

Autonics Sensor Controller PA-12 SERIES



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.

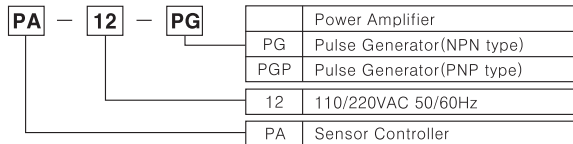
Warning

- In case of using this unit with machineries (Nuclear power control, medical equipment, vehicle, train, airplane, combustion apparatus entertainment or safety device etc), it requires installing fail-safe device, or contact us for information on type required. It may result in serious damage, fire or human injury.
- This unit must be mounted on panel. It may give an electric shock.
- Do not connect terminals when it is power on. It may give an electric shock.
- Do not repair or checkup when power on. It may give an electric shock.

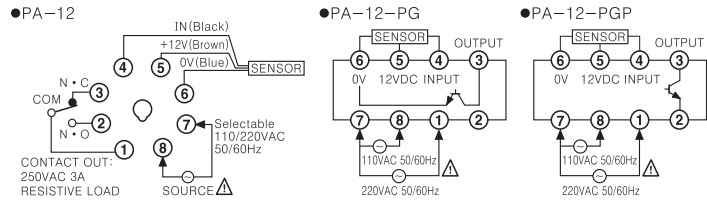
Caution

- This unit shall not be used outdoors. It might shorten the life cycle of the product or give an electric shock.
- Please observe specification rating. It might shorten the life cycle of the product and cause a fire.
- Do not use the load beyond rated switching capacity of Relay contact. It may cause insulation failure, contact melt, contact failure, relay broken, fire etc.
- In cleaning the unit, do not use water or an organic solvents. It might cause an electric shock or fire that will result in damage to this product.
- Do not use this unit at place where there are flammable or explosive gas, humidity, direct ray of the sun, radiant heat, vibration, impact etc. It may cause explosion.
- Do not inflow dust or wire dregs into inside of this unit. It may cause a fire or mechanical trouble.

