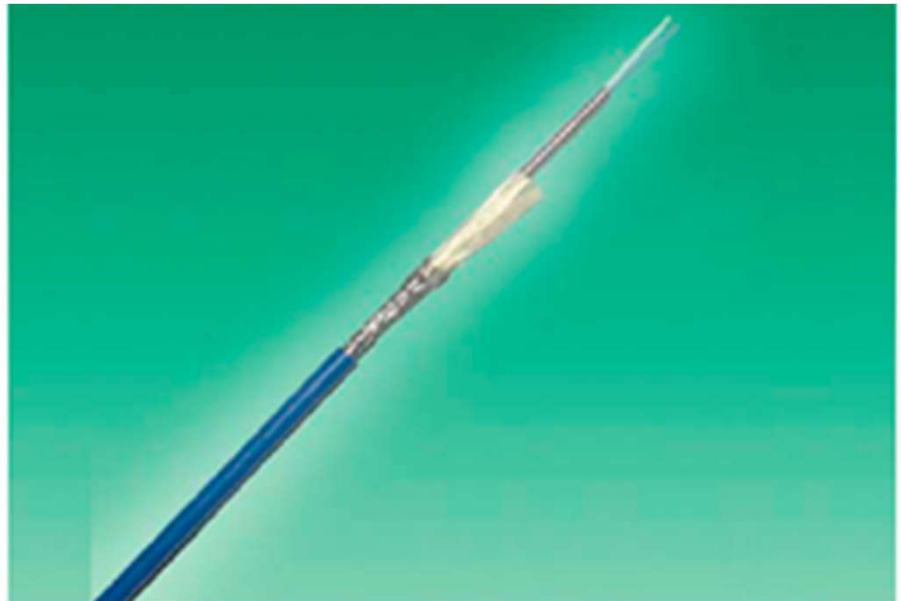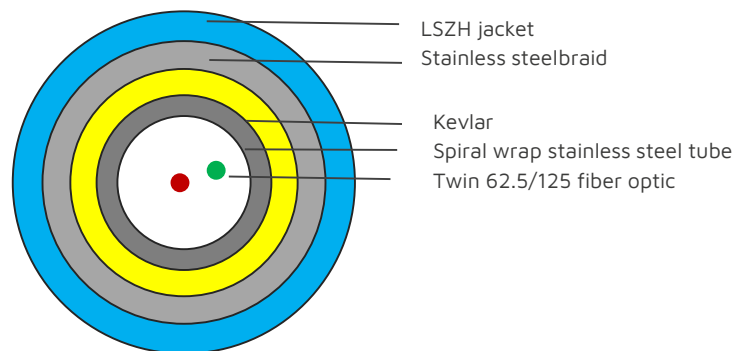# FireFiber AT (Armoured Tube) – Sensing Cable

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).

LSZH jacket
Stainless steelbraid

Kevlar
Spiral wrap stainless steel tube
Twin 62.5/125 fiber optic

Monitored | Secured | Safe

Technical Information

Fiber Type	Multimode, Grade Index, 62.5/125 acrylate coated multimode fiber as standard
Number of Cores	1 or 2 fibers as standard
Effective Refractive Index	1.496 (850nm), 1.491 (1300nm)
Attenuation	<2.8dB/Km@850nm, <0.8dB/Km@1300nm
Bandwidth	50/125: 500Mhz @ 1300nm/850nm 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 (SUS200CU) Kevlar Stainless steel spring tube (SUS304)
Weight	21kg/km
Outer Diameter	LSZH sheath: 3.3 mm +/- 0.2mm (High strength version 4.0mm*) 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 150°C
Standards and Certifications	RoHS VDS EN54 part 22 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 cablesEN 187000-1994 / GB16280-2014: Infrared resistance: ANSI/UL 1581-2015 Corrosion resistance testing include SO2 (GB16280), high salt levels (GB16280)
Packaging	Wooden reel as standard
Reel Length	Minimum 1km / Maximum reel length 2.5km as standard Longer reel lengths available on request but will incur additional cost and lead times
Manufacturing Reference Code	SCJKBH

*See separate datasheet for high strength version