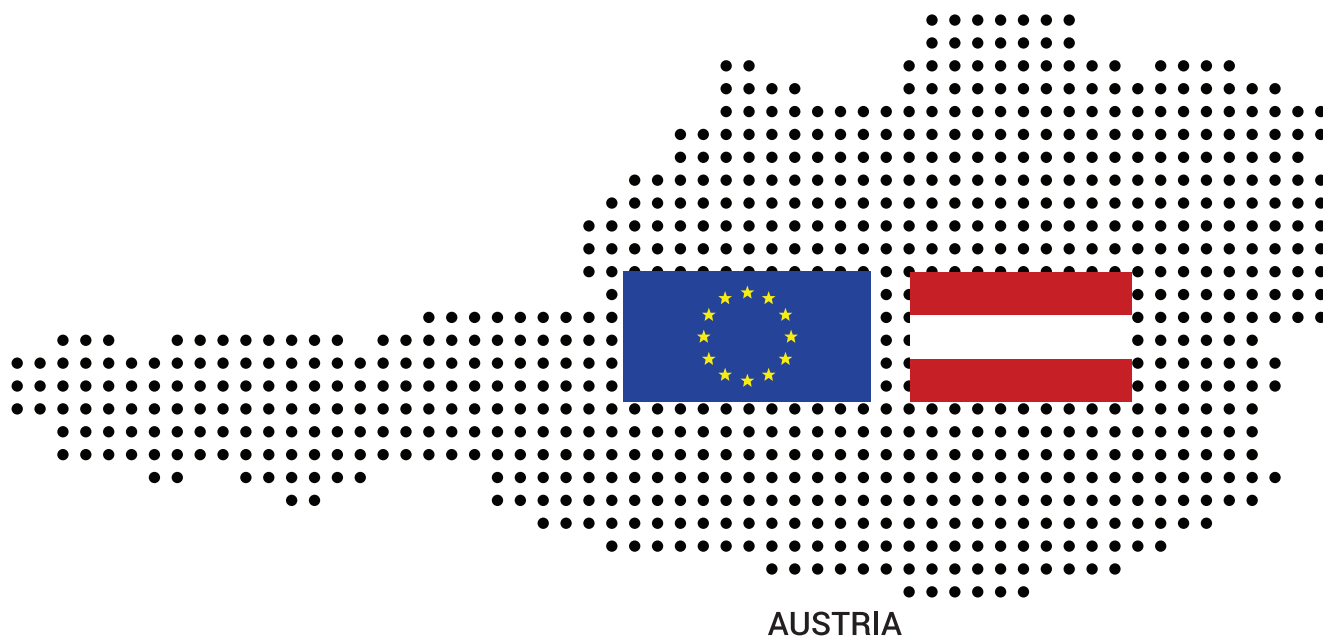


# DELLUX LIGHTING



**Manufactured in Austria  
and China with *TRIDONIC Technology***



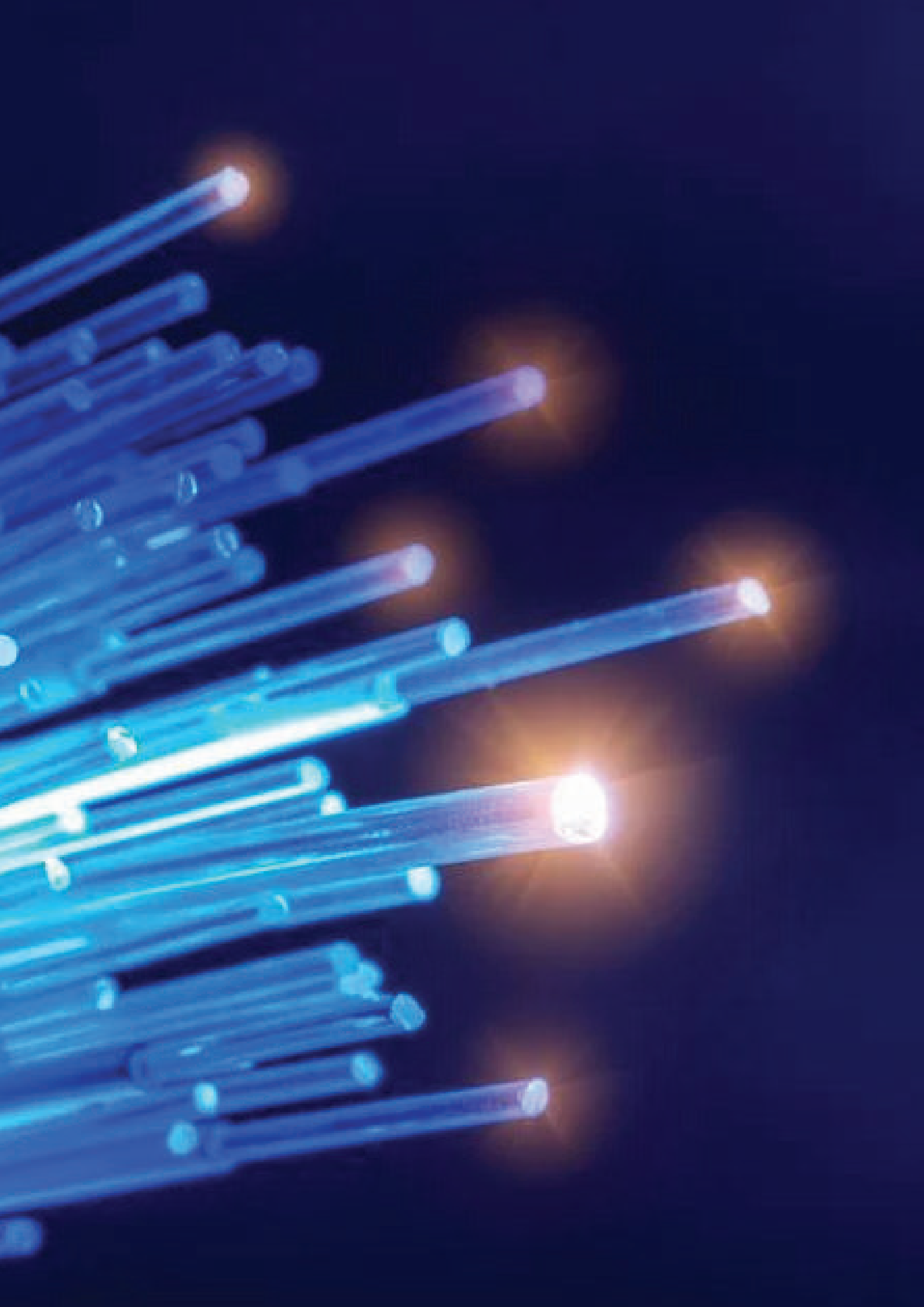


11-Optical Fiber

# OPTICAL FIBER

11

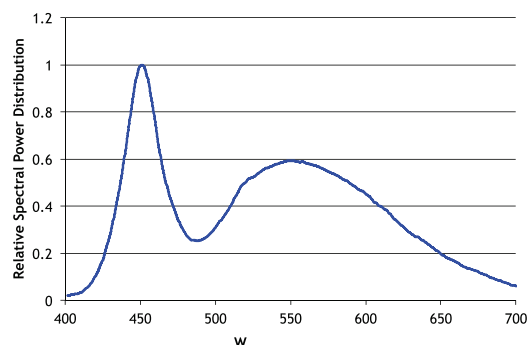




### S5000 LED light source



- The highest brightness LED cold light source in the field
- 60w high brightness LED chip and patent optical focusing system
- Alternative 250 w metal halide lamp as high power fiber illuminator
- Color rendering index Ra70 / Ra90 optional
- Support high-speed trigger function, response time is less than 1  $\mu$ m
- Support red/blue/green light order



#### Specification

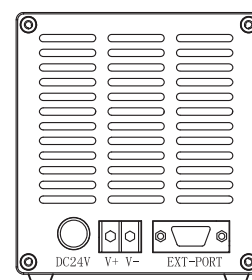
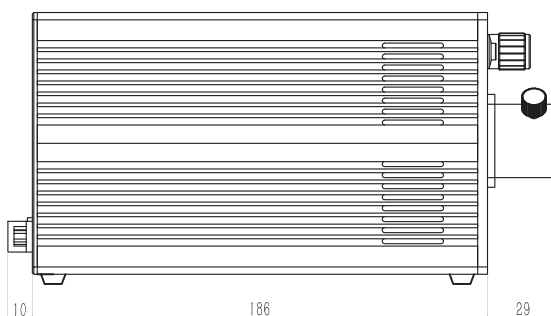
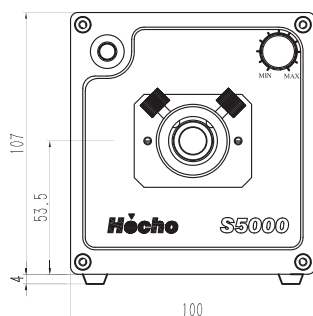
Item	LED Light Source
Model	S5000
Drive mode	The adjustable current, maximum voltage limits
Input voltage	AC90-250V power adaptor, (DC24V/5A) Or 24V Dc power supply
Power consumption	65W Max (Not Incl. AC-DC)
Dimming method	Manually adjusted potentiometer / Analog control DC 0-5V / Digital signal PWM(200Hz-100KHz) External voltage/PWM Level 5V Max
*Av illuminance	572,000lx
Stroboscopic time	>10us
Color temperature	6500K
CRI	Ra>70
LED life	Normal life >30,000h
Cooling system	Boday+high speed fan
Operating condition	-20 to +50°C/20%-80%RH (No condensation)
Installation	Desktop or bottom case 4 - M3 screws
N.W.	2.2kg
Dimension	225(L)*100(W)*114(H) mm

#### DB9 Connector specification

TRI High-speed trigger pins (
DC5-12V,High level effective)
5V Internal power output (2mA max)
ADJ Potentiometer dimming signal
(Potentiometer tap pin)
DIM (External dimmer 0-5VAnalog
voltage Or 5V PWM)
EN (External standby signal pin)
GND
GND
GND
GND

\*The average luminance is at 50mm from the fiber output at maximum volume when a Hecho standard light guide (GOF-C-S8H-1000-F1) is attached.

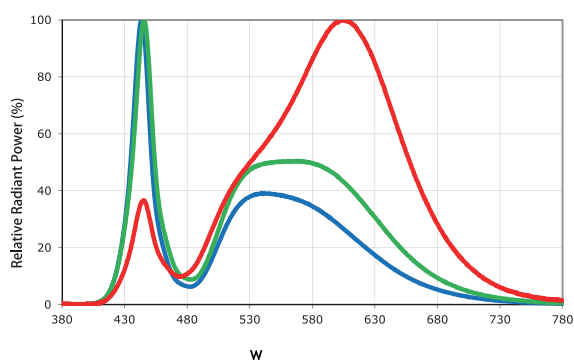
#### Drawing



### S3000 LED cold light source



- Higher power output, body cooling design, longer life
- Higher brightness LED chip, special focus system
- Complete machine with 20w power consumption
- AC or DC power supply
- Compact appearance, outside with fixed groove design



#### Specification

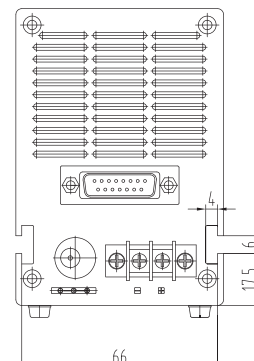
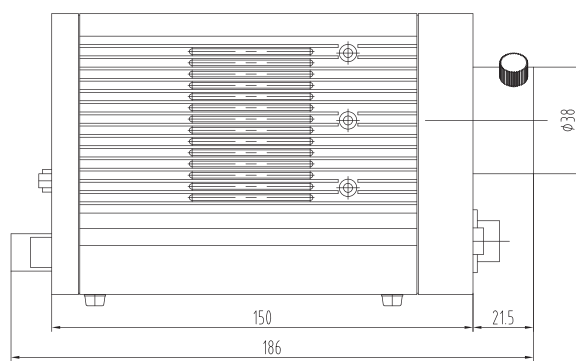
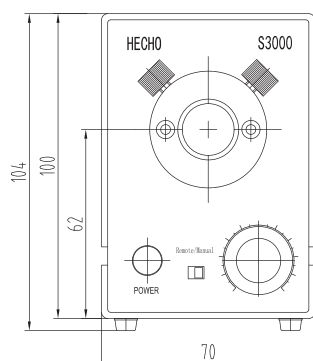
Item	LED Cold light source	
Model	S3000	S3000W
Drive mode	Constant-current system	
Input voltage	AC96-240V power adaptor / DC 24V 1.5A	
Power consumption	15W Max.	
Dimming method	Continuous Dimming / 0~5v Analog Control / PWM 200Hz 5V	
*Av illuminance	143,000lx	114,000lx
Color temperature	6500K	3000K
LED life	Approx.30000 Hours	
Cooling system	Body+high speed fan	
Operating condition	0°C to +45°C/20%-80%RH	
Installation	Horizontal installation on rubber supports at the bottom of unit or Side T slot	
N.W.	840g	
Dimension	186(L)×72(W)×104(H) mm	

#### DB9 Connector specification

ON DC3.5-24V/OFF <DC1.5V
GND
NC
NC
NC
NC
NC
NC
NC
External PWM/DC0-5Vdimming signal input +
GND
NC
NC
NC
NC

\*The average luminance is at 50mm from the fiber output at maximum volume when a Hecho standard light guide (GOFC-S8H-1000-F1) is attached.

#### Drawing



### B5100/5200 Halogen light source



- Switching power supply design, low power consumption, high light efficiency
- No heavy power frequency transformer
- Wide voltage range, output voltage stability
- Soft start, effectively protect bulbs and PCB
- Good heat dissipation design, low lighting temperature
- Optional analog control function, more suitable for assembly line work

#### Specification

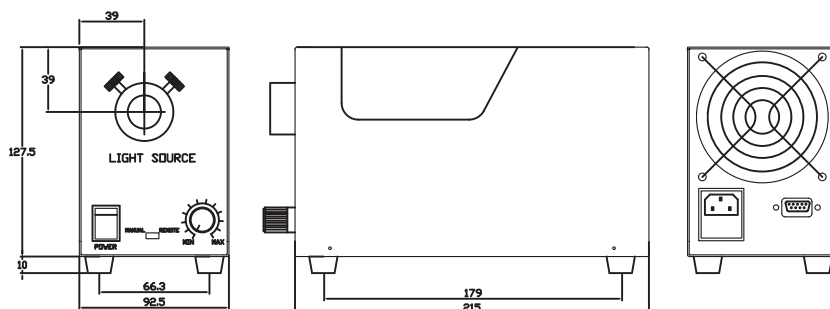
Model	B5100	B5200
Power supply	AC220V , AC110V, 50/60Hz	
Lamp spec.	OSRAM 12V 100W	PHILIPS 21V 150W
Rated life	50Hours	200Hours
Dimming method	Manual + Analog control 0-5V	Manual + Analog control 0-5V
*Av illuminance	Approx. 80,000Lx	Approx. 120,000Lx
Color temp.	3100k(4200k filter installed. changable)	
Operating condition	0°C to +45°C/20%-80%RH	
N.W.	2.0 KG	
Dimension	215(L)×90(W)×127(H)mm	

#### DB9 Connection specification

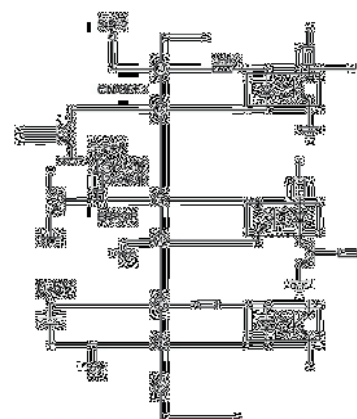
Item
Switch signal>DC1.5V OFF
Switch signal GND
NC
NC
NC
External dimming signal DC 0-5V
External dimming signal GND
NC
NC

\*The average luminance is at 50mm from the fiber output at maximum volume when a Hecho standard light guide (GOFC-S8H-1000-F1) is attached.

