EN45545 COMPLIANT HDC INSERTS



TE Connectivity (TE) 's new range of inserts for heavy duty connectors comply with the EN45545 European standard on flame retardancy for materials and products in railway rolling stock.

The modular inserts provide customers with a high level of flexibility when configuring railway connector systems. They can be configured to hold anywhere from 1 to 216 pins and enable signal, data and power to be transmitted via one single connector.

The EN45545 standard includes specifications on fire, smoke and toxicity (FST) compliance. It provides three classifications of hazard level, HL1, HL2 and HL3, with HL3 being the highest. The new inserts from TE meet R22 and R23 requirement set on level HL3. They have an operating temperature range that extends from - 40°C to 125°C.

APPLICATIONS

- Rolling stock: traction converters, power distribution, inter-car jumpers

ELECTRICAL

• HDD:	10A / 250V
• HEE:	16A / 500V
• HEEE:	16A / 400V and 16A / 500V
• HMN:	Modular system, various performance levels from 5A to 200A and 50V to 1000V

MECHANICAL

- Operating temperature range from -40°C to 125°C

MATERIAL

- Material approved according to R22 and R23 requirement set for hazard levels: HL1, HL2 and HL3, per EN45545, with Oxygen index per EN ISO 4589-2 / Smoke density per EN ISO 5659-2 / Toxicity per NF X 70-100-1/-2

APPLICATIONS AND SPECIFICATIONS

- EN45545: Fire protection on railway vehicles -Railway applications
- EN61984: Connectors - safety requirements and tests
- EN 50467: Electrical connectors - requirements and test - Railway applications
- IEC 60512: Connectors for electronic equipment -Test and measurements
- IEC 60664-1: Insulation coordination for equipment within low-voltage systems (Part 1)
- EN 61373: Rolling stock equipment - shock and vibration test - Railway applications

BENEFITS

- Compliance with safety regulations
- Reliable electrical connection
- High flexibility and possibility of creating a customized interface
- Time-saving with easy assembly of the modular inserts
- Decrease installation cost with system modularity design

KEY FEATURES

- Fire, smoke and toxicity compliance per the EN45545
- Several insert series, with possible pin configuration from 1 to 216 pins in 1 connector
- Modular system with a time-saving one-piece connector frame

PRODUCT OFFERINGS

HDC Insert Series	Part number	Description	Poles	Current	Voltage	Contacts
HDD Series	T2031082101-007	HDD-108-M	108+PE	10A	250V	CDM/F(10A) DDM/F(10A) CJM/F(10A)
	T2032162101-007	HDD-108-M 109-216	108+PE	10A	250V	
	T2031082201-007	HDD-108-F	108+PE	10A	250V	
	T2032162201-007	HDD-108-F 109-216	108+PE	10A	250V	
HEE Series	T2050102101-007	HEE-010-M	10+PE	16A	500V	CEM/F(16A) DEM/F(16A)
	T2050102201-007	HEE-010-F	10+PE	16A	500V	
	T2050182101-007	HEE-018-M	18+PE	16A	500V	CEM/F(16A) DEM/F(16A)
	T2050182201-007	HEE-018-F	18+PE	16A	500V	
	T2050322101-007	HEE-032-M	32+PE	16A	500V	
	T2050642101-007	HEE-032-M 33-64	32+PE	16A	500V	
	T2050322201-007	HEE-032-F	32+PE	16A	500V	
	T2050642201-007	HEE-032-F 33-64	32+PE	16A	500V	
	T2050462101-007	HEE-046-M	46+PE	16A	500V	
	T2050922101-007	HEE-046-M 47-92	46+PE	16A	500V	
	T2050462201-007	HEE-046-F	46+PE	16A	500V	
	T2050922201-007	HEE-046-F 47-92	46+PE	16A	500V	
HEEE Series	T2050202101-007	HEEE-020-M	20+PE	16A	400V	CEM/F(16A) DEM/F(16A)
	T2050202201-007	HEEE-020-F	20+PE	16A	400V	
	T2050323101-007	HEEE-032-M	32+PE	16A	400V	
	T2050323201-007	HEEE-032-F	32+PE	16A	400V	
	T2050402101-007	HEEE-040-M	40+PE	16A	500V	
	T2050802101-007	HEEE-040-M 41-80	40+PE	16A	500V	
	T2050402201-007	HEEE-040-F	40+PE	16A	500V	
	T2050802201-007	HEEE-040-F 41-80	40+PE	16A	500V	
	T2050482101-007	HEEE-048-M	48+PE	16A	400V	
	T2050962101-007	HEEE-048-M 49-96	48+PE	16A	400V	
	T2050482201-007	HEEE-048-F	48+PE	16A	400V	
	T2050962201-007	HEEE-048-F 49-96	48+PE	16A	400V	
	T2050643101-007	HEEE-064-M	64+PE	16A	500V	
	T2051283101-007	HEEE-064-M 65-128	64+PE	16A	500V	
	T2050643201-007	HEEE-064-F	64+PE	16A	500V	
	T2051283201-007	HEEE-064-F 65-128	64+PE	16A	500V	
	T2050722101-007	HEEE-072-M	72+PE	16A	400V	
	T2051442101-007	HEEE-072-M 73-144	72+PE	16A	400V	
	T2050722201-007	HEEE-072-F	72+PE	16A	400V	
	T2051442201-007	HEEE-072-F 73-144	72+PE	16A	400V	

