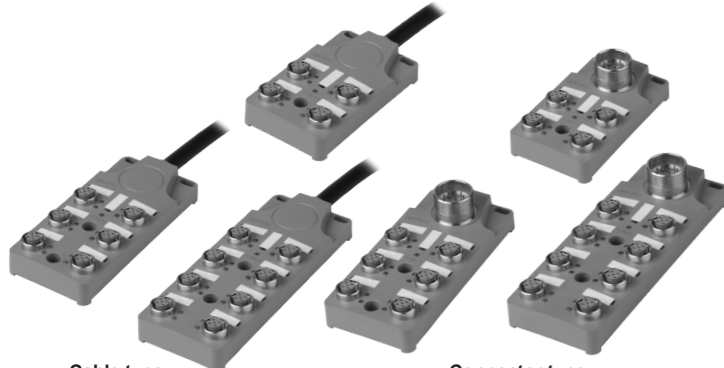


Autonics Sensor Distribution Box (Cable type/Connector type) PT SERIES M A N U A L



Cable type Connector type
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.
- ※ Safety considerations are categorized as follows.
- 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.
- ※ The symbols used on the product and instruction manual represent the following
- ⚠ symbol represents caution due to special circumstances in which hazards may occur.

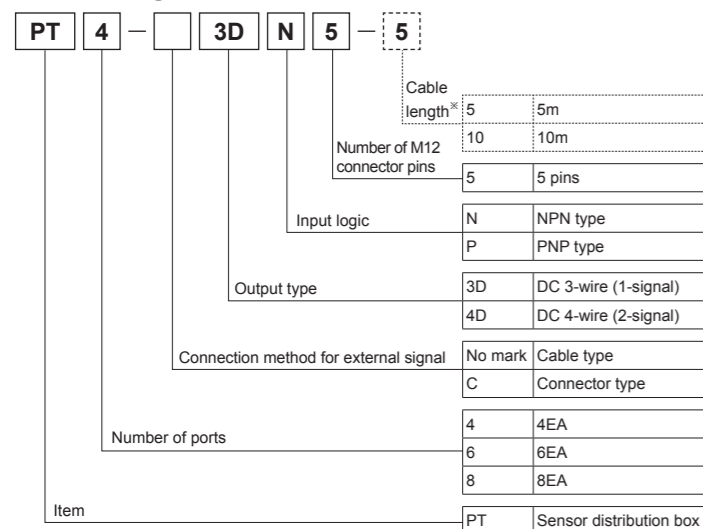
⚠ Warning

- 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 personal injury, fire, 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, or electric shock.
- Do not use the unit where flammable or explosive gas, humidity, direct sunlight, radiant heat, vibration, or impact may be present.**
Failure to follow this instruction may result in fire, or explosion.

⚠ Caution

- Do not use the unit outdoors.**
Failure to follow this instruction may result in electric shock, or shorten the life cycle of the unit.
- Use the unit within the rated specifications.**
Failure to follow this instruction may result in shorten the life cycle of the unit, or fire.
- Do not use water or oil-based detergent when cleaning the unit. Use dry cloth to clean the unit.**
Failure to follow this instruction may result in electric shock or product damage.
- Keep dust and wire residue from flowing into the connectors.**
Failure to follow this instruction may result in fire, or product damage.
- Be sure connecting the power cable (brown: +, blue: -).**

■ Ordering information



※ Cable length is only for Cable type models.
※ The above specifications are subject to change and some models may be discontinued without notice.

