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Description of the Han-Eco® system



Han-Eco® – a new hood and housing series made of high-performance plastic material.

Han-Eco® is the ideal solution for applications that do not require the full range of product features offered by the Han® B series of hoods and housings, and users want to take advantage of the weight and cost advantages.

Like the Han® B standard series, the Han-Eco® series is available in the following sizes: 6 B, 10 B, 16 B and 24 B. The cable entries are available with metric threading, a cable gland is implemented. For housing sizes 6 B and 10 B size of the cable gland is M32, for 16 B and 24 B cable gland M40 is used.

Han-Eco® hoods and housings are made of high-performance plastic that is highly resistant to environmental stress and – in combination with the design - provides very good mechanical stability. When the connector is closed and locked, it provides degree of protection IP 65 as defined in DIN EN 60 529. With seals made of high UV- and ozone-resistant material FPM (Fluororubber) the Han-Eco® hoods and housings are fit for outdoor use. The material also meets demanding flammability requirements of UL 94 Class V 0.

Fast, simple assembly is another outstanding product feature. Click-and-mate design totally eliminates the need for tools during assembly of the Han-Eco® hoods and housings.

The Han-Eco® hoods and housings are compatible with the range of modules from the Han-Modular® series. One extra module fits into the Han-Eco® hoods and housing compared to the equivalent product in the Han® B Standard series. This special feature applies to all four sizes.

A optional PE module has been developed specifically for the Han-Eco® hoods and housings to hold the protective ground conductor.

Advantages:

- Weight reduction combined with mechanical strength
- Quick and easy assembly without tools – also possible to mount the modules from the rear side of the cabinet
- Highly resistant to environmental stress, suitable for use in outdoor applications
- Complete range of modules from Han-Modular® series usable (with exception of modules with imperative guiding pins [male and female])

Assembly details



Series	Han® A A ial module	Han® A rimp module	Han® A Single module	Han® A rimp module
um er of contacts				
odules	A ial screw terminal	rimp terminal	A ial screw terminal	rimp terminal
ated current	A	A	A	A
ated voltage	...	...	...	...
ire gauge	mm	mm	mm	mm

Series	Han® A A ial module	Han® A Hy rid module	Han® A A ial module	Han® A rimp module
um er of contacts				
odules	A ial screw terminal	A ial screw terminal	A ial screw terminal	rimp terminal
ated current	A	A A	A	A
ated voltage	...	... mm mm	... mm	... mm
ire gauge	mm	mm	mm	mm






Series	Han® A ial module	Han® module	Han® roTECTED module	Han® D module
um er of contacts				
odules	A ial screw terminal	rimp terminal	rimp terminal	rimp terminal
ated current	A	A	A	A
ated voltage	...	...	...	...
ire gauge	mm	mm	mm	mm





Series	Han® E uick Lock module	Han E® module	Han E® Screw module	Han® EE module
um er of contacts				
odules	uick Lock terminal	rimp terminal	Screw terminal	rimp terminal
ated current	A	A	A	A
ated voltage	...	...	...	...
ire gauge	mm	mm	mm	mm

for more technical details see chapter 06
 Removal tools 09 99 000 0331, 09 99 000 0828 and 09 99 000 0842 see chapter 90
 * Take care of the wiring space! Choose inner positions.

Series	Han® EE Quick Lock module	Han E® Protected module	Han® EEE module	Han® ES module
Number of contacts				
Modules	Quick Lock termination	Rimp terminal	Rimp terminal	Age-clamp terminal
Rated current	A	A	A	A
Rated voltage				
Wire gauge	... mm	... mm	... mm	... mm
Series	Han® H Single module	Han® H module	Han® H module	Han DD® module
Number of contacts				
Modules	Rimp terminal	Rimp terminal	Rimp terminal	Rimp terminal
Rated current	A	A	A	A
Rated voltage				
Wire gauge	... mm	... mm	... mm	... mm
Series	Han DD® Quick Lock module	Han® DDD module	Han® High Density module	Han® D-Su module
Number of contacts				
Modules	Quick Lock termination	Rimp terminal	Rimp terminal	Rimp terminal
Rated current	A	A	A	A
Rated voltage				
Wire gauge	... mm	... mm	... mm	... mm
Series	Han® SB module	Han® Fire module	Han® module	Han® GigaBit module
Number of contacts				
Modules	SB	EEE	Ethernet Cat.	Ethernet Cat.
Rated current				
Rated voltage				
Wire gauge				

Han-Eco

Series	Han® MegaBit module*	Han-Quintax® module			
Number of contacts	2 x 4	2			
Modules	Ethernet Cat. 5e				
Contacts		Han-Quintax® contact 4 + shielding 	High Density Quintax contact 8 + shielding 	Han D® Coax contact 75 Ω 1 + shielding  75 Ω	Han E® Coax contact 50 Ω 1 + shielding  50 Ω

Series	Han® SC module	Han-Elisa®	Han® Dummy module
Number of contacts	4		
Modules			
Contacts	SC contact for GI 50 62.5 / 125 μm  For the use with Han-Eco® please order female module 09 14 004 4713. Only for multimode fiber.	Temperature I/O modules ID module	

Features

- Suitable for Han-Eco® hoods/housings and the Han-Modular® docking frame
- Higher contact density compared to Han E® standard screw inserts (up to 65%)
- Han-Eco® “click and mate” assembly concept
- 6 coding options

