



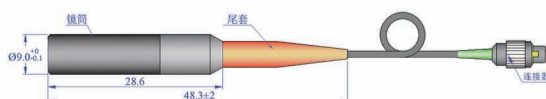
非球面带纤准直器

Aspheric Lenses Collimators with Fiber

采用紧凑结构设计，其中特定倾角的角尾纤和非球面透镜经过精密调节，从而保证出射光呈现出高质量的高斯光束形态，同时具备出众的准直特性。同时，在透镜和光纤表面均镀有增透膜，大大减少了出光端面的回光，显著降低光学链路光噪声，使得光传输过程更加稳定。长焦型准直器采用弯折型外壳设计，可以有效修正因斜尾纤所导致的出光偏角，确保光束几乎无偏移准直出射；短焦型准直器，倾斜尾纤输出光引起的偏角极小，几乎可以忽略不计，所以采购外壳使用直通型的。在满足性能需求的同时，兼顾了结构的稳定性与可靠性。

It adopts a compact structural design. The pigtail fiber with an inclination angle and the aspherical lens are precisely adjusted, ensuring that the emitted light presents a high-quality Gaussian beam and has excellent collimation characteristics at the same time. Anti-reflection films are coated on both the surfaces of the lens and the optical fiber, which greatly reduces the reflected light at the light-emitting end face and significantly decreases the optical noise in the optical path, making the light transmission process more stable.

The long-focal-length collimator is designed with a bent-shaped housing, which can effectively correct the light-emitting deflection angle caused by the angled pigtail fiber, ensuring that the light beam is collimated and emitted with almost no deviation. For the short-focal-length collimator, the deflection angle caused by the light output of the angled pigtail fiber is extremely small and can be almost ignored. Therefore, a straight-through housing is used. In this way, while meeting the performance requirements, it also takes into account the structural stability and reliability.



特征 Features:

- 出光偏角、出光中心偏移量极小 The deflection angle of the emitted light and the deviation of the emitted light center are both minuscule.
- 多种光纤类型可选 Fiber Type Options:
405HP/460HP/630HP/780HP/Hi1060/G625D
- 多种连接器类型可选 Connector Options:
FC/PC、FC/APC、LC、SC、SMA905
- 多种护套类型可选 The Type of Cable Options:
PVC0.9mm/2.0mm/3mm, 3mm armored cable, 3mm Stainless steel, 0.9mmTeflon
- 封装材料304不锈钢，结构紧凑可靠The packaging material is 304 stainless steel, and the structure is compact and reliable.
- 可定制无磁、真空环境应用封装结构 It can be customized with a packaging structure for applications in a non-magnetic and vacuum environment.

参数表 Parameter

Wavelength	Bandwidth	Waist Beam Size	Divergence Angle	NA	EFL	Pakage Dia.	Fiber Type	Max. Power	Transmittance
405nm	±5nm	0.85mm	0.06°+0.01°	0.25	4.45mm	Φ9.0mm	405HP	1W	>90%
	±5nm	2.01mm	0.02° +0.01°	0.25	10.67mm	Φ9.0mm			
	±5nm	3.6mm	0.015° +0.01°	0.15	17.71mm	Φ9.0mm			
450nm	±5nm	0.82mm	0.05°+0.01°	0.25	4.50mm	Φ9.0mm	460HP		
	±5nm	2.0mm	0.02° +0.01°	0.24	10.77mm	Φ9.0mm			
	±5nm	3.0mm	0.015° +0.01°	0.15	17.88mm	Φ9.0mm			
520nm	±5nm	0.84mm	0.05°+0.01°	0.25	4.55mm	Φ9.0mm			
	±5nm	2.1mm	0.02° +0.01°	0.24	10.87mm	Φ9.0mm			
	±5nm	3.2mm	0.015° +0.01°	0.15	18.02mm	Φ9.0mm			
635nm	±5nm	0.86mm	0.05°+0.01°	0.24	4.59mm	Φ9.0mm	630HP		
	±5nm	2.06mm	0.02° +0.01°	0.24	10.96mm	Φ9.0mm			
	±5nm	3.5mm	0.015° +0.01°	0.15	18.14mm	Φ9.0mm			
780nm	±5nm	1.0mm	0.06°+0.01°	0.24	4.63mm	Φ9.0mm	780HP		
	±5nm	2.1mm	0.026° +0.01°	0.24	11.06mm	Φ9.0mm			
	±5nm	4.0mm	0.01° +0.01°	0.15	18.33mm	Φ9.0mm			
850nm	±5nm	1.0mm	0.06°+0.01°	0.24	4.64mm	Φ9.0mm			
	±5nm	2.41mm	0.03° +0.01°	0.24	11.10mm	Φ9.0mm			
	±5nm	3.8mm	0.02° +0.01°	0.15	18.45mm	Φ9.0mm			
980nm	±5nm	1.0mm	0.07°+0.01°	0.24	4.66mm	Φ9.0mm	Hi1060		
	±5nm	2.4mm	0.03° +0.01°	0.24	11.16mm	Φ9.0mm			
	±5nm	4.0mm	0.02° +0.01°	0.15	18.52mm	Φ9.0mm			
1064nm	±5nm	1.0mm	0.08°+0.01°	0.24	4.67mm	Φ9.0mm			
	±5nm	2.4mm	0.032° +0.01°	0.24	11.18mm	Φ9.0mm			
	±5nm	3.8mm	0.02° +0.01°	0.15	18.58mm	Φ9.0mm			
1310nm	±5nm	0.84mm	0.11°+0.01°	0.24	4.70mm	Φ9.0mm	G652D G657A1 G657A2		
	±5nm	2.04mm	0.047° +0.01°	0.23	11.25mm	Φ9.0mm			
	±5nm	3.35mm	0.029° +0.01°	0.15	18.67mm	Φ9.0mm			
1550nm	±5nm	0.87mm	0.11°+0.01°	0.24	4.74mm	Φ9.0mm			
	±5nm	2.10mm	0.053° +0.01°	0.23	11.31mm	Φ9.0mm			
	±5nm	3.4mm	0.032° +0.01°	0.15	18.75mm	Φ9.0mm			