#### Drawing



#### Input/output circuit diagram



### H100/150 Halogen light source



- Switching power supply design, low power consumption, high light efficiency
- No heavy power frequency transformer
- Wide voltage range, output voltage stability
- Soft start design, effectively protect bulbs and PCB
- Good heat dissipation, low lighting temperature
- Self power-off protection design, to avoid accidents

#### Specification

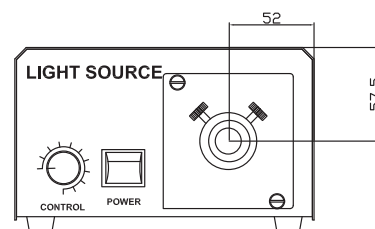
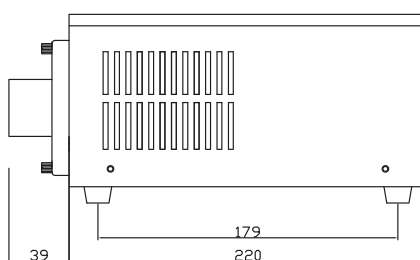
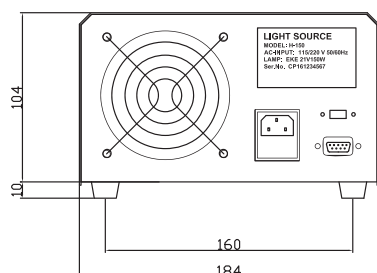
Model	H-100	H-150
Power supply	AC96-240V, 50/60Hz	
Lamp specification	OSRAM 12V 100W	PHILIPS EKE 21V 150W
Lamp rated life	50 Hours	200 Hours
Dimming control	Manual + Analog control 0-5V	Manual + Analog control 0-5V
*Av illuminance	Approx. 80,000Lx	Approx. 120,000Lx
Color temperature	3100k(Light source device installed 4200 k color filter, replaceable)	
Operating condition	0°C to +45°C/20%-80%RH	
N. W.	2.5 KG	
Dimension	215(L)*90(W)*127(H) mm	

#### DB9 Connector Specification

Item
Switch signal>DC1.5V OFF
Switch signal GND
NC
NC
NC
External dimming signal DC 0-5V
External dimming signal GND
NC
NC

\*The average luminance is at 50mm from the fiber output at maximum volume when a Hecho standard light guide (GOFC-S8H-1000-F1) is attached.

#### Drawing



### Fiber Optic Bundles

## GOFC-S8H-500-F2H

P: Plastic Fiber

G: Glass Fiber

S: Silica Fiber

S: Spot Lighting

L: Line Lighting

R: Ring Lighting

D: Darkfield Lighting

Bundle Dia(mm)

V: Vertical

H: Horizontal

\_: Normal

H: Heat resistant

R: Randomized

L: Lens

Furcate quantity

F: SUS flexible tube

FP: PVC covered SUS tube

P: PVC tube

IT: Chromed gooseneck

IB: Electrophoretic black

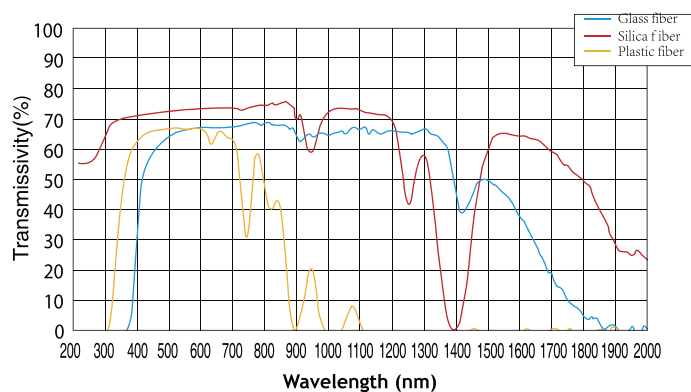
IR: SUS gooseneck

Length (mm)

### Technical Data

Materials	Glass Fiber	Plastic Fiber(PMMA)	Silica fiber
Fiber diameter	30 μm/50 μm/70 μm	125μm 175μm 250μm 500μm 750μm 1000μm	100μm 200μm 400μm 600μm
Number Aperture(N.A.)	0.54/0.64	0.5	0.22/0.37
Aperture angle	65° /80°	60°	25° / 44°
Operating temperature	Standard: <180℃ Heat resistant: <350℃	Standard: <75℃ Heat resistant: <105℃	Standard: <200℃ Heat resistant: <500℃
Durability	Good	Great	Normal
Heat resistance	Great	Normal	Great
Transmission	Good	Good	Great

### Spectral Transmission of Different Optical Fiber materials

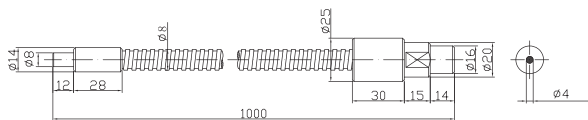


### Straight Light Guide

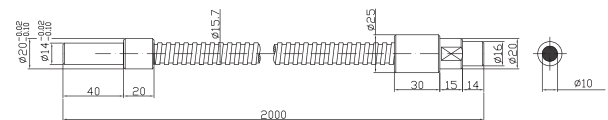
- Free bending, flexible use;
- Selects the high transmittance optical fiber materials;
- Transmission spectrum 190nm-2500nm;
- Variety of standard interface;
- OEM & ODM is available



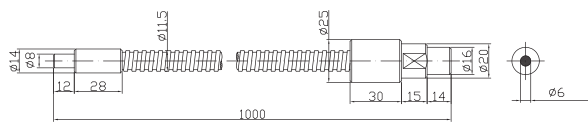
POFC-S4H-1000-F1  
GOFC-S4H-1000-F1



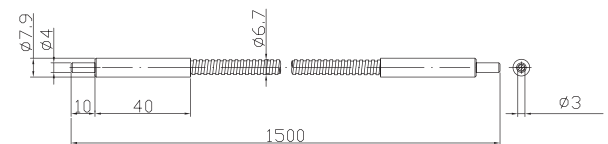
POFC-S10H-2000-F1  
GOFC-S10H-2000-F1



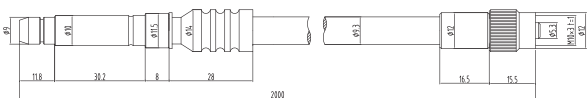
POFC-S6H-1000-F1  
GOFC-S6H-1000-F1



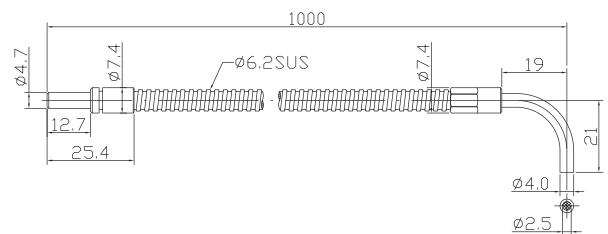
GOFC-S3H-1500-F1H  
S0FC-S3H-1500-F1



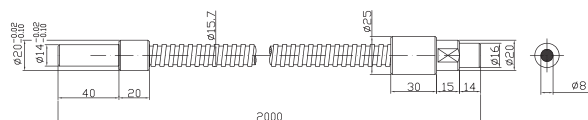
GOFC-S4H-2000-FP1



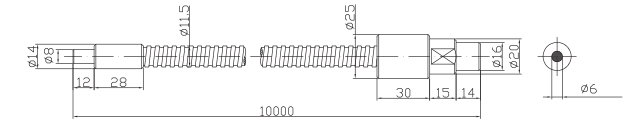
GOFC-S2.5H-1000-F1H



POFC-S8H-2000-F1  
GOFC-S8H-2000-F1



POFC-S6H-10000-F1  
GOFC-S6H-10000-F1

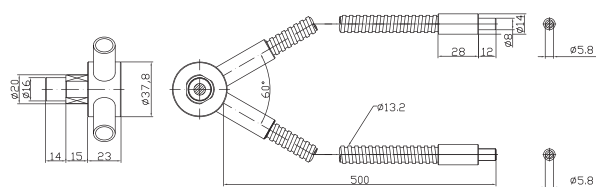


### Dual arms light guide

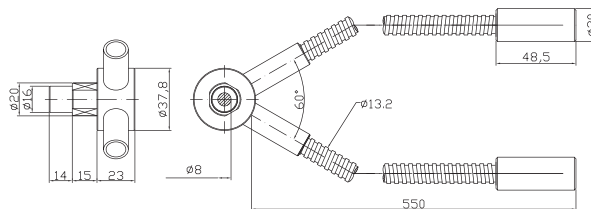
- Two exits of light provide illumination from different directions;
- Free bending, flexible use;
- Selects high transmittance optical fiber materials;
- transmittance 190nm-2500nm;
- OEM & ODM service is available.



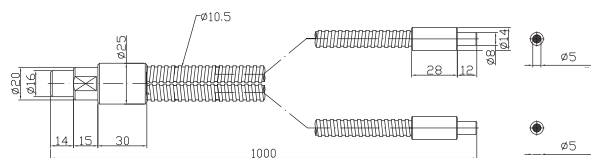
P0FC-S8V-500-IT2  
G0FC-S8V-500-IT2



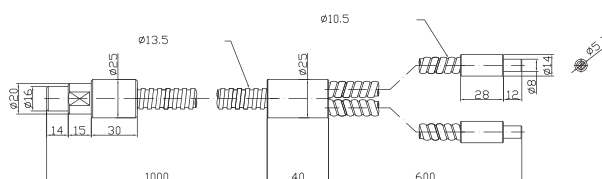
P0FC-S8V-500-IT2L  
G0FC-S8V-500-IT2L



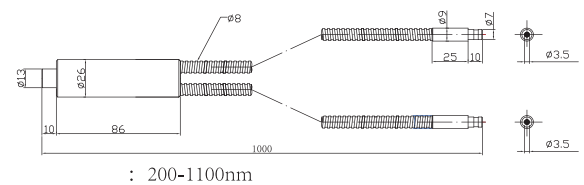
P0FC-S7V-1000-F2  
G0FC-S7V-1000-F2



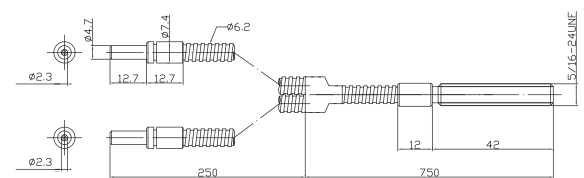
P0FC-S8H-1640-FR2  
G0FC-S8H-1640-FR2



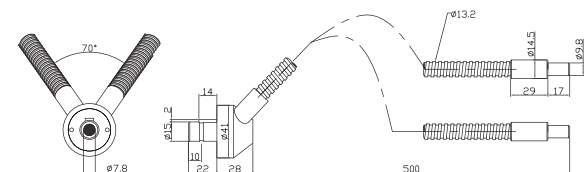
S0FC-S5H-1000-F2



G0FC-S3H-1000-F2H



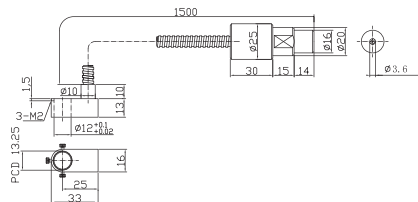
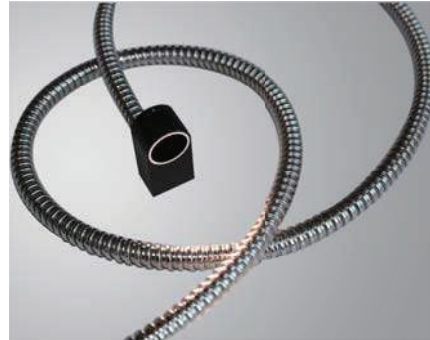
G0FC-S7.8V-500-IB2



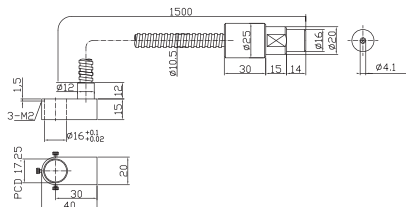


### Ring light guide

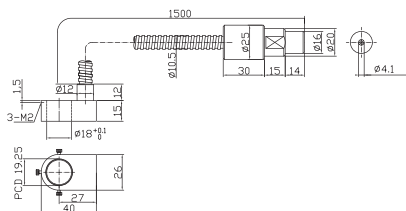
- Ring lights with 360 ° circular light design;
- Selects high transmittance optical fiber materials;
- Variety of standard interface, hose and tube optical fiber available;
- Provide high uniformity, high brightness, and no heat of lighting;
- OEM & ODM service is available



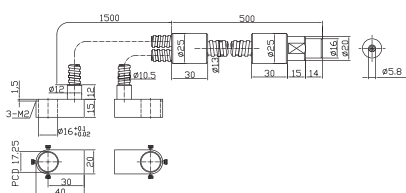
POFC-S7V-1000-F2  
GOFC-S7V-1000-F2  
POFC-R16H-1500-F1



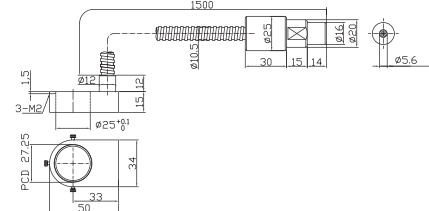
POFC-R18H-1500-F1



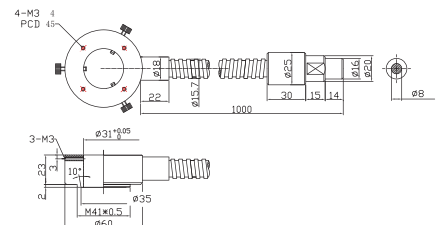
POFC-R16H-2000-F2



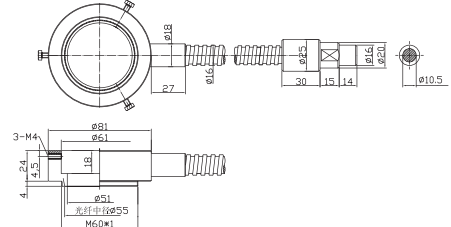
POFC-R25H-1500-F1



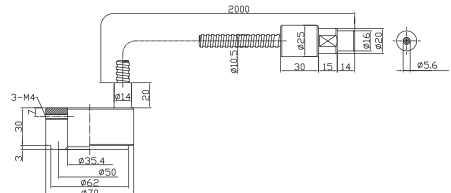
POFC-R31H-1000-F1  
GOFC-R31H-1000-F1



POFC-R50H-1000-F1  
GOFC-R50H-1000-F1



POFC-R35V-2000-F1  
GOFC-R35V-2000-F1

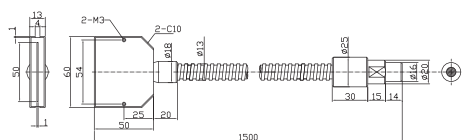


### Line light guide

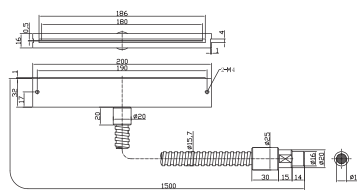
- Linear out of light design;
- High-intensity, seamless uniform linear lighting;
- Cylindrical lens is available to increase the light intensity;
- Select high transmittance of fiber materials, implementation of UV to IR fiber linear distribution;
- OEM & ODM service is available.



