

ARMoured FIBRE PATCH CORD SPECIFICATION

Norden armoured patch cord provides flexible interconnection to active equipment, passive optical devices and cross connects. These patch cords are manufactured so as to withstand side pressure and repeated bending and are used in external applications in customer premises, central offices and in harsh environment.

Armoured patch cords are constructed with a stainless steel tube over a standard patch cord with an outer jacket. The flexible metal tube limits the bending radius, preventing the optical fibre from breaking. This ensures a safe and durable optical fibre network system.



COMPLIANCE

Telcordia (formerly Bellcore) GR-326-CORE Generic requirements for Single Mode Optical connectors and jumper assemblies.

IEC 874-1 Generic specification for fibre optic connectors and cables

ANSI/TIA-568-C.3, ISO/IEC 11801 2nd Ed., CENELEC EN 50173, UL94V-0

Cable flame resistant rate: OFNR or IEC60332-3 standard

FEATURES

- Conform to IEC, EIA-TIA, and Telcordia performance requirements
- Together with custom connectors, the cable can be both water proof and gas proof and can withstand high temperatures.
- Layouts can be wired much the same way as ordinary electric cable installation
- Anti rodent, save space, low cost construction
- Improve stability & security
- Easy installation, Maintenance
- Available in different fibre types
- Available in standard and custom lengths
- RoHS, REACH & SvHC compliant

APPLICATION

- Military, Telecommunication Networks
- Factory LAN systems
- Intelligent optical fibre network in buildings, underground network systems
- Transportation control systems
- High Technology medical applications
- CCTV security systems. Broadcasting and cable TV network systems

Item	Simplex	Duplex	Description
Fibre Count	1	2	
Tight buffer	OD 0.6 ± 0.05 mm	OD 0.6 ± 0.05 mm	Blue/Yellow
Kevlar	2*1110 dtex *2	2*1110 dtex *2	Yellow
Outer Jacket	OD 3.0 +/-0.2 mm	OD 3.3 +/-0.1 mm	PVC/LSZH

MECHANICAL & ENVIRONMENTAL CHARACTERISTICS

Range of Mode	Single or Multimode
Cable Type	Simplex or Duplex
Connector Style	SC, FC, ST, LC, MTRJ, E2000
Polish or Ferrule Interface Type	PC, UPC, APC
Cable Diameter	3.0x6.2 mm
Lengths	Standard & Custom Lengths
Outer Jacket	PVC or LSZH
Cable Assembly Length (<15 meter Tolerance)	-0/+100mm
Cable Assembly Length (>15 meter Tolerance)	-0/+10%
Jacket Colour (Multimode: OM1 & OM2)	Orange
Jacket Colour (Multimode: OM3 & OM4)	Aqua
Jacket Colour (Single Mode: OS1 & OS2)	Yellow
Durability	500 cycles (0.2 dB max increase), 1000mate/demate cycles
Operating Temp.	-20°C to +85°C
Storage Temp.	-40°C to +85°C
Ferrule Concentricity	< 1 μ m, Other Ferrule Concentricity < 1 μ m
Humidity (FOTP-5)	90-95% at 40C

Armoured Flexible Tube	
Tube Material	Stainless
Inner Diameter	0.9 mm
Tensile Strength	≤ 147 N
Min. Bend Radius	$\geq 40 \pm 5$
Pressure Resistance	$\leq 2450/50$ N

OPTICAL CHARACTERISTICS

Fibre Type	Max. Attenuation (dB/km)				Min. Overfill Launch Bandwidth (Mhz · km)		Min. Gigabit Ethernet Link Distance (m)		
	850nm	1300nm	1310nm	1550nm	850nm	1300nm	Gigabit		10Gigabit
							850nm	1300nm	850nm
OM1 62.5/125 μ m	≤ 2.7	≤ 0.6	-	-	≥ 200	≥ 600	275	550	-
OM2 50/125 μ m	≤ 2.5	≤ 0.7	-	-	≥ 500	≥ 500	550	550	-
OM3 50/125 μ m	≤ 2.3	≤ 0.6	-	-	≥ 1500	≥ 500	1000	600	300
OM4 50/125 μ m	≤ 2.3	≤ 0.6	-	-	≥ 3500	≥ 500	1000	600	550
OS1 9/125 μ m	-	-	≤ 0.34	≤ 0.20	-	-	-	-	-
OS2 9/125 μ m	-	-	≤ 0.34	≤ 0.24	-	-	-	-	-

OPTICAL PERFORMANCE DATA

Item	Single mode			Multimode		
	PC	UPC	APC	62.5/125	50/125	50/125 10G
Insert. Loss/connector (single Fibre)	0.2dB Max. (0.15dB typ.)			0.3dB Max. (0.25dB typ.)		
Return Loss	≥45 dB	≥50 dB	≥60 dB	N.A		
Insert. Loss/MTRJ Connector	0.5dB Max. (0.45dB typ.)			0.5dB Max. (0.45dB typ.)		
Pull strength	≥98N	≥98N	≥98N			

ORDERING INFORMATION

Part Number	Description
333-490S2L1L1010	LC/PC - LC/PC Duplex OS2 Single Mode Ruggedized Armoured Fiber Optic Patchcord PVC 10m
333-490S2L2L2002	LC/UPC - LC/UPC Duplex OS2 Single Mode Ruggedized Armoured Fibre Optic Patch Cord PVC, 2m
333-490S2L2L2012	LC/UPC - LC/UPC Duplex OS2 Single Mode Ruggedized Armoured Fibre Optic Patch Cord PVC, 12m
333-490S2L2L2015	LC/UPC - LC/UPC Duplex OS2 Single Mode Ruggedized Armoured Fibre Optic Patch Cord PVC, 15m
333-490M1L2L2002	LC/UPC - LC/UPC Duplex OM1 Multi Mode Ruggedized Armoured Fibre Optic Patch Cord PVC, 2m
333-490S2S1L1001	SC/PC - LC/PC Duplex OS2 Single Mode Ruggedized Armoured Fibre Optic Patchcord PVC 1m
333-490S2S1S1001	SC/PC - SC/PC Duplex OS2 Single Mode Ruggedized Armoured Fibre Optic Patchcord PVC 1m

ORDERING GUIDE

Patch Cord	Outer Jacket	Cable Dia.	Fibre Type	Connector	Polish	Connector	Polish	Length
331: Simplex	1: PVC	1:0.9mm	OM1	S: SC	1: PC	S: SC	1: PC	1m: 001
332: Duplex	2: LSZH	2:1.6mm	OM2	T: ST	2: UPC	T: ST	2: UPC	2m: 002
333: Rugged	3: PE	3:2.0mm	OM3	F: FC	3: APC	F: FC	3: APC	3m: 003
	4: Arm./PVC	4:3.0mm	OM4	L: LC		L: LC		5m: 005
	5: Arm./LSZH	9:3.8mm	OS1	M: MTRJ		M: MTRJ		10m: 010
	L:Arm./LSZH IEC 60331		OS2	E: E2000		E: E2000		15m: 015