



ZHD-CT

Zero Halogen, Diesel Resistant Continuous Tube HEAT SHRINK IDENTIFICATION SYSTEM

Technical Datasheet

TTDS-273 Revision 4 - June 2022

ZHD-CT Zero Halogen and Diesel resistant marker sleeve for identification of wires and cables, presented as a continuous tube.

ZHD-CT is manufactured using a specially developed radiation cross-linked material. Formulated to give Zero Halogen properties with the added benefit of diesel resistance, specifically designed to bridge the gap for installations where the highest performance is demanded from an Identification sleeve, without compromising on safety or capability.

ZHD-CT heat shrink tube, manufactured with e-beam technology gives users the ability to shrink the supplied tube with no damage to material or printed text. Shrinking the tube will ensure the printed marker has a firm hold on the wire.

ZHD-CT gives market leading print performance when used as a complete system, as recommended by TE Connectivity. Refer to TE document 411-121005 IDENTIFICATION PRINTER PRODUCT RIBBON MATRIX for the recommended printer/product/ribbon combinations.

Printed ZHD-CT meets the rail specification EN45545-2 Fire Hazard Classification 1 and 2, in accordance with requirement set R22/R23.

ZHD-CT Heat Shrink Identification Marker Sleeving is available as part of a complete identification system. The system comprises specific printers, thermal transfer ribbons and WINTOTAL software.

Features

- Zero Halogen, Low Toxic Fumes and Low Smoke
- Self Extinguishing, non-flame propagating
- Resistant to key rail and industrial fluids (defined by TE specification RW-2536)
- Sleeve diameters from 2.4mm to 38.1mm
- Shrink ratio 2:1

Design for Environment

- ZHD-CT fully complies with 2011/65/EU RoHS II directive, and Regulation (EC) number 1907/2006 (REACH)

Further information and a downloadable declaration covering RoHS and REACH compliance can be found at the TE Product Compliance Support Centre:

<http://www.te.com/usa-en/utilities/product-compliance.html>

Temperature Rating

- Operating Temperature Range -55°C to 125°C (-67°F to 257°F)

Applications



Specifications / Approvals

TE Connectivity Standard RW-2536

Rail Standards

EN45545-2, Railway applications - Fire protection on railway vehicles, Part 2: Requirements for fire behaviour of materials and components. Fire Hazard Classification 1 and 2, in accordance with requirement set R22/R23.

BS 6853 "Vehicle Category 1a"
Interior minor use materials of mass 100 to 500g vehicle category II.

EN 50343 Rolling stock applications—Rolling Stock—Rules for installation of cabling—Appendix H.

NFPA 130 Standard for Fixed Guideway Transit and Passenger Rail Systems, Fire Protection Requirements, Interior Fire Propagation Resistance.

Federal Railroad Administration, DOT, Appendix B to Part 238, Test Methods and Performance Criteria for Flammability and Smoke Emission Characteristics of Materials used in Passenger cars and Locomotive Cabs.

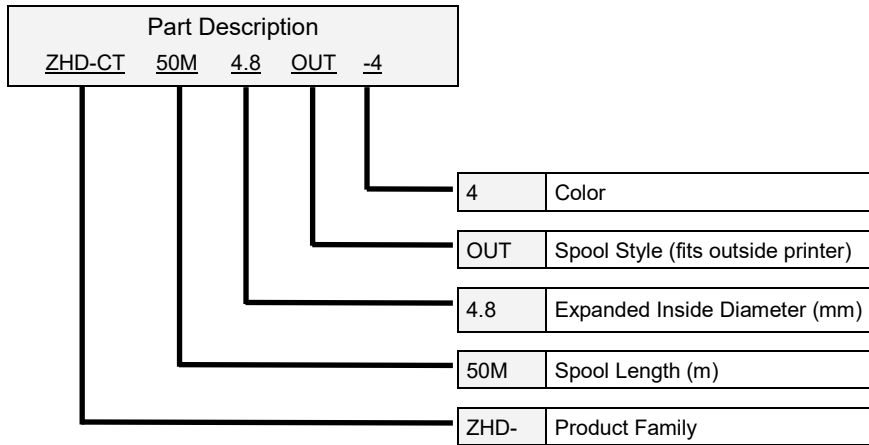
Shazainennshi, Japan Railway Rolling Stock & Machinery Association 2003 Classification "Flame Retardant" Serial number 2015-166K.

