

Autonics Sensor Distribution Box (M12 4-Pin Connector Type) PT SERIES INSTRUCTION MANUAL



Thank you for choosing our Autonics product. Please read the following safety considerations before use.

Safety Considerations

※Please observe all safety considerations for safe and proper product operation to avoid hazards.
 ※⚠ symbol represents caution due to special circumstances in which hazards may occur.

- ⚠ Warning** Failure to follow these instructions may result in serious injury or death.
- ⚠ Caution** Failure to follow these instructions may result in personal injury or product damage.

Warning

- Fail-safe device must be installed when using the unit with machinery that may cause serious injury or substantial economic loss.** (e.g. nuclear power control, medical equipment, ships, vehicles, railways, aircraft, combustion apparatus, safety equipment, crime/disaster prevention devices, etc.) Failure to follow this instruction may result in fire, personal injury, or economic loss.
- Do not connect, repair, or inspect the unit while connected to a power source.** Failure to follow this instruction may result in fire.
- Check 'Connections' before wiring.** Failure to follow this instruction may result in fire.
- Do not disassemble or modify the unit.** Failure to follow this instruction may result in fire.

Caution

- Use the unit within the rated specifications.** Failure to follow this instruction may result in fire or product damage.
- Use dry cloth to clean the unit, and do not use water or organic solvent.** Failure to follow this instruction may result in fire.
- Do not use the unit in the place where flammable/explosive/corrosive gas, humidity, direct sunlight, radiant heat, vibration, impact, or salinity may be present.** Failure to follow this instruction may result in fire or explosion.
- Keep metal chip, dust, and wire residue from flowing into the unit.** Failure to follow this instruction may result in fire or product damage.

Ordering Information

PT	4	3DN	
		Output	2D 2 wire type
			3DN 3 wire NPN type
			3DP 3 wire PNP type
		Connector	4 4-port
			6 6-port
			8 8-port
		Item	PT Sensor distribution box

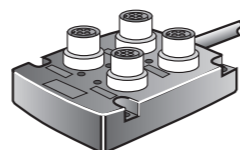
Specifications

Model	PT4-2D	PT4-3DN PT4-3DP	PT6-2D	PT6-3DN PT6-3DP	PT8-2D	PT8-3DN PT8-3DP
Port ^{※1}	4-port	6-port	6-port	6-port	8-port	8-port
Output type	2-wire (1-signal)	3-wire (1-signal)	2-wire (1-signal)	3-wire (1-signal)	2-wire (1-signal)	3-wire (1-signal)
Power supply (Operating voltage)	12-24VDC= (10-30VDC=)					
Rated current	2A (per signal), 4A (per port), 10A (total)					
Leakage current	Max. 0.5mA					
Connection life cycle	Min. 200 operations					
Insulation resistance	Over 50MΩ (at 500VDC megger)					
Dielectric strength	1500VAC 50/60Hz for 1minute					
Vibration	1mm amplitude at frequency of 10 to 55Hz in each X, Y, Z direction for 2 hours					
Shock	500m/s ² (approx. 50G) in each X, Y, Z direction for 3 times					
Indicator	Power indicator: Green, Operating indicator: Red					
Environ -ment	Ambient temperature: -25 to 75°C, Storage: -30 to 80°C					
	Ambient humidity: 35 to 95%RH, Storage: 35 to 95%RH					
Protection structure ^{※2}	IP67 (IEC Standards/when mounting connector, waterproof cover) IP52 (IEC Standards/when mounting protection cover)					
Material	Case: Polybutylene terephthalate (G15%), General cable (gray): Polyvinyl chloride (PVC)					
Approval	CE					
Weight ^{※3, ※4}	Approx. 700g (approx. 660g)		Approx. 720g (approx. 680g)		Approx. 820g (approx. 780g)	

※1: Connect the sensor to the proper output type.
 ※2: This is not applicable when connectors and protection/waterproof covers are not mounted.
 ※3: The weight includes packaging. The weight in parenthesis is for unit only. ※4: The weights are for 5m cable.
 ※Environment resistance is rated at no freezing or condensation.
 ※The above specifications are subject to change and some models may be discontinued without notice.
 ※Be sure to follow cautions written in the instruction manual and the technical descriptions (catalog, homepage).

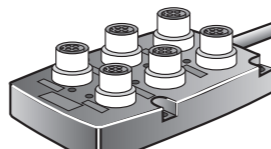
Dimension

• PT4-□□



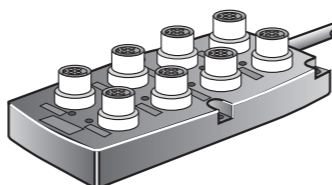
※Cable specification: Ø9/6 cores (Conductor cross section: 0.3mm², Insulator diameter: Ø1.67)

