HEAVYCON EVO
Market requirements

- Cost-efficiency
- Logistic-efficiency
- Easy to install
- Ecologically aspects

PHOENIX CONTACT
INSPIRING INNOVATIONS

HEAVYCON EVO
Product introduction

The evolution in heavy-duty connectors

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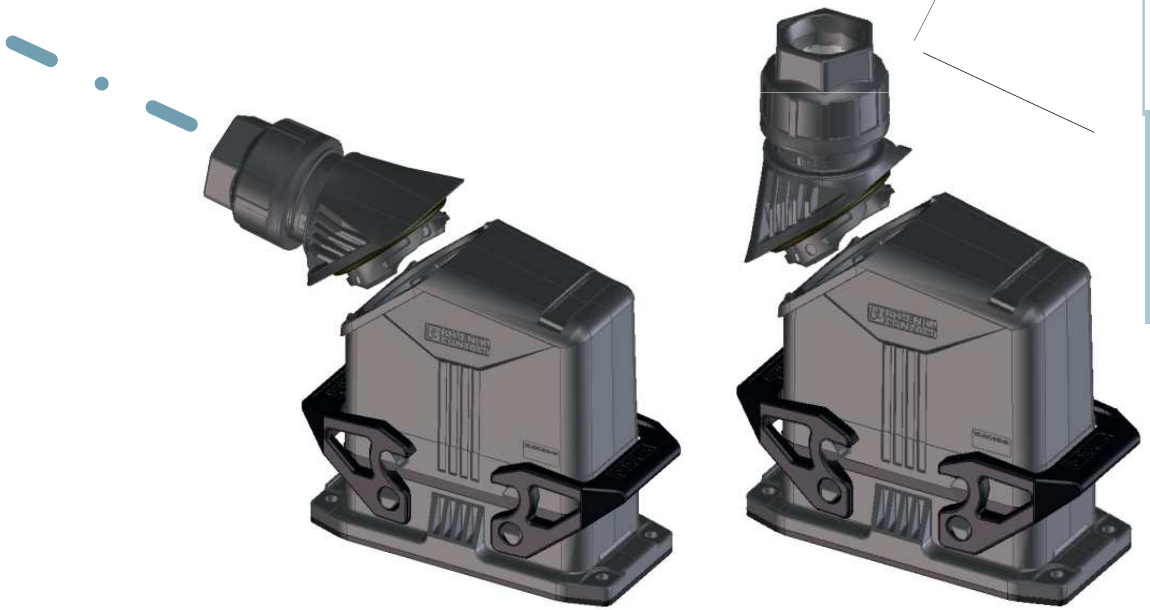
HEAVYCON EVO
Product introduction

M20, M25, M32 and M40



HC EVO-Lock: Cable gland with bayonett lock

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HEAVYCON EVO
Product introduction

Metal inlays ensure premating PE contact

DIN EN 61 984
DIN EN 60 664-1
UL 1977

Two metal inlays are used in the housings to fix the contact inserts and coding screws.

Meanwhile they serve as an electric bridge between PE-contact of the male and female inserts, so as to ensure the conformity to norms.

