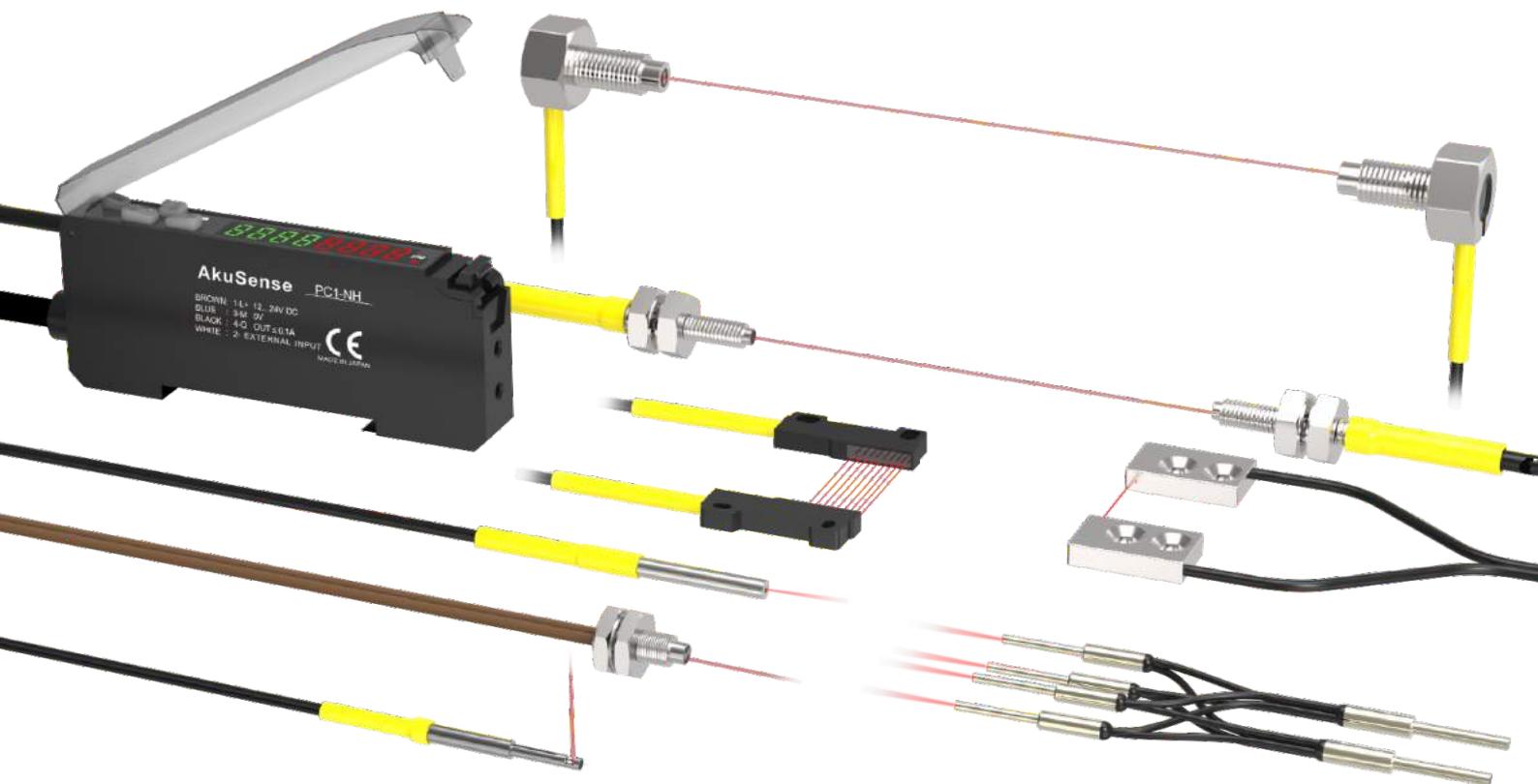


Fiber Optic Sensors



- Single amplifier with double output (NPN & PNP) self-compensation for light
- Various specifications of fiber optic components (covers all popular models in the market)
- Customized development according to the users' needs
- Sufficient stock, quick response, fast delivery time



PG 3 Standard economical type fiber amplifiers with double digits display

- Calculate luminance magnifications and power regulations automatically
- Briefly press SET button twice to set detected thresholds intelligently
- Strong anti- ambient light ability; stable performance
- Customized LED lights (red, orange, yellow and green) ensure stable brightness.

P.A-04



PG 2 Ultra-slim economical type fiber amplifiers with double digits

- Small size (only 10.5mm thick) can save mounting space
- Free setting of D.on/L.on
- Excellent anti- ambient light interference ability
- Customized LED lights (red, orange, yellow and green) ensure stable brightness.

P.A-05



PG 1 Economical & practical type dual display fiber amplifiers

- Button design conforms to ergonomics
- Visible bright LED, easy settings
- Selectable NPN/PNP output

P.A-06



PC1-H high-speed response numeric displays fiber amplifiers

- Fastest response time in the industry (15ms)
- Digital display of red and green light in comparison, easy installation
- Unique technology for light compensation, stable detection

P.A-07

Fiber Optic
Slot Type
Photoelectric
Laser
Proximity
Displacement
Magnetic
Contact
Light Curtains
Ultrasonic
Connectivities
Tester

Guidance
Fiber amplifier
Standard economical
Ultra-slim economical
Practical type
High speed response

Fiber components
Popular type
Array-type
Flat bracket type
Side-view type
High flexible type
High temperature resistant type
Small spot type
Combination type

Fiber lens



Popular Type

- Imported fiber optic core, wonderful performance
- Long sensing distance, very cost-effective

Array-type

- Suitable for moving objects detection
- Detect objects that are not in clear positions

Flat bracket type

- Flexible installation, easy to be fixed
- Fits into limited space



Side-view type

- Can detect objects in narrow space
- Easily access to detectable objects, high precision

High flexible type

- Good performance with excellent flexibility
- After bending at angles of 90 degree, transmission ability only reduces 10%

High temperature resistant type

- Heat resistant stainless steel outer casing, strong chemical resistance
- Can stand maximum temperature of 350°



Small spot type

- Built-in lens, small beam spot
- Customizable high-flex optical fiber cables

Combination type

- Several fiber units combined together
- Customizable fiber length to tail your needs

Lens

- Offers a complete series of specifications; can replace most of the popular products in the market
- Both thru-beam and diffuse reflective model numbers for you to choose from

PG3 Standard economical type fiber amplifiers with double digits display

- Calculate luminance magnifications and power regulations automatically
- Briefly press SET button twice to set detected thresholds intelligently
- Strong anti- ambient light ability; stable performance
- Customized LED lights (red, orange, yellow and green) ensure stable brightness.

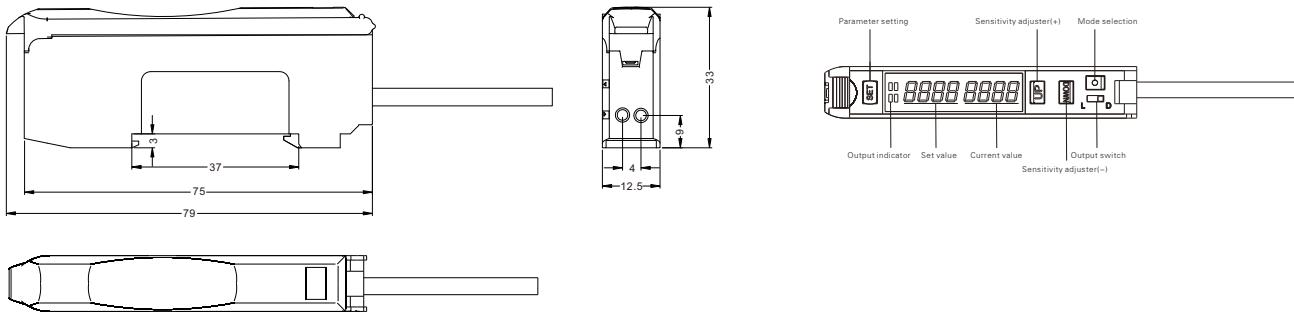


NEW!

Model Number	PG3-N	PG3-P
Light source	Red LED (630nm)	
Operating voltage	12~24V DC ± 10%	
Power consumption	≤20mA	
Output type	NPN open- collector	PNP open- collector
Switch type	Selectable L.on/D.on	
Response time	50us(P-0)/200us(P-1)/400us(P-2)/800us(P-3)/6.4ms(P-4)/12.8ms(P-5)/25.6ms(P-6)	
Timer	Timer being interrupted if output on; timer on if output on; timer on once if output on; timer off if output on	
Timer range	1~9999ms	
Practical functions	Initialization settings/key lock/ two thresholds, full automation and manual setting	
Advanced functions	Luminous power and threshold can be synchronously adjust	
Ambient luminance	Incandescent lamp: ≤20000Lux max , Sunlight: ≤30000Lux max	
Ambient temperature	-20°C~+55°C	
Ambient humidity	35~85% RH	
Protective circuit	Reverse polarity protection, over-current protection, over voltage protection	
Vibration	10~55Hz, full amplitude 1.5mm,XYZ three directions,2hours each	
Shock resistance	500m/s ² for 3 times each in X, Y, Z directions	
Outer casing Material	PC	
Weight	Approx.110g (cable included)	

