

**6**

LAN Connectivity

Cable

HellermannTyton

Technical Data Sheet

Category 6 PVC Shielded Cable

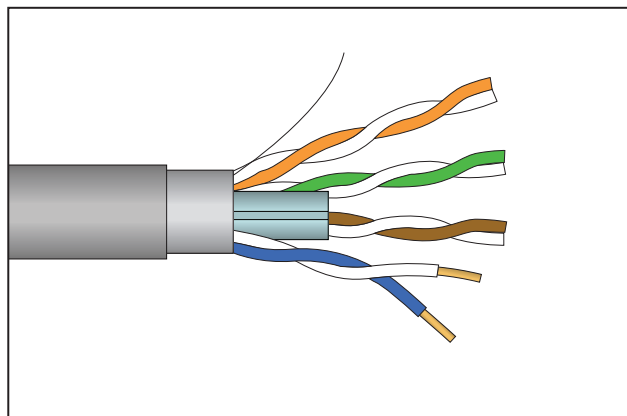
Bulk Copper Cable

Application/Product Description

HellermannTyton Category 6 cables are designed and tested to support Primary (Campus), Secondary (Riser) and Tertiary (Horizontal) applications for 10Base-T (Ethernet), 100Base-T(Fast Ethernet), 1000Base-T(Gigabit Ethernet), PoE and PoE+.

When used with HellermannTyton Category 6 patch panels, outlets and patch leads the combined performance exceeds Category 6/Class E link and channel requirements.

The cable is supplied in 305m lengths with 1 metre markings on the cable on a reel for easy installation.



Category 6 PVC Shielded Cable

Technical Data

Electrical Characteristics @ 20°C	Specification
DC Loop Resistance	$\leq 165\Omega/\text{km}$
Resistance Unbalance	$\leq 2\%$
Insulation Resistance (500V)	$\geq 2000\text{M}\Omega \times \text{km}$
Capacitance at 800Hz	Nominal 43nF/km
Capacitance Unbalance (pair to ground)	$\leq 1500\text{pF/km}$
Characteristic Impedance (1-100MHz)	$(100 \pm 15)\Omega$
Nominal Velocity of Propagation	Approx. 66%
Propagation Delay	Nominal $\leq 427\text{ns}/100\text{m}$
Delay Skew	Nominal $\leq 12\text{ns}/100\text{m}$
Test Voltage (DC, 1 min) Core/Core	1000V

Cable Standards

Cable

- BS EN 50173
- ISO 11801:2002 (inc. Amend. A1 & A2)
- ANSI/TIA/EIA 568-C.2
- IEC 61156-5
- BS EN 50288-10-1

Cable Sheath

- IEC 60332-1

This cable complies with the requirements within the Construction Products regulations EN50575:2014+A1:2016 - Power, control and communication cables. Cables for general applications in construction works subject to reaction to fire requirements.

A copy of the Declaration Of Performance is available from HellermannTyton upon request. Please quote the part and serial numbers when contacting sales@htdata.co.uk

Performance Characteristics

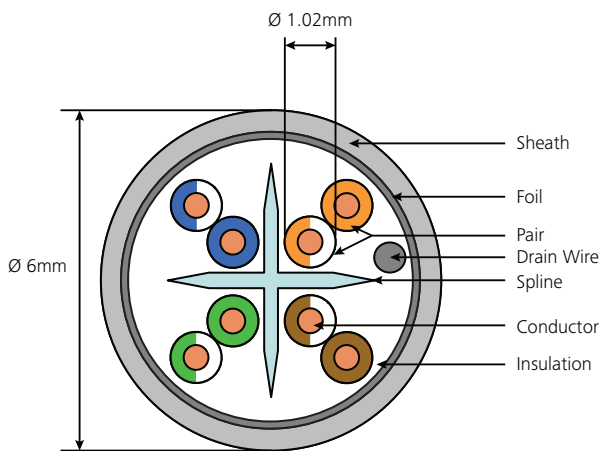
Frequency (MHz)		1	100	250
Insertion Loss (dB/100m)	Spec	2.0	19.8	32.8
	Typical	2.0	17.3	27.5
NEXT (dB)	Spec	74.3	44.3	38.3
	Typical	93.1	64.2	58.1
PS-NEXT (dB)	Spec	72.3	42.3	36.3
	Typical	87.3	58.1	52.7
ACR-F (dB/100m)	Spec	67.8	27.8	19.8
	Typical	97.4	56.4	52.2
PS ACR -F(dB/100m)	Spec	64.8	24.8	16.8
	Typical	91.5	49.4	45.5
Return Loss (dB)	Spec	20.0	20.1	17.3
	Typical	27.4	45.8	31.6

*Typical values are for permanent link tests when using the complete HellermannTyton Data System.

HT-DS-CATEGORY-6-PVC-SHIELDED-CABLE-R10



Cable Construction



Product Performance	
Core	
Core Conductor	23 AWG Solid Copper Wire
Insulation	Polyethylene
Diameter	1.02mm
Twisting	2 cores to the pair
Overall Screen	PET/Al-laminated plastic foil
Pair Colour	Blue-White/Blue, Orange-White/Orange, Green-White/Green, Brown-White/Brown
Final Assembly	
Cable	4 pairs to the core
Sheath	PVC, Grey RAL 7032
Outer Diameter	6.0mm ± 0.2mm
Mechanical and Environmental	
Temp. Installation	0°C to +50°C
Temp. Operation	-20°C to +60°C
Min. Bend Radius	
During Installation:	8 x outer diameter
During Operation:	4 x outer diameter
Packaged Weight	16.5kg (305m/Drum)