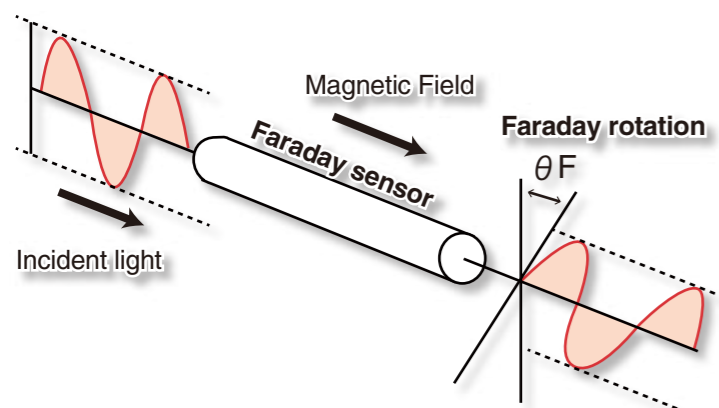


# Optical Fiber Current Sensor

## FEATURE



**Optical Fiber Current Sensor (OCS) which utilizes the Faraday effect.**

1. Compact, light and easy to insulate	The sensing element is Optical fiber. That makes OCS compact, light and easy to insulate.
2. Easy to install	To use this OCS, electric wires do not need to be cut because it consists of a reflective type optical circuit. In addition, it is easy to change the measurement point.
3. Electromagnetic noise	OCS is immune to electromagnetic noise because all parts, except for electronic circuit, consist of optical components.
4. Measurement of large current	Measurement of large current is possible because OCS doesn't need to use an iron core which causes magnetic saturation.
5. High-speed response	OCS detects and transmits current using optic. Due to this advantage, response for high-speed sensing is more efficient than conventional current sensor.
6. Long distance signal transmission	Long distance signal transmission is possible because waveform distortion and transmission loss are low.

## APPLICATION

Electric Power Field	Portable type measurement device for large current. Current monitor for under ground distribution cable lines. Current measurement for Switchgear and Circuit breaker.
Railroad	Inverter harmonic current measurement.
FA	Current measurement for induction heater current, Refinement, Laser, Electron beam, Welding machine, and Plasma.
Automobile	Current waveform measurement for Motor, Capacitor, Inverter and IGBT
Aviation / Vessel	Wire harness insulation deterioration diagnosis.
Other	Waveform measurement of impulse current such as Lightning current, Superconductive current measurement.

## SPECIFICATION

Optical Component	Signal Processor
Model No.	AOCM-100
Power Supply	AC100V~250V, 50Hz or 60Hz
Measurement Range	~5kA rms
Frequency Range	10Hz~10kHz
Accuracy	JEC1201-1PS Class (at 1kA, 50Hz)
Output Form	"Numeric Display" and "Analog Voltage Output"
Operating Temperature Range	0~50°C
Size	W180mmxD308mmxH50mm
Weight	1.8kg

Optical Component	Reflective Type Sensor Probe
Model No.	RFS155T1000P1000
Sensor Probe Length	1m
Sensor Fiber	Low-Birefringence Optical Fiber (LBF155)
Transmission Fiber	Polarized Wave Holding Optical Fiber (PMF:φ0.9)
Optical Connector	SC/PC
Wavelength	1550nm
Operating Temperature Range	-20~80°C

## APPEARANCE



\*This product was developed under the guidance of Tokyo Electric Power Company.

Contact : Photonics & Medical Div., Adamant Co., Ltd. +81-3-3919-1171

<http://www.adamant.jp/en>