

TECHNICAL DATASHEET

HARSH ENVIRONMENT FIBER OPTIC CABLING SOLUTION



HARSH ENVIRONMENT RETICULATED OPTICS

Description

The H3RO (Harsh Environment Reticulated Optic Solution) utilises robust H3RO fibre optic cables, linked to integral modular plug and play components, in order to offer a robust & reliable solution for flexible Optical Distribution Network (ODN) applications in industrial networks.

H3RO fibre optic cables are supplied pre-terminated and are available in a variety of lengths with SC, LC, and ST terminations supported. The system utilises 12 and 4 core cables complete with tool-less quick connect terminations. These cable connectors are the most robust connectors in their class and feature an outstanding low loss coupling mechanism.



The H3RO system provides all accessories required for industrial applications including bulkheads. The bulkhead terminations allow for robust mounting in harsh environments and support ease of installation and movement of equipment.

Features

- Robust IP68 rated for use in the most difficult environments
- True plug and play functionality
- Compatibility with existing network infrastructure (SC, LC, ST)
- Rodent-protected, glass-armoured, jelly free
- Available in a variety of lengths
- Reduced downtime due to the ease of installation

Application

The H3RO solution is an IP68 rated fibre optic cabling solution consisting of fibre optic Break-Out Terminals (BOTs), cabling, bulkheads and accessories. H3RO BOTs can be placed at desired locations throughout the network and are connected together via pre-terminated H3RO cables. Bulkheads are available to convert from H3RO quick connect cables to SC, LC, and ST terminations to interface with existing equipment. H3RO cables significantly reduce the cost of network installations as they do not require fibre technicians to install and individual components can be swapped without the need for a specialist with optic fibre splicing skills.

Cable Specifications						
Description	Rodent protected, glass armoured, jelly free, longitudinal and transversal watertight.					
General		12 Core H3RO Cable	4 Core H3RO Cable			
Outer jacket/TPU	21mm (connector diameter)	7mm	5.6mm			
Weight		44kg/km	26kg/km			
Temperature	During Installation	-25 up to +70 °C	-46 up to +85 °C			
	In Service	-45 up to +85 °C	-60 up to +85 °C			
	In Storage	-45 up to +85 °C	-60 up to +85 °C			
Decibel Losses	Typical Insertion Loss	≤ 0.1 dB	≤ 0.2 dB			
	Max Insertion Loss	0.3 dB	≤ 0.45 dB			
	Per km	0.3 dB	0.3 dB			

Cable Specifications (continued)						
Mechanical and Environment		12 Core H3RO Cable	4 Core H3RO Cable			
Tensile Strength	During Installation	2500N	4000N			
	In Service	1500N	2000N			
Crush Resistance	During Installation	9000N/dm	21000N/dm			
	In Service	2000N/dm	6000N/dm			
Bending	20mm mandrel, 6 turns, 3 cycles,	Max attenuation increase	< 0.5dB during test			
	1310nm & 1550nm wavelengths		< 0.2dB after test			
Repeated Bending	20N weight, 50mm radius,	Max attenuation increase	< 0.5dB during test			
	10,000 cycles, 1310nm & 1550nm		< 0.2dB after test			
Flexing	20N weight, 120mm pulley,	Max attenuation increase	< 0.5dB during test			
	100,000 cycles, 1310nm & 1550nm		< 0.2dB after test			
Spooling Capability	Spool 90mm Ø, 100m, 5 cycles,	Max attenuation increase	< 0.5dB during test			
	1310nm & 1550nm wavelengths		< 0.2dB after test			
Impact	Wp = 1.5J, 100 impacts, 3 cycles	Max attenuation increase < 0.2dB after test				

Find Out More

For more information on this product, contact Ampcontrol Customer Service on +61 1300 267 373 or customerservice@ampcontrolgroup.com or visit the Ampcontrol website: www.ampcontrolgroup.com



Ordering					
12 Core H3RO Cables		4 Core H3RO Cables			
Item #	Description	Item #	Description		
174967	12 CORE TRUNK CABLE 60M	174966	4 CORE TRUNK CABLE 60M		
174985	12 CORE TRUNK CABLE 110M	174965	4 CORE TRUNK CABLE 110M		
174871	12 CORE TRUNK CABLE 260M	174872	4 CORE TRUNK CABLE 260M		
173823	12 CORE LAUNCH LEAD FEM 5M ST	173821	4 CORE LAUNCH LEAD MALE ST		
173224	12 CORE LAUNCH LEAD FEM 5M SC	173220	4 CORE LAUNCH LEAD MALE SC		
173226	12 CORE LAUNCH LEAD FEM 5M LC	173222	4 CORE LAUNCH LEAD MALE LC		
173824	12 CORE LAUNCH LEAD MALE 5M ST	173822	4 CORE LAUNCH LEAD FEMALE ST		
173225	12 CORE LAUNCH LEAD MALE 5M SC	173221	4 CORE LAUNCH LEAD FEMALE SC		
173227	12 CORE LAUNCH LEAD MALE 5M LC	173223	4 CORE LAUNCH LEAD FEMALE LC		
173219	12 CORE INVERTER CABLE 1M	173216	4 CORE INVERTER CABLE 1M		
173820	12 CORE UNION CABLE 1M	173217	4 CORE UNION CABLE 1M		
173826	12 CORE LOOP BACK	173825	4 CORE LOOP BACK		
173833	12 CORE BULKHEAD HEX ST	173829	4 CORE BULKHEAD HEX ST		
173240	12 CORE BULKHEAD HEX SC	173232	4 CORE BULKHEAD HEX SC		
173242	12 CORE BULKHEAD HEX LC	173234	4 CORE BULKHEAD HEX LC		
175103	12 CORE BULKHEAD SQ ST	173827	4 CORE BULKHEAD SQ ST		
175101	12 CORE BULKHEAD SQ SC	173228	4 CORE BULKHEAD SQ SC		
175102	12 CORE BULKHEAD SQ LC	173230	4 CORE BULKHEAD SQ LC		
		173215	4 CORE ROTATOR CABLE 1M		

DISCLAIMER