

# SFPOC-DUAL™

## Steel Tube encased in an Aluminum Tube

Composit Fiber Optic Overhead Ground Wire(OPGW) is a composite overhead optical groundwire that provides high capacity communication channels to service present and future needs.

SFPOC-DUAL™ is a compact OPGW design with excellent short circuit current capacity and mechanical strength.

The SFPOC-DUAL™ construction consists of a sealed inner stainless steel tube encased in an aluminum sealed tube. This design is well suited for highly corrosive environments without requiring the use of anti-corrosive grease.

The dual tube design offers greater crush and mechanical protection to the fibers from environmental effects. Single wire layer designs allow for larger outer metallic wires, offering excellent lightning performance.

SFPOC provides with its products a comprehensive range of services, including OPGW hardware, installation supervision, type testing and training.

### Optical Design Features

SFPOC-DUAL™ provides the type and number of optical fibers needed to meet customer's specific requirements while complying to ITU-T Standards.

SFPOC-DUAL™ features optical fibers placed loosely in a hermetically sealed stainless steel tube covered with aluminum layer containing a gel filling compound to form an optical unit.

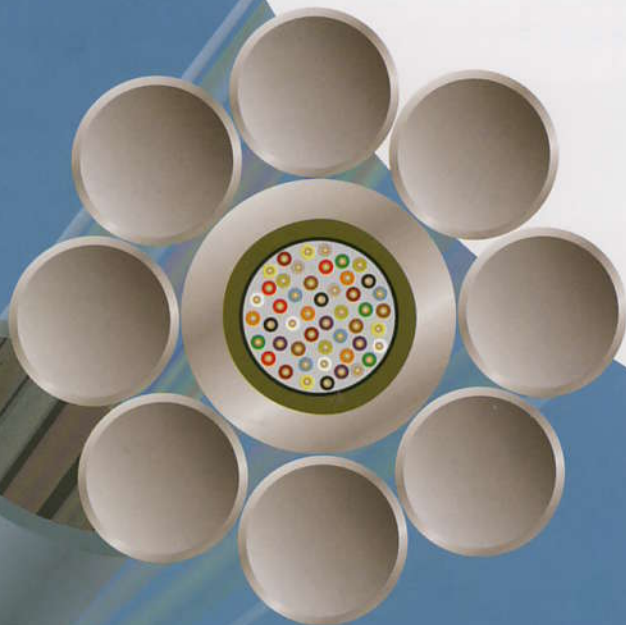
The optical fibers have low signal attenuation and wide band width allowing for long distance, high capacity communication.

Optical fibers are free from crosstalk and are not subjected to electromagnetic interference and polarization. They provide secure high quality signal transmission.

### Groundwire Design Features

Aluminum-Clad Steel and Aluminum Alloy wires are stranded around a central optical unit.

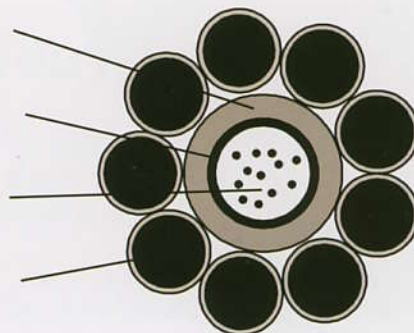
The Aluminum-Clad Steel wires and Aluminum Alloy wires provide the mechanical strength to withstand installation and operating condition, while achieving the conductivity needed to control temperature rise during short circuit fault conditions.



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# SFPOC-DUAL™ DESIGN FEATURES

Aluminum Tube  $\Phi$ 5.0mm  
 Stainless Steel Tube  $\Phi$ 3.6mm  
 Optical Fiber  
 27%ACS  $\Phi$ 2.62mm



TYPICAL SFPOC-DUAL™ DESIGN	METRIC	IMPERIAL
Fiber count	48	48
Nominal Size	49mm <sup>2</sup>	0.076in <sup>2</sup>
Overall Diameter	10.48mm	0.413"
Nominal Weight	333kg/km	0.224lb/ft
Minimum Tensile Strength	4900kgf	10,800lbs
Modulus of Elasticity	13000kgf/mm <sup>2</sup>	18,490kpsi
Coefficient of Linear Expansion	14 × 10 <sup>-6</sup> /°C	7.8 × 10 <sup>-6</sup> /°F
DC Resistance at 20°C	0.96 $\Omega$ /km	1.54 $\Omega$ /mile
Fault Current Capacity(Ambient=40°C)	25kA <sup>2</sup> sec	25kA <sup>2</sup> sec

## TYPICAL FIBER TYPES AND ATTENUATION

Attenuation	Units	G.652	G.655
1310nm	dB/km	0.36	--
1550nm	dB/km	0.22	0.22

Typical Fiber Types are available in accordance to ITU Standards:G652&655 or IEC 60793,60794

\*SFPOC OPGW custom designed to meet each customer's specific technical requirements.

## Suzhou Furukawa Power Optic Cable Co.,Ltd.(SFPOC)

Our product was successfully type tested at Kinectrics Inc. , Toronto, Canada as per internationally recognized specification. SFPOC is the first OPGW manufacturer in China to have successfully completed all type tests including lightning tests on OPGW.

SFPOC, a joint venture of The Furukawa Electric Co., Ltd. of Japan and Etern (Yongding) Group of China, is a global leader in manufacture and supply of Optical Ground Wire (OPGW).

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