ZHD-SCE
LOW FIRE HAZARD,
DIESEL RESISTANT

HEAT SHRINK CABLE IDENTIFICATION SYSTEM

Technical Datasheet

TTDS-263 Revision 5 - May 2015

ZHD-SCE is the first and only Low Fire Hazard, Diesel Resistant heat shrink cable identification solution available in the marketplace today - which meets the EN 45545-2 standard for fire safety in rail vehicles.

Until now, heat shrink cable identification systems were either Low Fire Hazard or Diesel Resistant, but never both. ZHD-SCE has been designed specifically to bridge this gap - for installations where the highest performance is demanded from an identification sleeve, but without the need to compromise on safety or capability.

ZHD-SCE is part of a complete identification system which comprises printers, thermal transfer ribbons and software. It is presented as a ladder configuration, and is also available as continuous tubing (ZHDCT).

ZHD-SCE, LOW FIRE HAZARD, DIESEL RESISTANT

HEAT SHRINK CABLE IDENTIFICATION SYSTEM

Features
- Zero halogen material
- Low smoke and toxicity
- Non-flame propagating
- Resistant to key rail and industrial fluids including diesel (defined by RW-2536)
- Sleeve diameters from 2.4mm (3/32") to 38.1mm (1 $\frac{1}{2}$")
- Shrink ratio 2:1

Applications
- Suitable for pre-termination cable identification across multiple applications in the rail, mass transit, aerospace, marine and heavy industrial sectors.
- Ideal for locations where there is a fire risk to people or equipment.
- Suitable for installations that require outstanding fluid resistance - especially from diesel.

Temperature Rating
- Operating temperature range of -55°C to 125°C (-67°F to 257°F)

Design for environment
- Does not contain any declarable or prohibited substances from the UNIFE Railway Industry Substances List.
- No halogens, sulphur, nitrogen, phosphorus and cadmium sources above trace level.
- Flame retardant used in this product does not contain melamine cyanurate.
- Further information and a downloadable declaration covering RoHS and REACH compliance can be found at the TE Product Compliance Support Centre:

  www.te.com/en/resources/product-compliance.html

Specifications/Approvals

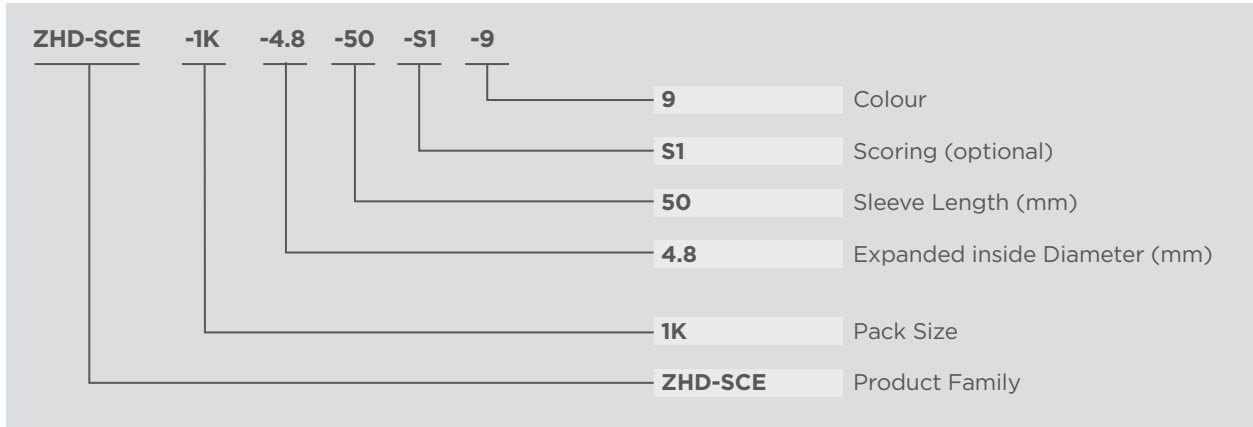### TE Connectivity Standard
- RW-2536

Rail Standards
- EN45545-2 Hazard Classifications 1 and 2, in accordance with requirement set R22/R23.
- BS 6853 Code of practice for fire precautions in the design and construction of passenger carrying trains. Interior minor use of materials of mass 100g to 500g vehicle Category II.
- EN 50343 Rolling stock applications - Rolling Stock Rules for Installation of Cabling, Appendix H.
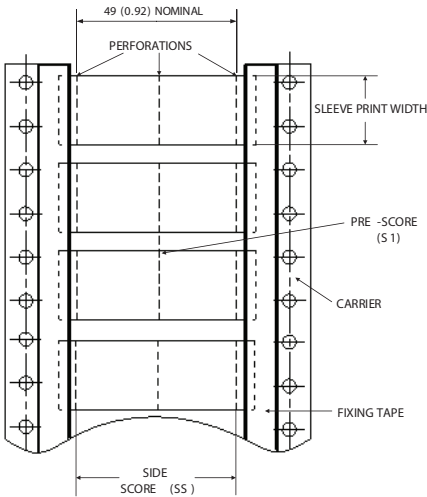
Where possible, TE has tested this product as a finished item, including the print. Operational tests are followed by an assessment of mark adherence to validate fit, form and function. Further details can be found in TE standard RW-2536