Technical characteristics


Contacts	10, 14, 20, 28
Electrical data acc. to IEC 61984	16 A 500 V 6 kV 3
Rated current	16 A
Rated voltage	500 V
Rated impulse voltage	6 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Rated voltage acc. to CSA	600 V
Insulation resistance	≥10 ¹⁰ Ohm
Limiting temperatures	-40 °C ... 125 °C
Flammability (insert) acc. to UL 94	V 0
Mating cycles	≥500
Material (insert)	polycarbonate
Colour (insert)	RAL 7032 (light grey)

Specifications and approvals

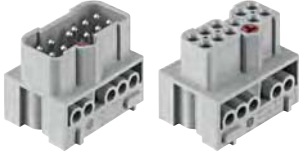
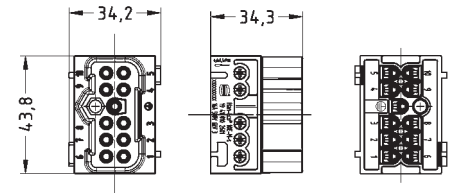
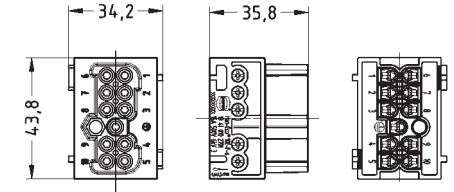

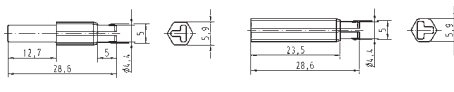
IEC 60664-1
IEC 61984

Number of contacts

10+



500 V
16 A


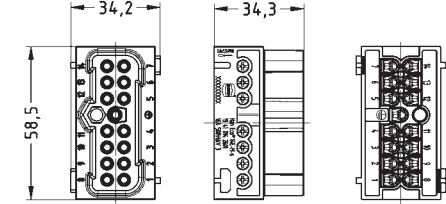
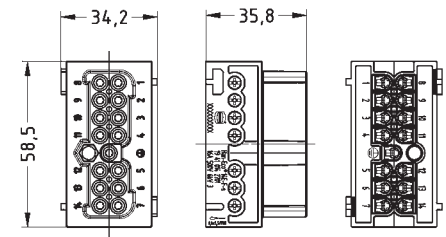

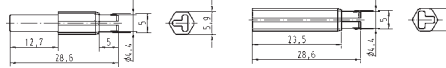
Identification	Wire cross section (mm ²)	Part number male female		Drawing Dimensions in mm
<p>Han-Eco®, Screw terminal, with wire protection</p> 	<p>0.75–2.5</p>	<p>19 41 010 2601</p>	<p>19 41 010 2701</p>	<p>male</p>  <p>female</p> 
<p>Coding element, plastic</p> 		<p>09 12 000 9901</p>	<p>09 12 000 9902</p>	

Number of contacts

14+



500 V
16 A


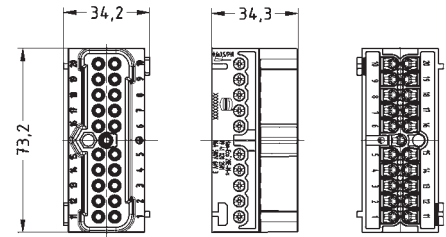
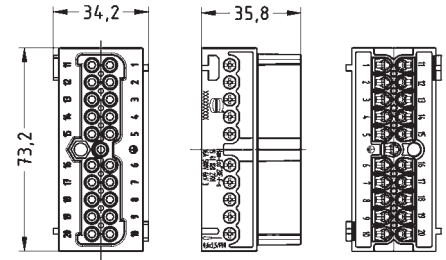

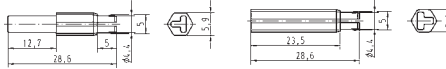
Identification	Wire cross section (mm ²)	Part number		Drawing Dimensions in mm
		male	female	
Han-Eco®, Screw terminal, with wire protection 	0.75 – 2.5	19 41 014 2601	19 41 014 2701	male  female 
Coding element, plastic 		09 12 000 9901	09 12 000 9902	

Han-Eco

Number of contacts

20+

500 V
16 A

Identification	Wire cross section (mm ²)	Part number male female		Drawing Dimensions in mm
<p>Han-Eco®, Screw terminal, with wire protection</p> 	0.75–2.5	19 41 020 2601	19 41 020 2701	<p>male</p>  <p>female</p> 
<p>Coding element, plastic</p> 		09 12 000 9901	09 12 000 9902	

Number of contacts

28+

500 V
16 A

Identification	Wire cross section (mm ²)	Part number		Drawing Dimensions in mm
		male	female	
Han-Eco®, Screw terminal, with wire protection 	0.75 – 2.5	19 41 028 2601	19 41 028 2701	<p>male</p> <p>female</p>
Coding element, plastic 		09 12 000 9901	09 12 000 9902	

Han-Eco

Features

- Available with integrated cable gland
- Optional PE contact module to hold the protective ground conductor
- Not mating compatible with series Han® B
- Capable for applications according protection class II

Technical characteristics

Limiting temperatures	-40 °C ... 125 °C
Flammability (hoods/housings) acc. to UL 94	V 0
Flammability acc. to NFF 16 101 / 16 102	F2 / I3
Flammability acc. to EN 45 545-2:2013	Class R22: HL1, HL2, Class R23: HL1, HL2, HL3, Class R24: HL1, HL2, HL3
Flammability (locking lever) acc. to UL 94	V 0
Degree of protection acc. to IEC 60529	IP65
Material (hoods/housings)	polyamide, fibre-glass reinforced
Colour (hoods/housings)	RAL 9005 (black)
Material (locking lever)	polyamide, fibre-glass reinforced
Colour (locking lever)	RAL 9005 (black)
Material (seal)	NBR

