HEAVY DUTY CONNECTORS WITH DYNAMIC INSERTS

INCREASED FLEXIBILITY AND ENHANCED RELIABILITY

TE's modular HDC series has been expanded to include a range of connectors with dynamic inserts. Designed specifically for harsh environments for industrial applications, the new HDC Dynamic series makes it possible to reduce cable assembly costs by using semi-automatic or fully-automatic crimping of dynamic contacts. Their compact designs offers users more design flexibility with high density up to 48 contacts and handling over-voltage requirement to 300V in a single module. Building on TE's proven dynamic contacts technology, the new HDC Dynamic connectors deliver performance comparable with traditional HDC connectors.

BENEFITS

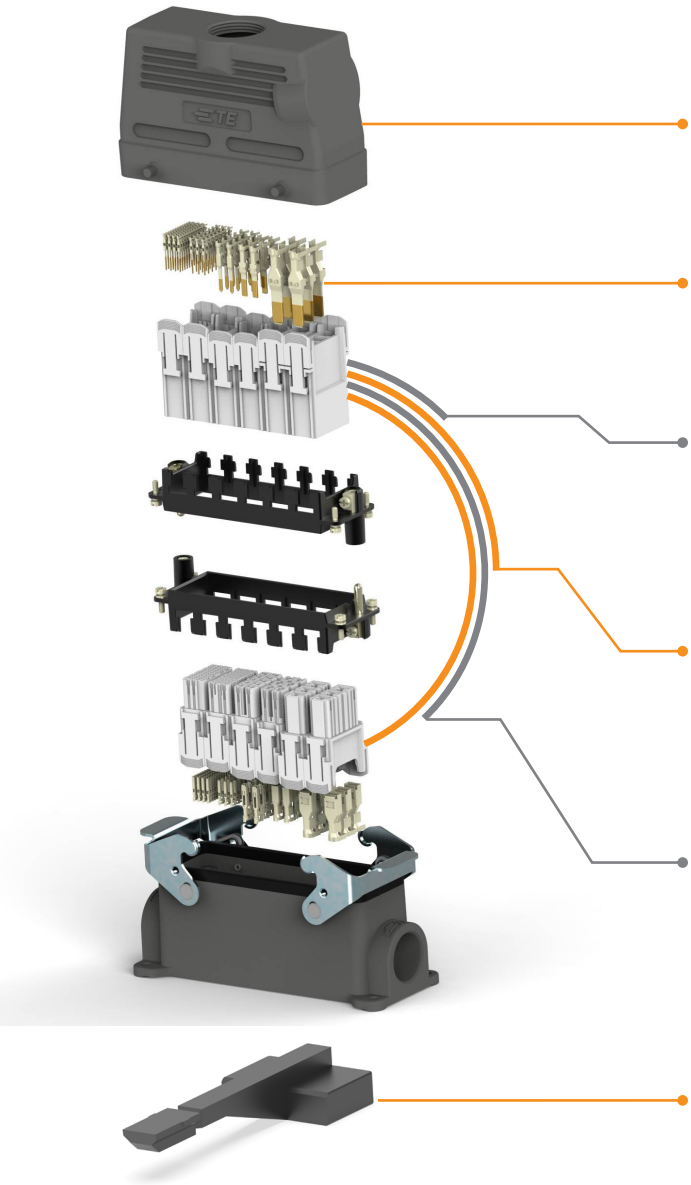
- Designed for harsh (industrial) environments
- Improved operational efficiency using automated crimping process
- Reliable and high density contact, up to 288 positions
- Extended portfolio that offers integration with existing HDC products
- Increased flexibility and reduced size for space-saving

APPLICATIONS

- Industrial Robotics
- Industrial Machinery
- Semiconductor
- Medical Equipment
- Wind

Heavy Duty Connectors with Dynamic Inserts

FEATURES

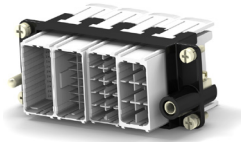


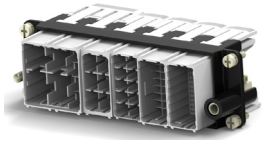
Suitable for IP 20, IP 65 and IP 68/IP69K hoods and housings

One contact family for wire-to-board and heavy-duty cable-to-cable connections

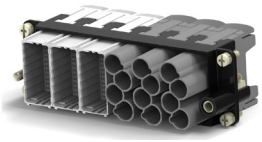
3- 48 box-shaped contacts in one module, up to 6 modules per connector

Allows different power, signal and data using in various module





Option to combine the inserts and dynamic connectors with classic HMN module connectors



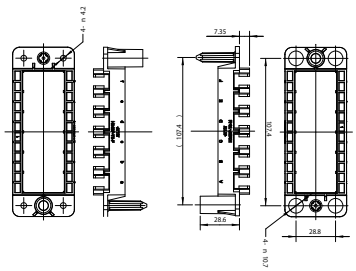
Key-in plug is offered separately to prevent mis-mating, used on inserts of HDC Dynamic series.