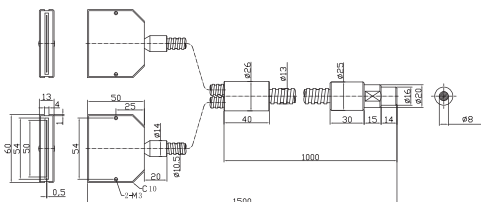
P0FC-L50H-1500-F1  
G0FC-L50H-1500-F1



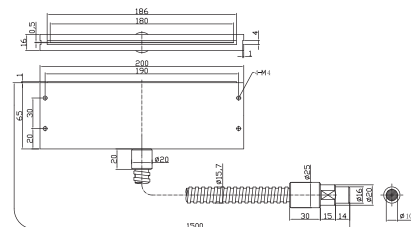
P0FC-L180H-1500-F1



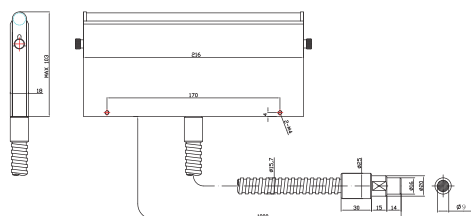
P0FC-L50H-1500-F2  
G0FC-L50H-1500-F2



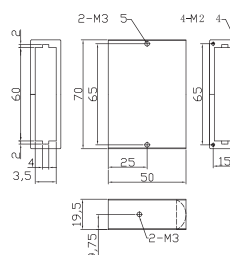
G0FC-L180H-1500-F1



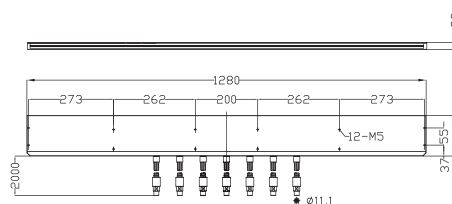
P0FC-L200H-1000-F1L  
G0FC-L200H-1000-F1L



L-50

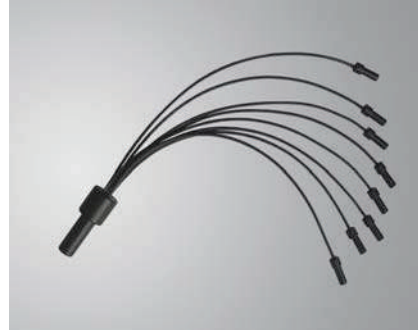


P0FC-L1260H-2000-F7

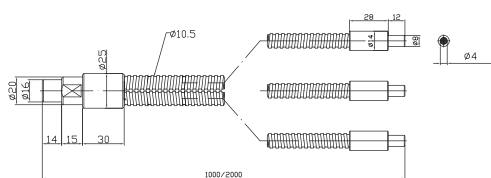


### Multi-branch light guide

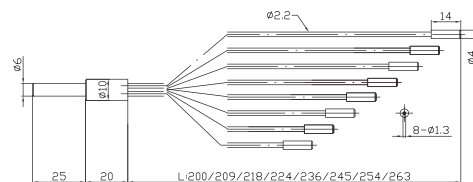
- The fiber has multiple light exits
- Various specification available for choose;
- Provide wide wavelength range 190nm-2500nm;
- Select high transmittance of fiber materials, to implementation of UV to IR fiber distribuon;
- OEM & ODM service is available.



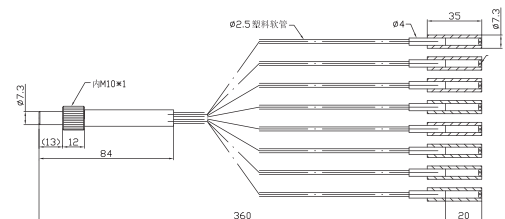
P0FC-S7H-1000-F3  
G0FC-S7H-2000-F3



P0FC-S3.7H-308-P8  
G0FC-S3.7H-308-P8

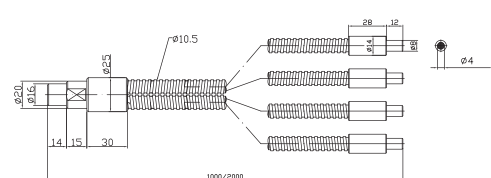


S0FC-S2.8H-360-P8

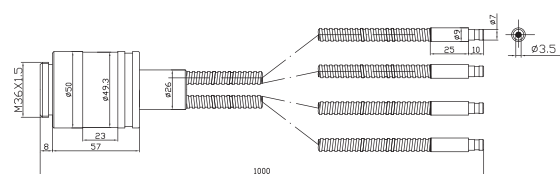


wavelength range: 200-1100nm

P0FC-S8H-1000-F4  
G0FC-S8H-2000-F4

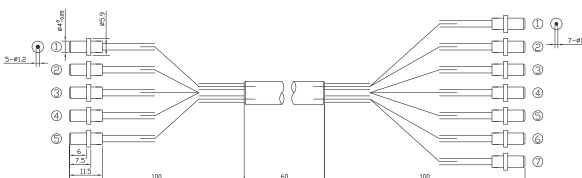


S0FC-S7H-1000-F4

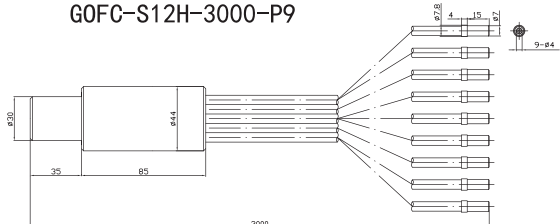


wavelength range: 200-1100nm

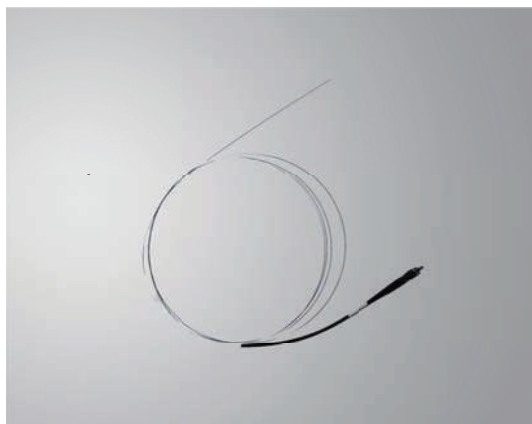
G0FC-S5H7-260



G0FC-S12H-3000-P9



### Medical Laser Fiber



- Optical fiber materials meet medical standards, can be disinfection sterilization, which is accord with the requirement of biocompatibility, which entered the body, meet the demands of high power laser.

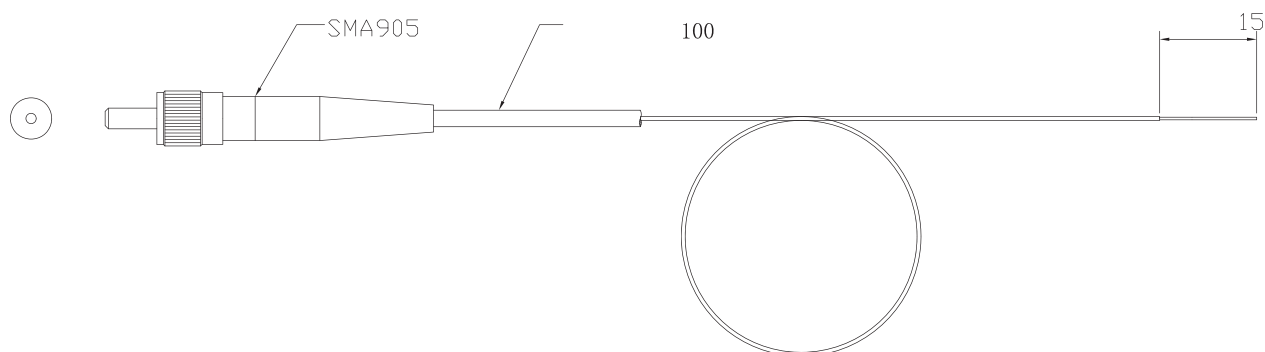
Fiber type	HCS/PCS
Fiber dia.(μm)	200/300/400/600/800 μm
Length	Customized
Wavelength(nm)	200~1100/350~1700
N.A.	0.22/0.37
Transmittance	≥80% (632.8nm)
Connector	SMA905/SMA906/FC/ST Or Customized

### Holmium laser medical fiber



- Holmium laser medical fiber is a kind of special used for the transmission of large power holmium laser medical optical fiber, mainly used to treat kidney stones, prostatitis, fat cutting, etc.

Fiber type	HCS
Fiber dia.(μm)	275/365/550 μm .
Length	Customized
Wavelength(nm)	400~2500
N.A.	0.22
Power	≤800W/cm2
	550μm Silica fiber, Nd:YAG CW laser
Transmittance	≥80% (632.8nm)
Connector	SMA905/SMA906/FC/ST Or customized



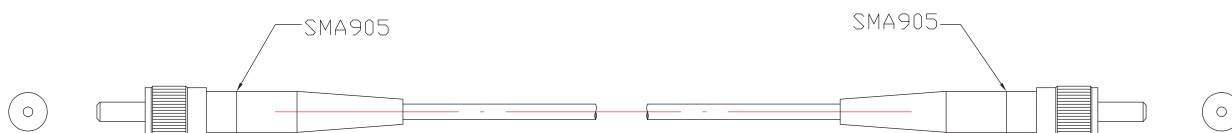
### Spectrum detection fiber



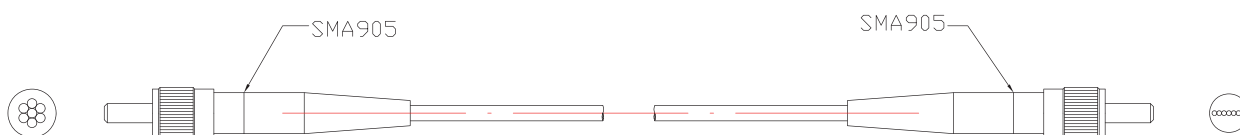
➤ The fiber wavelength can be 190~1100nm or 400~2700nm. It is widely used on popular spectrometers. OEM or ODM is welcome.

Fiber type	HCS/PCS
Fiber dia.(μm)	200/300/400/600/800μm etc.
Length	Customized
Wavelength(nm)	190~1100/350~1700/400~2500
N.A.	0.22/0.37
Connector	SMA905/SMA906/FC/ST Or Customized

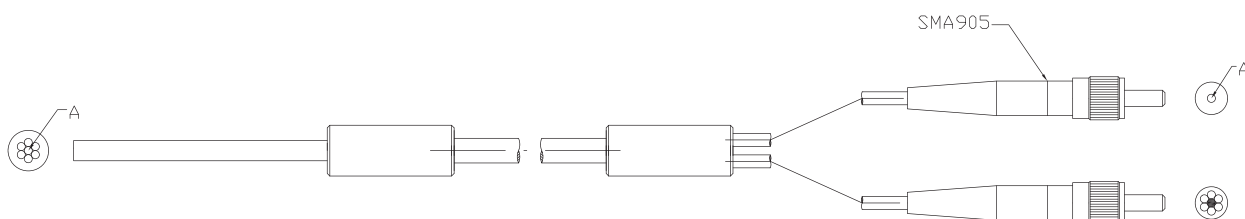
#### Patch Cord Assemblies



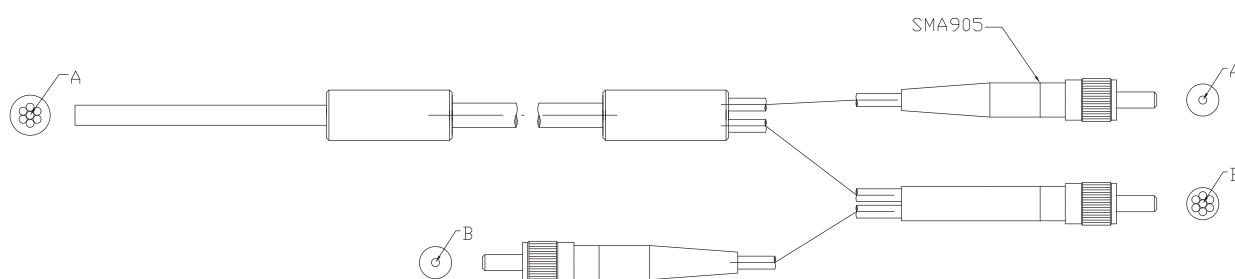
#### Round to Keyed Linear Fiber



#### Y shape Premium Reflection Probe



#### Z Shape



- Working with SF light source, provide uniform and high brightness lighting;
- Short fiber light guides length, save cost. Ring, line or spot type are available.
- OEM or ODM is welcome.

Technical drawing of the M6x1-10.5 threaded part, showing a side view, a top view, and a detail view of the thread.

[illegible]

### SF Illuminator head for Fiber



- High power LED light source, can be combined with tailed series Ringlights or Line lights;
- Combined with fiber optic can provide more uniform light distribution and effective intensity of illumination;
- More flexible installation;
- Combined with tailed fiber series, can be used in narrow space, effective isolation light source heat to provide real cold illumination;
- With dedicated variable constant current power supply S1200, provide stable illumination.

Model	Color	Wavelength	Color temperature	Max. current	Weight
SF-W016	White		5600K	1.6A	Approx. 120g
SF-R007	Red	620nm-630nm		0.7A	Approx. 120g
SF-G010	Green	520nm-535nm		1.0A	Approx. 120g
SF-B010	Blue	465nm-485nm		1.0A	Approx. 120g

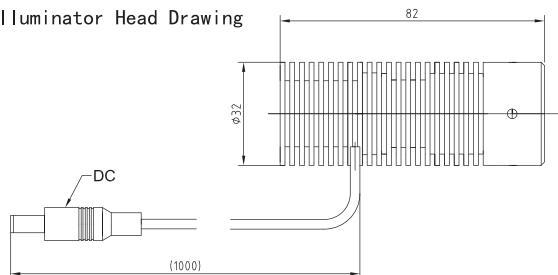
### SC Coaxial spot light



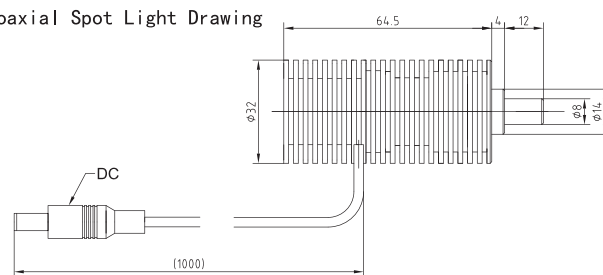
- High power LED coaxial spot lighting;
- Unique cooling structure to enhance luminous efficiency;
- Efficient focusing optical system design, maximize the light intensity and the light uniformity;
- Four kinds of color optional, easy to user selection;
- With dedicated variable constant current power supply S1200, provide stable illumination.

Model	Color	Wavelength	Color temperature	Max. current	Weight
SC-W8-016	White		5600K-8000K	1.6A	Approx. 100g
SC-R8-007	Red	620nm-630nm		0.7A	Approx. 100g
SC-G8-010	Green	520nm-535nm		1.0A	Approx. 100g
SC-B8-010	Blue	465nm-485nm		1.0A	Approx. 100g

SF Illuminator Head Drawing



SC Coaxial Spot Light Drawing



#### ★ Cautions:

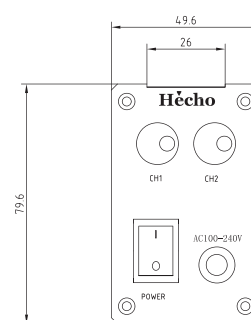
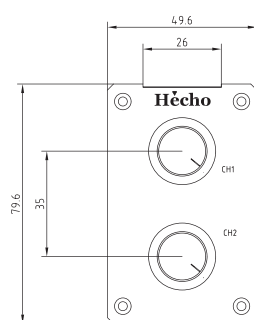
Before operation, please confirm LED working current matches with the analog control units output. Otherwise, LED chip maybe damaged.