Specifications and approvals


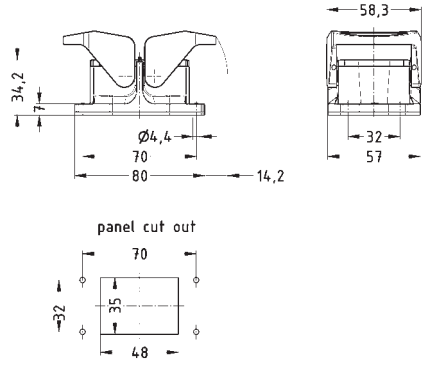

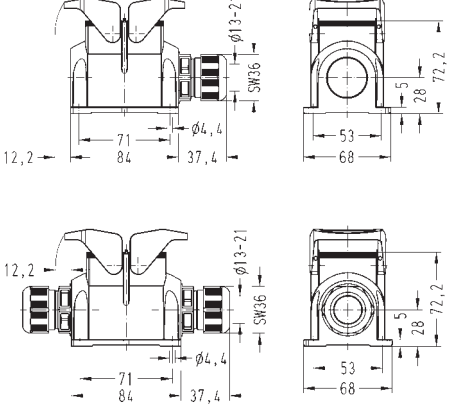

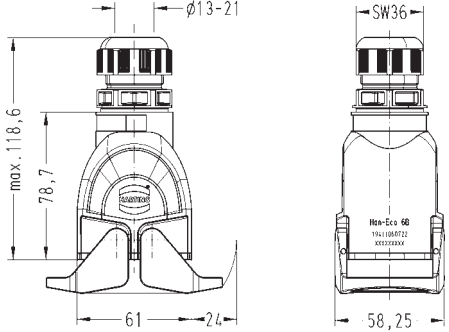
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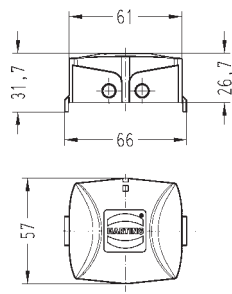
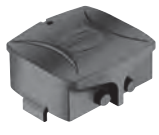
double locking lever

Identification	Cable entry	Part number	Drawing Dimensions in mm
Han-Eco®, Hoods, side entry	1xM32	19 41 006 0522	
Han-Eco®, Hoods, top entry	1xM32	19 41 006 0422	
Han-Eco®, Hood with integrated cable gland, side entry	1xM32	19 41 106 0522	
Han-Eco®, Hood with integrated cable gland, top entry	1xM32	19 41 106 0422	
Han-Eco®, Protection cover for hoods		19 41 006 5406	
Han-Eco®, Protection cover for hoods, with securing flex		19 41 006 5407	

Han-Eco

Identification	Cable entry	Part number	Drawing Dimensions in mm
Han-Eco®, Bulkhead mounted housings 		19 41 006 0301	
Han-Eco®, Surface mounted housings, side entry	1xM32 2xM32	19 41 006 0232 19 41 006 0272	
Han-Eco®, Surface mounted housings with integrated cable gland, side entry 	1xM32 2xM32	19 41 106 0232 19 41 106 0272	
Han-Eco®, Cable to cable housings, top entry	1xM32	19 41 006 0722	
Han-Eco®, Cable to cable housings with integrated cable gland, top entry 	1xM32	19 41 106 0722	




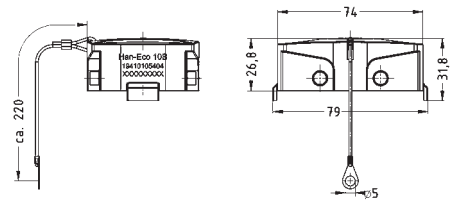

Identification	Cable entry	Part number	Drawing Dimensions in mm
Han-Eco®, Protection cover for housings, with securing flex 		19 41 006 5404	
Han-Eco®, Protection cover for housings 		19 41 006 5405	

Han-Eco

double locking lever

Identification	Cable entry	Part number	Drawing Dimensions in mm
Han-Eco®, Hoods, side entry	1xM32	19 41 010 0522	
Han-Eco®, Hoods, top entry	1xM32	19 41 010 0422	
Han-Eco®, Hood with integrated cable gland, side entry	1xM32	19 41 110 0522	
Han-Eco®, Hood with integrated cable gland, top entry	1xM32	19 41 110 0422	
Han-Eco®, Protection cover for hoods		19 41 010 5406	
Han-Eco®, Protection cover for hoods, with securing flex		19 41 010 5407	


