

Optical Fiber Current Sensor



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The FOCS Series Fiber Optical Current Sensors are passive, all-dielectric devices designed for precise current measurement without metal components, making them immune to electromagnetic interference noise. They measure current using light that passes through a Faraday fiber and reflects back from the fiber tip. Unlike conventional iron-core-based current sensors, which suffer from magnetic saturation at high currents, the FOCS excels in measuring large currents and operates reliably in high electrical field environments. Its optical detection mechanism provides faster response times compared to traditional sensors, while the use of optical fiber enables long-distance remote sensing with minimal waveform distortion and low transmission loss.

The measured current is readout with both numerical display and 0-5V analog BNC output.

Features

- Compact, Lightweight
- Easy to Install
- Immune to Electromagnetic Interference
- Measurement of Large Current
- High-Speed Response
- Long Distance Remote Sensing

Specifications (Sensor)

Parameter	Min	Typical	Max	Unit
Wavelength		1550		nm
Sensor Fiber		Special Fiber		
Transmission Fiber		PM 1550		
Optical Connector		FC/APC		
Operating Temperature Range	-40		80	°C

Applications

- Electric Power Field
- Railroad
- FA
- Automobile
- Aviation / Vessel
- Other

Specifications (Signal Processor)

Parameter	Min	Typical	Max	Unit
Measurement Range		5		kA rms
Frequency Range	0.01		10	kHz
Operating Temperature Range	0		50	°C
Power Supply		100~250		ACV
Size		W 180 × D 308 × H 50		mm
Weight		1.8		kg



Note: The specifications provided are for general applications with a cost-effective approach. If you need to narrow or expand the tolerance, coverage, limit, or qualifications, please [click this link](#):

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Mechanical Dimension (mm)



Ordering Information

Prefix	Package	Sensor Probe	Fiber Length	Configuration	Readout	Temperature	
FOCS-	Standard = 1 Special = 0	One Standard = 11 Two Standard = 22	1m = 1 2m = 2 Special = 0	Standard = 1 Special = 0	Single Channel = 01 Dual Channel = 02 Non = 00	-20 to 80°C = 1 -40 to 90°C = 2	1