PRODUCT SPECIFICATIONS

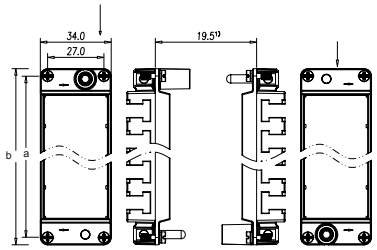
	Electrical		Mechanical	Materials	Standards & Specifications		Environmental		Product Compliance/ Approvals
	Current	Voltage	Housing Locking Strength	Mold material	Product Specification	Application Specification	Heat aging	Thermal Shock	
HMN-HD1-48	2.2A MAX	32V	100 N Min	PBT GF	108-140152	114-78022	125 ℃ 168 hr	-40℃/1h, 125℃/1h. 100 cycles	UL1977
HMN-HD1-24	3.7A MAX	300V	100 N Min	PBT GF	108-140157	114-78025	125 ℃ 168 hr	-40℃/1h, 125℃/1h. 100 cycles	UL1977
HMN-HD3-10	11A MAX	400V	100 N Min	PBT GF	108-140158	114-78026	125 ℃ 168 hr	-40℃/1h, 125℃/1h. 100 cycles	UL1977
HMN-HD4-6	16A MAX	500V	100 N Min	PBT GF	108-140159	114-78027	125 ℃ 168 hr	-40℃/1h, 125℃/1h. 100 cycles	UL1977
HMN-HD5-3	40A MAX	300V	100 N Min	PBT GF	108-140160	114-78028	125 ℃ 168 hr	-40℃/1h, 125℃/1h. 100 cycles	UL1977

HMN FRAME

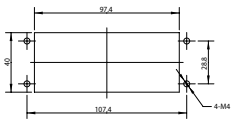
Plastic Docking Frame (for Drawer)



Metal Frame



Panel Cutout Dimensions



Hood/Housing Type	No. of Modules	a (mm)	b (mm)	Plastic (for Drawer)		Metal	
				Product	P/N	Product	P/N
H24B	6	104	111	H24BP-T6-M	T2071244101-000	H24BN-T6-M-HD	T2070244101-002
				H24BP-T6-F	T2071244201-000	H24BN-T6-F-HD	T2070244201-002
H16B	4	77.5	84.5	H16BP-T4-M	T2071164101-000	H16BN-T4-M-HD	T2070164101-002
				H16BP-T4-F	T2071164201-000	H16BN-T4-F-HD	T2070164201-002
H10B	3	57	64.1	H10BP-T3-M	T2071104101-000	H10BN-T3-M-HD	T2070104101-002
				H10BP-T3-F	T2071104201-000	H10BN-T3-F-HD	T2070104201-002
H6B	2	44	51	H6BP-T2-M	T2071064101-000	H6BN-T2-M-HD	T2070064101-002
				H6BP-T2-F	T2071064201-000	H6BN-T2-F-HD	T2070064201-002
H10A	1	49.5	56.5			H10A-T1-M-HD	T2079104101-002
						H10A-T1-F-HD	T2079104201-002

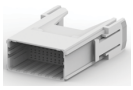
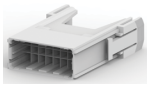
KEY-IN PLUG

Part number: **2314531-1**
Application Specification: 114-78032
*Applicable to all HMN insert in this document.

Note:
Please be sure to apply HMN frame for Dynamic module of the above part number, when using HDC Dynamic module.
PE/Guide pin at the both side of HMN frame for Dynamic module is longer than existing HMN frame.
HMN frame for Dynamic module can apply existing HMN module.(Limited to mating between our products.)
HMN frame for Dynamic module is coated black plating in order to discriminate the appearance of existing HMN frame.