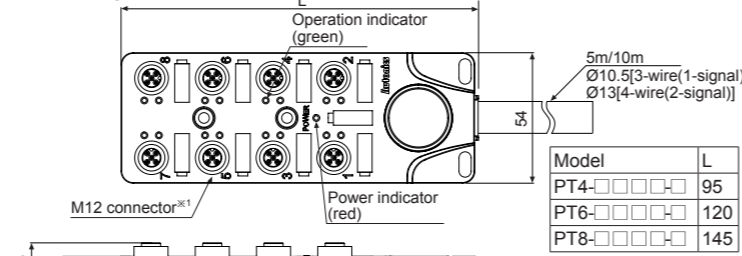
■ Specifications

Model	Cable type	NPN type	PT4-3DN5-	PT4-4DN5-	PT6-3DN5-	PT6-4DN5-	PT8-3DN5-	PT8-4DN5-
	PNP type		PT4-3DP5-	PT4-4DP5-	PT6-3DP5-	PT6-4DP5-	PT8-3DP5-	PT8-4DP5-
	Connector type		PT4-C3DN5	PT4-C4DN5	PT6-C3DN5	PT6-C4DN5	PT8-C3DN5	PT8-C4DN5
	PNP type		PT4-C3DP5	PT4-C4DP5	PT6-C3DP5	PT6-C4DP5	PT8-C3DP5	PT8-C4DP5
Port			4EA	6EA	8EA			
Output type*			3-wire(1-signal)	4-wire(2-signal)	3-wire(1-signal)	4-wire(2-signal)	3-wire(1-signal)	4-wire(2-signal)
Power supply			12-24VDC					
Rated current			2A (per signal), 4A (per port), 10A (total)					
Connection life cycle			Min. 200 times					
Insulation resistance			Min. 100MΩ (at 500VDC megger)					
Dielectric strength			500VAC 50/60Hz for 1 minute					
Vibration			3mm 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			Power indicator: red, Operation indicator: green					
Environment	Ambient temp.		-25 to 75°C, storage: -30 to 80°C					
	Ambient humi.		35 to 85%RH, storage: 35 to 85%RH					
Protection**			IP67 (IEC Standards/when mounting connector, waterproof cover) or IP52 (IEC Standards/when mounting protection cover)					
Material			Case: PBT(G15%), Name Plate: PC					
Weight**	Cable type**		Approx. 1100g (Approx. 900g)	Approx. 1400g (Approx. 1200g)	Approx. 1130g (Approx. 930g)	Approx. 1430g (Approx. 1230g)	Approx. 1160g (Approx. 960g)	Approx. 1460g (Approx. 1260g)
	Connector type		Approx. 230g (Approx. 120g)	Approx. 235g (Approx. 125g)	Approx. 260g (Approx. 150g)	Approx. 265g (Approx. 155g)	Approx. 290g (Approx. 180g)	Approx. 295g (Approx. 185g)

- ※ 1: Connect the sensor to the proper output type.
- ※ 2: This is not applicable when mounting connectors and protection/waterproof covers are not mounted.
- ※ 3: The weight is with packaging and the weight in parentheses is only unit weight.
- ※ 4: The weights are for 5m cable.
- ※ Environment resistance is rated at no freezing or condensation.

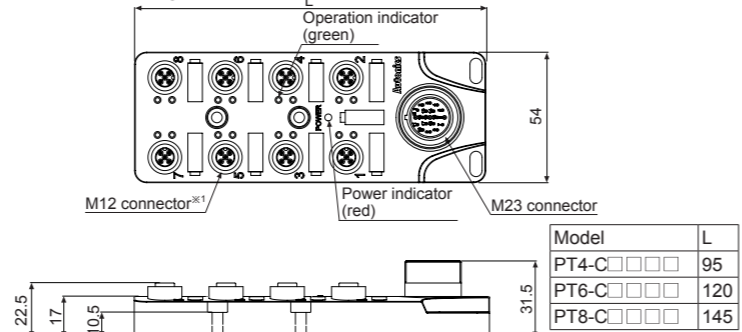
■ Dimensions (unit: mm)

● Cable type



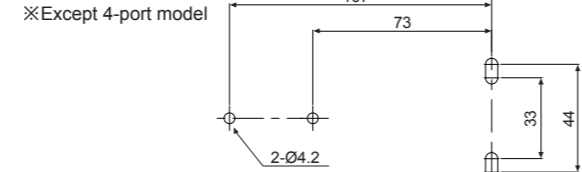
- ※ The dimensions are based on PT8-□□□□□.
- ※ 1: When connecting L type connectors, connection direction may be different by the manufacturers of the connector.

● Connector type



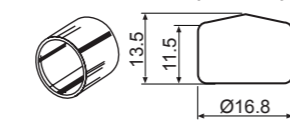
- ※ The dimensions are based on PT8-C□□□□.
- ※ 1: When connecting L type connectors, connection direction may be different by the manufacturers of the connector.