### Analog Control Units



- Suitable for various of double channel output;
- Brightness stepless adjustable;
- Short circuit protection.
- Constant current control, fine adjustment of light intensity can be gained to obtain the best exposure;
- Super small volume, convenient integration installation;
- Solid aluminium shell, ensure stable performance;

Item	2 channel analog control units
Model	S1200
Output	Independent 2-channel
Input voltage	AC90V-240V 50/60Hz
Output	DC continuous output.2A max/channel
Drive way	Constant-current (current adjustable)
Operation condition	0~+45℃/20%-80%RH
Net weight	Approx.500g





### ODM/OEM Optical Fibers

fiber has a strong R & D capability and rich experience in the industry and production, we can manufacture various fiber optic bundles according to customer requirements, and provide a complete fiber optic transmission program. Our products are widely used in various industries, such as printing chromatography equipment, infrared polarized pain treatment, edge machine, cigarette testing, environmental water quality analysis.



- Applicable to Taiyo colour register control system DT-860MII, DT-950MII, to test on the gravure printing overprint error between various groups, and automatically real-time correction.



- used for BOBST Registron® color printing equipment. Through preventive correction can be extremely precise register control quickly.



- Semiconductor cutting machine fibers, used for blade damage detection BBD performance same as HPF - P223.



- Suitable for use in Komori LG and GS series printing machines, the side gauge electric eye, detection of slanting. Performance compared to FU-2412

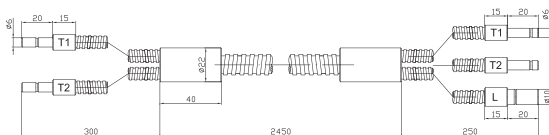


- Super Lizer Therapy Fiber optic cables, use Germany imported high transmission rate glass fiber, Single tube or Y-type cable is available for customized.

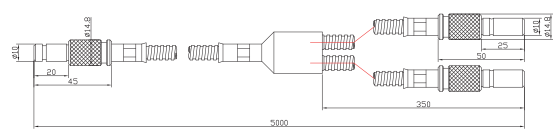


- For extremely sensitive PCR instruments, any minor differences in detection of the optical path are scaled up at an exponential level. We can effectively guarantee the transmission fiber transmittance, insertion and reflection loss.

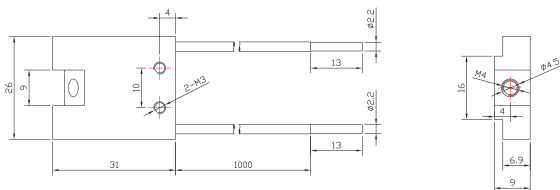
DT-950



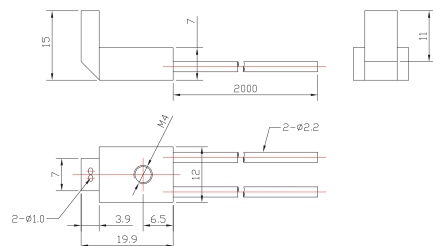
BSA07060000HK



HPF-P223



PR-2412



### LED light source module



- Heat pipe + mute fan heat dissipation structure design, the realization of high power output of long life;
- Using special high power LED lamp bead and unique condenser system, the illuminance value soared;
- Support analog voltage and PWM external light dimmer;
- High-speed trigger, switch response < 5 us, realize ultra-high speed stroboscopic;
- Ra90 high color rendering index design;
- The whole units with aluminum alloy shell, more compact size;
- Provide the LED lamp bead overheating shutoff protection function.

### Specification

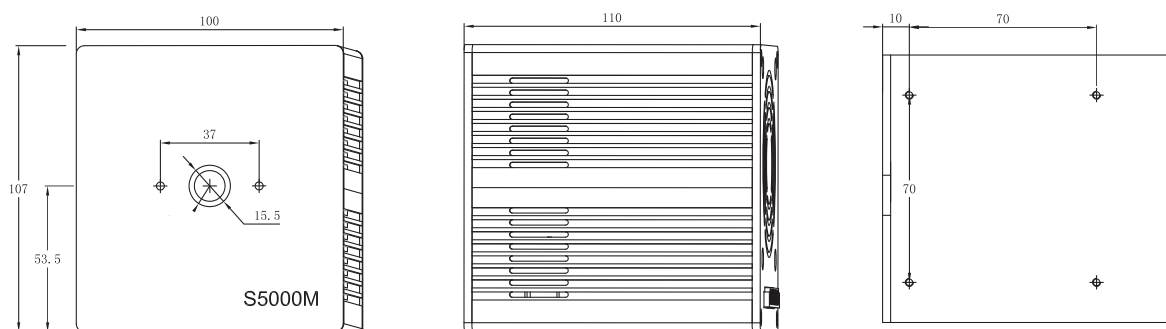
Item	High power LED light source module
Model	S5000M
Drive mode	Constant current mode driver
Input voltage	AC90-250V power adaptor(DC24V/5A)or 24V DC power supply
Power consumption	65W Max
Dimming method	Manual adjusted potentiometer / Analog control DC 0-5V / Digital signal PWM(200Hz-100KHz) PWM 5V
*Av illuminance	>320,000lx
Color temperature	5400K
CRI	Ra90
LED life	Normal life >20,000h
Cooling system	Heat pipe + mute fan
Operating condition	-20 to +50°C/20%-80%RH (No condensation)
Installation	bottom case 4 - M3 screws
N.W.	840g
Dimension	110(L)*100(W)*107(H)mm

### Pin definition sheet

V+(DC24V)
V- (Power Ground)
Mechanical switch lead 1
Mechanical switch lead 2
EN-external signal switch
ON (0-0.5VDC) ; OFF (2.5-12V)
DIM (External dimmer 0-5V Analog control Or 5V PWM)
GND (public)
Potentiometer output
5V Benchmark output
TRI (External high speed trigger port DC2.5-12V)

\*The average luminance is at 50mm from the fiber output at maximum volume when a Hecho standard light guide (GOFC-S8H-1000-F1) is attached.

### Drawing



# High Precision Digital Fiber Optic Sensor

## FAS-N11 Series



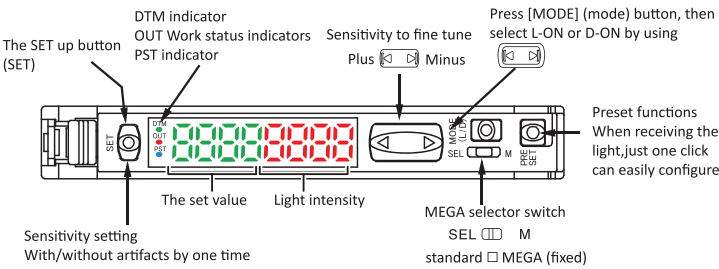
- ▶ Automatic sensitivity tracking function
- ▶ High power, variety of patterns
- ▶ Easy to use standard of double digital display
- ▶ A new concept, one key set button

### Specification

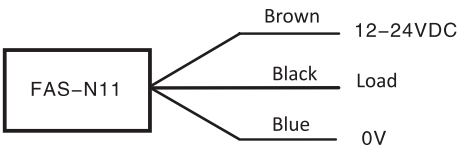
Model	FAS-N11	FAS-N11P
Type	NPN	PNP
Light source	Red light emitting diode LED tube body	
Response time	100μs(HIGH SPEED)/250μs(FINE)/1ms(TURBO)16ms(MEGA)	
Output selection	LIGHT-ON / DARK-ON (Switch selection)	
Detection mode	Light intensity (Area detection, Automatic sensitivity tracking function)	
Delay function	Disconnect delay timer/Open delay timer/Single timer/Open single delay timer, choose the timer duration: 0.1ms ~ 9.999ms, Precision scope as set value ± 10%	
Control output	NPN open collector 24V; Max. output value:100mA; Residual voltage: Max. 1V	PNP open collector 24V; Max. output value:100mA; Residual voltage: Max. 1V
Supply voltage	12-24VDC ± 10%, Ripple voltage (P-P): Max. 10%	
Current consumption	Max. 750mW (24V, maximum 31mA; 12V, maximum 40mA). Energy saving mode: maximum 580mW (24V, maximum 24mA; 12V, maximum 28mA) Note: when using the "HIGH SPEED" mode, the power onsumption will increase 160mW (7mA).	
Environmental photometric	Incandescent lamp Maximum 20000lux Daylight: Max 30000lux	
Environment temperature	-20 to +55 °C (no freezing)	
Relative humidity	35 to +85%RH (no freezing)	
Anti vibration property	10 to 55Hz, the composite amplitude of 1.5mm, X- Y- Z axis direction of the 2 hours each	
Seismic property	X, Y, Z axis direction of the 3 time	
Shell material	Polycarbonate	
Size	30.3mm (H) x 9.8mm (W) x 71.8mm (D)	
Weight	Approx. 80g	

### FAS-N11 Quick Start And Wiring

#### Quick Start



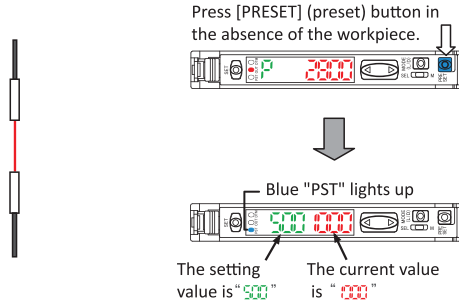
#### Wiring



\* Hold the [MODE (MODE) button to change advanced Settings.

### Preset function

When received, press [PRESET] (preset) button. Current value is set to 1000



Press the [PRESET] button to change the current value and the setting value.

#### Disabling the preset, application of preset

Setting value is 500

Through normal calibration method can change the set point.

Enabling preset, application of preset

Only the current value is "1000", the setting value is unchanged.

**Note** Preset function with zero displacement function cannot be used together. To use the zero transfer function, must first be banned preset functions. This pattern is not suitable for transparent artifacts and other low light intensity difference detection.

#### Disabling the preset functions

Hold the [PERSET] (preset) button to disable the preset functions. Disable the preset function, the ratio of the value and current value remains intact.



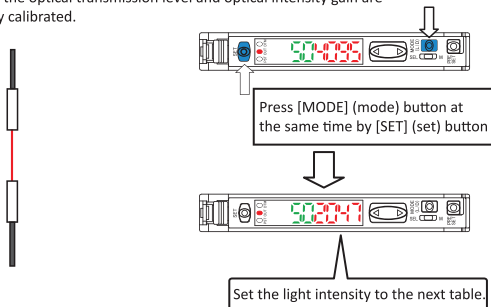
#### Convenient function of preset function.

This feature is most suitable for the use of a control type of optical fiber unit for the implementation of a simple detection of the situation (for example, complete block detection, such as optical fiber unit all optical axis are not transparent workpiece blocking the case).

### Saturation recovery function

Press [MODE] (mode) button at the same time by [SET] (set) button to start the saturation recovery function.

At this point, the optical transmission level and optical intensity gain are automatically calibrated.



Power mode	Light intensity setting range
HSP <sup>*</sup> 、FINE	2047 ± 350
SUPER	4095 ± 500
MEGA	5000 ± 600

\*HIGH SPEED

#### Disabling saturation recovery function

After starting the saturation recovery function, press the [SET] (mode) button at the same time to press the [MODE] button to cancel to enable this feature.



#### Convenient function of saturation recovery function

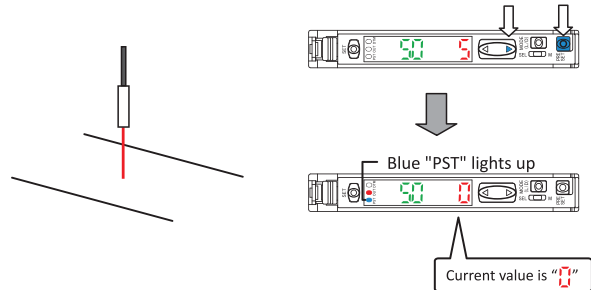
For the installation of light intensity saturated situation this feature is particularly useful. This function can automatically adjust the optical transmission level and the optical intensity gain through the simple operation, and then realize the correction of saturation.

### Zero transfer function

This feature is mainly used for reflective.

At the same time, hold down the [PRESET] (pre set) button and [▶] button.

The current value is set to "0"



#### Note

Zero migration and preset function cannot be used together. To use the preset functions, zero migration must first be disabled.

#### Disabling the zero migration function

Hold the [PRESET] (PRESET) button to disable the zero transfer function.

#### Convenient function of zero shift function

This feature is mainly used for the reflection type optical fiber unit to set the current value to "0".

After first installation of reflective optical fiber unit, sometimes light intensity is not set to "0".

If this is the case, the use of zero migration function will be set to "0", so that the intensity difference is more obvious.

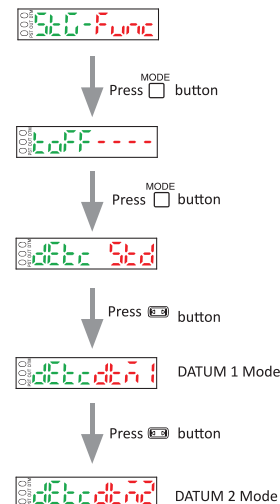
### DATUM Model

DATUM model Trough beam type applicable to the received light intensity gradually changing environment. Optical fiber module, for example, affected by pollution or sharp temperature change environment.

DATUM reflection type is only applicable to the background, and the target reflection is very weak environment, such as the black on the white cloth buttons.

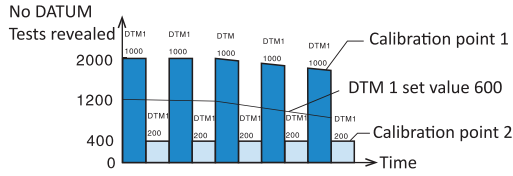
In DTUM mode, in the absence of the workpiece under the condition of the received light intensity is always correct to "000" (for DTUM1) or "0" (DATUM2). In addition, the set value will be according to the amount of correction for correction, so that the ratio of the value and the intensity of light received remains the same, so as to realize stable detection. Set data showed no change.

#### Enter the DATUM mode of operation



### The sensitivity of setting DATUM 1 mode

Sensitivity Settings will always be automatic correction, so in the case of no artifacts receives the light intensity is "000".

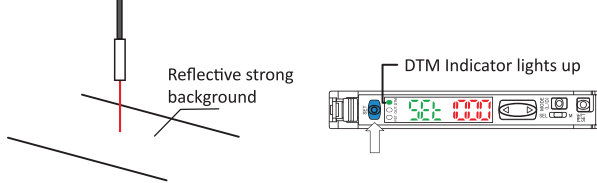


Below the sensitivity setting step is an example of a two-point calibration. Among them, when there is no artifacts, the received light intensity is "000", when the workpiece is I, the received light intensity is "200".

Trough beam and Reflection is conformity

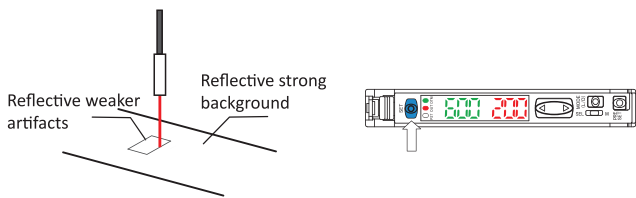
In the case of no artifacts, press SET button

Calibration point 1

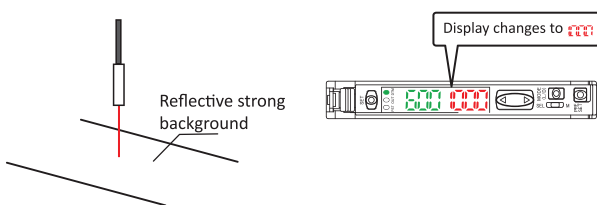


In the case of have artifacts, press SET button

Calibration point 2

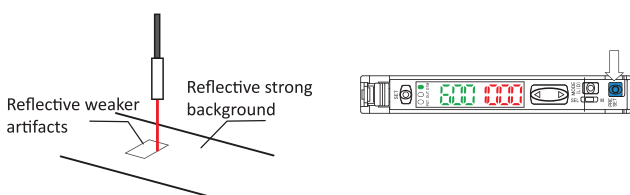


In the full light receiving state receive light intensity shows "000"



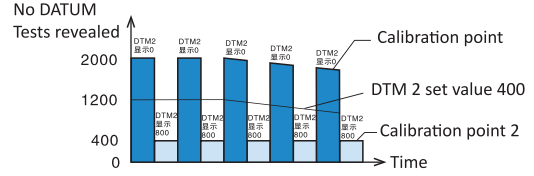
#### Note

If in the case of no artifacts displayed value less than 000, and did not reach 000 after the 30 seconds, inquire the PRESST button. Intensity of light that will receive the correction is 000. When the intensity of received light to stop flashing, the correction has been completed.