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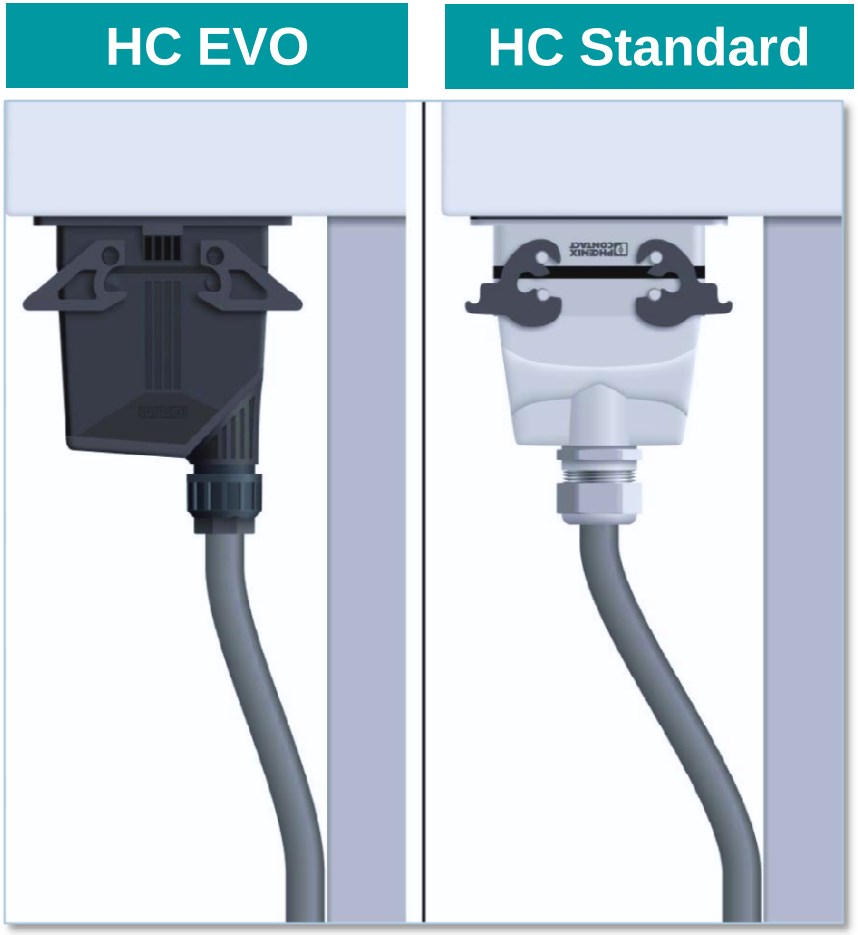
HEAVYCON EVO
Product introduction

Asymmetric top entry

- Good ergonomy
- Smart cable leading



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HEAVYCON EVO
Product introduction

Mounting by hand

Dismounting with tool

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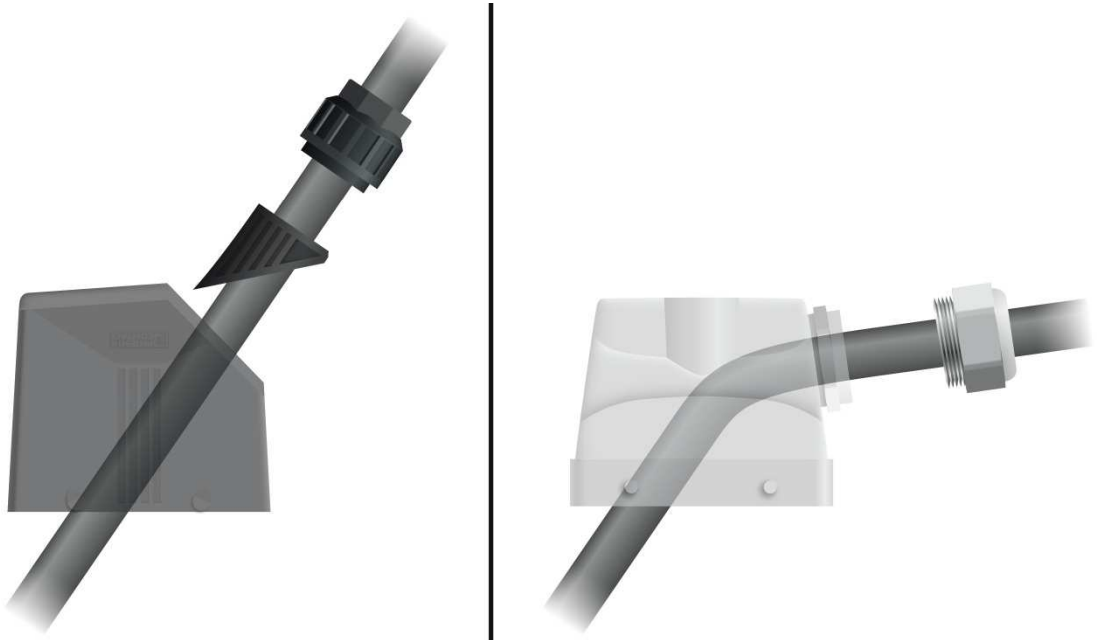
HEAVYCON EVO
Product introduction

