

DATA SHEET

FS80 FS81/FS82/FS83 Linking Accessories

SPECIAL FEATURES

- Different cable protections
- Configurable cable lengths
- Selectable connector types



DESCRIPTION

HBK FiberSensing offers general purpose adapters and optical patch cables for easy assembly of several sensors in series with minimized optical losses.

The optical patch cables are general purpose accessories for the connection between fiber optical sensors and/or interrogators suitable for laboratory, indoor and

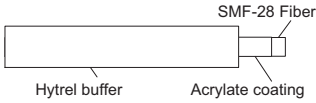
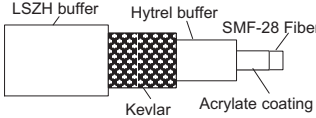
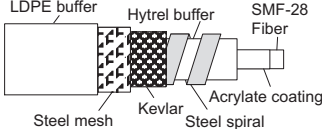
outdoor applications. The adapters allow easy butt-joined connection of cables and sensors. Due to the intrinsic nature of optical fibers, these connecting accessories allow the link of several sensors in series with minimal losses and offer inherent insensitivity to environmental induced noise.

BENEFITS AND APPLICATIONS

- Flexibility for sensing systems
- Compatible with all newLight® sensors

SPECIFICATIONS

Adapters	FS80-100	FS80-300
		
Connectors	FC/FC	SC/SC
Materials	Stainless steel	Plastic
Attachment method	Thread	Clip
Alignment	Fixed key	
Insertion loss ³⁾	<0.2 dB	

Optical Patch Cables		FS81	FS82	FS83
				
Cable external diameter	mm	0.9	3	3
Operating temperature	°C	-40 ... 85	-20 ... 70	-20 ... 85
Materials ¹⁾	n.a.	Hytrel	Hytrel, Kevlar® and LSZH	Hytrel, stainless steel spiral, Kevlar®, stainless steel mesh and LDPE
Cable bend radius ²⁾	mm	>16	>16	>30
Connectors	n.a.	FC/APC, SC/APC or NC (No Connectors)		
Fiber type	n.a.	SMF-28 compatible (ITU-T G.652.D)		
Fiber cladding and coating diameter	µm	125/250		
Fiber coating	n.a.	Acrylate		
Attenuation loss ³⁾	dB/km	0.3		

¹⁾ The full composition of the sensor including cable, complies with RoHS, REACH, Conflict Minerals and fire propagation prevention directives.

²⁾ Induced loss due to one complete turn around a mandrel lower than 0.05dB.

³⁾ One way losses. For Fiber Bragg Grating signals the double loss should be considered as measurements are made in reflection.

ORDERING INFORMATION

Adapters

FC/FC	1-FS80-100
SC/SC	1-FS80-300

Optical Patch Cables

Standard item ⁴⁾	Configurable Item
1-FS81-1M	-
	K-FS82 – 1 2 3
	Options
1-FS82-2M	1 NC - No connector; FC - FC/APC; SC - SC/APC
1-FS82-5M	2 Cable length ⁵⁾ 1 m; 2 m; 5 m; 10 m; 20 m; 50 m; 100 m
	3 NC - No connector; FC - FC/APC; SC - SC/APC
	K-FS83 – 1 2 3
	Options
1-FS83-2M	1 NC - No connector; FC - FC/APC; SC - SC/APC
1-FS83-5M	2 Cable length ⁵⁾ 1 m; 2 m; 5 m; 10 m; 20 m; 50 m; 100 m
	3 NC - No connector; FC - FC/APC; SC - SC/APC

⁴⁾ Standard Items correspond to a configuration with the defined length and terminated with FC/APC connectors on both ends.

⁵⁾ Specified cable length is ensured on delivery. A margin of up to 10 cm can be present for cables up to 20 m and up to 25 cm for longer cables.

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