### The sensitivity of setting DATUM 2 mode

Sensitivity Settings will always be automatic correction, so in the case of no artifacts receives the light intensity is "000".

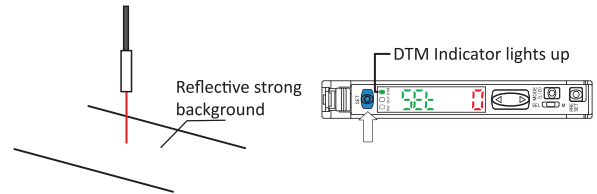


Below the sensitivity setting step is an example of a two-point calibration. Among them, when there is no artifacts, the received light intensity is "000", when the workpiece is I, the received light intensity is "200".

Trough beam and Reflection is conformity

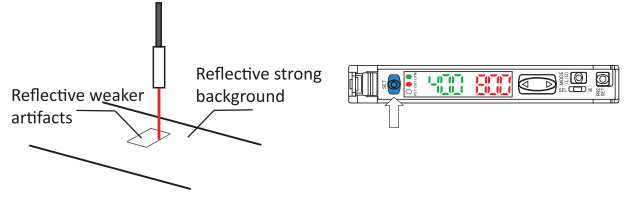
In the case of no artifacts, press SET button

Calibration point 1

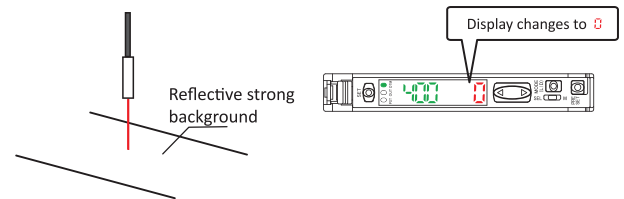


In the case of have artifacts, press SET button

Calibration point 2

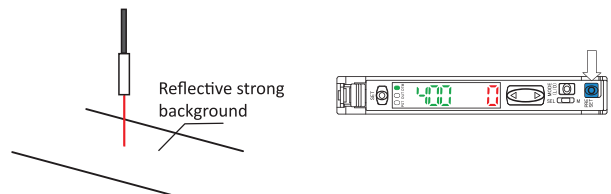


In the full light receiving state receive light intensity shows "000"



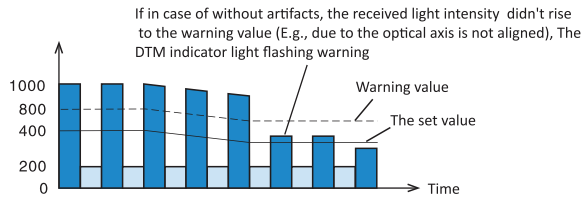
#### Note

If in the case of no artifacts shows values greater than 000, and did not reach 000 after the 30 seconds, inquire the PRESST button. Intensity of light that will receive the correction is 000, when the intensity of received light to stop flashing, the correction is complete.



### Warning of change output level

The DATUM warning value is the intermediate value of the light intensity and setpoint received by the workpiece. If the received light intensity is between the warning value and the set value, the received light intensity will stop the correction and the DTM indicator Flashing warning.



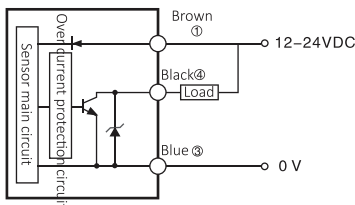
DTM indicator ON  
light flashing OFF

### Input/Output circuit diagram

#### Output circuit diagram

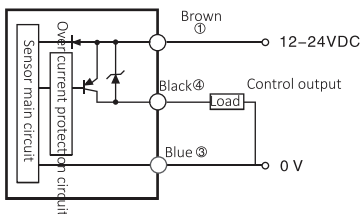
NPN

FAS-N11



PNP

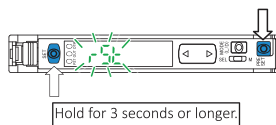
FAS-N11P



### Initialization setting

#### Initialization method

1. At the same time hold down the [SET] (set) and [PRESET] (pre set) button for 3 seconds.



2. Use [F3] [D4] select **r5t**, then press [MODE] (mode) button.

3. Use [F3] [D4] select **in it**, then press [MODE] (mode) button.

After the completion of the initialization, the module displays the current value again.

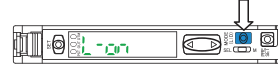
Initial setting

Set	Initial value
Power mode	FINE
Detection mode	Std (Standard)
Setting value	200
Output switching	L-on

### Selecting Output

Optional mode for the light action (L-on) or shading action (D-on).

1. When displaying the current value , press [MODE] (mode) button.



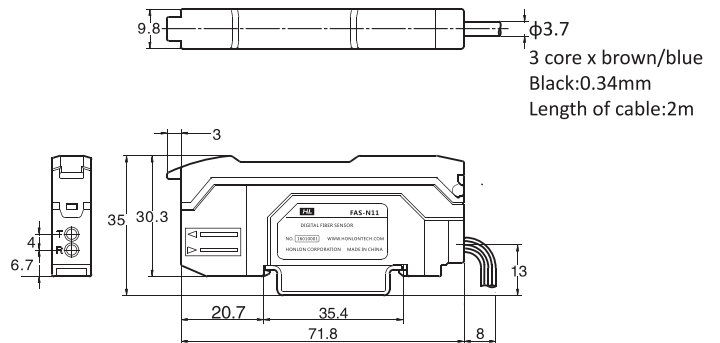
2. Use [F3] [D4] to switch output ( **L-on** **D-on** ), then press the MODE (MODE) button. After completion of the output switch module to display the current values.

### Error indication & correction measures

Error indication	ERC	ERE	END APC	LOC
Reason	Control over current existing in the output	Internal data write / load failure	Heavy load on the light source	Open the key lock function
Solution	Detect load ,and return current to the rated value range.	Perform initialization	For high precision testing, please replace the sensor.	The disabled (set) method, please refer to the "FAS-N11 user manual"






### Drawing

FAS-N11

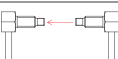
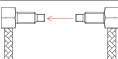
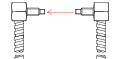


### Trough beam Fiber Optic Sensor






#### Threaded Fiber Sensors

Type	Appearance	Minimum bending radius	Detection distance	Optical axis diameter	Minimum detectable objects	Model	Drawing
M4		R25	MEGA: 3600 FINE: 1100	Ø 1	φ 0.005 Gold wire	PT-7F	➡ P.30
		R2	MEGA: 3600 FINE: 880	Ø 1.13		PT-77	➡ P.31
		R10 SUS	MEGA: 1800 FINE: 880	Ø 1		PT-77G	
		R4	MEGA: 2200 FINE: 440	Ø 1		PT-78	
M6		R25	MEGA: 3600 FINE: 1300	Ø 1.5		PT-71	


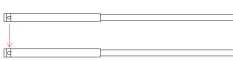



#### Hex-shaped Fiber Sensors

Type	Appearance	Minimum bending radius	Detection distance	Optical axis diameter	Minimum detectable objects	Model	Drawing
M4		R2	MEGA: 3100 FINE: 640	Ø 1	φ 0.005 Gold wire	PT-77TZ	➡ P.31
		R10 SUS	MEGA: 1800 FINE: 640			PT-77TG	
		R20 SUS	MEGA: 1800 FINE: 640			PT-77MTG	

#### Cylindrical Fiber Sensors

Type	Appearance	Minimum bending radius	Detection distance	Optical axis diameter	Minimum detectable objects	Model	Drawing
Ø 1.5		R4	MEGA: 1200 FINE: 230	Ø 0.5	φ 0.005 Gold wire	PT-59	➡ P.30
Ø 2.5		R10	MEGA: 45 FINE: 13	Ø 0.125		PT-55	
		R10	MEGA: 45 FINE: 13	Ø 0.125		PT-56	
Ø 3		R25	MEGA: 3600 FINE: 1100	Ø 1.13		PT-5F	
		R2	MEGA: 3600 FINE: 880	Ø 1		PT-5FZ	

#### Drivepipe Type Fiber Sensors

Type	Appearance	Minimum bending radius	Detection distance	Optical axis diameter	Minimum detectable objects	Model	Drawing
		R25	MEGA: 520 FINE: 100	Ø 0.6	φ 0.005 Gold wire	PT-32	➡ P.30
		R25	MEGA: 600 FINE: 300	Ø 1		PT-T14L-OM	
		R1	MEGA: 270 FINE: 130	Ø 1		PT-T14LR-OM	
		R10	MEGA: 370 FINE: 85	Ø 0.265		PT-76F	➡ P.31
		R10	MEGA: 45 FINE: 13	Ø 0.125		PT-56	➡ P.30



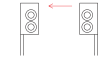
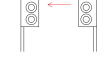

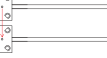
Note:

1. The above units are as follows: mm

2. The minimum detectable object is under the condition of optimal detection distance and sensitivity Settings










### Flat-thin detection sensor

Type	Appearance	Minimum bending radius	Detection distance	Optical axis diameter	Minimum detectable objects	Model	Drawing
Light mode							
Top		R2	MEGA: 810 FINE: 170	Ø0.5	φ 0.005 Gold wire	PT-51TZ	➔ P.30
		R2	MEGA: 2900 FINE: 610	Ø1		PT-52TZ	
Side		R2	MEGA: 740 FINE: 140	Ø0.5		PT-57TZ	
		R4	MEGA: 630 FINE: 110	Ø0.7		PT-57TE	
Flat		R2	MEGA: 500 FINE: 140	Ø0.5		PT-53TZ	
		R2	MEGA: 2900 FINE: 610	Ø1		PT-54TZ	

### Area detection sensor

Type	Appearance	Minimum bending radius	Detection distance	Optical axis width	Minimum detectable objects	Model	Drawing
Light mode							
Array		R4	MEGA: 2200 FINE: 440	10	φ 0.005 Gold wire	PT-A10	➔ P.32
		R2	MEGA: 2300 FINE: 860	5.5		PT-AL05-PA	
Area		R2	MEGA: 3600 FINE: 2700	11		PT-E11	
		R2	MEGA: 3600 FINE: 2700	40		PT-E40	
		R4	MEGA: 2200 FINE: 150	5.25		PT-10ML	
		R4	MEGA: 2200 FINE: 440	24.8		PT-30ML	
		R4	MEGA: 2200 FINE: 300	46.5		PT-50ML	

### Heat resistant sensor

Temperature	Appearance	Minimum bending radius	Detection distance	Optical axis diameter	Minimum detectable objects	Model	Drawing
105℃		R25	MEGA: 3600 FINE: 1100	Ø1	φ 0.005 Gold wire	PT-86A	➔ P.31
200℃			MEGA: 1800 FINE: 450			GT-410FP	
			MEGA: 3600 FINE: 390			GT-420FP	
250℃			MEGA: 1800 FINE: 350			GT-11-10	➔ P.32
300℃			MEGA: 1800 FINE: 390			GT-84C	➔ P.31
350℃			MEGA: 1800 FINE: 450			GT-410	
			MEGA: 3600 FINE: 390			GT-420	

Note:

1. The above units are as follows: mm
2. The minimum detectable object is under the condition of optimal detection distance and sensitivity Settings



### Lens

Type	Appearance	Detection distance	Environment temperature	Applicable models	Model	Drawing
Side view		MEGA: 3600 FINE: 3600	-40 ~ 70℃	PT-7F	F-1	
		MEGA: 3600 FINE: 3600		PT-77		
		MEGA: 3600 FINE: 3600		PT-77TZ		
		MEGA: 1800 FINE: 1800		PT-77G		
		MEGA: 1800 FINE: 1800		PT-77TG		
Top view		MEGA: 3600 FINE: 3600	-40 ~ 300℃	PT-7F	F-2	
		MEGA: 3600 FINE: 3600		PT-77		
		MEGA: 3600 FINE: 3600		PT-77TZ		
		MEGA: 1800 FINE: 1800		PT-77G		
		MEGA: 1800 FINE: 1800		PT-77TG		
Top view		MEGA: 3600 FINE: 3600	-40 ~ 70℃	PT-84C	F-4	
		MEGA: 3600 FINE: 3600		PT-7F		
		MEGA: 3600 FINE: 3600		PT-77		
		MEGA: 3600 FINE: 3600		PT-77TZ		
		MEGA: 1800 FINE: 1800		PT-77G		
Side view		MEGA: 1800 FINE: 1800	-40 ~ 105℃	PT-77TG	F-5	
		MEGA: 3600 FINE: 3600		PT-7F		
		MEGA: 3600 FINE: 3600		PT-77		
		MEGA: 3600 FINE: 3600		PT-77TZ		
		MEGA: 1800 FINE: 1800		PT-77G		
		MEGA: 1800 FINE: 1300		PT-77TG		
				PT-86A		

➔ P.38

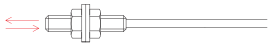
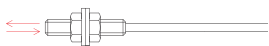



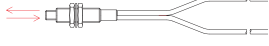


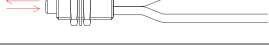


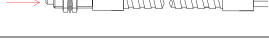

### Accessories · fiber protection tube

Type	Appearance	Minimum bending radius	Length	Applicable models	Model	Drawing		
M3		R25	1000	PR-21X	FK-310			
				PR-24X				
				PR-35FA				
				PR-35FZ				
M4				PR-66	FK-410			
				PR-66Z				
				PT-7F				
				PT-77				
M6				PR-6F	FK-610			
				PR-25				
				PR-67				






➔ P.38

### Reflective Fiber Sensors

#### Threaded Fiber Sensors

Type	Appearance	Minimum bending radius	Detection distance	Minimum detectable objects	Model	Drawing
M3		R25	MEGA: 130 FINE: 36	φ 0.005 Gold wire	PR-21X	➔ P.33
		R10	MEGA: 100 FINE: 13		PR-24X	
		R25	MEGA: 550 FINE: 110		PR-35FA	
		R2	MEGA: 450 FINE: 72		PR-35FZ	
		R10 SUS	MEGA: 450 FINE: 72		PR-35FG	
M4		R25	MEGA: 1100 FINE: 300		PR-66	➔ P.35
		R2	MEGA: 770 FINE: 190		PR-66Z	
M6		R25	MEGA: 720 FINE: 160		PR-25	➔ P.33
		R25	MEGA: 1100 FINE: 300		PR-6F	➔ P.35
		R2	MEGA: 900 FINE: 210		PR-67	
		R10 SUS	MEGA: 900 FINE: 210		PR-67G	➔ P.36
		R20 SUS	MEGA: 900 FINE: 210		PR-67MG	
		R25	MEGA: 1300 FINE: 380		PR-61	➔ P.35


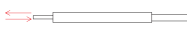







#### Hex-shaped Fiber Sensors

Type	Appearance	Minimum bending radius	Detection distance	Minimum detectable objects	Model	Drawing
M3		R2	MEGA: 400 FINE: 70		PR-35TZ	➔ P.33
		R10 SUS	MEGA: 400 FINE: 70		PR-35TG	➔ P.34
M4		R2	MEGA: 710 FINE: 210		PR-66TZ	➔ P.35
M6		R10 SUS	MEGA: 710 FINE: 210		PR-67TG	
		R25 SUS	MEGA: 710 FINE: 210		PR-67MTG	➔ P.36


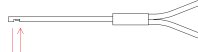
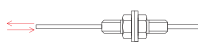
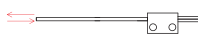