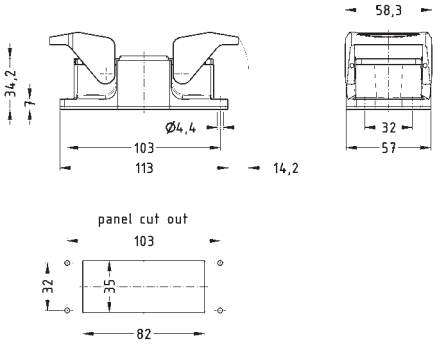

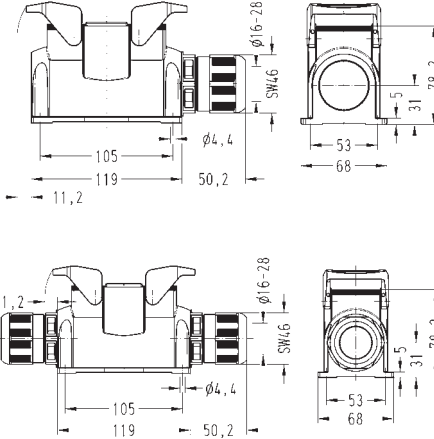

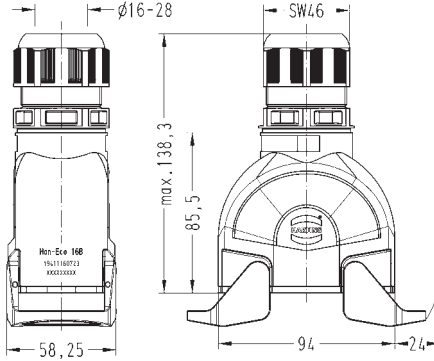

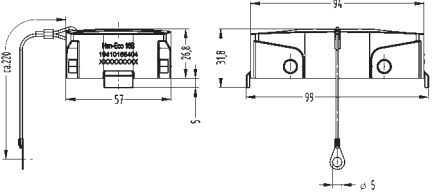
Han-Eco

Identification	Cable entry	Part number	Drawing Dimensions in mm
<p>Han-Eco®, Protection cover for housings, with securing flex</p> 		19 41 010 5404	
<p>Han-Eco®, Protection cover for housings</p> 		19 41 010 5405	


double locking lever

Identification	Cable entry	Part number	Drawing Dimensions in mm
Han-Eco®, Hoods, side entry	1xM40	19 41 016 0523	
Han-Eco®, Hoods, top entry	1xM40	19 41 016 0423	
Han-Eco®, Hood with integrated cable gland, side entry	1xM40	19 41 116 0523	
Han-Eco®, Hood with integrated cable gland, top entry	1xM40	19 41 116 0423	
Han-Eco®, Protection cover for hoods		19 41 016 5406	
Han-Eco®, Protection cover for hoods, with securing flex		19 41 016 5407	

Han-Eco

Identification	Cable entry	Part number	Drawing Dimensions in mm
Han-Eco®, Bulkhead mounted housings 		19 41 016 0301	
Han-Eco®, Surface mounted housings, side entry	1xM40 2xM40	19 41 016 0233 19 41 016 0273	
Han-Eco®, Surface mounted housings with integrated cable gland, side entry 	1xM40 2xM40	19 41 116 0233 19 41 116 0273	
Han-Eco®, Cable to cable housings, top entry	1xM40	19 41 016 0723	
Han-Eco®, Cable to cable housings with integrated cable gland, top entry 	1xM40	19 41 116 0723	
Han-Eco®, Protection cover for housings, with securing flex 		19 41 016 5404	



Identification	Cable entry	Part number	Drawing Dimensions in mm
<p>Han-Eco®, Protection cover for housings</p> 		<p>19 41 016 5405</p>	

Han-Eco


double locking lever

Identification	Cable entry	Part number	Drawing Dimensions in mm
Han-Eco®, Hoods, side entry	1xM40	19 41 024 0523	
Han-Eco®, Hoods, top entry	1xM40	19 41 024 0423	
Han-Eco®, Hood with integrated cable gland, side entry	1xM40	19 41 124 0523	
Han-Eco®, Hood with integrated cable gland, top entry	1xM40	19 41 124 0423	
Han-Eco®, Protection cover for hoods		19 41 024 5406	
Han-Eco®, Protection cover for hoods, with securing flex		19 41 024 5407	

Han-Eco

Identification	Cable entry	Part number	Drawing Dimensions in mm
Han-Eco [®] , Bulkhead mounted housings		19 41 024 0301	
Han-Eco [®] , Surface mounted housings, side entry	1xM40 2xM40	19 41 024 0233 19 41 024 0273	
Han-Eco [®] , Surface mounted housings with integrated cable gland, side entry	1xM40 2xM40	19 41 124 0233 19 41 124 0273	
Han-Eco [®] , Cable to cable housings, top entry	1xM40	19 41 024 0723	
Han-Eco [®] , Cable to cable housings with integrated cable gland, top entry	1xM40	19 41 124 0723	
Han-Eco [®] , Protection cover for housings, with securing flex		19 41 024 5404	



Identification	Cable entry	Part number	Drawing Dimensions in mm
<p>Han-Eco®, Protection cover for housings</p> 		<p>19 41 024 5405</p>	

Features

- Available with integrated cable gland
- Optional PE contact module to hold the protective ground conductor
- Not mating compatible with series Han® B

Technical characteristics

Limiting temperatures	-40 °C ... 125 °C
Flammability (hoods/housings) acc. to UL 94	V 0
Flammability acc. to NFF 16 101 / 16 102	F2 / I3
Flammability acc. to EN 45 545-2:2013	Class R22: HL1, HL2, Class R23: HL1, HL2, HL3, Class R24: HL1, HL2, HL3
Flammability (locking lever) acc. to UL 94	V 0
Degree of protection acc. to IEC 60529	IP65
Material (hoods/housings)	polyamide, fibre-glass reinforced
Colour (hoods/housings)	RAL 9005 (black)
Material (locking lever)	polyamide, fibre-glass reinforced
Colour (locking lever)	RAL 9005 (black)
Material (seal)	FPM
Colour (seal)	RAL 7001 (silver-grey)