Easy installation due to HC EVO-Lock

HC EVO	HC Standard



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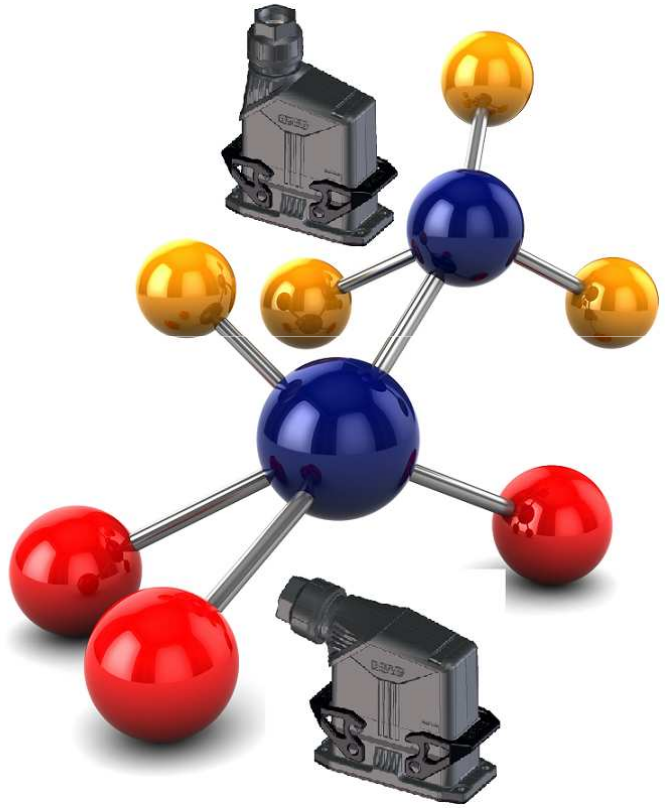
HEAVYCON EVO
Product introduction

Advantages of plastic material

- Cost-saving of 25%
- 50% reduction in weight
- 80% energy saving in production (plastic vs. aluminium)

- Excellent mechanical properties, high resistance against environmental influences.(**IK08**)
- Suitable for protection class II
- Halogen free and garanteed UL94 **V0** (flammability retardance class)



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HEAVYCON EVO
Product introduction

Sustainable use of recources

PP KEA : 118,8 MJ/Kg

Alu KEA : 193,3 MJ/Kg

Tabelle 2: Produktionsenergie als kumulierter Energieaufwand (KEA) im Vergleich zu Beschaffungs- und Entsorgungskosten von Kunststoffen und anderen Materialien

Material	KEA MJ/kg	Beschaffungskosten		Heizwert MJ/kg
		€/t	€/MWh KEA	
Naphtha (Rohbenzin)	55	332	21,7	43,5
LDPE Folie	91,8	800	31,4	46
HDPE Folie	99,8	800	28,9	46
PP Spritzguss	118,8	850	25,7	44
PVC Folie	66,3	820	44,6	20
PS (high impact)	91,8	860	33,7	46
PET Flasche	101,4	1060	37,6	46
PET Folie	109,2	1020	33,6	46
Stahl	35,8	247	24,8	0
Aluminium	193,3	1450	27,0	0
Weißglas	12,7	140	39,6	0
Wellpappe, Karton	19,8	160	29,1	15
Papier (grafische etc.)	44,8	500	40,2	17
Holzspäne f. Pressplatten	17,0	55	11,6	16
Stammholz, frisch	14,0	150	38,6	10
Stammholz, getrocknet	19,0	220	41,7	15

Ecological backback factors:
5 for plastics / 75 for aluminium

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HEAVYCON EVO
Product introduction

Complete programm

- The HC-EVO hoods made of plastic are available in size of B6, B10, B16 and B24 with single or double locking latches.
- The corresponding housings are bulkhead housings, panel mount housings and coupling housing with or without protection cover.
- All cable glands of standard sizes from M20 to M40 are covered with the HEAVYCON EVO-Lock-connection.