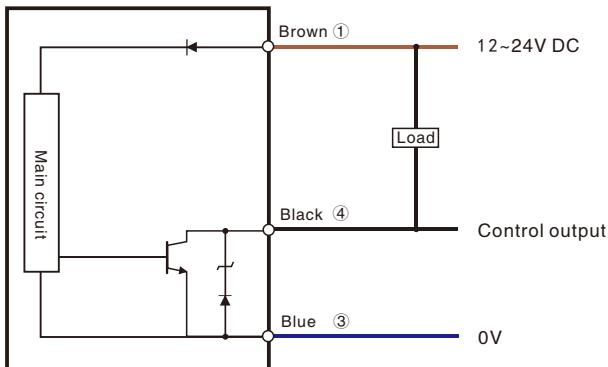
Dimensions

Unit: mm

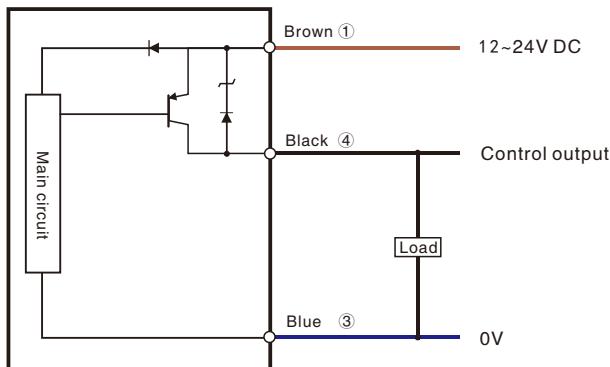


Circuit diagram

NPN



PNP



Fiber Optic
Slot Type
Photoelectric
Laser
Proximity
Displacement
Magnetic
Contact
Light Curtains
Ultrasonic
Connectivities
Tester

Guidance

Fiber amplifier
Standard economical
Ultra-slim economical
Practical type
High speed response

Fiber components
Popular type
Array-type
Flat bracket type
Side-view type
High flexible type
High temperature resistant type
Small spot type
Combination type

Fiber lens

PG2 Ultra-slim economical type fiber amplifiers with double digits

NEW!

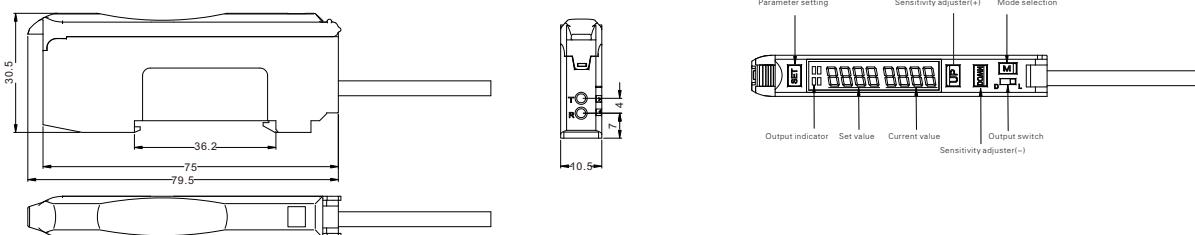
- Small size (only 10.5mm thick) can save mounting space
- Free setting of D.on/L.on
- Excellent anti- ambient light interference ability
- Customized LED lights (red, orange, yellow and green) ensure stable brightness.