#### Note:

1. The above units are as follows: mm
2. The above detection distance standard reference is: 100 mm x 100 mm matte white paper
3. The minimum detectable object is under the condition of optimal detection distance and sensitivity Settings

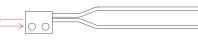




### Cylindrical Fiber Sensors

Type	Appearance	Minimum bending radius	Detection distance	Minimum detectable objects	Model	Drawing
Ø1.5		R4	MEGA: 150 FINE: 32	φ 0.005 Gold wire	PR-49X	➡ P.35
		R10	MEGA: 27 FINE: 5		PR-46	➡ P.34
Ø2.5		R25	MEGA: 72 FINE: 23		PR-22X	➡ P.33
Ø3		R2	MEGA: 770 FINE: 190		PR-4FZ	➡ P.34
		R25	MEGA: 1100 FINE: 300		PR-4F	
		R4	MEGA: 290 FINE: 63		PR-48	
		R2	MEGA: 140 FINE: 40		PR-48U	
		R25	MEGA: 830 FINE: 180		PR-23X	➡ P.33
		R4	MEGA: 68 FINE: 18		PR-45X	➡ P.34

### Drivepipe Type Fiber Sensors

Type	Appearance	Minimum bending radius	Detection distance	Minimum detectable objects	Model	Drawing
Side		R10	MEGA: 180 FINE: 32	φ 0.005 Gold wire	PR-31	➡ P.33
		R25	MEGA: 320 FINE: 45		PR-33	
Top		R4	MEGA: 68 FINE: 18		PR-65X	➡ P.35
		R25	MEGA: 330 FINE: 72		PR-63T	
		R4	MEGA: 68 FINE: 18		PR-45X	➡ P.34
		R10	MEGA: 27 FINE: 5		PR-46	
		R25	MEGA: 72 FINE: 23		PR-22X	➡ P.33

### Flat-thin Fiber Sensors

Type	Appearance	Minimum bending radius	Detection distance	Minimum detectable objects	Model	Drawing
Top		R2	MEGA: 160 FINE: 36	φ 0.005 Gold wire	PR-44TZ	➡ P.34
			MEGA: 160 FINE: 36		PR-47TZ	
Side			MEGA: 120 FINE: 24		PR-41TZ	
			MEGA: 500 FINE: 70		PR-42TZ	
			MEGA: 2300 FINE: 290		PR-40	



Note:

1. The above units are as follows: mm





2. The above detection distance standard reference is: 100 mm x 100 mm matte white paper

3. The minimum detectable object is under the condition of optimal detection distance and sensitivity Settings










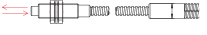





### Limit light Fiber Sensor

Type	Appearance	Minimum bending radius	Detection distance	Minimum detectable objects	Model	Drawing
Side		R10	6	φ 0.1 Gold wire	PR-38	➔ P.34
		R10	4	φ 0.1 Gold wire	PR-38V	

### Area Detection Fiber Sensor

Type	Appearance	Minimum bending radius	Detection distance	Minimum detectable objects	Model	Drawing
		R4	MEGA: 740 FINE: 140	φ 0.005 Gold wire	PR-A05D	➔ P.37
		R4	MEGA: 740 FINE: 140	φ 0.005 Gold wire	PR-A10D	
		R25	MEGA: 200 FINE: 140	φ 0.1 Gold wire	PR-11	➔ P.33
		R2	MEGA: 285 FINE: 100	φ 0.1 Gold wire	PR-AL11-PA	➔ P.37





### Heat Resistant Fiber Sensor

Type	Appearance	Minimum bending radius	Detection distance	Minimum detectable objects	Model	Drawing
105℃		R25	MEGA: 1100 FINE: 230	φ 0.005 Gold wire	PR-85A	➔ P.36
200℃			MEGA: 1100 FINE: 230		GR-610FP	
			MEGA: 1100 FINE: 230		GR-620FP	
250℃			MEGA: 1100 FINE: 150		GR-11-10	
300℃			MEGA: 770 FINE: 190		GR-82C	
			MEGA: 500 FINE: 70		GR-83C	
350℃			MEGA: 1100 FINE: 180		GR-410(100)	
			MEGA: 1100 FINE: 180		GR-420(100)	
			MEGA: 1100 FINE: 180		GR-610(100)	
			MEGA: 1100 FINE: 180		GR-620(100)	
			MEGA: 1100 FINE: 180		GR-D61	
			MEGA: 1100 FINE: 180		GR-D61-S	
			MEGA: 1100 FINE: 180		GR-D73	➔ P.37
			MEGA: 1100 FINE: 180		GR-D73-S	
						

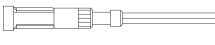




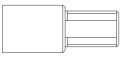
#### Note:

1. The above units are as follows: mm
2. The above detection distance standard reference is: 100 mm x 100 mm matte white paper
3. The minimum detectable object is under the condition of optimal detection distance and sensitivity Settings

### Liquid level Detection Fiber Sensor

Type	Appearance	Minimum bending radius	Detection distance	Model	Drawing
Pipeline		R10	φ4 to φ26 transparent pipe	PR-95	➔ P.37
		R10	φ4 to φ26 transparent pipe	PR-95HA	
		R4	Unlimited transparent pipe diameter	PR-D36T-OM	
Immersion		R40	50 to 1950	PR-320-SQ	

### Lens

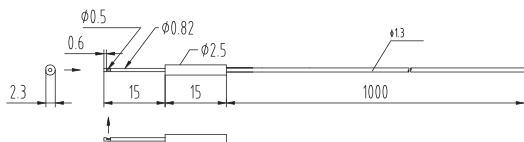
Type	Appearance	Light spot diameter	Focal length	Applicable models	Model	Drawing
Adjustable light spot		φ0.9 ~ φ3.5	10 ~ 30	One-piece	PR-10	➔ P.33
Small light point		Approx. φ0.4	7 ± 2	PR-21X PR-24X PR-35FA PR-35FZ PR-35FG PR-35TZ PR-35TG	F-2HA	➔ P.38
Parallel beam		Approx. φ4	0 ~ 20		F-3HA	
Small light point		Approx. φ0.5	15 ± 2		F-4HA	
Adjustable light spot		φ0.5 ~ 3	8 ~ 30		F-5HA	
Small light point		Approx. φ2	35 ± 3		F-6HA	

### Note:

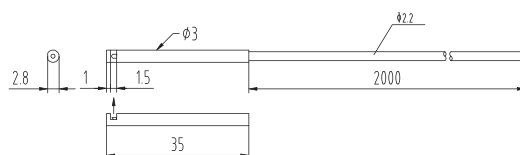
1. The above units are as follows: mm
2. The above detection distance standard reference is: 100 mm x 100 mm matte white paper
3. The minimum detectable object is under the condition of optimal detection distance and sensitivity Settings