Specifications and approvals


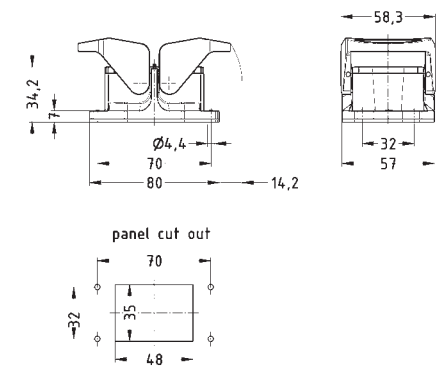

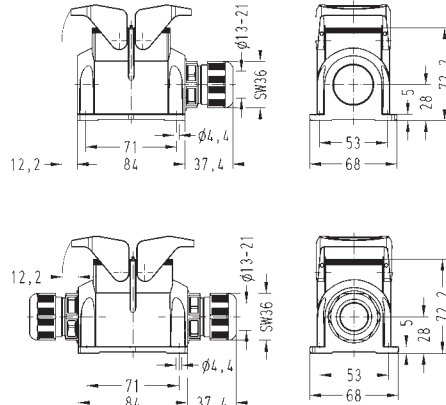

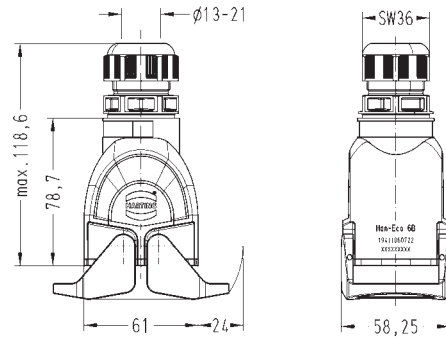
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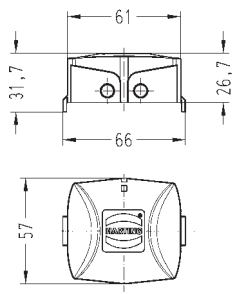
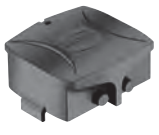
double locking lever

Identification	Cable entry	Part number	Drawing Dimensions in mm
Han-Eco®, Hoods, side entry	1xM32	19 41 006 0522	
Han-Eco®, Hoods, top entry	1xM32	19 41 006 0422	
Han-Eco®, Hood with integrated cable gland, side entry	1xM32	19 41 106 0522	
Han-Eco®, Hood with integrated cable gland, top entry	1xM32	19 41 106 0422	
Han-Eco®, Protection cover for hoods		19 41 206 5406	
Han-Eco®, Protection cover for hoods, with securing flex		19 41 206 5407	


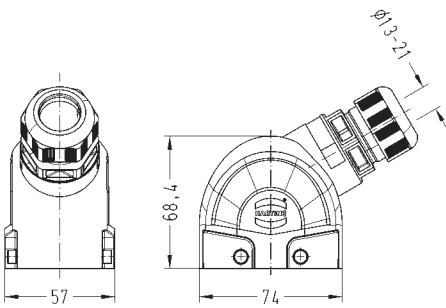

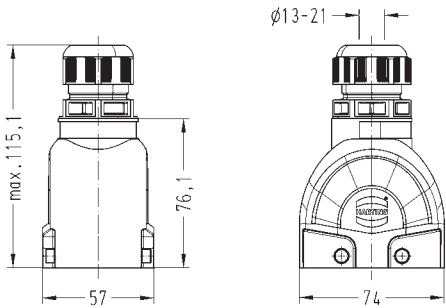


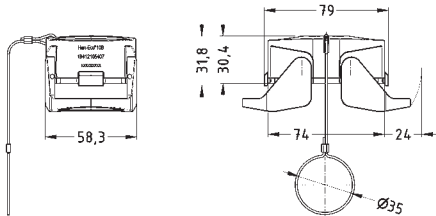
Han-Eco

Identification	Cable entry	Part number	Drawing Dimensions in mm
Han-Eco®, Bulkhead mounted housings 		19 41 206 0301	
Han-Eco®, Surface mounted housings, side entry	1xM32 2xM32	19 41 206 0232 19 41 206 0272	
Han-Eco®, Surface mounted housings with integrated cable gland, side entry 	1xM32 2xM32	19 41 306 0232 19 41 306 0272	
Han-Eco®, Cable to cable housings, top entry	1xM32	19 41 206 0722	
Han-Eco®, Cable to cable housings with integrated cable gland, top entry 	1xM32	19 41 306 0722	


