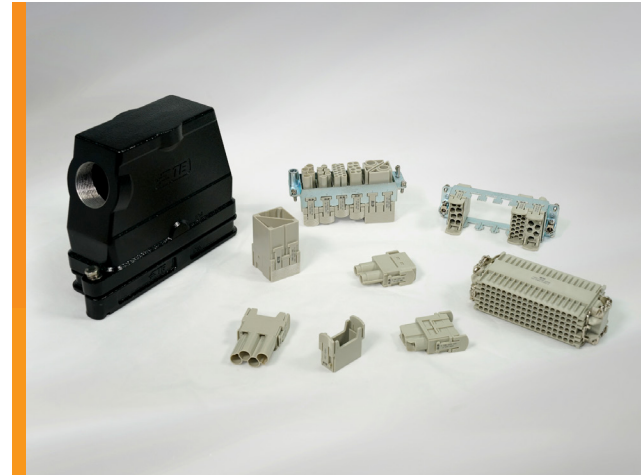


# EN45545 COMPLIANT HDC INSERTS

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

PRODUCT OFFERINGS

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

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