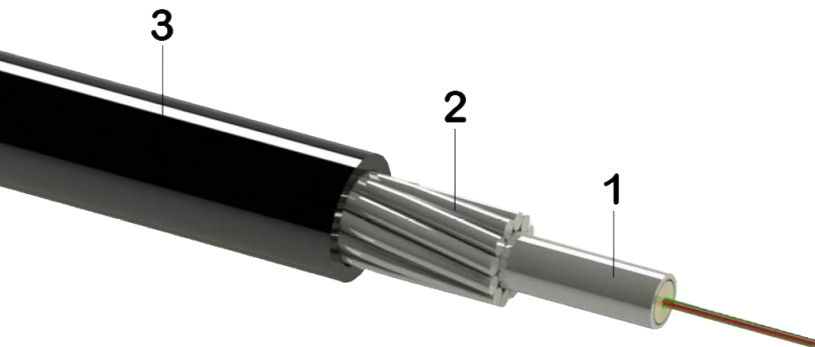


Sensor Cables

Cable construction code

OssWH xx.yy.zz.c



- 1. Gel filled stainless-steel* loose tube with optical fibers
 - 2. Stainless-steel* wire armour
 - 3. HDPE UV stable outer jacket
- * AISI 304 (1.4301)

Cable general description

Thixotropic gel filled stainless-steel loose-tube (SSLT) with max. 4 optic fibres. Stainless-steel wire armour (SSWA) provides the cable with high tensile strength and crush resistance. This fully rodent resistant cable is suitable for outdoor duct or direct buried (to ground or concrete) installation and is designed to be used in wide range of applications, besides others as e.g. strain or temperature sensing cable.

Construction and dimensions

Loose tube nominal diameter	1,8 mm
Steel wire nominal diameter	0,6 mm
Outer jacket nominal thickness	0,5 mm
Cable nominal outer diameter	4,0 mm
Cable informative weight	45 kg/km
Standard put-up length	2100/4100 m ± 5%

Outer jacket

Material	UV stable HDPE (FRLSZH or PA on request)
Jacket colour	Black
Sheath marking	Ink-Jet, white
Print legend	Trademark, construction name, cable type, batch-number, meter-marking Customer print legend available on request

Optical fibers

Colour coding (IEC 60304)	1.-4.: red, green, blue, yellow
Fiber type	Single- and multi-mode fibers (OS2, OM1, OM2, OM3, OM4)

Geometrical and transmission parameters are available at separate generic datasheet

Sensor Cables

Mechanical characteristics

Test	Test method	Value	Acceptance criteria*
Tensile performance	IEC 60794-1-21:E1	1000 N (long term) 2000 N (short term)	$\Delta\alpha \leq 0,05$ dB $\Delta\alpha \leq 0,05$ dB after test
Crush	IEC 60794-1-21:E3A	4000 N/100mm (long term) 8000 N/100mm (short term)	$\Delta\alpha \leq 0,05$ dB prior release, no damage $\Delta\alpha \leq 0,05$ dB after release, no damage
Impact	IEC 60794-1-21:E4	20 Nm, 3 impacts, d=20 mm, R=300 mm	$\Delta\alpha \leq 0,05$ dB after test, no damage
Repeated bending	IEC 60794-1-21:E6	R=20 x cable diameter, 25 cycles	no damage
Torsion	IEC 60794-1-21:E7	L=1 m, rotation angle $\pm 180^\circ$, 10 cycles	no damage
Bend	IEC 60794-1-21:E11A	d=20 x cable diameter, 4 turns, 3 cycles	$\Delta\alpha \leq 0,05$ dB after test, no damage

Environmental characteristic

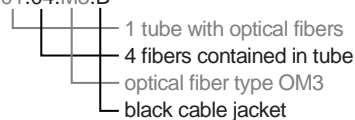
Test	Test method	Value	Acceptance criteria*
Temperature cycling	IEC 60794-1-22:F1	-40°C ÷ 80°C -40°C ÷ 80°C	$\Delta\alpha \leq 0,05$ dB $\Delta\alpha \leq 0,15$ dB, reversible
Temperature range of use		-10°C ÷ 50°C -40°C ÷ 80°C -40°C ÷ 80°C -50°C ÷ 150°C	installation operation storage, transport short term max. 60 min

* IEC 60794-3-10, IEC 60794-3-11

Cable expected lifetime / min. 30 years

Order information

Order code e.g.: OssWH 01.04.M3.B



Detailed explanation of the FOC constructions coding found in the file *FOC coding*.