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HEAVYCON EVO
Product introduction

Fully compatible

Fits to all standard and HC modular inserts

Fully compatible to the aluminium housings of all competitors

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HEAVYCON EVO
Product introduction

Advantages of the surface mount housing

- The covers are removeable to both sides
- The locking latches are changeable
- Variants are 50% reduced through optional single & double cable entry (lid can be broken out)

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HEAVYCON EVO – safety and stability

Robust

Protection type IP65

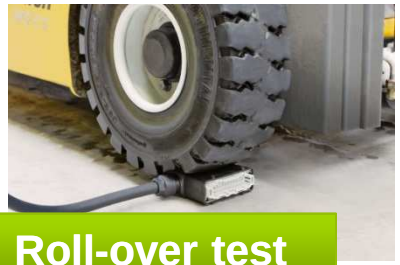
Pull test

-40°C to +125°C approved

Vibration test

Compatible

Impact test IK08



Roll-over test

Robust and compatible as metal housings!

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HEAVYCON EVO
Safety and stability

Long term rugged locking latches

stress

PHOENIX CONTACT
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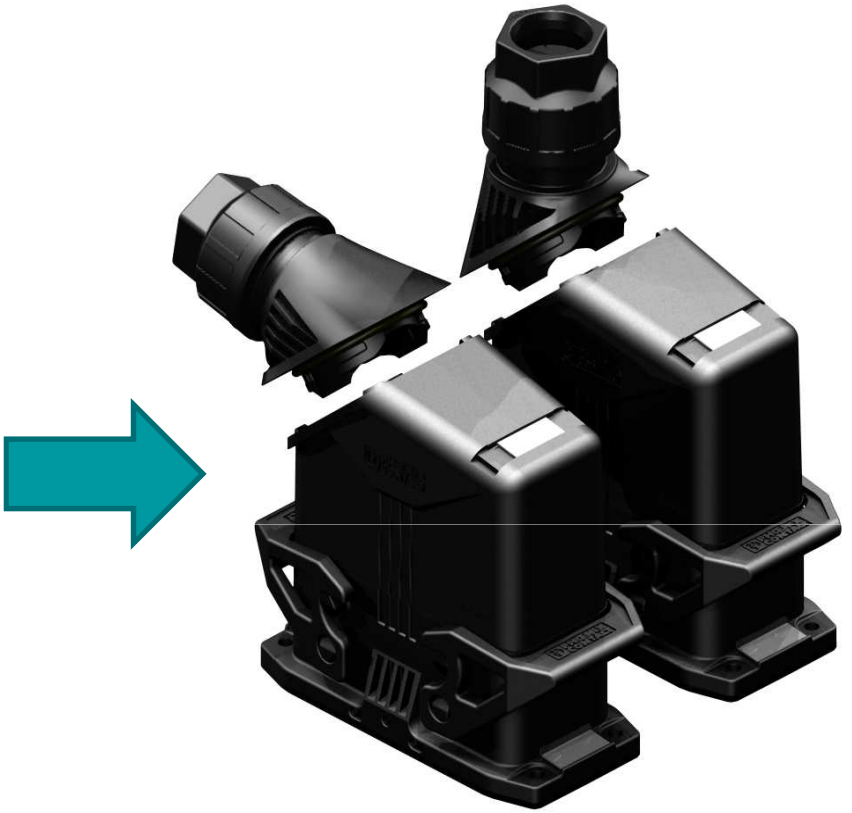
The evolution in heavy duty connectors



70% Reduction of Variants
means greater stock availability

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HEAVYCON EVO

Typ-ident

EVO-housings

1	2	3	4	5	5	6	7	8	9	10	11	12	14	
HC	- EVO	- B06	- H		L	FS		- 1		G	M25	- PL	BK	26
HC	- EVO	- B10	- B			WS	C					- PLR	BK	21
HC	- EVO	- B16	- S		L	FD	C	- 2	S	S	M32	- PLR	BK	29
HC	- EVO	- B16	- S		L	FD	C	- 2	S	S	PG13	- PLR	BK	30
HC	- EVO	- B24	- C		H	WD		- 1	T	T	M40	- PLV	BK	28
			12											

HEAVYCON

SERIES:

EVO	=	EVOLUTION

HOUSING TYPE & SIZE:

HOUSING TYPE

H	=	HOOD
B	=	PANEL BASE / BULKHEAD HOUSING
S	=	SURFACE MOUNT HOUSING
C	=	COUPLER HOOD

CONSTRUCTION HEIGHT

H	=	HIGH CONSTRUCTION
L	=	LOW CONSTRUCTION

CONNECTOR FIXING:

WS	=	WITH SINGLE LEVER
WD	=	WITH DOUBLE LEVER
FS	=	FOR SINGLE LEVER
FD	=	FOR DOUBLE LEVER

DUST COVER:

C	=	PLASTIC
CM	=	METAL

NUMBER OF GLAND ENTRIES:

LOCATION OF GLAND ENTRY

T	=	TOP
S	=	SIDE

TYPE OF ENTRY

G	=	WITH CABLE GLAND

THREAD TYPE AND SIZE

MATERIAL TYPE AND FINISH

PLR	=	PLASTIC with NBR RUBBER SEALING PROFILE
PLV	=	PLASTIC with VITON SEALING PROFILE

HOUSING COLOUR:

BK	=	BLACK

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HEAVYCON EVO
Key features

Reduction of total cost of ownership

- Less design-in costs
- Less master data in the system
- Less equipment costs in the production
- Less stock-keeping / logistics worldwide till to end customers. (15 -20 % of logistic costs is reduced by the rotatable uniform connection EVO-Lock)
- Less re-ordering positions
- Larger ordering quatity of the same type
- Less inventory holding and capital lock-up for PxC, for subsidiaries , for distributors and for end customers.
- Better availability worldwide

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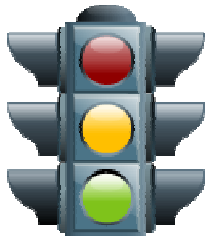
HEAVYCON EVO
Comparison with competitor products



Material	Plastic	Plastic	Plastic
Connection to cable glands	Metric thread	Metric thread	HC EVO-Lock
Product range	Only Double Locks	Just one housing height	Full program
Range of cable glands	M32, M40	M25-M40	M20-M40
Compatibility to the Standard housings	No	Conditionally compatible	Fully compatible
Compatibility to the Inserts	Only compatible to modular inserts	Fully compatible	Fully compatible
Premating PE contact	Optional	No	Yes
Mechanical features (IK 08 / 5 Joule)	Acceptable	Deficient	Excellent

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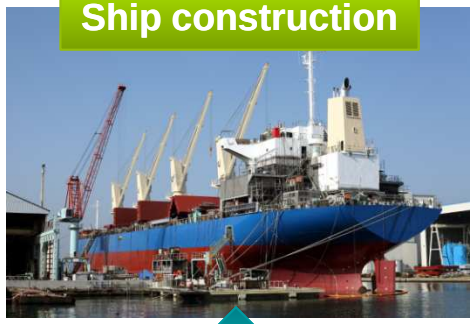
HEAVYCON EVO
Field of applications

