

## TRAKRAD™ Enhanced Category 5e F/UTP Data Cable

24 AWG Conductors • Enhanced Oil & Fuel Resistance • Crosslinked Low Smoke Zero Halogen



### Cable Construction

The rugged double sheath construction of TRAKRAD™ CAT5e Cable ensures suitability for both internal and external Rail & Metro applications including installation on cable trays, ladders and wet ducts\*

- Excellent weather resistance including UV & Ozone
- Suitable for harsh environments
- Resistant to track-side oils and diesel fuels
- Low smoke zero halogen flame retardant characteristics
- Enables a single cable to be installed both inside and outside reducing installation costs.
- Manufactured in the UK providing security of supply and a reduced carbon footprint compared to overseas suppliers.

### Cable Construction



**Conductor**  
24 AWG Solid Plain Annealed Copper

**Insulation**  
Extruded PE (Polyethylene)

**Twisting**  
2 Cores Twisted Together to Form a Pair

**Lay Up**  
4 Twisted Pairs Laid Up

**Collective Screen**  
Aluminium/Polyester Tape Laid with Conductive Side in Contact with Tinned Annealed Copper Drain Wire

**Inner Sheath**  
Extruded LSZH (Low Smoke Zero Halogen)

**Outer Sheath**  
TRAKRAD™ Modified XL-LSZH (Electron Beam Irradiation Cross Linked Low Smoke Zero Halogen designed to meet the extra oil and extra fuel resistance of EN 50264)

### Colours & Identification

**Pair Identification**  
1 x Orange/White Pair  
1 x Blue/White Pair  
1 x Brown/White Pair  
1 x Green/White Pair

**Inner Sheath Colour**  
Grey

**Outer Sheath Colour**  
Black UV Resistant\*\*

### Properties & Standards

#### Standards

EIA/TIA-568-C.2  
ISO/IEC 11801  
IEC 61156-5  
EN 50173-1  
EN 50288-2-1

#### Electrical

Loop Resistance	≤ 190	Ω/km
Resistance Unbalance	≤ 2	%
Insulation Resistance (@500v)	≥ 2000	MΩ/m
Mutual Capacitance (@800Hz)	48	nF/km
Capacitance Unbalance (Pair/Ground)	≤ 1500	pF/km
Characteristic Impedance (1-100 MHz)	100	Ω (±15)
Velocity of propagation	ca 67	%
Propagation delay	≤ 535	ns/100m
Delay skew	≤ 20	ns/100m
Test Voltage (DC, 1min, cr/cr, cr/scr)	1000	V
Coupling attenuation	≥ 40	dB
Attenuation (@1 MHz)	1.9	dB/100m
Attenuation (@10 MHz)	6.0	dB/100m
Attenuation (@100 MHz)	19.8	dB/100m
Attenuation (@200 MHz)	27.5	dB/100m
Attenuation (@300 MHz)	32	dB/100m

#### Temperature

Operating Temperature Range	-20 to +60	°C
Outer Sheath Withstand Temperature	-20 to +125	°C

#### Physical

Minimum Bend Radius (Dynamic)	8	x OD
Minimum Bend Radius (Static)	5	x OD

#### Fire Performance

Flame Retardance	IEC 60332-1-2
Halogen Gas Content	IEC 60754-1
Gas Acidity	IEC 60754-2

#### Lifecycle

Used in accordance to specification	25	Years
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### Nominal Dimensions

Conductor Gauge	24	AWG
Diameter over Insulation	01.10	mm
Inner Sheath Diameter	5.90	mm
Outer Sheath Radial Thickness	0.75	mm
Outer Sheath Diameter	7.40	mm

\*Not suitable for permanent emersion in water

\*\* Also available in other colours

