HUBER+SUHNER

OPTIPACK CONVERSION HARNESS
CONVERT EXISTING MTP® BACKBONE CABLES

edp
Distribution

Conversion harnesses allow users to convert their existing MTP® backbone cables to an MTP® type which matches their active equipment.

Conversion harnesses are a low-loss alternative to conversion modules because they eliminate one mated MTP® pair across the link.

Many of today's legacy infrastructures are built using a Base-12 MTP® backbone design, however experience shows us that this connector is rarely used on higher data rate switches or servers. Currently Base-8 is the preferred connector for 40G transceivers (SR4) and Base-24 is the preferred connector for 100G transceivers (SR10).

The wide variation of MTP connector types in the modern data centre has led to some confusion concerning the identification of different base types. HUBER+SUHNER conversion harnesses are supplied with colour-coded boots so that users can quickly identify the required connectivity type. This is particularly important with conversion harnesses that have different connectors at each end of the assembly.

PRODUCT OVERVIEW

Characteristics

- Converts Base-12 and Base-8 backbones to 40G or 100G.
- Colour-coded connectors for fast identification.
- Compact divider.
- Small diameter cable.
- Low-loss alternative to conversion modules.
- Bend-optimised fibre.
- Polarity managed for easy integration.

8 Base-8 Conversion Harness

Base-8 conversion harnesses allow users to convert their 8 fibre backbone trunks into a single 24 fibre MTP® connector for use in SR10 deployments (typically 100G). Three Base-8 connectors are combined inside the furcation housing so that a single MTP®24 fibre connector can be plugged to the transceiver. The same harness can also be used to convert a Base-24 connector into 3 × Base-8 connectors if the backbone is based on Base-24 design.

12 Base-12 Conversion Harness

Base-12 conversion harnesses allow users to convert their pre-installed 12 fibre backbone trunks into either Base-8 or Base-24 connections so that 40G or 100G data rates can be achieved. Two Base-12 connections are combined inside the housing to produce three Base-8 or one Base-24 connection at the other end of the assembly.

24 Base-24 Conversion Harness

Base-24 conversion harnesses allow users to convert their 24 fibre backbone trunks into Base-8 connections so that 40G data rates can be achieved. A single Base-24 connection is split out to three   Base-8 connections giving the user three 40G ports.

General Specification

Application		Data centre equipment connections
Fibre Type	OS2	E9/125 low bend (G.657 A2)
	OM4	G50/125 – OM4 low bend (IEC 60793-2-10 A1a.3)
Cable Type		Metal free indoor cable – Strain relieved aramid yarn
Cable Jacket Colour	OS2	Yellow
	OM4	Heather Violet

Construction

Connectors	Side A	MTP® (female / male)
	Side B	MTP® (female / male)
Furcation / fan-out shortest /longest length	Side A	No furcation
	Side B	Furcation fan-out MTP®

Optical Performance

	Tested acc. to	Option	Values
Connector Insertion Loss	IEC 61300-3-4 *		<0.35dB
Return Loss	IEC 61300-3-6	SM	>60dB
		OM4	>30dB

Mechanical Characteristics

	Tested acc. to	Option	Base 8, 12	Base 24
Cable Diameter (mm)			3.0	3.6
Max. Tensile Strength Divider (N)	IEC 60794-1-2 E1	During installation	150	
Max. Tensile Strength Cable (N)	IEC 60794-1-2 E1	During installation	500	
		In service	200	
Crush Resistance (N/dm)	IEC 60794-1-2 E3	Short-term	5000	
		Long-term	1000	
Minimal Bending Radius (mm)	IEC 60794-1-2 E11	During installation	20	
		In service	10	

* Multimode MT elite ferrule as tested with proposed encircled flux launch condition on 50µm fibre and 850nm per IEC 61280-4-1
  Singlemode MT elite ferrule compliant with IEC 61755-3-31/grade B

Environmental Characteristics

	Tested acc. to	Condition	Base 8, 12, 24
Fire Propagation	IEC 60332-1-2	On vertical single cable	Passed
	IEC 60332-3-24	On vertical cable bundle	Passed
CPR Compliant			Dca-s1,d0,a1
2011/65/EC (RoHS)			Compliant

Optipack Base-24 To Base-8 Conversion Harness

1 x MTP® Base-24 to 3 x MTP® Base-8

Optipack Base-24 To Base-12 Conversion Harness

1 x MTP® Base-24 to 2 x MTP® Base-12

Optipack Base-12 To Base-8 Conversion Harness

2 x MTP® Base-12 to 3 x MTP® Base-8