AP SENSING
advanced photonic

Sensor Cables

In close cooperation with leading cable manufacturers AP Sensing is offering a range of sensing cables. Besides the two standard cables outlined below Metal Free and Steel Cable, AP Sensing provides a wide range of specialty cables and even project or application specific designs.

Sensor Cable Safety
Fast responding sensor cable with tight buffered fiber. Compact dimensions, high flexibility and good bending behavior. High tensile strength by Aramid yarns. These cables have a halogen-free and flame-retardant cable sheath.

Sensor Cable Steel
Fast responding sensor cable armoured, with stainless steel loose tubes and outer sheath. High permissible tensile strength, high crush resistance. Longitudinally and laterally watertight. Excellent rodent protection. These cables have a halogen-free and flame-retardant cable sheath.

	Sensor Cable Safety	Sensor Cable Steel
Construction	FRNC outer sheath Armid fibers Thight- buffered fibres	FRNC outer sheath Stainless steel wires Gel-free stainless steel loose tube Fibres with primary coating
Fiber	MM 50/125 µm [MM 62.5/125 µm]	MM50/125 µm [MM 62.5/125 µm]
Cable Ø	4.0 mm	3.8 mm
Weight	17 kg/km	25 kg/km
Minimum bending radius	20xD mm (with tensile) 15xD mm (without tensile)	20xD mm (with tensile) 15xD mm (without tensile)
Max. crush resistance	100 N / cm	960 N / cm
Max. tensile strength	1000 N (short term) 800 N (long term)	1500 N (short term) 1100 N (long term)
Operating temperature	-40°C to +85°C	-40°C to +85°C
Installation temperature	-5°C to +50°C	-5°C to +50°C
Short term temperature (1h)	-50°C to +150°C	-50°C to +150°C

Cables are delivered in requested length.

Technical Specifications

Both cables comply with Standards

IEC 60331-25; IEC 620332-1/-2/-3-24; IEC 60754-2; IEC 60794-1-2; IEC 61034-2; VdS approved

Pre-assembled connectors (S2000A-001; S2002A-001)

To reduce deployment cost and time, AP Sensing is optionally offering preassembled pig tails. This enables quick and easy onsite installation, with no need to organize a fusion splicer, splice box to get the sensing cable connected to the Distributed Temperature Sensing instrument. Pig tails are supplied with E2000 8° angled connectors. For safe transportation and installation the connectors and pig tails are covered by a flexible tube to ensure proper protection.

Pre assembled connectors

Pig tail with optical connector (S2009A)

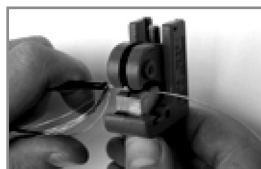E2000 8° angled connectors with a 5m pig tail offered to splice the sensing cables.

E2000 APC Adapter (S2011A)

Used to connect two E2000 APC connectors.

E2000 pig tail

E2000 adapter

Sensor tube cutting tool (S2010A)

Recommended to cut the stainless steel tube, to properly remove the cable sheath and splicing the pig tail to the sensing fiber.

Sensor Tube Cutting Tool

Specialty Cables:

In addition to these standard cables, special cables can be offered for extreme low, high temperature ranges and corrosive atmosphere on request. Also special color requirements can be meet.

For more information on Distributed Temperature Sensing products, applications or services, please contact:

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