• PT6-□□

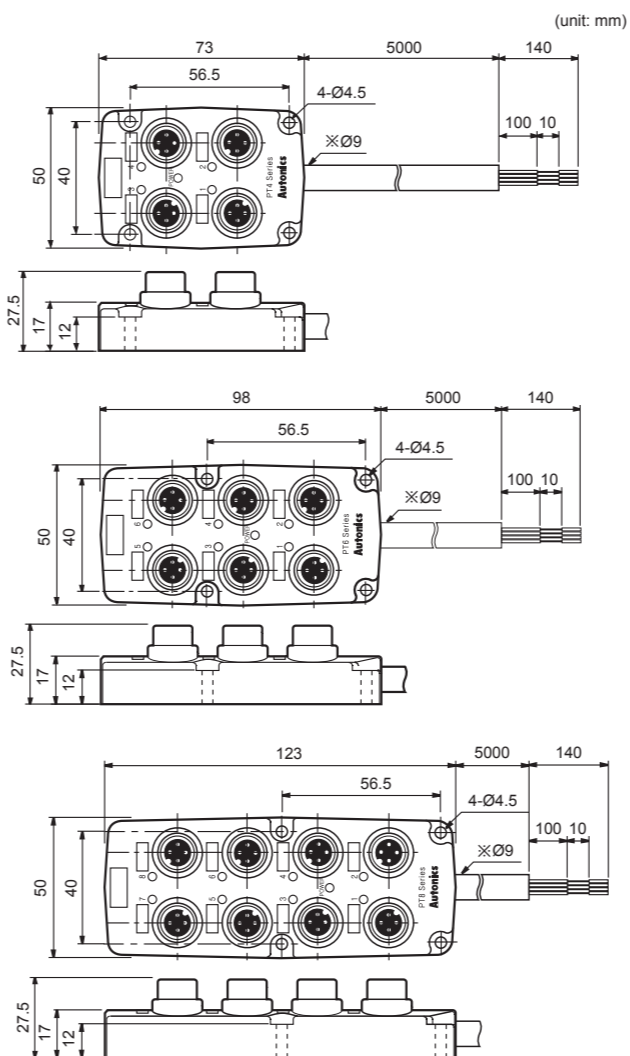


※Cable specification: Ø9/8 cores (Conductor cross section: 0.3mm², Insulator diameter: Ø1.67)

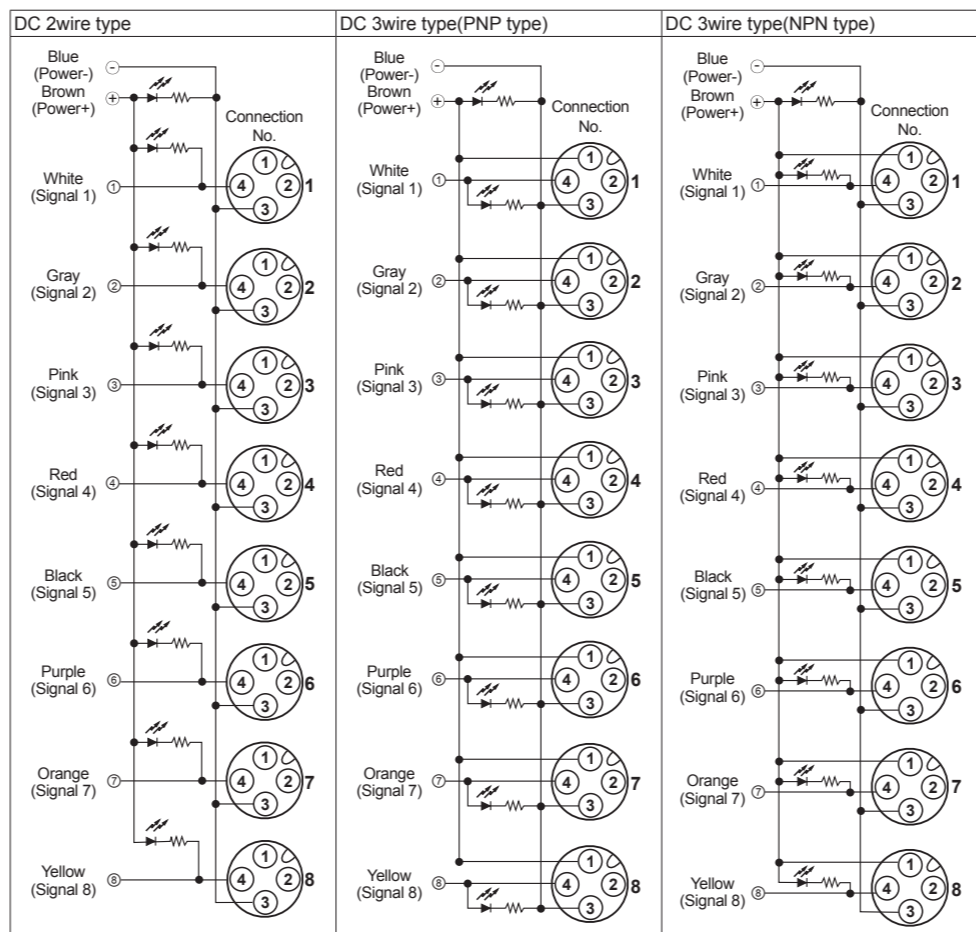
• PT8-□□



※Cable specification: Ø9/10 cores (Conductor cross section: 0.3mm², Insulator diameter: Ø1.67)

