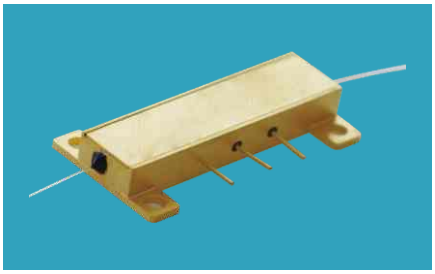
Multi-functional Integrated Optical Device

Product Description

The multi-functional integrated optical device is made by lithium niobate annealing-proton exchange process, and has the functions of light splitting, phase modulation, polarizing, etc. It is mainly applicable to fiber optic gyroscopes, fiber optic sensors and other fields, and has been applied in batches in multiple national key projects due to its stable and reliable product performance.

Product Picture



Product Application

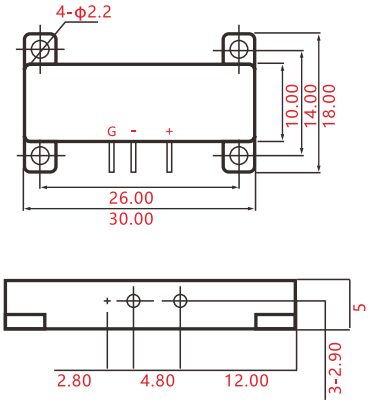
- FOG
- Fiber optic current sensor
- Other sensing fields

Product Features

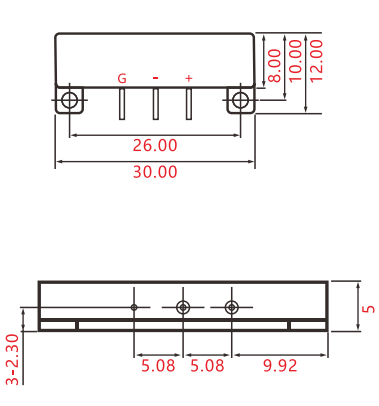
- Low insertion loss and half-wave voltage
- Low back light reflection and residual strength modulation
- High batch consistency and long-term stability

Package Size

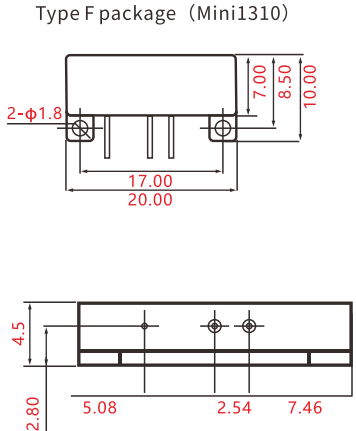
Type A package(1310/1550)



Type D package(1310/1550)



Type F package（Mini1310）



Performance Indicators At Room Temperature Range (+18°c~+28°c)

Performance level / Parameters	Unit	Level A	Level B	Level C
Operation Wavelength	nm	1310/1550		
Splitting Ratio	/	50.0±2.0%	50.0±3.0%	50.0±5.0%
Pigtail Polarization Crosstalk	dB	≤-30	≤-27.0	≤-25.0
Insertion Loss	dB	≤3.5	≤4.0	≤4.5
Waveform Slope	/	≤1/250	≤1/250	≤1/200
Half-wave Voltage	V	≤4.0		
Back Reflection Loss	dB	≥55.0		
Residual Strength Modulation	/	≤0.1%		
Operation Temperature Range	°C	-50~+75		
Storage Temperature Range	°C	-55~+85		
Package Size	mm	30X18x5.30x12x5, 20x10x4.5 (or according to customer requirements)		
Pigtail Length	m	>1 (or customized according to customer requirements)		
Pigtail Type	/	Single-mode/polarization-maintaining, 125/250μm or 80/1650μm, fiber optic fast axis coupling (or as required)		

Performance Indicators At Full Temperature Range (-50°c~+75°c)

Performance level / Parameters	Unit	Level A	Level B	Level C
Variation In Insertion Loss	dB	≤0.3	≤0.5	≤0.8
Variation In Splitting Ratio	/	≤3.0%	≤5.0%	≤5.0%
Pigtail Polarization Crosstalk	dB	≤-27.0	≤-25.0	≤-23.0

Customized Information

- Package shells of different sizes can be customized according to customer requirements.