24VDC(10-30VDC)					
Leakage current	Max. 0.5mA					
Connection life cycle	Min. 200 times					
Cable tensile strength	10kgf(98N)[15sec.]					
Insulation resistance	Min. 50MΩ (at 500VDC megger)					
Dielectric strength	1500VAC 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 (50G) X, Y, Z direction for 3 times					
Indicator	Power indicator:Green, Operating indicator:Red					
Ambient temperature	-25 to 70°C, Storage: -30 to 80°C					
Ambient humidity	35 to 95%RH, Storage: 35 to 95%RH					
Protection	IP66(IEC specification) ^{※1}					
Material	Case: PC, General cable(gray): Polyvinyl chloride(PVC)					
Weight	Approx. 630g		Approx. 690g			Approx. 745g

※1: When use a cover for water-proof (P96-M12-1, sold separately); IP67(IEC specification)
※Condition for use in Environment is no freezing or condensation

※ The above specifications are subject to change and some models may be discontinued without notice.

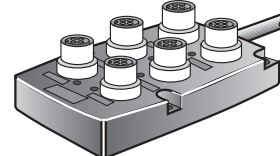
Dimension

●PT4-□□



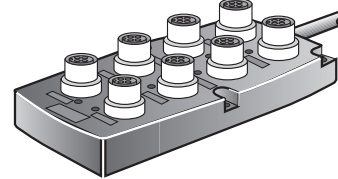
※Cable specification: ø 9/6 cores
(Conductor cross section: 0.3mm², Insulator diameter: ø 1.67)

●PT6-□□

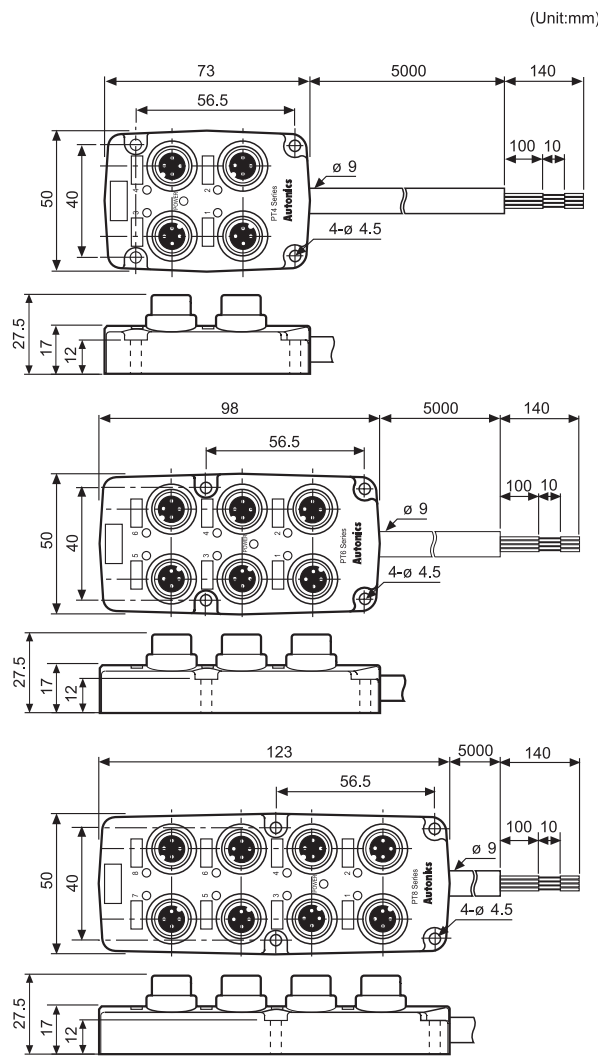


※Cable specification: ø 9/8 cores
(Conductor cross section: 0.3mm², Insulator diameter: ø 1.67)