Part Description

ZHD-SCE   -1K   -4.8   -50   -S1   -9

9	Colour
S1	Scoring (optional)
50	Sleeve Length (mm)
4.8	Expanded inside Diameter (mm)
1K	Pack Size
ZHD-SCE	Product Family

Options

49 (0.92) NOMINAL
PERFORATIONS
SLEEVE PRINT WIDTH
PRE -SCORE (S 1)
CARRIER
FIXING TAPE
SIDE SCORE (SS)

Pre-scoring	Perforated score to produce multiple marker sleeves from each ZHD-SCE sleeve.		
	Not scored	Code	Blank
	Side scored	Code	SS
	Sided scored with onepre-score	Code	SS1
	1 Pre-score	Code	S1
	2 Pre-scores	Code	S2
Packaging sizes	\<blank\>	250 piece packs available for all sizes	
	1K	1000 piece reels available for all sizes up to 25.4	
	2.5K	2500 piece reels available for sizes 4.8 up to 25.4	
	5K	5000 piece reels available for sizes 2.4 and 3.2	

Colour		Yellow	White		
	Code	4	9		
		Red	Green	Blue	Orange
	Code	2	5	6	3

Specify product name, pack size (leave blank for 250), sleeve size (in mm), sleeve length (always 50), pre-score (leave blank if not required) and colour

Ordering information

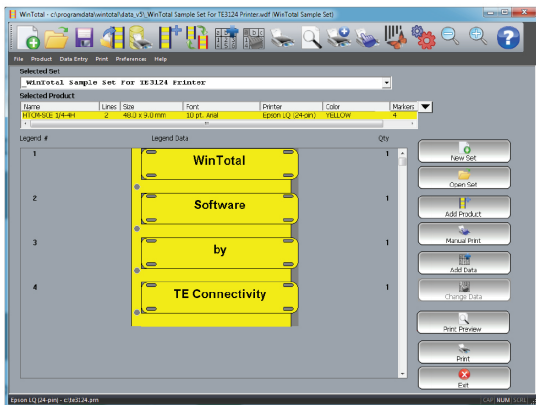| Ordering description	Inside diameter				Recommended cable diameter use range	
	As supplied (minimum)		After recovery (Maximum)			
	mm	inches	mm	inches	mm	inches
ZHD-SCE - \<pack size\> - 2.4 - 50 - \<score\> - \<colour\>	2.4	0.094	1.19	0.047	1.27 to 1.90	0.050 to 0.075
ZHD-SCE - \<pack size\> - 3.2 - 50 - \<score\> - \<colour\>	3.2	0.126	1.58	0.060	1.77 to 2.66	0.069 to 0.105
ZHD-SCE - \<pack size\> - 4.8 - 50 - \<score\> - \<colour\>	4.8	0.189	2.36	0.090	2.54 to 4.06	0.100 to 0.160
ZHD-SCE - \<pack size\> - 6.4 - 50 - \<score\> - \<colour\>	6.4	0.250	3.18	0.125	3.81 to 5.46	0.150 to 0.215
ZHD-SCE - \<pack size\> - 9.5 - 50 - \<score\> - \<colour\>	9.5	0.375	4.75	0.187	5.59 to 8.12	0.220 to 0.320
ZHD-SCE - \<pack size\> - 12.7 - 50 - \<score\> - \<colour\>	12.7	0.500	6.35	0.250	6.99 to 10.79	0.275 to 0.425
ZHD-SCE - \<pack size\> - 19.0 - 50 - \<score\> - \<colour\>	19.0	0.730	9.53	0.375	10.16 to 16.25	0.400 to 0.640
ZHD-SCE - \<pack size\> - 25.4 - 50 - \<score\> - \<colour\>	25.4	1.000	12.70	0.500	14.29 to 21.59	0.563 to 0.850
ZHD-SCE - 38.1 - 50 - \<score\> - \<colour\>	38.1	1.500	19.05	0.750	20.95 to 33.02	0.825 to 1.300

Printer information

Print quality and print performance can only be guaranteed when specific TE printers and ribbons are used. The current list of printers and ribbons can be found in the TE document 411-121005 'Identification Printer Product Ribbon Matrix'.

This can be found at the TE Document Centre:

www.te.com/commerce/DocumentDelivery/

Software

ZHD-SCE is fully supported by WINTOTAL and PrintEasy label printing software, available from the TE product store:

www.te.com/en/general/label-printing-software.html

Please contact a TE representative for further information.

www.te.com/rail