● Mounting hole



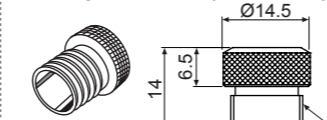
● Sold separately

- Protection cover (CAP-PT)



- ※ This protection cover is used for protecting connection holes from dust or particle, etc. Please push it into hole.
- ※ If using protection covers, protection structure of the sensor distribution box is IP52.

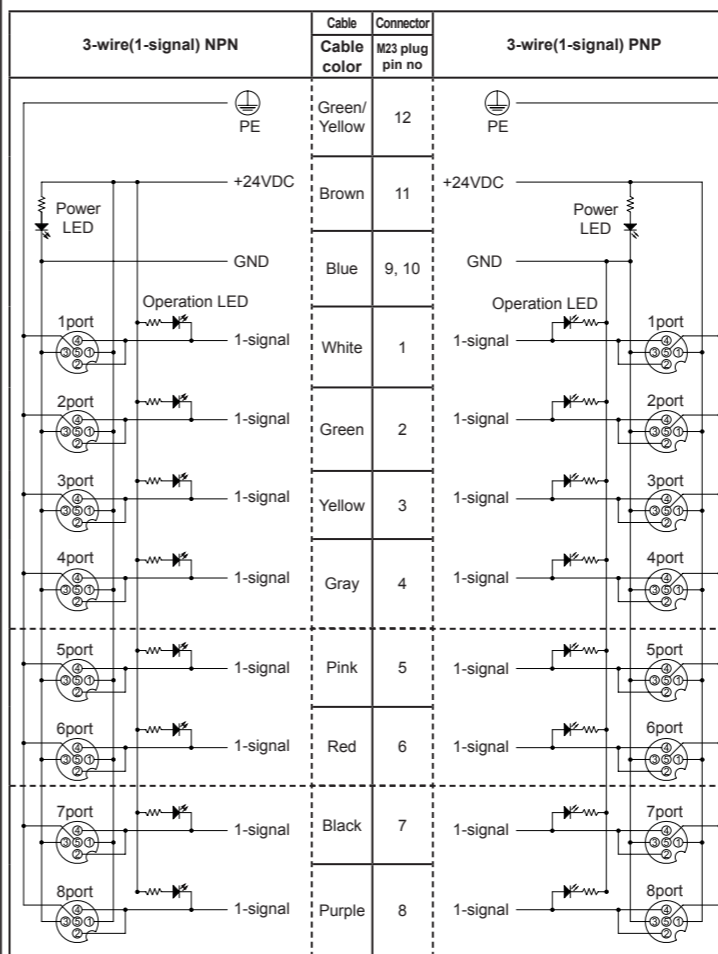
- Waterproof cover (P96-M12-1)



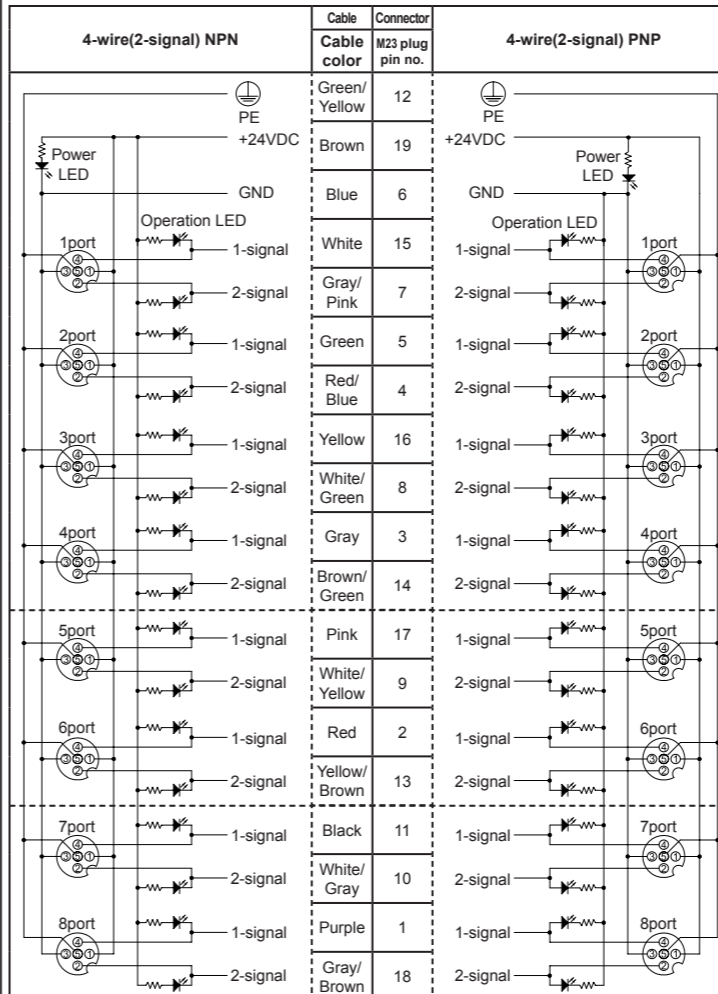
- ※ This waterproof cover is used for protecting unused connection hole from water or oil, etc. Please tighten it when applying to the ports.
- ※ If using waterproof covers, protection structure of the sensor distribution box is IP67.