Machine building

Ship construction



Wind energy

Automation

Utility vehicles

Ship & offshore facilities

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HEAVYCON EVO
Field of applications

Recommended applications for metal housings

Extreme cold and dry

Extreme hot and humid

Drives and EMC

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HEAVYCON EVO
Accessories

HC EVO conduit adapter

- Seperate EVO-lock version
- Protection degree IP66/68
- Particular sizes for conduit outer diameters:
  - 21,2 mm (M20) 3241220
  - 28,5 mm (M25) 3241221
  - 34,5 mm (M32) 3241222
  - 42,5 mm (M40) 3241223

For conduits please have a look in the new M&I catalogue

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HEAVYCON EVO
Accessories

Marking material US-EMP (20x9)

- With THERMOMARK CARD or THERMOMARK CARD PLUS
- 8 sec. per card
- Thermotransfer technology
- Immediate printing
- Printing with 300Dpi
- Immediately wipe and scratch resistant
- printing is very resistant against external influences

Printing with THERMOMARK CARD (PLUS)

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HEAVYCON EVO

Final features in comparison with alu-housings

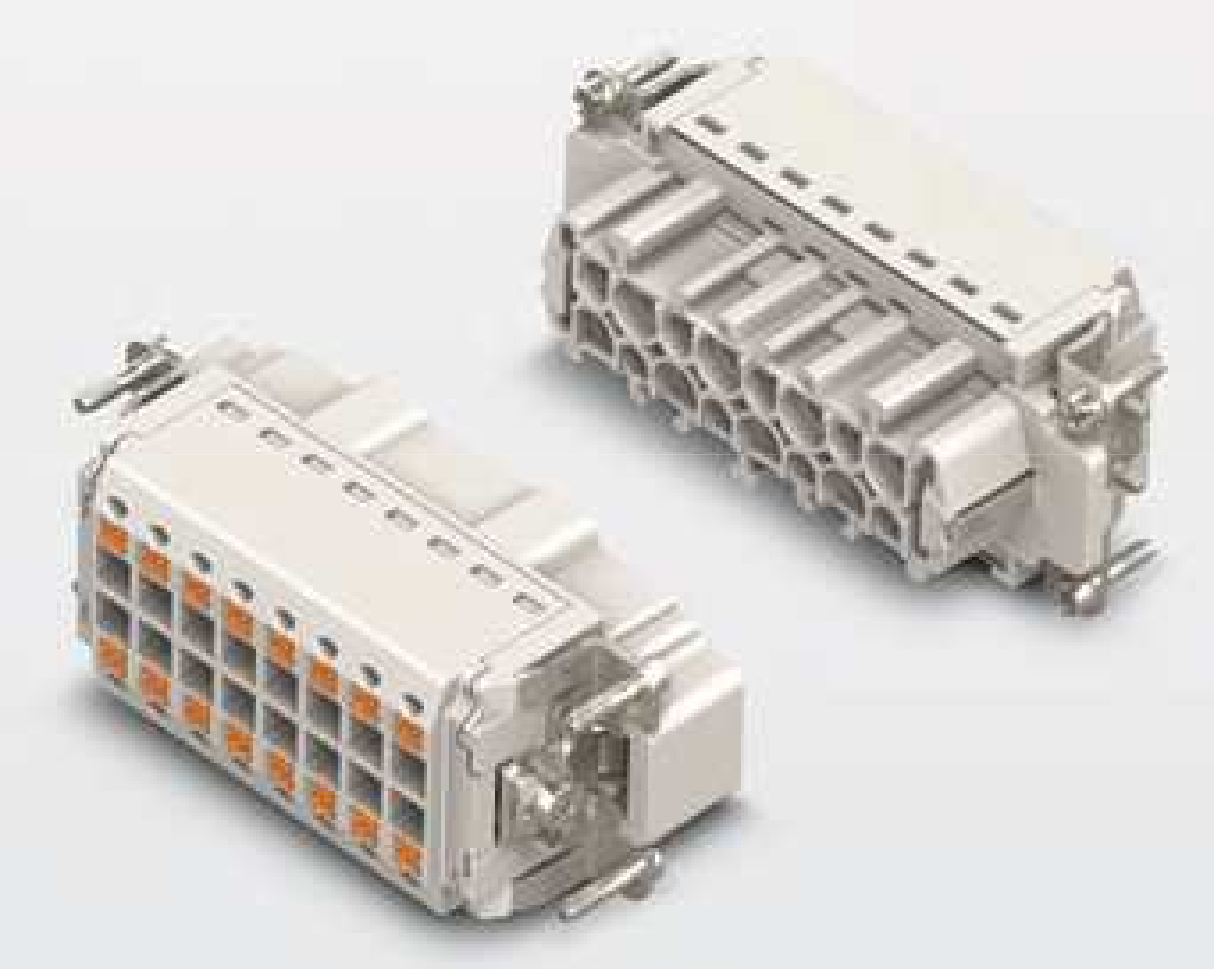
lower price

due to plastic housing

reduced stock

due to EVO-Lock cable gland

HEAVYCON
PT contact inserts



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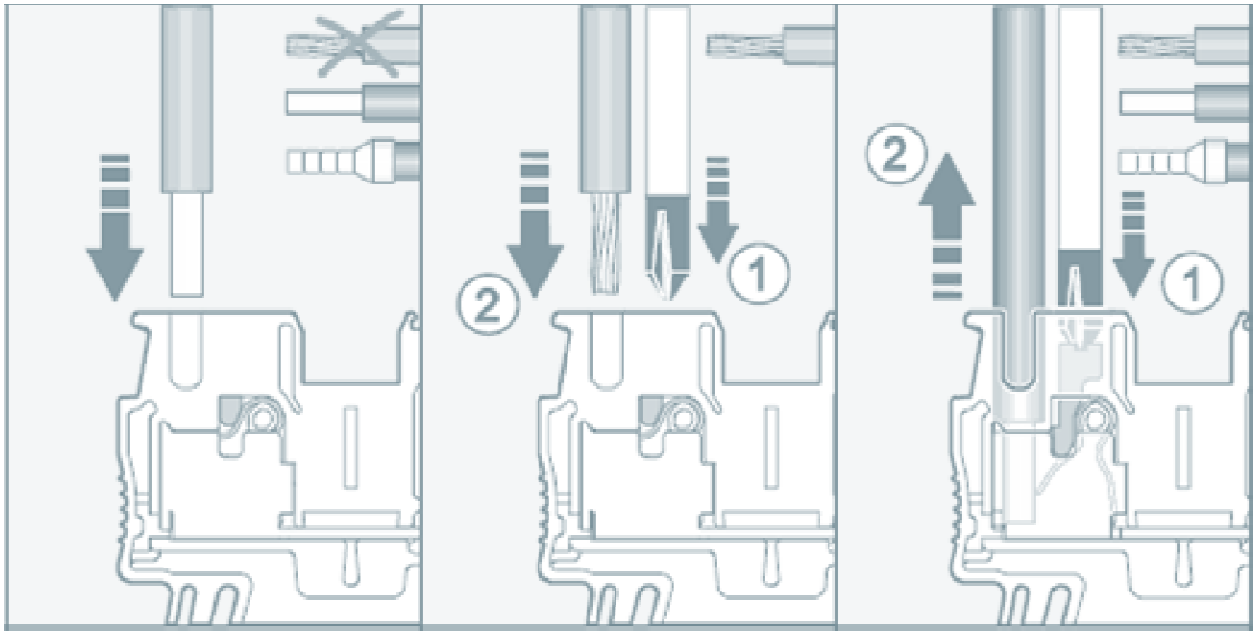
HEAVYCON contact inserts
with push-in-connection



Installation guide

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Strategy – PLUSCON heavy

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X-ON Electronics

Largest Supplier of Electrical and Electronic Components

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