PRODUCT OFFERINGS

HMN–HD1 MODULE

Male Housing	Product	P/N
	HMN-HD1-48-M	2312729-2
	HMN-HD1-24-M	2316315-2

Female Housing	Product	P/N
	HMN-HD1-48-F	2312730-2
	HMN-HD1-24-F	2316316-2

Male Housing assembly with Tab Contacts

Female Housing assembly with Receptacle Contacts

Wire Size		Insulation Diameter (mm)	Size	Plating (µm)	Tab Contact P/N		Receptacle Contact P/N		Applicable crimping tool	
AWG	mm²				Strip	L/P	Strip	L/P	Applicator	Hand Tool
30	0.05 ~ 0.10	0.6~1.2	S	Au 0.38	2316663-1	2316669-1	2316670-1	2316671-1	2151110-1	2119144-1 + 2305680-1**
28										
28	0.08 ~ 0.37	1.08~1.6	M	Au 0.38	2316663-2	2316669-2	2316670-2	2316671-2	2151082-1	2119141-1 + 2305680-1**
26										
24										2305681-1***
22										
28	0.08 ~ 0.37	1.08~1.9	L*	Au 0.38	2316663-3	2316669-3	2316670-3	2316671-3	2151111-1	2119143-1 + 2305680-1**
26										
24										2305683-1***
22										
22	1.4 ~ 2.2	1.4~2.2	2L*	Au 0.38	2316663-4	2316669-4	2316670-4	2316671-4	2151083-1	2119142-1 + 2305680-1**

Note:
In addition to the above parts, contacts with palladium nickel (Pd-Ni) platings are offered upon request for increased mating and unmating durability. Please contact us if necessary.
*: not applicable to HMN-HD1-48 modules
**: It is possible to crimp the contact of HD1 by replacing the flip locator of existing hand crimping tool for D-1000 to a flip locator 2305680-1 for HD 1
***: It is a hand tool dedicated to HD1 contact. It is possible to crimp the contact of HD1.

PRODUCT OFFERINGS

HMN–HD3 MODULE

Male Housing	Product	P/N
	HMN-HD3-10-M	2312733-2

Female Housing	Product	P/N
	HMN-HD3-10-F	2312734-2

Male Housing assembly with Tab Contacts

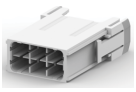
Female Housing assembly with Receptacle Contacts

Wire Size		Insulation Diameter (mm)	Size	Plating (µm)	Tab Contact P/N		Receptacle Contact P/N		Applicable crimping tool	
AWG	mm²				Strip	L/P	Strip	L/P	Applicator	Hand Tool
28 26 24	0.08 ~ 0.20	0.8 ~ 1.4	S	Au 0.38	2316815-1	2316817-1	2298107-1	2311162-1	2836130-1	91565-1
24 22 20	0.20 ~ 0.50	1.2~2.6	M	Au 0.38	2316815-2	2316817-2	2298107-2	2311162-2	2151080-1	91559-1
20 18 18	0.50 ~ 1.42	1.8~2.8	L	Au 0.38	2316815-3	2316817-3	2298107-3	2311162-3	2151018-1	91558-1
16 14	1.25 ~ 2.20	2.2~2.8	2L	Au 0.38	2316815-4	2316817-4	2298107-4	2311162-4	2151119-1	91560-1
16 14	1.25 ~ 2.20	3.1~3.4	3L	Au 0.38	2316815-5	2316817-5	2298107-5	2311162-5	2151073-1	91561-1

Note:
In addition to the above parts, contacts with palladium nickel (Pd-Ni) platings are offered upon request for increased mating and unmating durability. Please contact us if necessary.

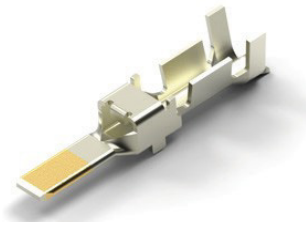
PRODUCT OFFERINGS

HMN–HD4 MODULE

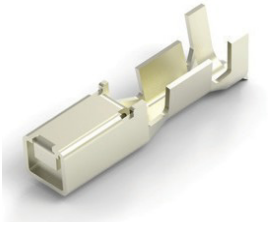
Male Housing	Product	P/N
	HMN-HD4-6-M	2312735-2

Female Housing	Product	P/N
	HMN-HD4-6-F	2312736-2

Male Housing assembly with Tab Contacts



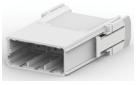
Female Housing assembly with Receptacle Contacts