Wavelength	Bandwidth	Waist Beam Size	Divergence Angle	NA	EFL	Package Dia.	Fiber Type	Max. Power	Transmittance
850nm	±5nm	1.0mm	0.06°+0.01°	0.24	4.64mm	Φ9.0mm	780HP	1W	>90%
850nm	±5nm	2.41mm	0.03° +0.01°	0.24	11.10mm	Φ9.0mm			
850nm	±5nm	3.8mm	0.02° +0.01°	0.15	18.45mm	Φ9.0mm			
980nm	±5nm	1.0mm	0.07°+0.01°	0.24	4.66mm	Φ9.0mm	Hi1060		
980nm	±5nm	2.4mm	0.03° +0.01°	0.24	11.16mm	Φ9.0mm			
980nm	±5nm	4.0mm	0.02° +0.01°	0.15	18.52mm	Φ9.0mm			
1064nm	±5nm	1.0mm	0.08°+0.01°	0.24	4.67mm	Φ9.0mm			
1064nm	±5nm	2.4mm	0.032° +0.01°	0.24	11.18mm	Φ9.0mm			
1064nm	±5nm	3.8mm	0.02° +0.01°	0.15	18.58mm	Φ9.0mm			
1310nm	±5nm	0.84mm	0.11°+0.01°	0.24	4.70mm	Φ9.0mm	G652D G657A1 G657A2		
1310nm	±5nm	2.04mm	0.047° +0.01°	0.23	11.25mm	Φ9.0mm			
1310nm	±5nm	3.35mm	0.029° +0.01°	0.15	18.67mm	Φ9.0mm			
1550nm	±5nm	0.87mm	0.11°+0.01°	0.24	4.74mm	Φ9.0mm			
1550nm	±5nm	2.10mm	0.053° +0.01°	0.23	11.31mm	Φ9.0mm			
1550nm	±5nm	3.4mm	0.032° +0.01°	0.15	18.75mm	Φ9.0mm			

* 束腰光斑直径：取高斯光束 $1/e^2$ 处，均用各波长单模光纤理论计算值。

Waist beam size: calculated using the theory of single-mode optical fiber for each wavelength, taken at the $1/e^2$ intensity point of the Gaussian beam.

* 光束远场发散角：按高斯光束 $1/e^2$ 理论计算值。

Far-field divergence angle of the beam: calculated according to the Gaussian beam $1/e^2$ theory.

* 其它光斑或封装尺寸接收定制

Customization is accepted for other light beam sizes or packaging dimensions.



非球面保偏光纤准直器

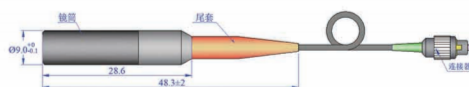
Aspheric Lenses Collimators with PM Fiber

采用紧凑精巧的结构设计，其中特定倾角的角尾纤和非球面透镜经过精密调节，从而保证出射光呈现出高质量的高斯光束形态，同时具备出众的准直特性。不仅如此，在内部光机精密结构上进行了深度优化，极大程度上降低了后端光纤活动时对出射光斑产生的不良影响，为精密测量或控制过程中信号的稳定传输提供了坚实可靠的保障。此外，凭借远讯精湛的精密光学调试技术以及完备的测试手段，能够将出射光光斑的中心偏移量以及出光偏角精准地控制在极小的范围之内，尽显产品在光学性能上的高精度与高可靠性。

It boasts a compact and ingeniously designed structure. The angled pigtail fiber with a inclination angle and the aspherical lens undergo meticulous and precise adjustments. This meticulous calibration ensures that the emitted light manifests as a high-quality Gaussian beam, and simultaneously endowing the collimator with exceptional collimation characteristics.