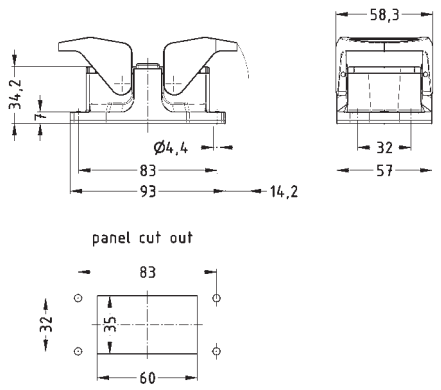

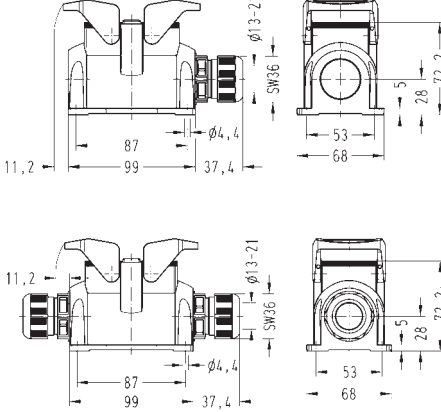

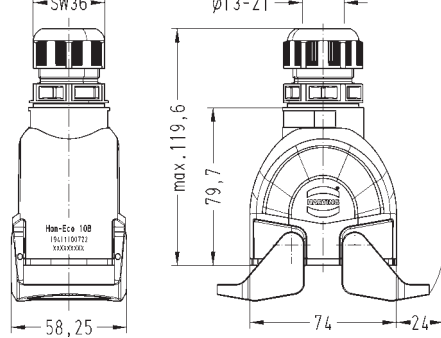
Han-Eco


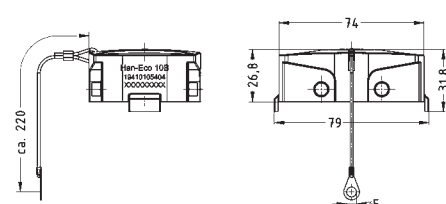

Identification	Cable entry	Part number	Drawing Dimensions in mm
<p>Han-Eco®, Protection cover for housings, with securing flex</p> 		19 41 006 5404	
<p>Han-Eco®, Protection cover for housings</p> 		19 41 006 5405	

double locking lever


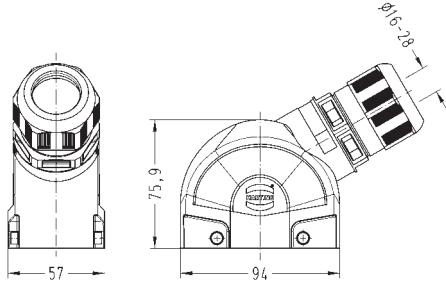

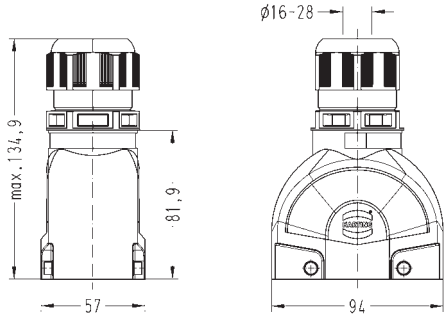


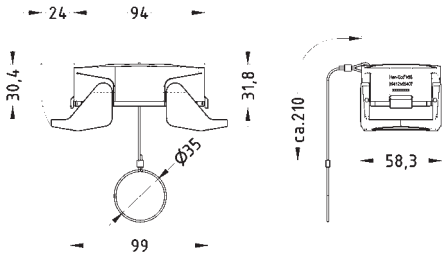
Identification	Cable entry	Part number	Drawing Dimensions in mm
Han-Eco®, Hoods, side entry	1xM32	19 41 010 0522	
Han-Eco®, Hoods, top entry	1xM32	19 41 010 0422	
Han-Eco®, Hood with integrated cable gland, side entry 	1xM32	19 41 110 0522	
Han-Eco®, Hood with integrated cable gland, top entry 	1xM32	19 41 110 0422	
Han-Eco®, Protection cover for hoods 		19 41 210 5406	
Han-Eco®, Protection cover for hoods, with securing flex 		19 41 210 5407	