Wire Size		Insulation Diameter (mm)	Size	Plating (µm)	Tab Contact P/N		Receptacle Contact P/N		Applicable crimping tool	
AWG	mm²				Strip	L/P	Strip	L/P	Applicator	Hand Tool
22	0.30 ~ 0.50	1.58~2.56	SS	Au 0.76	1-2287732-2	1-2288019-1	2287721-2	2288020-1	-	2255300-1
20										
20	0.50 ~ 1.42	1.8~3.23	S	Au 0.38	1-2040016-2	1-2040586-1	2040015-2	2040587-1	2266289-X	2047670-1
18										
16										
16	1.25 ~ 2.20	2.0~3.75	M	Au 0.38	1-1747419-2	1-1747501-2	1747418-2	1747499-2	1762120-2	1762130-1
14										
14	2.20 ~ 3.50	2.9~4.1	L	Au 0.38	1-1747416-2	1-1747500-2	1747415-2	1747498-2	1762119-2	1762129-1
12										

PRODUCT OFFERINGS

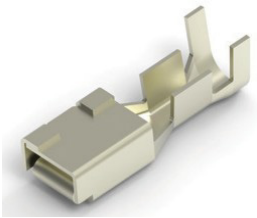
HMN–HD5 MODULE

Male Housing	Product	P/N
	HMN-HD5-3-M	2312737-2

Female Housing	Product	P/N
	HMN-HD5-3-F	2312738-2

Male Housing assembly with Tab Contacts

Female Housing assembly with Receptacle Contacts



Wire Size		Insulation Diameter (mm)	Size	Plating (µm)	Tab Contact P/N		Receptacle Contact P/N		Applicable crimping tool	
AWG	mm²				Strip	L/P	Strip	L/P	Applicator	Hand Tool
16	1.25 ~ 2.00	3~3.8	S	Au 0.2	84696-1	2013594-1	179955-2	316040-2	234030-2	234170-1
14										
12	3.50 ~ 5.50	4~5.2	M	Au 0.2	84695-1	2013593-1	179956-2	316041-2	234029-2	234171-1
10										
8	8.00	4.9~7.8	L	Au 0.2	2316819-1	2316820-1	1318696-2	1318697-2	1366658-4	1366044-1

PRODUCT OFFERINGS

HMN–HDW-5/3 MODULE

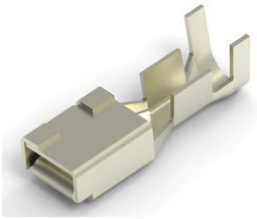
Male Housing	Product	P/N
	HMN-HDW5/3-4/4-M	2312739-2

Female Housing	Product	P/N
	HMN-HDW5/3-4/4-F	2312740-2

Male Housing assembly with Tab Contacts

Female Housing assembly with Receptacle Contacts

Wire Size		Insulation Diameter (mm)	Size	Plating (µm)	Tab Contact P/N		Receptacle Contact P/N		Applicable crimping tool	
AWG	mm²				Strip	L/P	Strip	L/P	Applicator	Hand Tool
28 26 24	0.08 ~ 0.20	0.8 ~ 1.4	S	Au 0.38	2316815-1	2316817-1	2298107-1	2311162-1	2836130-1	91565-1
24 22 20	0.20 ~ 0.50	1.2~2.6	M	Au 0.38	2316815-2	2316817-2	2298107-2	2311162-2	2151080-1	91559-1
20 18 18	0.50 ~ 1.42	1.8~2.8	L	Au 0.38	2316815-3	2316817-3	2298107-3	2311162-3	2151018-1	91558-1
16 14	1.25 ~ 2.20	2.2~2.8	2L	Au 0.38	2316815-4	2316817-4	2298107-4	2311162-4	2151119-1	91560-1
16 14	1.25 ~ 2.20	3.1~3.4	3L	Au 0.38	2316815-5	2316817-5	2298107-5	2311162-5	2151073-1	91561-1



Wire Size		Insulation Diameter (mm)	Size	Plating (µm)	Tab Contact P/N		Receptacle Contact P/N		Applicable crimping tool	
AWG	mm²				Strip	L/P	Strip	L/P	Applicator	Hand Tool
16 14	1.25 ~ 2.00	3~3.8	S	Au 0.2	84696-1	2013594-1	179955-2	316040-2	234030-2	234170-1
12 10	3.50 ~ 5.50	4~5.2	M	Au 0.2	84695-1	2013593-1	179956-2	316041-2	234029-2	234171-1
8	8.00	4.9~7.8	L	Au 0.2	2316819-1	2316820-1	1318696-2	1318697-2	1366658-4	1366044-1

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