PRODUCT OFFERINGS

HDC Insert Series	Part number	Description	Poles	Current	Voltage	Contacts
HMN Series	T2111013101-007	HMN-001-MC	1	200A	1000V	CHM/F(200A)
	T2111013201-007	HMN-001-FC	1	200A	1000V	
	T2111020101-007	HMN-002-MC	2	70A	1000V	CSM/F(70A)
	T2111020201-007	HMN-002-FC	2	70A	1000V	
	T2111028101-007	HMN-D2-MC	2	100A	1000V	CNM/F(100A)
	T2111028201-007	HMN-D2-FC	2	100A	1000V	
	T2111032101-007	HMN-003-M	3	40A	690V	CMM/F(40A) DMM/F(40A)
	T2111032201-007	HMN-003-F	3	40A	690V	
	T2111042101-007	HMN-004-M	4	40A	830V	CMM/F(40A) DMM/F(40A)
	T2111042201-007	HMN-004-F	4	40A	830V	
	T2111062101-007	HMN-006-M	6	16A	500V	CEM/F(16A) DEM/F(16A)
	T2111062201-007	HMN-006-F	6	16A	500V	
	T2111063101-007	HMN-006-PM	6	16A	830V	
	T2111063201-007	HMN-006-PF	6	16A	830V	
	T2111082101-007	HMN-008-M	8	16A	400V	CEM/F(16A) DEM/F(16A)
	T2111082201-007	HMN-008-F	8	16A	400V	
	T2111092101-007	HMN-009-M	9	5A	50V	CAM/F(5A) DAM/F(5A)
	T2111092201-007	HMN-009-F	9	5A	50V	
	T2111122101-007	HMN-012-M	12	10A	250V	CDM/F(10A) DDM/F(10A)
	T2111122201-007	HMN-012-F	12	10A	250V	
	T2111172101-007	HMN-017-M	17	10A	160V	CDM/F(10A) DDM/F(10A)
	T2111172201-007	HMN-017-F	17	10A	160V	
	T2111202101-007	HMN-020-M	20	16A	500V	CEM/F(16A) DEM/F(16A)
	T2111202201-007	HMN-020-F	20	16A	500V	
	T2111252101-007	HMN-025-M	25	5A	50V	CAM/F(5A) DAM/F(5A)
	T2111252201-007	HMN-025-F	25	5A	50V	
	T2111027101-007	HMN-Q1-M	1+1	16A	50V	CEM/F(16A) DEM/F(16A)
	T2111027201-007	HMN-Q1-F	1+1	16A	50V	
	T2111027101-701	HMN-Q2-M	4+4	10A	50V	CDM/F(10A) DDM/F(10A)
	T2111027201-701	HMN-Q2-F	4+4	10A	50V	
	T2111027101-702	HMN-Q3-M	8+8	5A	50V	CAM/F(5A) DAM/F(5A)
	T2111027201-702	HMN-Q3-F	8+8	5A	50V	
	T2580011154-007	PIN-Q1-M	1	16A	50V	CEM/F(16A) DEM/F(16A)
	T2580012154-007	PIN-Q1-F	1	16A	50V	
	T2580031154-007	PIN-Q2-M	4	10A	50V	CDM/F(10A) DDM/F(10A)
	T2580032154-007	PIN-Q2-F	4	10A	50V	
	T2580081154-007	PIN-Q3-M	8	5A	50V	CAM/F(5A) DAM/F(5A)
	T2580082154-007	PIN-Q3-F	8	5A	50V	
	T2580011154-701	PIN-Q2-M1	1	10A	50V	CDM/F(10A) DDM/F(10A)
	T2580012154-701	PIN-Q2-F1	1	10A	50V	
	T3110009902-007	HMN-DM	Blind Module			

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