	Model Number	PG2-N	PG2-P
Fiber Optic	Light source	Red LED (630nm)	
Slot Type	Operating voltage	12~24V DC ± 10%	
Photoelectric	Power consumption	≤20mA	
Laser	Output type	NPN open– collector	PNP open– collector
Proximity	Switch type	Selectable L.on/D.on	
Displacement	Response time	200us(P-1)/400us(P-2)	
Magnetic	Timer	Timer being interrupted if output on; timer on if output on; timer on once if output on; timer off if output on	
Contact	Timer range	1–9999ms	
Light Curtains	Practical functions	Initialization settings/key lock/two thresholds, full automation and manual setting	
Ultrasonic	Advanced functions	Adjusting luminescence power presents F1, F2, F3 and F4 from interfering with each other	
Connectivities	Ambient luminance	Incandescent lamp: ≤20000Lux max , Sunlight: ≤30000Lux max	
Tester	Ambient temperature	-20°C~+55°C	
	Ambient humidity	35~85% RH	
Guidance	Protective circuit	Reverse polarity protection, over-current protection, over voltage protection	
Fiber amplifier	Vibration	10~55Hz, full amplitude 1.5mm,XYZ three directions,2hours each	
Standard economical	Shock resistance	500m/s ² for 3 times each in X, Y, Z directions	
Ultra-slim economical	Outer casing Material	PC	
Practical type	Weight	Approx.100g (cable included)	
High speed response			

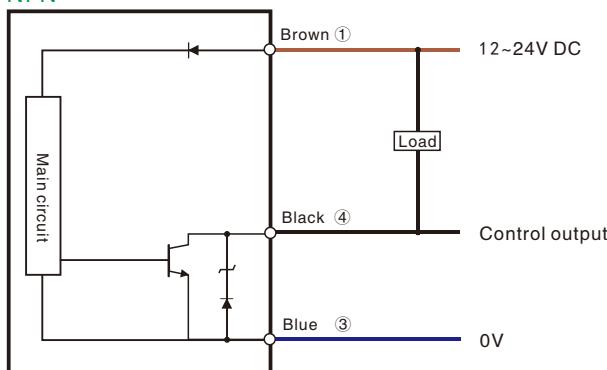
Dimensions

Unit: mm

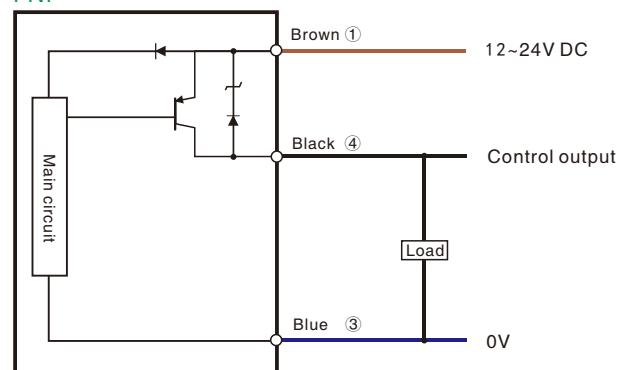


Circuit diagram

NPN



PNP



Developing

PG 1 Economical & practical type dual display fiber amplifiers

- Button design conforms to ergonomics
- Visible bright LED, easy settings
- Selectable NPN/PNP output

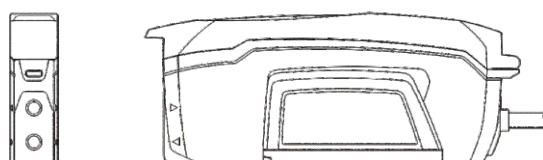


Model Number

PG1

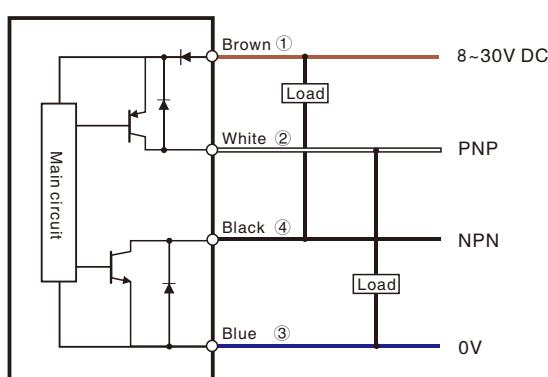
Light source	Modulated red light 680nm
Operating voltage	8~30V DC
Saturation voltage	25mA < 1.2V, 100mA < 2V
Load current	< 50mA
Output current	< 200mA
Leakage current	< 100uA
Output type	NPN/PNP open-collector
Switch type	Selectable L.on/D.on
Digital display	7 segment 8 digit display (red: 4 digit, green: 4 digit)
Response time	50us/ 250us/ 500us/ 1ms/ 4ms
Time delay function	< 50ms
Operating temperature	-10°C~+60°C
Operating humidity	35%~85%RH
Ambient illuminance	Sunlight≤10000Lux
Protective circuit	Short circuit protection, Reverse polarity protection, Over voltage protection
Shock resistance	10G(1500m/s²), XYZ three directions
Vibration	10~55Hz Double amplitude 1.5mm, XYZ three directions, 2 hours each
Certificate	CE
Connection	2m 4 core cable
Weight	65g