Han-Eco


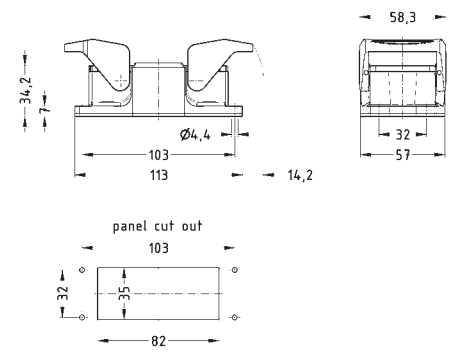

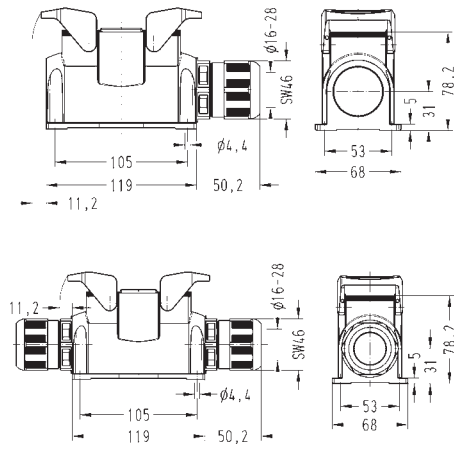

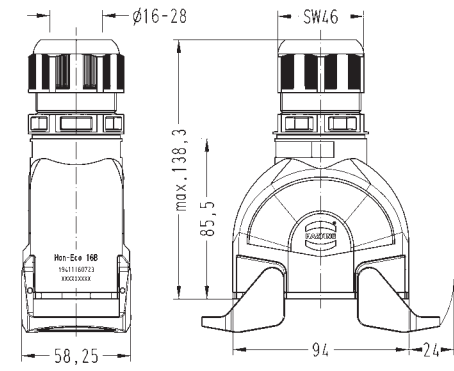

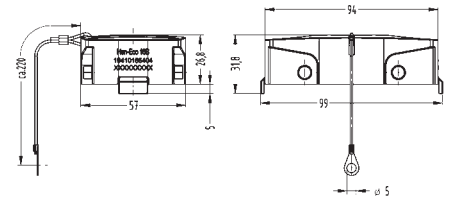
Identification	Cable entry	Part number	Drawing Dimensions in mm
Han-Eco®, Bulkhead mounted housings 		19 41 210 0301	
Han® B, Surface mounted housings, side entry	1xM32 2xM32	19 41 210 0232 19 41 210 0272	
Han® B, Surface mounted housings with integrated cable gland, side entry 	1xM32 2xM32	19 41 310 0232 19 41 310 0272	
Han-Eco®, Cable to cable housings, top entry	1xM32	19 41 210 0722	
Han-Eco®, Cable to cable housings with integrated cable gland, top entry 	1xM32	19 41 310 0722	

Identification	Cable entry	Part number	Drawing Dimensions in mm
<p>Han-Eco®, Protection cover for housings, with securing flex</p> 		19 41 010 5404	
<p>Han-Eco®, Protection cover for housings</p> 		19 41 010 5405	


double locking lever

Identification	Cable entry	Part number	Drawing Dimensions in mm
Han-Eco®, Hoods, side entry	1xM40	19 41 016 0523	
Han-Eco®, Hoods, top entry	1xM40	19 41 016 0423	
Han-Eco®, Hood with integrated cable gland, side entry 	1xM40	19 41 116 0523	
Han-Eco®, Hood with integrated cable gland, top entry 	1xM40	19 41 116 0423	
Han-Eco®, Protection cover for hoods 		19 41 216 5406	
Han-Eco®, Protection cover for hoods, with securing flex 		19 41 216 5407	


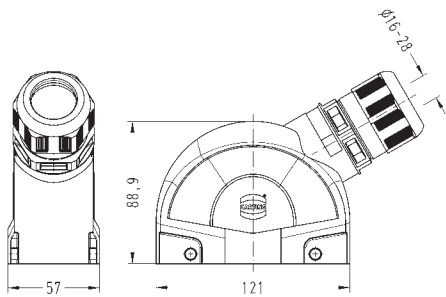

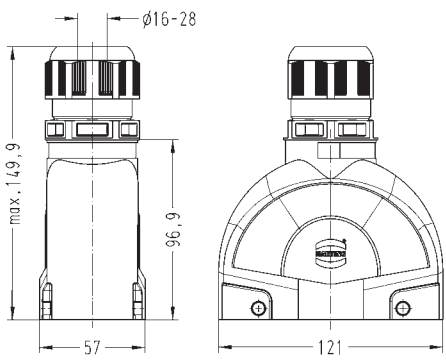


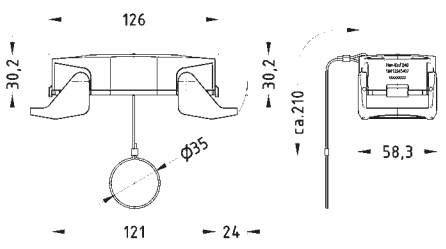
Han-Eco

Identification	Cable entry	Part number	Drawing Dimensions in mm
Han® B, Bulkhead mounted housings 		19 41 216 0301	
Han-Eco®, Surface mounted housings, side entry	1xM40 2xM40	19 41 216 0233 19 41 216 0273	
Han-Eco®, Surface mounted housings with integrated cable gland, side entry 	1xM40 2xM40	19 41 316 0233 19 41 316 0273	
Han-Eco®, Cable to cable housings, top entry	1xM40	19 41 216 0723	
Han-Eco®, Cable to cable housings with integrated cable gland, top entry Han-Eco 	1xM40	19 41 316 0723	
Han-Eco®, Protection cover for housings, with securing flex 		19 41 016 5404	


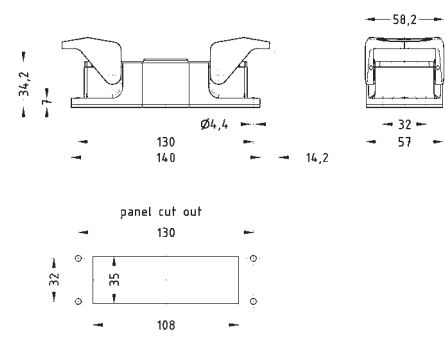

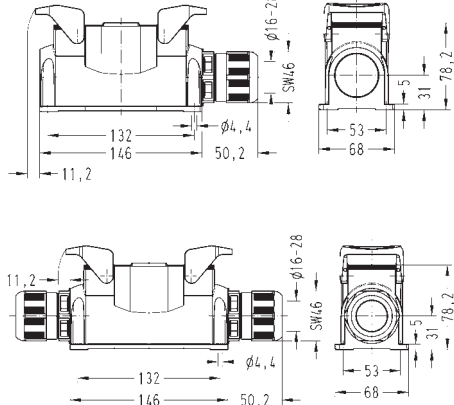

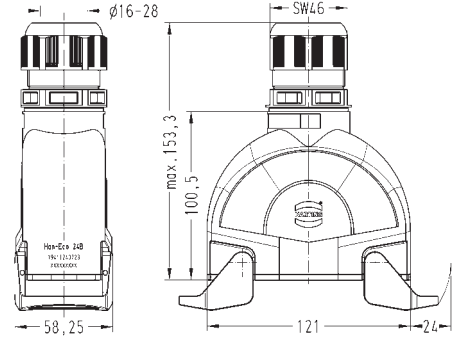

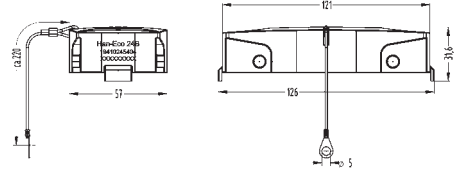
Han-Eco

Identification	Cable entry	Part number	Drawing Dimensions in mm
<p>Han-Eco®, Protection cover for housings</p> 		19 41 016 5405	


double locking lever

Identification	Cable entry	Part number	Drawing Dimensions in mm
Han-Eco®, Hoods, side entry	1xM40	19 41 024 0523	
Han-Eco®, Hoods, top entry	1xM40	19 41 024 0423	
Han-Eco®, Hood with integrated cable gland, side entry 	1xM40	19 41 124 0523	
Han-Eco®, Hood with integrated cable gland, top entry 	1xM40	19 41 124 0423	
Han-Eco®, Protection cover for hoods 		19 41 224 5406	
Han-Eco®, Protection cover for hoods, with securing flex 		19 41 224 5407	


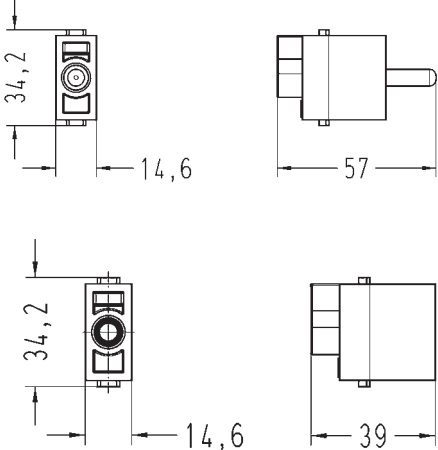
Han-Eco

Identification	Cable entry	Part number	Drawing Dimensions in mm
Han-Eco®, Bulkhead mounted housings 		19 41 224 0301	
Han® B, Surface mounted housings, side entry	1xM40 2xM40	19 41 224 0233 19 41 224 0273	
Han® B, Surface mounted housings with integrated cable gland, side entry 	1xM40 2xM40	19 41 324 0233 19 41 324 0273	
Han® B, Cable to cable housings, top entry	1xM40	19 41 224 0723	
Han® B, Cable to cable housings with integrated cable gland 	1xM40	19 41 324 0723	
Han-Eco®, Protection cover for housings, with securing flex 		19 41 024 5404	



Identification	Cable entry	Part number	Drawing Dimensions in mm
<p>Han-Eco®, Protection cover for housings</p> 		<p>19 41 024 5405</p>	

Han-Eco


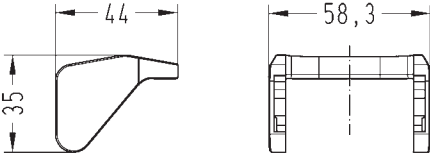

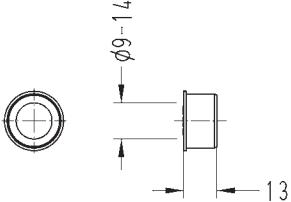
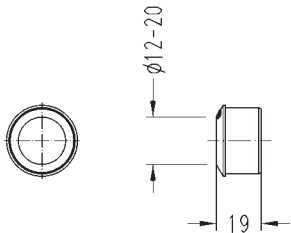
Identification	Wire cross section (mm ²)	Part number		Drawing Dimensions in mm
		male	female	
<p>Han-Eco[®], PE contact module, with screw terminal</p>  <p>with 09 99 000 0830 HARTING Crimping tool also cable up to 25 mm² with ferrule adaptable</p>	1.5-16	19 41 001 2600	19 41 001 2700	

Technical characteristics

Technical characteristics

Material (accessories) plastic

Colour (accessories) black

Identification	Size	Part number	Drawing Dimensions in mm
Cable gland	M32 M40	19 41 000 5131 19 41 000 5141	
 Han-Eco®, Locking lever, for all sizes		19 41 000 5201	
 Han-Eco®, Reduction sealing insert	M32 M40	19 41 000 5132 19 41 000 5142	 

Technical characteristics

Material (accessories) NBR

Technical characteristics

Colour (accessories) black

Identification	Size	Part number	Drawing Dimensions in mm
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Han-Eco®,
Flange gasket,
NBR



6 B
10 B
16 B
24 B

19 41 000 9801
19 41 000 9802
19 41 000 9803
19 41 000 9804

Han-Eco®,
Profile gasket,
NBR



6 B
10 B
16 B
24 B

19 41 000 9901
19 41 000 9902
19 41 000 9903
19 41 000 9904



Photo courtesy: Robolights

Installation of multiple services through a single lightweight connector assembly

When the Grand Opera House, York in the United Kingdom wanted to upgrade its 12 motorised hoists, drive system and control, a UK custom panel builder put together a design that would allow individual speed and direction control of each of the flying bars from a central console. They manufactured the control console, connection point and interconnecting cables along with a custom wheeled frame to allow easy movement of the console around the stage. This project made use of HARTING's recently introduced modular Han-Eco® system connectors which allow the integration of multiple services, contact types and ratings into a single connector assembly.