■ Connections

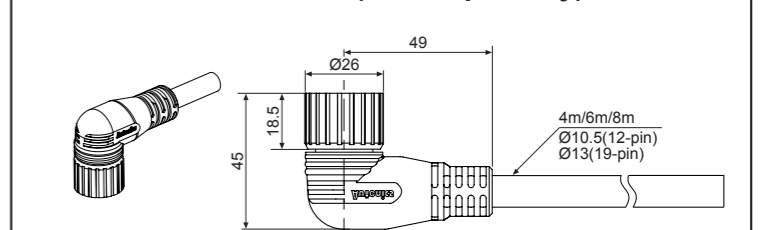
● 3-wire (1-signal)



● 4-wire (2-signal)



■ M23 connector cable (sold separately) (unit: mm)



Model	12-pin[for 3-wire(1-signal)]			19-pin[for 4-wire(2-signal)]		
	CLDH12C-040	CLDH12C-060	CLDH12C-080	CLDH19C-040	CLDH19C-060	CLDH19C-080
Pin arrangement						
Cable length**	4m	6m	8m	4m	6m	8m
Applied model	PT4-C3DN5, PT4-C3DP5 PT6-C3DN5, PT6-C3DP5 PT8-C3DN5, PT8-C3DP5			PT4-C4DN5, PT4-C4DP5 PT6-C4DN5, PT6-C4DP5 PT8-C4DN5, PT8-C4DP5		
Connection wiring	Pin no.	Cable color	AWG	Pin no.	Cable color	AWG
	1	White	AWG22	1	Purple	AWG22
	2	Green		2	Red	
	3	Yellow		3	Gray	
	4	Gray		4	Red/Blue	
	5	Pink	AWG17	5	Green	AWG17
	6	Red		6	Blue	
	7	Black		7	Gray/Pink	
	8	Purple	AWG22	8	White/Green	AWG22
	9	Blue		9	White/Yellow	
	10	-	AWG17	10	White/Gray	AWG17
	11	Brown		11	Black	
12	Green/Yellow		12	Green/Yellow	AWG17	
			13	Yellow/Brown	AWG22	
			14	Brown/Green		
			15	White		
			16	Yellow		
			17	Pink	AWG17	
			18	Gray/Brown		
			19	Brown	AWG17	

※ 1: Cable length can be customized.

■ Caution for using

- This connection box is only for DC. Do not use this unit for AC.
- Do not use the same conduit with cord of this unit and electric power line and power line. Also avoid the same connection.
- Tighten the screws and connector with the proper tightening strength. (M4 mounting screw: max. 1.2N·m / M12 Connector: 0.6 to 0.7N·m / M23 Connector: 2.0 to 2.5N·m)
When tightening is bad, protection is not effective and it may loose by vibration.
- If transceiver is close to wire connections, it may cause malfunction.
- When take out the connector from the box, cut off the power.
- 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.
- 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 for long-term storage.
 - ① Lots of dust or high humidity
 - ② Ammonia or sulfide gas
- Use 3-wire NPN, PNP type and 4-wire NPN, PNP type separately.
- Check the voltage variation range of power not to over the rated specifications for power input.
- Please use protection cover (CAP-PT, sold separately) or waterproof cover (P96-M12-1, sold separately) for not using connector (M12 Socket).

※ Failure to follow these instructions may result in product damage.

■ 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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