Ordering information

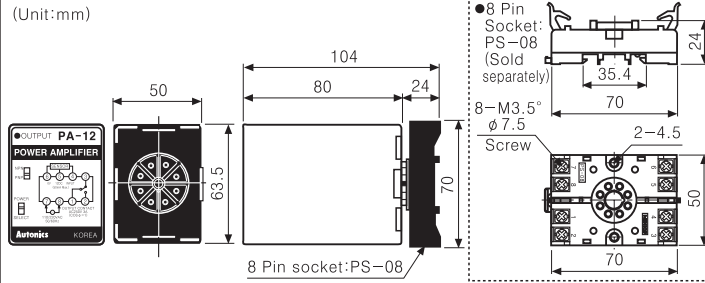


Connection



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

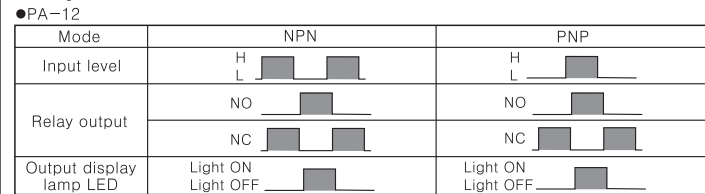
Dimensions



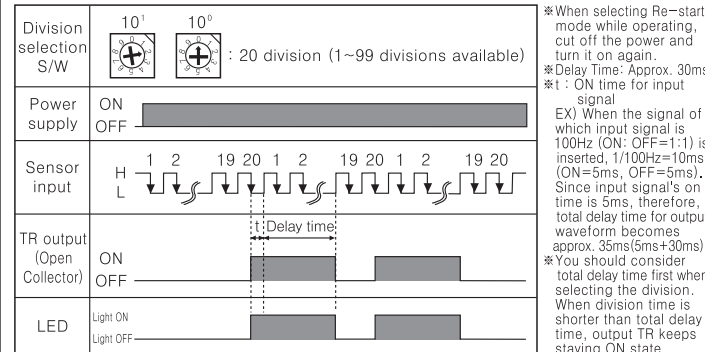
Specification

Model	PA-12	PA-12-PG	PA-12-PGP
Type	Selectable NPN/PNP	NPN Open Collector Only	PNP Open Collector Only
Power supply	Selectable 110-220VAC 50/60Hz	110/220VAC 50/60Hz	110/220VAC 50/60Hz
Power consumption	Approx. 4VA		
Power supply for sensor	12VDC ±10% 50mA	12VDC ±10% 30mA	
Control output	<ul style="list-style-type: none"> Relay Contact Output : (Contact Capacity : 250VAC 3A Resistance Load, Contact Arrangement 1a1b) Life Expectancy : Mechanical : Min. 10,000,000 operations Electrical : Min. 100,000 operations 	NPN Open Collector output	PNP Open Collector output
Input signal	<ul style="list-style-type: none"> NPN : Short-circuit impedance : Max. 1kΩ Residual voltage : Max. 2VDC Open-circuit impedance : Min. 100kΩ PNP : High Level["H"] : 7-12VDC, Low Level["L"] : 0-5VDC 	Allowable Input Voltage : Max. 30VDC, Rated Current : Max. 50mA High Level["H"] : 7-12VDC, Low Level["L"] : 0-5VDC	
Input resistance	10kΩ		
Response time		30cps, 2kcps (Semi-contact selectable)	
Ambient temperature	-10 to +50°C (Non-freezing condition)		
Ambient humidity	35-85%RH		
Weight	Approx. 269g		

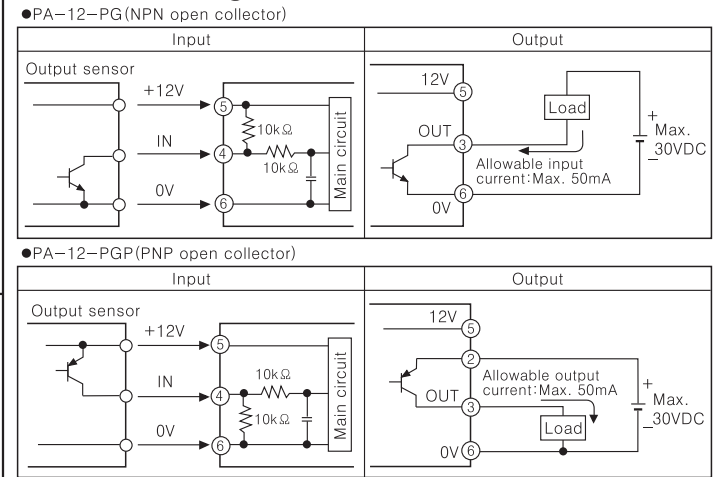
Operation mode



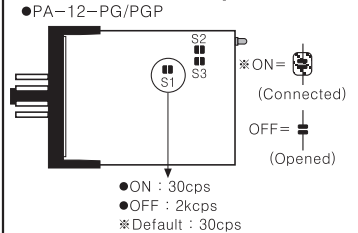
PA-12-PG/PGP



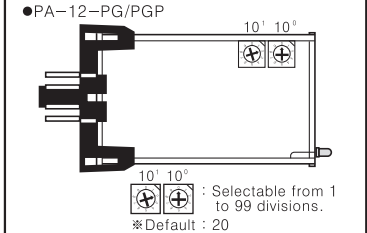
Function diagram



Semi-contact specification



Division selection switch



Caution for using

- Wiring
 - Check your connections first to avoid faulty wiring.
 - Please be cautious not to short-circuit the 12VDC terminal at GND since there is no over-current protective circuit on sensor's power supply.
 - Do not install the unit at place where vapor, dust, corrosive gas or water exists.
 - Input signal line
 - Shorten the cable distance between the sensor and this product.
 - Please shielded wire for input signal needed to be long.
 - Please wire input signal line separated from power line.
 - When test dielectric voltage and insulation resistance of the control panel with this unit installed.
 - Please isolate this unit from the circuit of control panel.
 - Please make all terminals of this unit short-circuited.
 - Do not use this unit at below places.
 - Place where there are severe vibration or impact.
 - Place where strong alkalis or acids are used.
 - Place where there are direct ray of the sun
 - Place where strong magnetic field or electric noise are generated.
 - Installation environment
 - It shall be used indoor
 - Altitude Max. 2000m
 - Pollution Degree 2
 - Installation Category II
- ※It may cause malfunction if above instructions are not followed.

Major products

- Photoelectric sensors
- Fiber optic sensors
- Door sensors
- Door side sensors
- Area sensors
- Proximity sensors
- Pressure sensors
- Relay encoders
- Connectors/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 systems (Fiber, CO₂, Nd:YAG)
- Laser welding/soldering system
- Temperature controllers
- Temperature/Humidity transducers
- Tachometer/Fuse/Rate/meters
- SSR/Power controllers
- Sensor controllers
- Display units
- Panel meters
- Counters
- Timers



ООО "РусАвтоматизация"

454010 г. Челябинск, ул. Гагарина 5, оф. 507
 тел. 8-800-775-09-57 (звонок бесплатный),
 тел.: (351)799-54-26, тел./факс (351)211-64-57
 info@rusautomation.ru; www.rusautomation.ru
 русавтоматизация.рф