### Trough Beam Sensor

PT-32



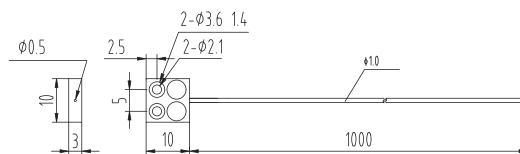
PT-T14L-OM PT-T14LR-OM



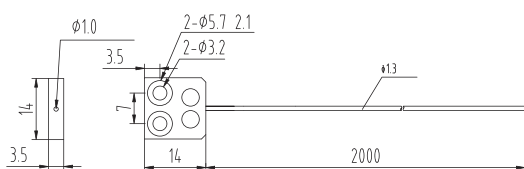
PT-5F / PT-5FZ



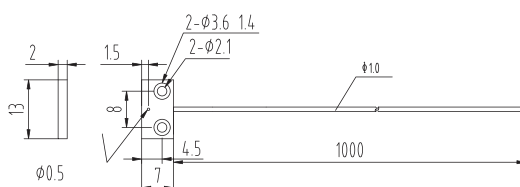
PT-51TZ



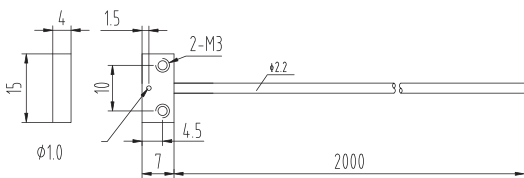
PT-52TZ



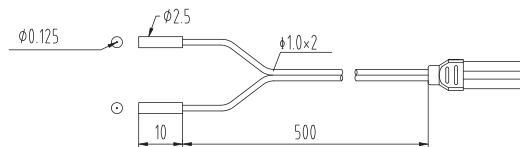
PT-53TZ



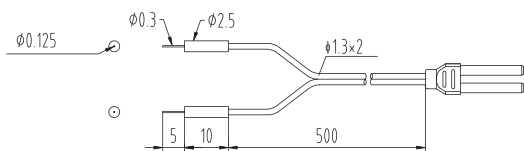
PT-54TZ



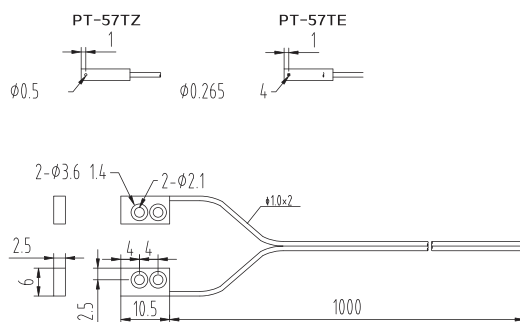
PT-55



PT-56



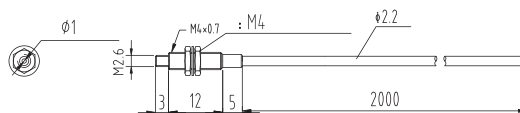
PT-57TZ / PT-57TE



PT-59

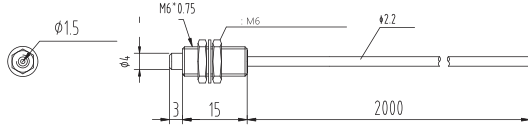


PT-7F

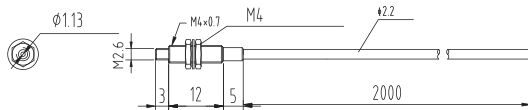


### Trough Beam Sensors

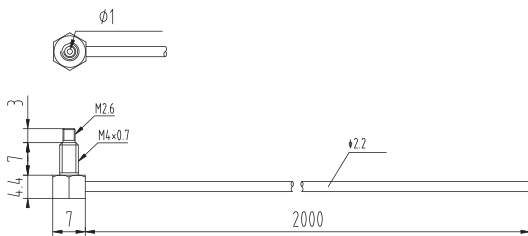
PT-71



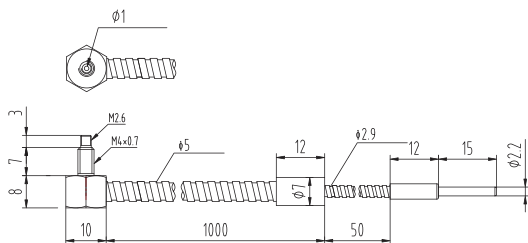
PT-77



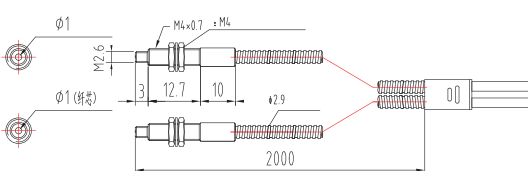
PT-77TZ



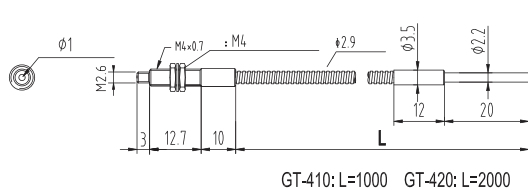
PT-77MTG



GT-84C

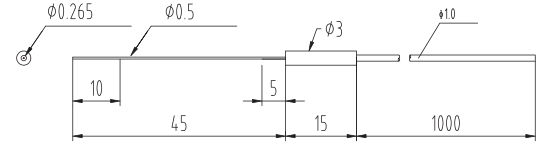


GT-410 / GT-420

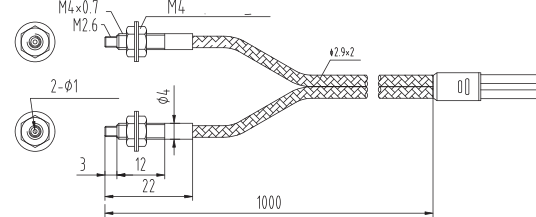


GT-410: L=1000 GT-420: L=2000

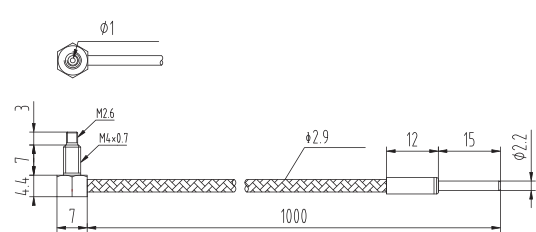
PT-76F



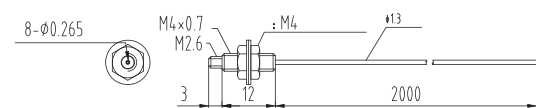
PT-77G



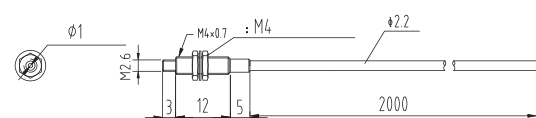
PT-77TG



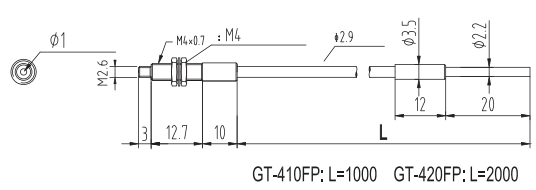
PT-78



PT-86A



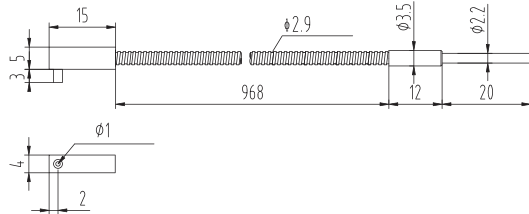
GT-410FP / GT-420FP



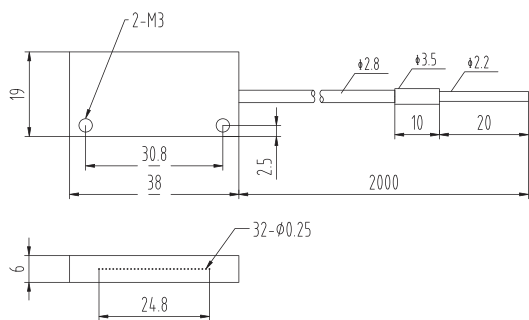
GT-410FP: L=1000 GT-420FP: L=2000

### Trough Beam Sensor

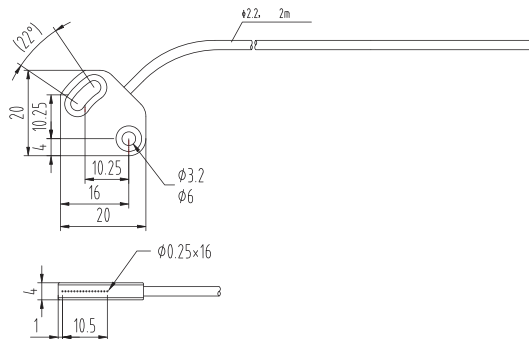
GT-11-10



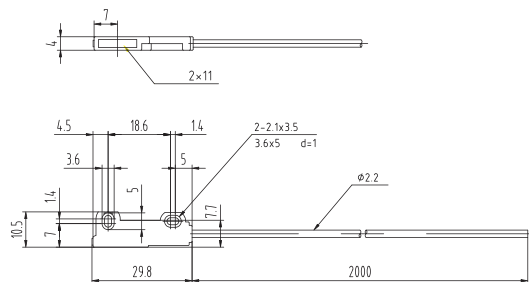
PT-30ML



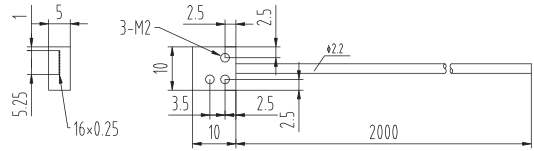
PT-A10



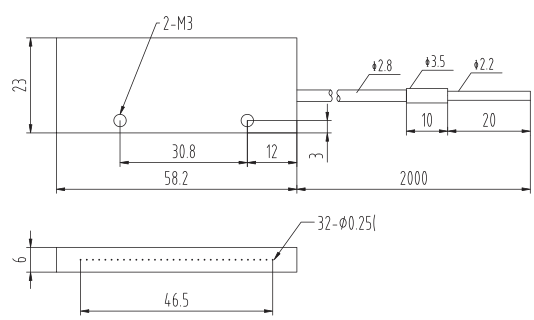
PT-E11



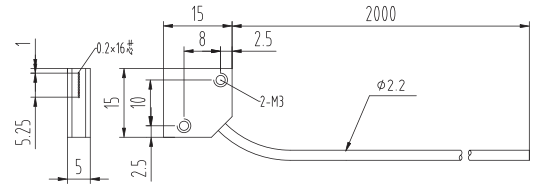
PT-10ML



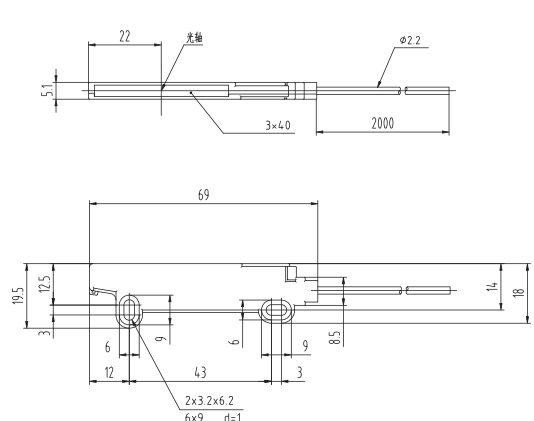
PT-50ML



PT-AL05-PA



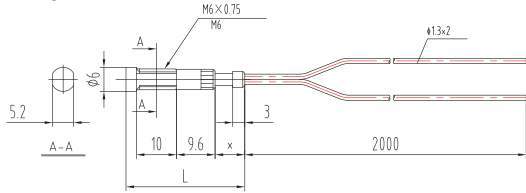
PT-E40



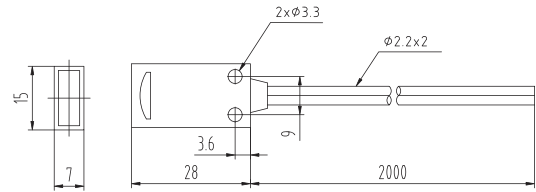


### Reflective Sensor

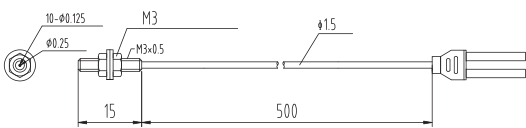
PR-10



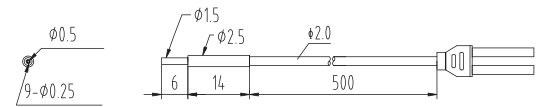
PR-11



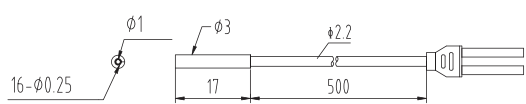
PR-21X



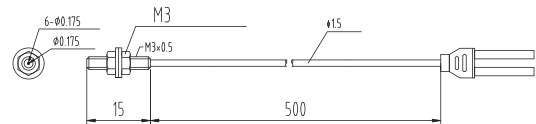
PR-22X



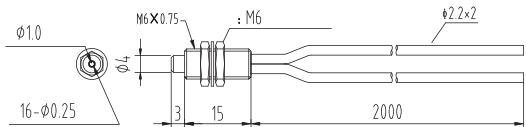
PR-23X



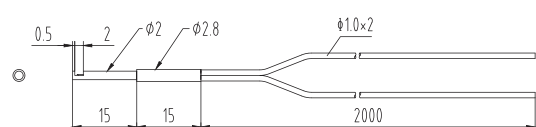
PR-24X



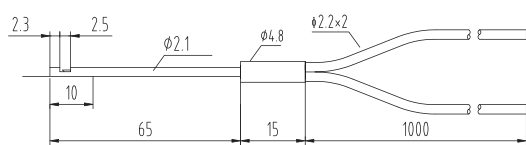
PR-25



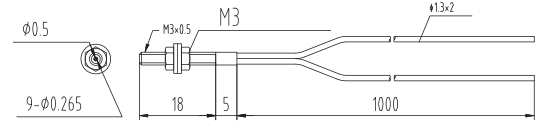
PR-31



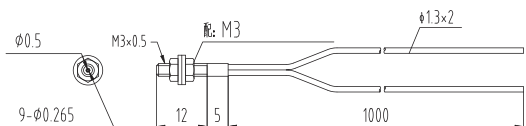
PR-33



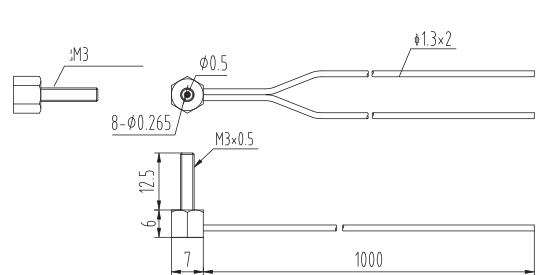
PR-35FA



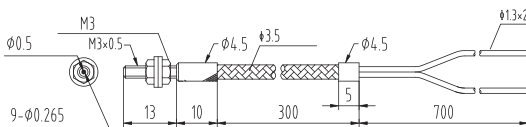
PR-35FZ



PR-35TZ

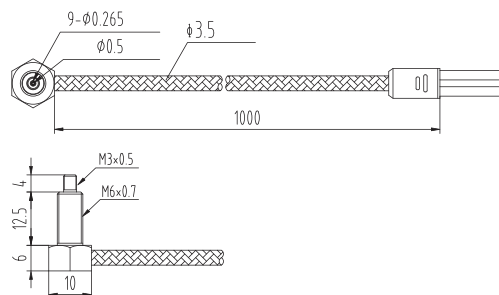


PR-35FG

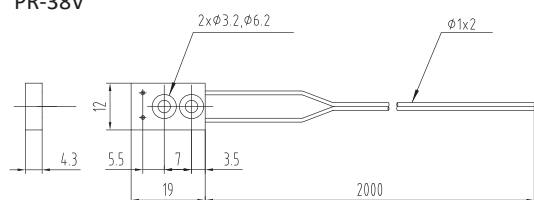


### Reflective Sensor

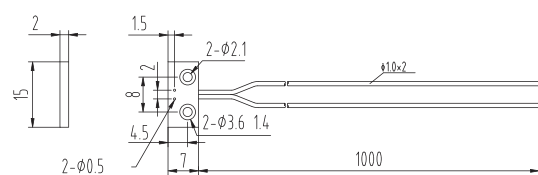
PR-35TG



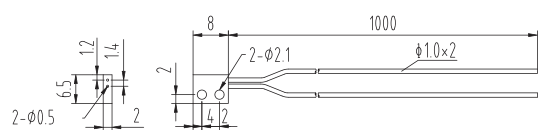
PR-38V



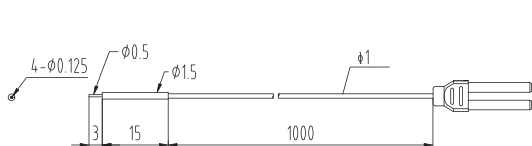
PR-41TZ



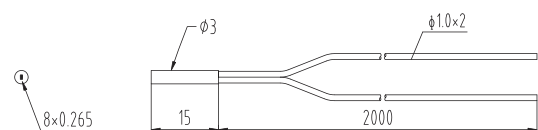
PR-44TZ



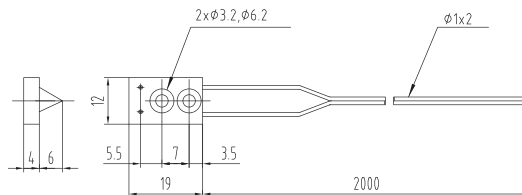
PR-46



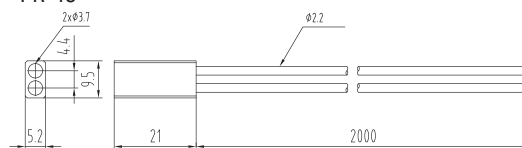
PR-48



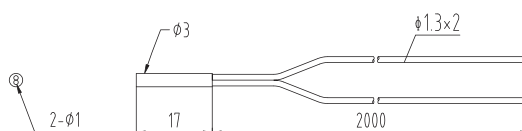
PR-38



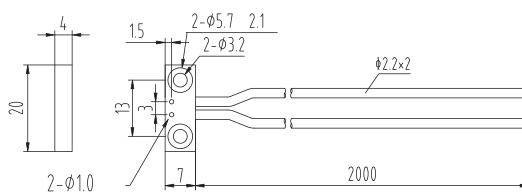
PR-40



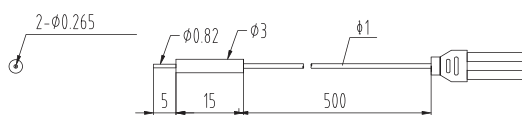
PR-4F / PR-4FZ



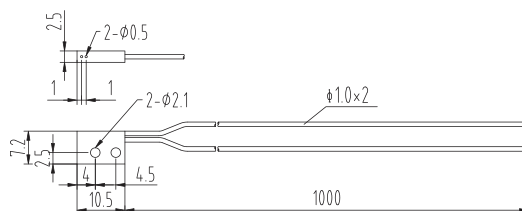
PR-42TZ



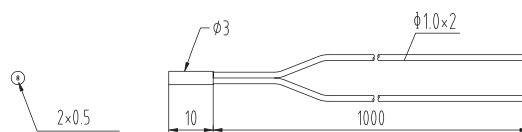
PR-45X



PR-47TZ

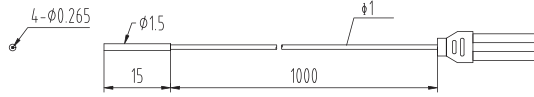


PR-48U

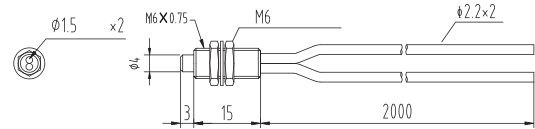


### Reflective Sensor

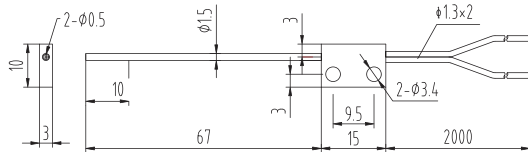
PR-49X



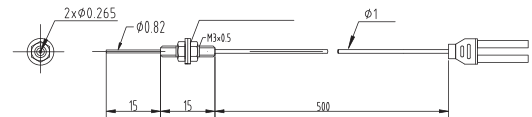
PR-61



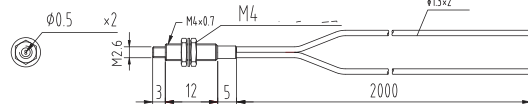
PR-63T



PR-65X



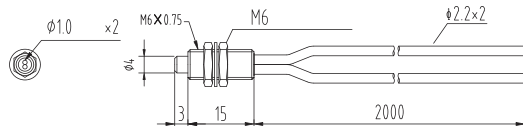
PR-66 / PR-66Z



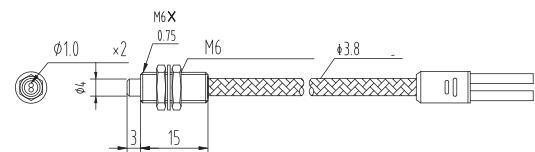
PR-66TZ



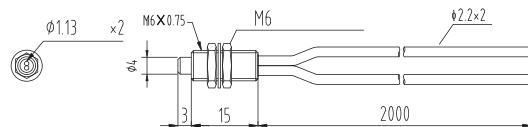
PR-6F



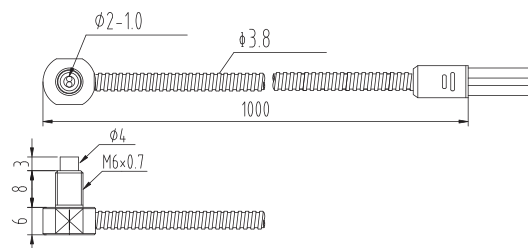
PR-67G



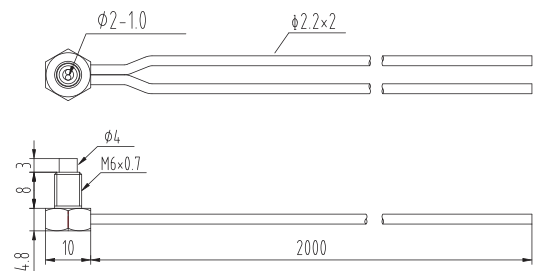
PR-67



PR-67TG

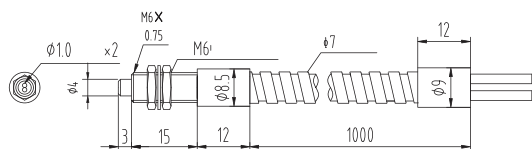


PR-67TZ

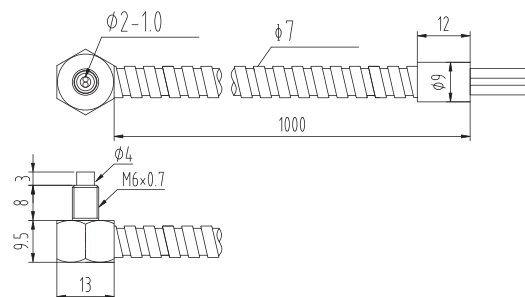


### Reflective Sensor

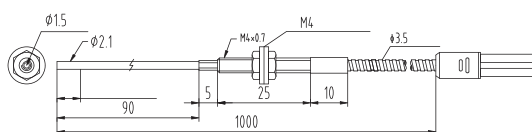
PR-67MG



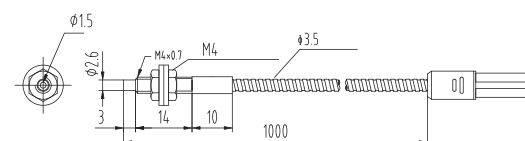
PR-67MTG



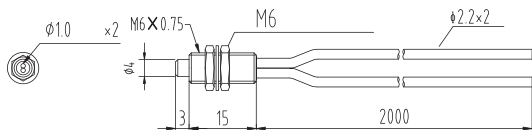
GR-82C



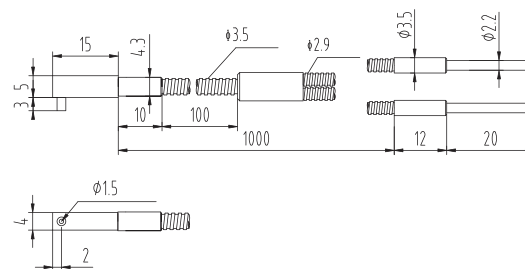
GR-83C



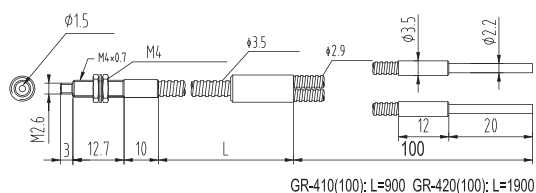
PR-85A



GR-11-10

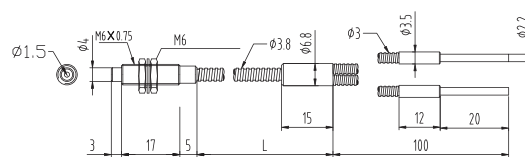


GR-410(100) / GR-420(100)