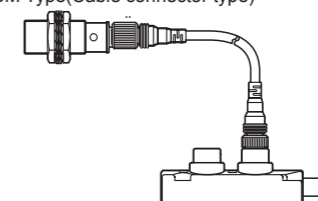


Connections

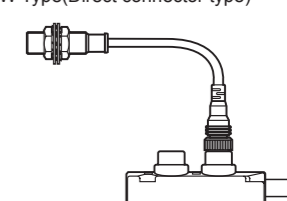


Connection Form

•PRCM Type(Cable connector type)



•PRW Type(Direct connector type)



Input Sensor

Connection Box	Connector type	proximity sensor	Transition Cable
PT□-2D	DC 2-wire type	PRCMT12-2/4DO, DC	PRDCMT12-4/8DO,DC
		PRCMT18-5/8DO, DC	PRDCMT18-7/14DO,DC
		PRCMT30-10/15DO, DC	PRDCMT30-15/25DO,DC
PT□-3DN	DC 3-wire type (NPN type)	PRWT12-2/4DO, DC	PRDWT12-4/8DO,DC
		PRWT18-5/8DO, DC	PRDWT18-7/14DO,DC
		PRWT30-10/15DO, DC	PRDWT30-15/25DO,DC
		PRCMT12-2/4DN, DN2	PRDCM12-4/8DN, DN2
		PRCMT18-5/8DN, DN2	PRDCM18-7/14DN, DN2
		PRCMT30-10/15DN, DN2	PRDCM30-15/25DN, DN2
PT□-3DP	DC 3-wire type (PNP type)	PRCML12-4/8DN, DN2	PRDCML12-4/8DN, DN2
		PRCML18-5/8DN, DN2	PRDCML18-7/14DN, DN2
		PRCML30-10/15DN, DN2	PRDCML30-15/25DN, DN2
		PRW12-2/4DN, DN2	PRDW12-4/8DN, DN2
		PRW18-5/8DN, DN2	PRDW18-7/14DN, DN2
		PRW30-10/15DN, DN2	PRDW30-15/25DN, DN2
PT□-3DP	DC 3-wire type (PNP type)	PRCMT12-2/4DP, DP2	PRDCM12-4/8DP, DP2
		PRCMT18-5/8DP, DP2	PRDCM18-7/14DP, DP2
		PRCMT30-10/15DP, DP2	PRDCM30-15/25DP, DP2
		PRCML12-4/8DP, DP2	PRDCML12-4/8DP, DP2
		PRCML18-7/14DP, DP2	PRDCML18-7/14DP, DP2
		PRCML30-10/15DP, DP2	PRDCML30-15/25DP, DP2
PT□-3DP	DC 3-wire type (PNP type)	PRW12-2/4DP, DP2	PRDW12-4/8DP, DP2
		PRW18-5/8DP, DP2	PRDW18-7/14DP, DP2
		PRW30-10/15DP, DP2	PRDW30-15/25DP, DP2
		PRWL18-5/8DP, DP2	PRDWL18-7/14DP, DP2
		PRWL30-10/15DP, DP2	PRDWL30-15/25DP, DP2

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

Cautions during Use

- Follow instructions in 'Cautions during Use'. Otherwise, it may cause unexpected accidents.
- 12-24VDC power supply should be insulated and limited voltage/current or Class 2, SELV power supply device.
- Since sensor distribution box is only for DC, do not use for AC.
- Connect sensor after checking whether output is NPN or PNP.
- Operate sensor after connecting load.
- Tighten the mounting screw or connector with following tightening torque.
 - Mounting screw (M4): max. 1.2N·m
 - M12 connector: 0.6 to 0.7N·m
- Do not pull the cable which is connected to the body.
- Do not put an object on the body.
- It is hard to maintain protection structure, when consistently using the product with external power applied to the connector joint.
- Keep away from high voltage lines or power lines to prevent inductive noise. In case installing power line and input signal line closely, use line filter or varistor at power line and shielded wire at input signal line. Do not use near the equipment which generates strong magnetic force or high frequency noise.
- If transceiver and sensor distribution box are installed closely, malfunction can occur.
- This unit may be used in the following environments.
 - ①Indoors (in the environment condition rated in 'Specifications')
 - ②Altitude max. 2,000m
 - ③Pollution degree 2
 - ④Installation category

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/Cutting System
- Temperature Controllers
- Temperature/Humidity Transducers
- SSRs/Power Controllers
- Counters
- Timers
- Panel Meters
- Tachometer/Pulse (Rate) Meters
- Display Units
- Sensor Controllers

Autonics Corporation
<http://www.autonics.com>
 ■ HEADQUARTERS:
 18, Bansong-ro 513 beon-gil, Haeundae-gu, Busan, South Korea, 48002
 TEL: 82-51-519-3232
 ■ E-mail: sales@autonics.com