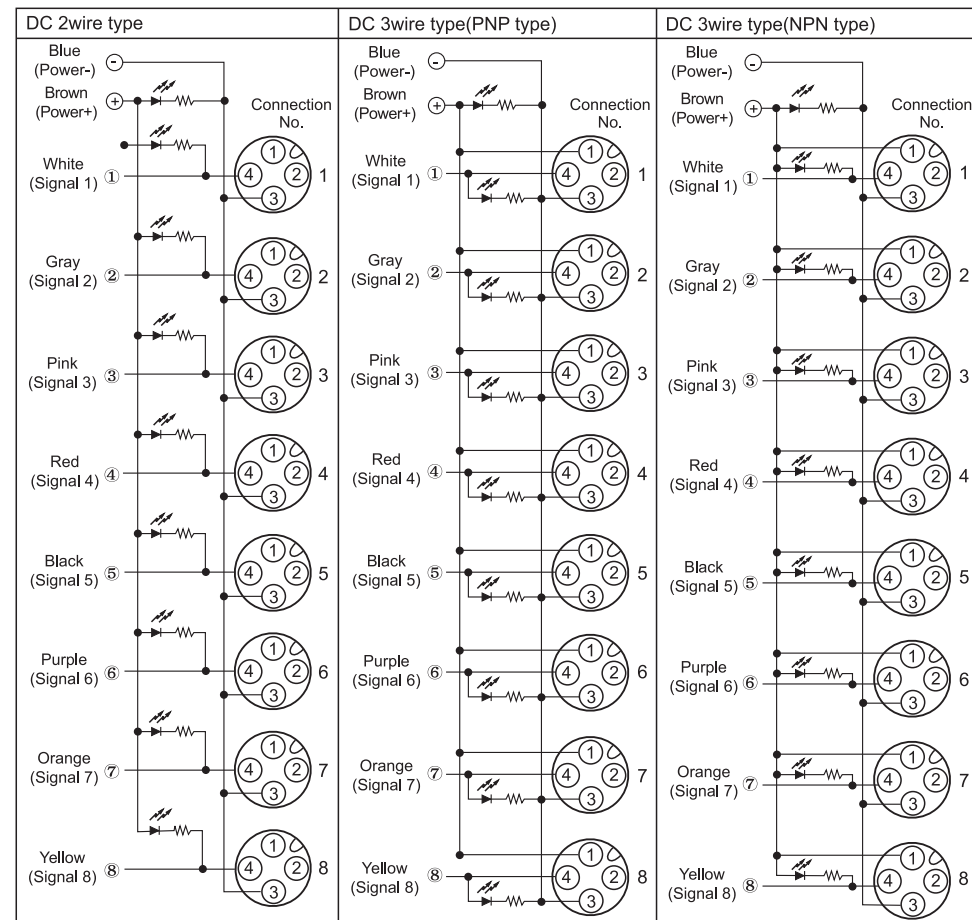
●PT8-□□



※Cable specification: ø 9/10 cores
(Conductor cross section: 0.3mm², Insulator diameter: ø 1.67)

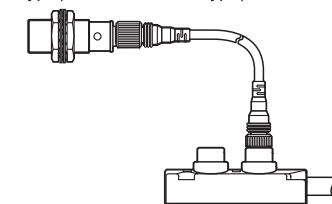


Connection

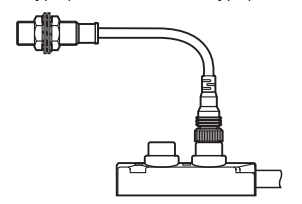


Connection form

●PRCM Type(Cable connector type)



●PRW Type(Direct connector type)



Input sensor

Connection Box	Connector type proximity sensor	Transiation Cable		
PT□ -2D	DC 2-wire type	PRCMT12-2/4DO, DC PRCMT18-5/8DO, DC PRCMT30-10/15DO, DC	PRDCMT12-4/8DO, DC PRDCMT18-7/14DO, DC PRDCMT30-15/25DO, DC	Connection cable
		PRWT12-2/4DO, DC PRWT18-5/8DO, DC PRWT30-10/15DO, DC	PRDWT12-4/8DO, DC PRDWT18-7/14DO, DC PRDWT30-15/25DO, DC	Direct connection Connection cable
PT□ -3DN	DC 3-wire type (NPN type)	PRCM12-2/4DN, DN2 PRCM18-5/8DN, DN2 PRCM30-10/15DN, DN2	PRDCM12-4/8DN, DN2 PRDCM18-7/14DN, DN2 PRDCM30-15/25DN, DN2	Connection cable
		PRWL18-5/8DN, DN2 PRWL30-10/15DN, DN2	PRDCL12-4/8DN, DN2 PRDCL18-7/14DN, DN2 PRDCL30-15/25DN, DN2	Direct connection Connection cable
PT□ -3DP	DC 3-wire type (PNP type)	PRCM12-2/4DP, DP2 PRCM18-5/8DP, DP2 PRCM30-10/15DP, DP2	PRDCM12-4/8DP, DP2 PRDCM18-7/14DP, DP2 PRDCM30-15/25DP, DP2	Connection cable
		PRCL18-5/8DP, DP2 PRCL30-10/15DP, DP2	PRDCL12-4/8DP, DP2 PRDCL18-7/14DP, DP2 PRDCL30-15/25DP, DP2	Direct connection Connection cable

※It is able to use lead type proximity sensor with connection box, if use plug type connector cable.

Caution for using

- This equipment shall not be used outdoors and beyond specification rating of temperature range.
 - Do not load over 10Kgf(98N) on cable.
 - Do not use the same conduit with cord of this unit and electric power line and power line. Also avoid the same connection.
 - Tighten strength of installing bolts should be under 15kgf-cm.
 - If close transceiver to proximity sensor or wire connection, it may cause malfunction.
 - When take out the connector from box, please cut off the power.
 - Please tighten fixing plumb firmly by hand. It can be loosened by vibration and protection might not be maintained. (Proper tightening strength : 4 to 5kgf-cm)
 - It might cause malfunction, if particle of metal etc. inflow in to engaging.
 - Do not use this unit when external force loaded on contact block and connection of cover. It may cause loss of efficiency of protection. (IP65)
 - Do not use in place there are water or oil etc.
 - Main body is made by plastic, therefore do not put heavy load on this product.
 - Please avoid below environment.
 - ①Lots of dust or high humidity
 - ②Ammonia or sulfide gas
 - Please use 2 wire or 3 wire type(NPN, PNP) separately.
 - Green LED will not on if connect power line wrongly.
 - Please connect signal line following the diagram and load must be install when operating sensor.
 - Please check Red LED when operating sensor.
 - Please use protection cover or water-proof cover(P96-M12-1, sold separately) for not using connector.
- ※It may cause malfunction if above instructions are not followed.

Main products

- Photoelectric sensors
- Fiber optic sensors
- Door sensors
- Door side sensors
- Area sensors
- Proximity sensors
- Pressure sensors
- Rotary encoders
- Connector/Sockets
- Switching mode power supplies
- Control switches/Lamps/Buzzers
- I/O Terminal Blocks & Cables
- Stepper motors/drivers/motion controllers
- Graphic/Logic panels
- Field network devices
- Laser marking system(Fiber, CO₂, Nd:YAG)
- Laser welding/soldering system
- Temperature controllers
- Temperature/Humidity transducers
- SSR/Power controllers
- Counters
- Timers
- Panel meters
- Tachometer/Pulse(Rate)meters
- Display units
- Sensor controllers

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