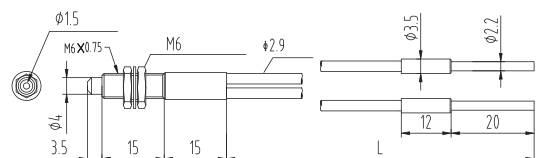
GR-410(100): L=900 GR-420(100): L=1900

GR-610(100) / GR-620(100)



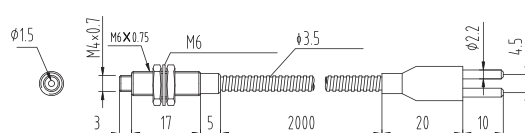
GR-610(100): L=900 GR-620(100): L=1900

GR-610FP / GR-620FP

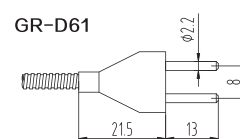


GR-610: L=100 GR-620: L=2000

GR-D61-S / GR-D61

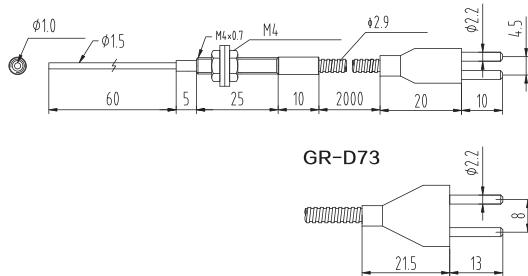


GR-D61

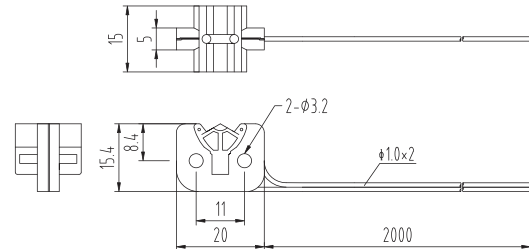


### Reflective Sensor

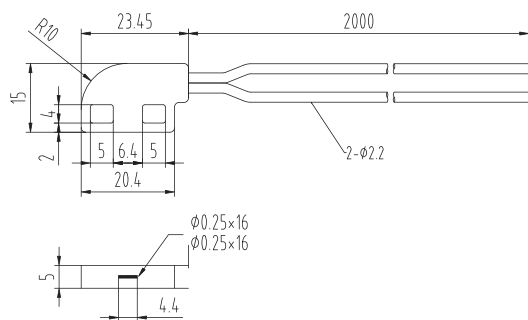
#### GR-D73-S / GR-D73



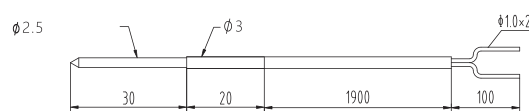
#### PR-95 / PR-95HA



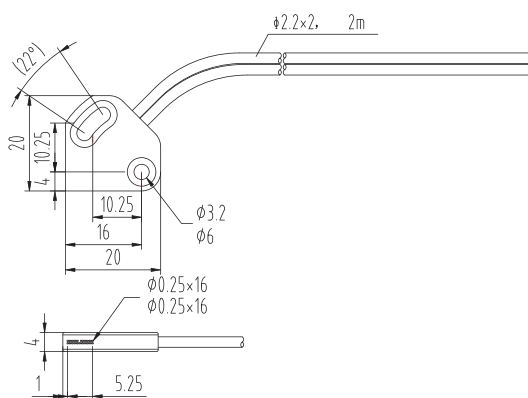
#### PR-D36T-OM



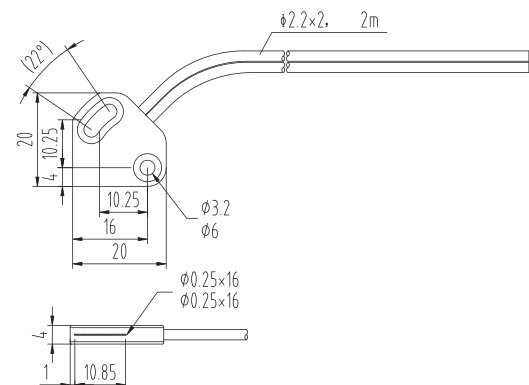
#### PR-320-SQ



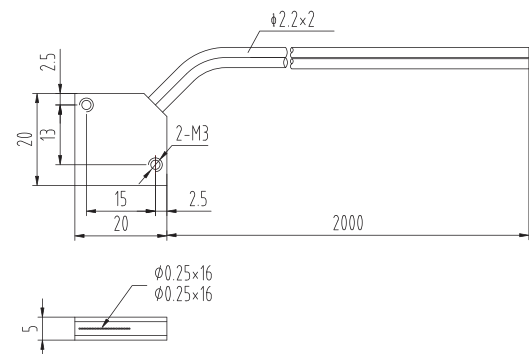
#### PR-A05D



#### PR-A10D

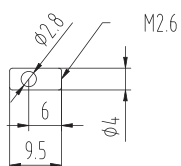


#### PR-AL11-PA

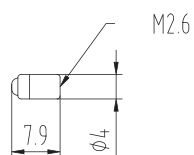


### Lens

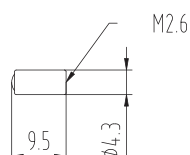
F-1



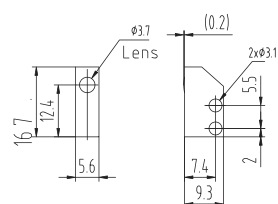
F-2



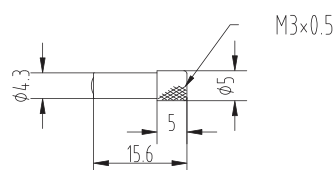
F-4



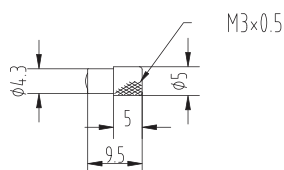
F-5



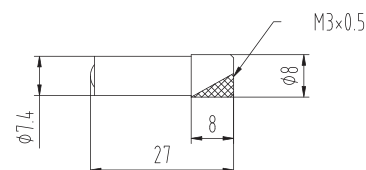
F-2HA



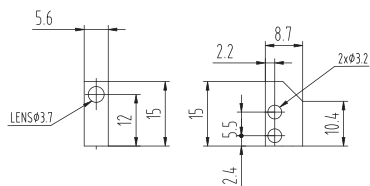
F-3HA



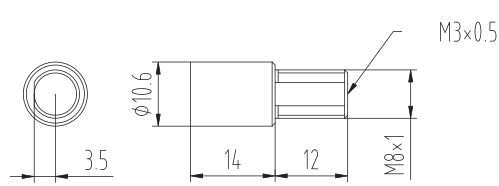
F-4HA



F-5HA

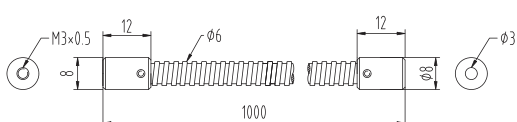


F-6HA

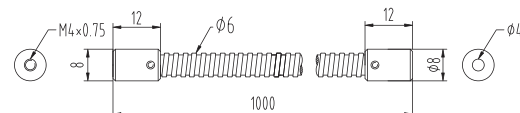


### Protection tubes

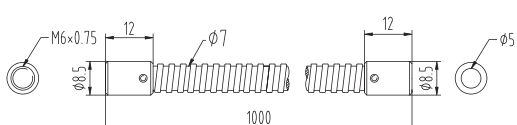
FK-310



FK-410



FK-610



## Mitsubishi Plastic Fiber Optic Cable

Model	Core Dia./QTY	O.D.	Packing	Outter Materials	Loss (dB/km)
	0.25mm×1	1.0±0.05	1000	PE	700
	0.5mm×1	1.0±0.05	1000	PE	210
SH2002	0.5mm×2	1.0×2.0±0.1	500	PE	210
SH3001	0.75mm×1	2.2±0.07	500	PE	200
SH3002	0.75mm×2	2.2×4.3±0.1	500	PE	200
SH4001	1.0mm×1	2.2±0.07	1000	PE	190
SH4002	1.0mm×2	2.2×4.3±0.1	500	PE	190
SH6001	1.5mm×1	3.0±0.15	500	PE	190
SH8001	2.0mm×1	3.0±0.15	500	PE	200
SHV4001	1.0mm×1	2.2±0.07	500	PVC	190
SHEV4001	1.0mm×1	4.0±0.2	500	PE/PVC	200
SHCP4001	1.0mm×1	2.2±0.07	500	CHLORINATED	200
SHCP4002	1.0mm×2	2.2×4.3±0.1	500	PE	200
SH-1004	0.25mm×4	1.0±0.05	1000	PE	650
SH-1009	0.25mm×9	1.3±0.05	500	PE	650
SH-1010	0.25mm×10	1.3±0.05	500	PE	650
SH1016	0.25mm×16	2.2±0.07	500	PE	650
SH1032	0.25mm×32	2.8±0.07	500	PE	650
SH1048	0.25mm×48	3.0±0.07	500	PE	650
SH1064	0.25mm×64	3.25±0.07	500	PE	650
GH4001	1.0mm×1	2.2±0.07	500	PE	170
GH4002	1.0mm×2	2.2×4.4±0.1	500	PE	170
GHV4001	1.0mm×1	2.2±0.07	500	PVC	170
GHV4002	1.0mm×2	2.2×4.3±0.1	500	PVC	170
GHEV4001	1.0mm×1	5.0±0.2	500	PE/PVC	170
GHEV4002	1.0mm×2	4.0×5.5±0.1	500	PE/PVC	170
GHN4001	1.0mm×1	2.2±0.07	500	NYLON	170
GHCP4001	1.0mm×1	2.2±0.07	500	CHLORINATED	170
GHCP4002	1.0mm×2	2.2×4.3±0.1	500	PE	170
GHTT4001	1.0mm×1	5.0±0.2	500	PE/PVC	170
GHTT4002	1.0mm×2	6.0±0.2	400	PE/PVC	170
BH-2001	0.5mm×1	1.0±0.05	1000	Crosslinked	250
BH-4001	1.0mm×1	2.2±0.07	500	PE	200
LH-2001	0.5mm(151 cores)	1.0±0.05	1000	PE	400
LH-4001	1.0mm(151 cores)	2.2±0.07	1000	PE	400
LH-4001-1.3	1.0mm(151 cores)	1.3±0.05	1000	PE	400

### HECHO Self-Coated Plastic Optical Fiber

Model	Core Dia./QTY	O.D.	Packing	Outter Materials	Loss(dB/km)
CH1001	0.25mm×1	1.0±0.05	1000	PE	700
CH2001(w)	0.5mm×1	1.0±0.05	1000	PE	210
CH2001-1.3	0.5mm×1	1.3±0.05	1000	PE	210
CH3001-1.3	0.75mm×1	1.3±0.05	1000	PE	200
CH3001-2.2	0.75mm×1	2.2±0.07	1000	PE	200
CH4001	1.0mm×1	2.2±0.07	1500	PE	190
CH4002	1.0mm×2	2.2×4.3±0.1	500	PE	190
CH6001	1.5mm×1	3.0±0.15	700	PE	190
CH6001-2.2	1.5mm×1	2.2±0.07	700	PE	190
CH4001-4.0	1.0mm×1	4.0±0.1	200	PE/PVC	190
CH2001-2.2	0.5mm×1	2.2±0.07	1000	PE	210
SH4001-C	1.0mm×1	2.9±0.1	1000	PE/Woven wire cloth	190
SH-2001-2.2	0.5mm×1	2.2±0.07	1000	PE	210
SH-1004-2.2	0.25mm×4	2.2±0.07	1000	PE	650

### Asahi Kasei Plastic Fiber Optic Cables

Model	Core Dia./QTY	O.D.	Packing	Outter Materials	Loss(dB/km)
DC-265-10	0.265mm×1	1.0±0.05	1000	PE	300
DC-500	0.5mm×1	1.0±0.05	1000	PE	210
DC-750-10	0.75mm×1	1.0±0.05	1000	PE	200
DC-1000	1.0mm×1	2.2±0.07	1000	PE	190
DC-1500-22	1.5mm×1	3.0±0.15	1000	PE	190
SHCN-1000(E)	1.0mm×1	2.2±0.07	2000	PA12	250
SHCN-500-10(E)	0.5mm×1	1.0±0.05	1000	PA12	250
TCU-1000(L)	1.0mm×1	2.2±0.07	1000	LSZH PE	160
TCV-1000	1.0mm×1	2.2±0.07	1000	PVC UL VW-1	160
MCS-500P-10	0.5mm(217 cores)	1.0±0.05	1000	PE	1000
MCS-1000P	1.0mm(217 cores)	2.2±0.07	500	PE	600
MCS-1000P-1.3	1.0mm(217 cores)	1.3±0.07	500	PE	600
SHMCSN-1000P(E)	1.0mm(217 cores)	2.2±0.07	1000	PA12	600
MCQ-1000	1.0mm(613 cores)	2.2±0.07	500	PE	600
MCQ-1500-22	1.5mm(613cores)	2.2±0.07	1000	PE	600



### Toray Plastic Fiber Optic Cable

Model	Core Dia./QTY	O.D.	Packing	Outter Materials	Loss(dB/km)
PGS-CD501-13EK	0.5mm×1	1.3±0.05	500	PE	220
PGS-CD501-13ES	0.5mm×1	1.3±0.05	500	PE	220
PGS-CD502-13EKV	0.5mm×2	1.3×2.6±0.1	500	PE	220
PJS-LG250-7E13	0.25mm×7	1.3±0.05	500	PE	300
PFU-CD752-22-E	0.75mm×2	2.2*4.4±0.05	500	PE/PVC	150
PGS-CD1002-22E	1.0mm×2	2.2*4.4±0.05	500	PE/PVC	180
PGS-LG265-32E28	0.265mm×32	2.8±0.05	500	PE	300
PFU-CD1001-22E	1.0mm×1	2.2±0.05	500	PE	150
PGS-CD1001-22E	1.0mm×1	2.2±0.05	500	PE	180
PGS-CD1501-22E	1.5mm×1	2.2±0.05	500	PE	180
PGS-CD751-22E	0.75mm×1	2.2±0.05	500	PE	180
PGS-LG265-16E22	0.265mm×16	2.2±0.05	500	PE	300
PJS-CD1001-22E	1.0mm×1	2.2±0.05	500	PE	180
PGS-CD1002-13EKV	1.0mm×1	1.3*2.6±0.05	500	PE	180
PGS-CD502-10E	0.5mm×2	1.0×2±0.1	500	PE	220
PGS-CD501-10E	0.5mm×1	1.0±0.05	500	PE	220
PGS-CD751-13E	0.75mm×1	1.3±0.05	500	PE	180
PGS-LG265-4E10	0.265mm×4	1.0±0.05	500	PE	300
PGS-LG265-8E13	0.265mm×8	1.3±0.05	500	PE	600
PJS-LG250-9E13	0.25mm×9	1.3±0.05	500	PE	600
PGS-CD1001-13E	1.0mm×1	1.3±0.05	500	PE	180
PGS-CD265-10E	0.265mm×1	1.0±0.05	500	PE	300
PGS-CD1002-13ES	1.0mm×1	1.3*2.6±0.05	500	PE	180
PJS-CD501-10E	0.5mm×1	1.0±0.05	500	PE	220



# PRODUCT 2020 CATALOGUE

Sonnleithnergasse 2/4/44Wien 1100  
Österreich  
Vienna - Austril

Contact us:  
T: +43 676 449 0575  
E: [info@deluxlight.eu](mailto:info@deluxlight.eu)