Print Performance

- MIL 202 Method 215, Resistance to Solvents
- SAE AS 5942, Marking of Electrical Insulating Materials, Adherence
- EN 50343 Rolling Stock Applications - Rolling Stock Rules for Installation of Cabling, Marking for Identification

Where possible, TE have tested product as a finished item, including the print. Operational tests are followed by an assessment of mark adherence to validate fit, form and function. Further details can be found in TE standard RW-2536

ZHD-CT Zero Halogen-Diesel Resistant



Available Options

Spool Size	OUT	Spool does not fit in printers, recommend TE Connectivity PRINTER-UNIVERSAL-REEL-HOLDER, Part Number EC9926-000, reference TTDS-259						
Colors	Standard	Yellow	White					
	Code	4	9					
	Other colors available on request							
	Brown	Red	Orange	Green	Blue	Violet	Grey	Black
	1	2	3	5	6	7	8	0

Specify Product Family, Spool Length, Expanded Inside Diameter, OUT and Color

Ordering Example: ZHD-CT-50M-4.8-OUT-9

Ordering Information

Ordering description	Inside diameter				Recommended cable diameter use range		Spool lengths (dependant on spool option) m (ft)
	As supplied (minimum)		After recovery (Maximum)				
	mm	inches	mm	inches	mm	inches	
ZHD-CT - <spool length> -2.4 - OUT - <Color>	2.4 ¹	0.094	1.2	0.047	1.27 to 1.90	0.047 to 0.075	50 (164)
ZHD-CT - <spool length> -3.2 - OUT - <Color>	3.2 ¹	0.125	1.6	0.063	1.77 to 2.66	0.067 to 0.102	50 (164)
ZHD-CT - <spool length> -4.8 - OUT - <Color>	4.8 ¹	0.189	2.4	0.094	2.54 to 4.06	0.098 to 0.151	50 (164)
ZHD-CT - <spool length> -6.4 - OUT - <Color>	6.4 ¹	0.250	3.2	0.126	3.81 to 5.46	0.130 to 0.201	50 (164)
ZHD-CT - <spool length> -9.5 - OUT - <Color>	9.5 ¹	0.375	4.8	0.189	5.23 to 8.12	0.193 to 0.299	50 (164)
ZHD-CT - <spool length> -12.7 - OUT - <Color>	12.7 ¹	0.500	6.4	0.250	6.99 to 10.8	0.256 to 0.402	50 (164)
ZHD-CT - <spool length> -19.0 - OUT - <Color>	19.1 ²	0.750	9.5	0.375	10.2 to 16.3	0.378 to 0.602	50 (164)
ZHD-CT - <spool length> -25.4 - OUT - <Color>	25.4 ²	1.000	12.7	0.50	14.3 to 21.6	0.504 to 0.799	40 (131)
ZHD-CT - <spool length> -38.1 - OUT - <Color>	38.1 ³	1.500	19.1	0.75	21.0 to 33.0	0.756 to 1.201	40 (131)

¹ Recommended ribbon width 40mm— RIBBON-1966-NAR, Part No. 1-2186559-1

² Recommended ribbon width 60mm— LBF-2000P-RIBBON-1966-MED, Part No. 6-1768383-4

³ Recommended ribbon width 100mm— 1966-RIBBON, Part No. F55931-000

Check TE Document 411-121005 for full and current details



ZHD-CT Zero Halogen-Diesel Resistant

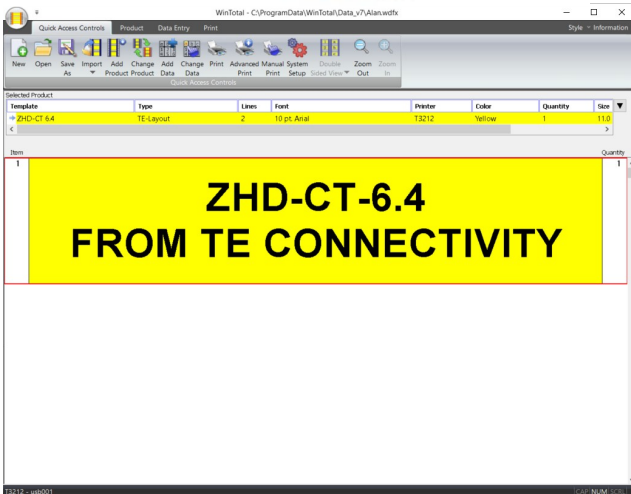


Printer Information

Print quality and print performance can only be guaranteed when specific TE printer and ribbons are used.

The current list of printers and ribbons can be found in TE document 411-121005 'Identification Printer Product Ribbon Matrix'. This document can be found in 'Access Our Tools':

<http://www.te.com/usa-en/utilities/access-product-tools-and-resources.html>



Software

WINTOTAL software, available to download for a 14 day evaluation period from the Identification Printer Software page:

www.te.com/wintotal

Contact a TE representative for further information



www.te.com

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