

# SFT 01x02 Singlemode Splitters

**SFT-SWB**      *Wavelength Independent*  
**SFT-S35**      *Dual Windows Wideband*

## Description:

The OPTOKON **SFT-SWB** wavelength independent couplers/splitters are designed to transmit optical signals within the full CWDM wavelength spectrum. With its innovative Fused Technology Process, the SFT series couplers have proven to provide exceptional characteristics for all applications demanding critical performance. These ultra reliable devices feature low backreflection, low insertion loss, and high port isolation over wide temperature and wavelength ranges. The SFT couplers are designed to divide and/or combine different optical signals in optical fiber systems. Splitting ratios can be customer specified between 1%:99% and 50%:50%. Various types of pigtailing and connector terminations are available to meet your requirements. Available in a wide variety of packaging configurations

The OPTOKON **SFT-S35** dual windows wideband series are operable in both 1310 nm and 1550 nm wavelength range.

## Features:

- Low insertion loss
- High port isolation
- Custom defined specifications
- Environmentally stable
- Wavelength independent  
- full CWDM spectrum

## Applications:

- Telecommunications
- Local area network
- FTTH - PON
- CATV
- Testing instruments



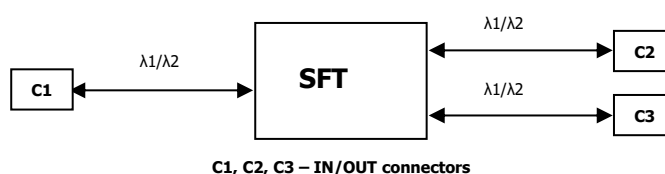
*SFT-SWB-01x02-50-BFS-NC-NC*

## Technical specifications:

ITEM	Dual Window Wideband Couplers
Operating Wavelength, nm	S35: 1310 ± 40 and 1550 ± 80 SWB: 1250 – 1650 (CWDM wavelength range)
Typical Excess Loss, dB	0.2
Uniformity, dB (50:50)	≤ 0.8
Thermal Stability, dB (peak-peak)	< 0.2
PDL, dB (50:50 coupling ratio)	< 0.15
Port Configuration	1 x 2 or 2 x 2
Coupling Ratio	1:99 to 50:50, (50:50 standard)
Insertion Loss <sup>1</sup> , dB	Refer to the coupling ratio vs. Insertion loss chart
Directivity, dB	> 50
Return Loss, dB	> 50
Operating Temperature <sup>2</sup> , °C	-40 to +85
Storage Temperature <sup>2</sup> , °C	-50 to +85
<b>WARNING</b>	This product should never be installed in an optical network handling above Class I emissions

Note: 1 - Without connectors  
2 - Conditioned by the cable type

## Block diagram:



Coupling Ratio vs. Insertion Loss		Coupling Ratio PDL Conversation Chart	
Coupling Ratio (%)	Insertion Loss (dB)	Coupling Ratio (%)	PDL (dB)
50 / 50	3.6	> 40 %	0.15
40 / 60	4.8 / 2.7	30 to 39 %	0.20
33 / 67	5.7 / 2.2	10 to 29 %	0.30
30 / 70	6.2 / 1.9	1 to 9 %	0.35
20 / 80	8.3 / 1.3		
10 / 90	11.7 / 0.7		
5 / 95	15.2 / 0.4		
1 / 99	23.3 / 0.2		

## Ordering Code:

**SFT - XXX - 01 x 02 - XX - XXX - NC-NC**

Grade	Wavelength
<b>S35</b>	1310/1550 nm
<b>SWB<sup>1</sup></b>	1250 - 1650 nm

# Port
<b>01 x 02</b>
<b>02 x 02</b>

No input and output connectors<sup>3</sup>  
 Connector type - According to CON\_14-01  
 (Jumper Ordering Code)

### Note:

1 -  $\pm 0.3$  dB tolerance  
 (1370, 1390, 1410 nm IL increased for 0.2-0.3 dB)

2 - Optional

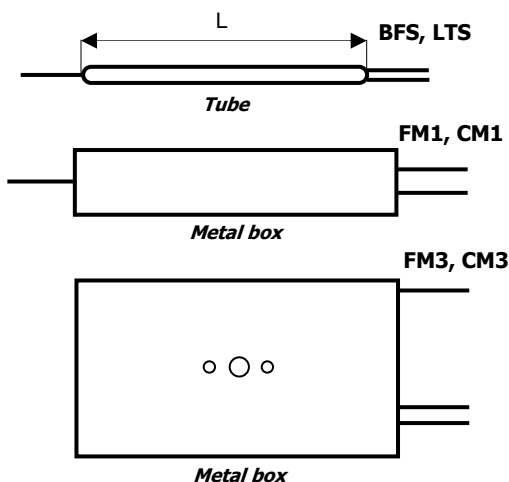
3 - Standard fiber/cable length = 1 m

Splitting ratio	
<b>50</b>	50/50
<b>40</b>	40/60
<b>30</b>	30/70
<b>20</b>	20/80
<b>10</b>	10/90
<b>05</b>	5/95
<b>01</b>	1/99
	other <sup>2</sup>

Basic packaging	
<b>BFS</b>	Bare fiber 250 $\mu$ m, tube L=54, $\varnothing$ =3 mm
<b>LTS</b>	Fiber 0.9 mm, tube L=54, $\varnothing$ =3 mm
<b>FM1</b>	Fiber type, metal box 100x15x9 mm
<b>CM1</b>	Cable type, metal box 100x15x9 mm
<b>FM3</b>	Fiber type, metal box 100x80x10, stackable
<b>CM3</b>	Cable type, metal box 100x80x10, stackable

Additional packaging	
<b>CAPM</b>	OPTOKON cassette
<b>SC</b>	Splice cassette
<b>RM</b>	Rack mounted unit (MCNP-1U)
<b>WM</b>	Wall mounted box (MPIC-4)



## Packaging variants:

