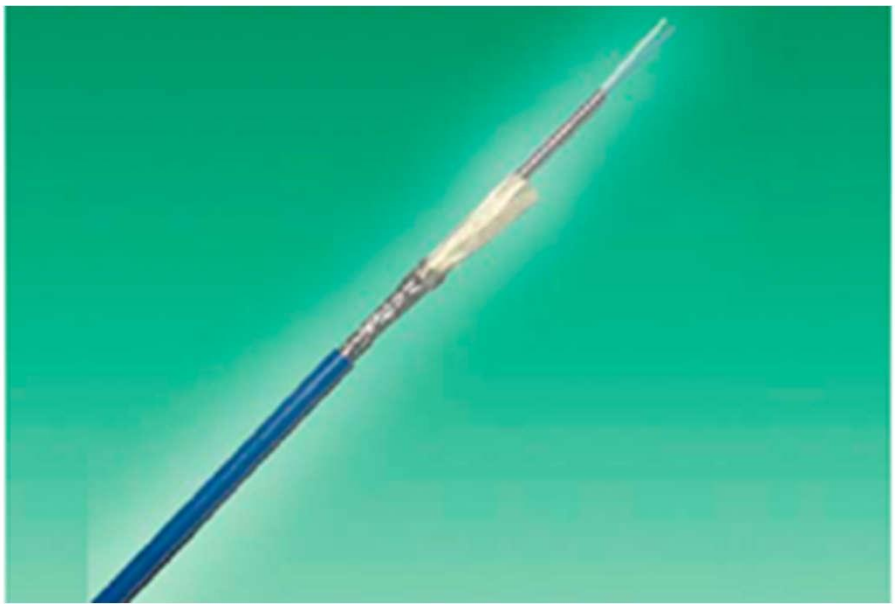
Bandweaver

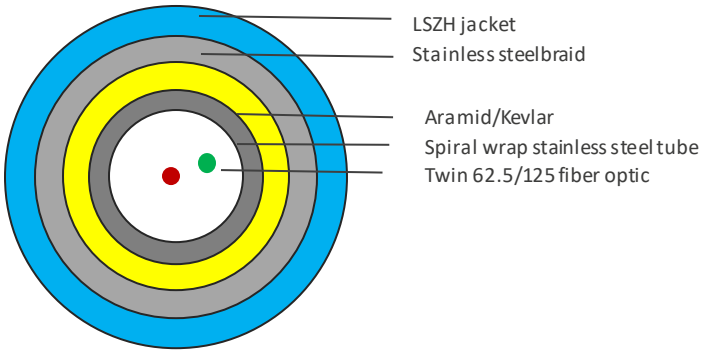
DATASHEET

FireFiber AT (Armoured Tube) – **Sensing Cable**

The FireFiber Armoured Tube (AT) sensing cable is a Flame Retardant Non-Corrosive (FRNC) and Low Smoke Zero Halogen (LSZH) sensing cable which is widely used in applications such as Linear Heat Detection, and used in a wide variety of scenarios and is optimised to work with Bandweaver's range of Distributed Temperature Sensing (DTS) systems.



The AT cable is designed to be lightweight and flexible making it easy to handle and install and with a very fast thermal response time. In addition, the dual stainless steel and Kevlar protective layers provide excellent mechanical, tensile and pressure resistance (IP68 waterproof rating).
The steel spring tube construction provides both effective crush resistance and also flexibility which reduces probability of kinking.



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Technical Information

Fiber Type	Multimode, Graded Index, 62.5/125 acrylate coated multimode fiber as standard - 0.6mm OD	
Number of Cores	2 fibers as standard	
Effective Refractive Index	1.496 (850nm), 1.491 (1300nm)	
Attenuation	~1.5 dB/Km@975nm, ~0.5dB/Km@1550nm	
Bandwidth	62.5/125: 500 Mhz @1300nm, 200Mhz @ 850nm	
Material Construction	1 Outer Protection 2 Mechanical Protection 3 Longitudinal Strength member 4 Pressure resistance	Polyolefin LSZH FRNC* Stainless steel braid (SUS304) Kevlar/aramid yarn Stainless steel spring tube (SUS200CU)
Weight	22kg/km	
Outer Diameter	LSZH sheath: 3.3 mm +/- 0.2mm Stainless steel tube 2.1mm	
IP Rating	IP68	
Tensile Resistance	Long Term: 200N (High strength 600N**)	Short Term: 300N (High strength 1500N**)
Pressure Resistance	Long Term: 2000N/10cm	Short Term: 4000N/10cm
Permitted Bend Radius	Static: 33mm	Dynamic: 66mm
Temperature Range	Long Term: -40°C to 85°C	Short Term: -40°C to 750°C *(120 minutes according to IEC60331-25 conditions)*
Standards and Certifications	RoHS VDS EN54 part22 IEC 60332-1-2:2004 – Testing cable under fire conditions IEC 60794-1-2:2003 / IEC 60793 (GB/T 7424.2-2008) – FO spec & test procedures IEC 60794-2-11 (YD/T 1258.3:) – Detailed spec for simplex and duplex cables EN 187000-1994 / GB16280-2014: Infrared resistance: ANSI/UL 1581-2015 UV Resistance: ASTM G154-2016 (black outersheath) Corrosion resistance testing : SO2 (GB16280), high salt levels (GB16280) IEC60754-1:1994 & IEC60754-2:1991 (JB/T 10707-2007) – Low smoke, zero halogen testing IEC61304-2:1997 (GB/T 17651.2) – Measurement of smoke density	
Packaging	Wooden reel as standard	
Reel Length	Minimum 1km / Maximum reel length 2km as standard Longer reel lengths available on request but will incur additional cost and lead times	
Shipping weight and dimensions	1km reel: 26kg / 0.3 x 0.38 x 0.3 m (0.034 m3) 2km reel: 45kg / 0.4 x 0.38 x 0.4 m (0.061 m3)	
Part Number	CAB-MM625-AT-02 *(Internal ref: SCJKBH-2A1b-3.3-B)*	

* Outer sheath available in other materials (e.g. FEP for greater chemical resistance)
**See separate datasheet for high strength version and survival cable