Furthermore, the internal precision opto-mechanical structure has undergone a thorough and in-depth optimization process. This optimization effectively minimizes the detrimental impact of the movement of the rear-end fiber on the emitted light spot, thereby providing a robust and dependable safeguard for the stable transmission of signals during intricate precision measurement or control operations.

Additionally, leveraging Ysenser's sophisticated precision optical debugging techniques and comprehensive testing methodologies, both the deviation of the center of the emitted beam and the light deflection angle can be accurately and precisely regulated within an extremely narrow margin. This exemplifies the product's remarkable high precision and reliability in optical performance, setting it apart in the field.



特征 Features:

- 出光偏角、出光中心偏移量极小 The deflection angle of the emitted light and the deviation of the emitted light center are both minuscule.
- 多种光纤类型可选 Fiber Type Options: PM460/PM630/PM780/PM980/PM1310/PM1550
- 多种连接器类型可选 Connector Options: FC/PC、FC/APC、LC、SC、SMA905
- 多种护套类型可选 The Type of Cable Options: PVC0.9mm/2.0mm/3mm, 3mm armored cable, 3mm Stainless steel, 0.9mm Teflon
- 封装材料304不锈钢，结构紧凑可靠 The packaging material is 304 stainless steel, and the structure is compact and reliable.
- 可定制无磁、真空环境应用封装结构 It can be customized with a packaging structure for applications in a non-magnetic and vacuum environment.

参数表 Parameter

Wavelength	Bandwidth	Waist Beam Size	Divergence Angle	NA	EFL	Pakage Dia.	Fiber Type	Max. Power	Transmittance
532nm	±5nm	0.86mm	0.05°+0.01°	0.24	4.59mm	Φ9.0mm	PM460	1W	>90%
532nm	±5nm	2.06mm	0.02° +0.01°	0.24	10.96mm	Φ9.0mm			
532nm	±5nm	3.3mm	0.015° +0.01°	0.15	18.14mm	Φ9.0mm			
633nm	±5nm	0.86mm	0.05°+0.01°	0.24	4.59mm	Φ9.0mm	PM630		
633nm	±5nm	2.06mm	0.02° +0.01°	0.24	10.96mm	Φ9.0mm			
633nm	±5nm	3.3mm	0.015° +0.01°	0.15	18.14mm	Φ9.0mm			
780nm	±5nm	1.0mm	0.06°+0.01°	0.24	4.63mm	Φ9.0mm	PM780		
780nm	±5nm	2.4mm	0.026° +0.01°	0.24	11.06mm	Φ9.0mm			
780nm	±5nm	4.0mm	0.01° +0.01°	0.15	18.33mm	Φ9.0mm			
980nm	±5nm	1.0mm	0.07°+0.01°	0.24	4.66mm	Φ9.0mm	PM980		
980nm	±5nm	2.4mm	0.03° +0.01°	0.24	11.16mm	Φ9.0mm			
980nm	±5nm	4.0mm	0.02° +0.01°	0.15	18.52mm	Φ9.0mm			
1310nm	±5nm	0.84mm	0.11°+0.01°	0.24	4.70mm	Φ9.0mm	PM1310		
1310nm	±5nm	2.04mm	0.047° +0.01°	0.23	11.25mm	Φ9.0mm			
1310nm	±5nm	3.35mm	0.029° +0.01°	0.15	18.67mm	Φ9.0mm			
1550nm	±5nm	0.87mm	0.11°+0.01°	0.24	4.74mm	Φ9.0mm	PM1550		
1550nm	±5nm	2.10mm	0.053° +0.01°	0.23	11.31mm	Φ9.0mm			
1550nm	±5nm	3.4mm	0.032° +0.01°	0.15	18.75mm	Φ9.0mm			

* 束腰光斑直径：取高斯光束 $1/e^2$ 处，均用各波长单模光纤理论计算值。

Waist beam size: calculated using the theory of single-mode optical fiber for each wavelength, taken at the $1/e^2$ intensity point of the Gaussian beam.

* 光束远场发散角：按高斯光束 $1/e^2$ 理论计算值。

Far-field divergence angle of the beam: calculated according to the Gaussian beam $1/e^2$ theory.

* 其它光斑或封装尺寸接收定制

Customization is accepted for other light beam sizes or packaging dimensions.