Dimensions



Circuit diagram

NPN/PNP



Fiber Optic
Slot Type
Photoelectric
Laser
Proximity
Displacement
Magnetic
Contact
Light Curtains
Ultrasonic
Connectivities
Tester

Fiber amplifier
Standard economical
Ultra-slim economical
Practical type
High speed response

Fiber components
Popular type
Array-type
Flat bracket type
Side-view type
High flexible type
High temperature resistant type
Small spot type
Combination type

High speed response

Fiber amplifier

PC1-H high-speed response numeric displays fiber amplifiers

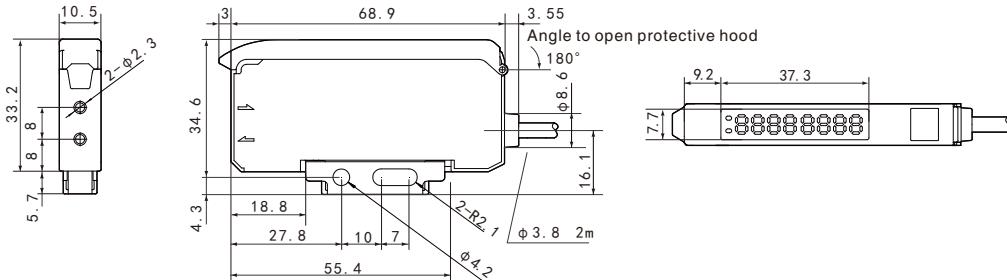
- Fastest response time in the industry (15ms)
- Digital display of red and green light in comparison, easy installation
- Unique technology for light compensation, stable detection



	Model Number	PC1-NH	PC1-NH2	PC1-PH	PC1-PH2
Fiber Optic	Light source		Red LED 660nm		
Slot Type	Operating voltage		12~24V DC		
Photoelectric	No-load supply current		Standard mode : 36mA max.(Single output)、39mA max.(Double output) Energy-saving mode: 25mA max.(Single output)、28mA max.(Double output)		
Laser	Output type	Single output NPN	Double output NPN	Single output PNP	Double output PNP
Proximity		$\leq 100\text{mA} / 30\text{V DC}$, Load current $\leq 100\text{mA}$, Voltage drop $\leq 1.8\text{V}$ 、Normally open (L.on), normally closed (D.on)			
Displacement	Switch type		Selectable L.on, D.on		
Magnetic	Indicator		Single output indicator (Red) ,dual output indicator (Orange)		
Contact	Digital display		7 segment 8 digit display (red: 4 digit, orange: 4 digit)		
Light Curtains	Response time		16us/22us(1-HS), 70us(2-FS), 250us(3-ST), 500us(4-LG), 1ms(5-PL), 2ms(6-UL), 8ms(7-EL)		
Ultrasonic	ON/OFF Time delay function		ON delay, OFF delay, Single pulse output, ON + OFF delay,ON delay+Single pulse output 0.1~9.999ms		
Connectivities	Sensing distance		Thru-beam: 4000mm、Diffuse reflection: 1200mm		
Tester	Sensitivity adjustment		Teach-in / Manual		
	External output function		Remote teach-in , Input stops once it shines, Syn trigger input, reset-input (for two outputs only)		
Guidance	Operating temperature		-25°C~+55°C		
Fiber amplifier	Operating humidity		35%~85% RH		
Standard economical	Ambient illuminance		Sunlight $\leq 10000\text{lux}$, Incandescent lamp $\leq 3000\text{lux}$		
Ultra-slim economical	Vibration		10~55Hz Double amplitude 1.5mm, XZY three directions,2 hours each		
Practical type	Shock resistance		50G(500m/S ²), XYZ three directions		
High speed response	Degree of protection		IP50		
Fiber components	Casing		Body: PPE, Display: PC		
Popular type	Connection		2m 5 core cable		
Array-type	Weight		50g		

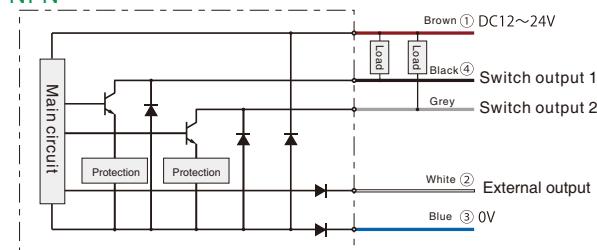
Dimensions

Unit: mm



Circuit diagram

NPN



PNP

