

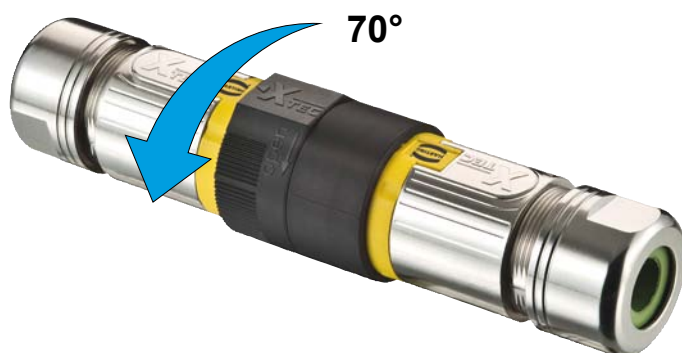
Description of the Han® X-TEC connector

Han® X-TEC - the complete circular connector system

Han® X-TEC is a complete new circular connector system in two sizes

- Han® X-TEC 23
- Han® X-TEC 32

The brand new feature of this connector series offers quick locking of connector and receptacle. Just a 70° turn of the locking element and the system is locked save and tight.



Easy and time saving selection of your favourite connector.

One part number contains insert with housing and if required the suitable cable gland as well. The female connector includes the removable locking element.

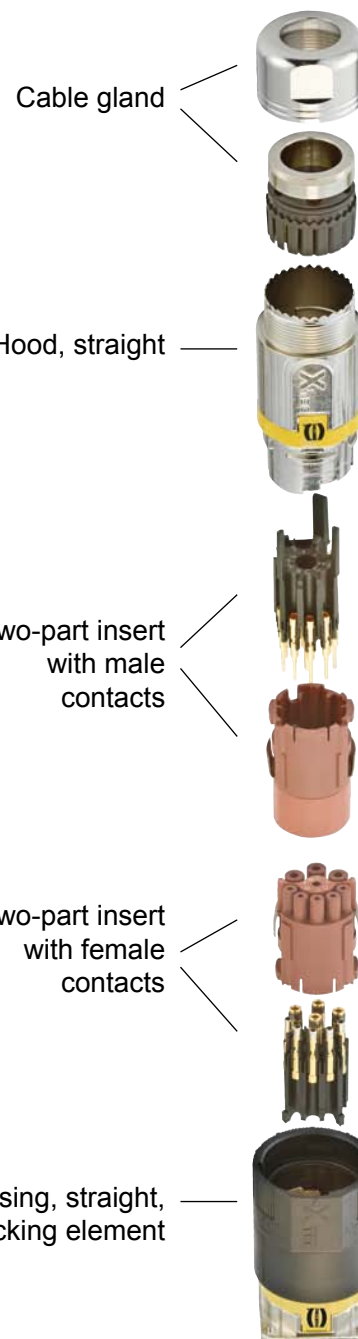
Han® X-TEC 23 is available with crimp termination:

- | | |
|-------------------|--|
| Power connector: | <ul style="list-style-type: none"> • 3 power contacts plus 5 signal contacts |
| Signal connector: | <ul style="list-style-type: none"> • 12 signal contacts • 17 signal contacts |

Han® X-TEC 32 is available with crimp termination:

- | | |
|------------------|--|
| Power Connector: | <ul style="list-style-type: none"> • 3 power contacts plus 5 signal contacts • 6 power contacts plus 4 signal contacts |
|------------------|--|

Assembly details



Features

- Available in metal and plastic housings
- Fast locking system saves time and ensures tight connection
- Easy to operate
- Power and signal connectors suit for Servo and Three-phase drives
- Standardized system cable solutions reduce assembling time and costs
- Power and signal contacts combined in one connector
- Reliable crimp termination

Technical characteristics

Specifications DIN EN 60 664-1
DIN EN 61 984

Inserts

Number of contacts

3 / 5 + 

Electrical data acc. to DIN EN 61 984

Power contacts

16 A 630 V 6 kV 3

Signal contacts

7 A 63 V 0.8 kV 3

Rated current

16 A

7 A

Rated voltage

630 V

63 V

Rated impulse voltage

6 kV

0.8 kV

Pollution degree

3

3

Rated voltage acc. to UL/CSA

600 V

63 V

Material

Polyamid

Limiting temperatures

-20 °C ... +125 °C

Flammability accd. to UL 94

V 0

Mechanical working life

≥ 500 mating cycles

Contacts

Power contacts

Signal contacts

Pin diameter

2 mm

1 mm

Material

Copper alloy

Copper alloy

Surface

hard-gold plated

hard-gold plated

Contact resistance

≤ 3 mΩ

≤ 5 mΩ

Crimp terminal

- mm²

0.35 mm² ... 4 mm²

0.14 mm² ... 1.5 mm²

- AWG

22 ... 12

26 ... 16

Housings

Metal

Plastic

Material

Die cast zinc alloy

Polyamide

Surface

Nickel

-

Locking element

Polyamide

Polyamide

Sealing

FPM

FPM

Limiting temperatures

-20 °C ... +125 °C

-20 °C ... +125 °C

Degree of protection acc. to DIN EN 60529
in locked position

IP 67

IP 67

Cable Ø

7.5 mm ... 17 mm

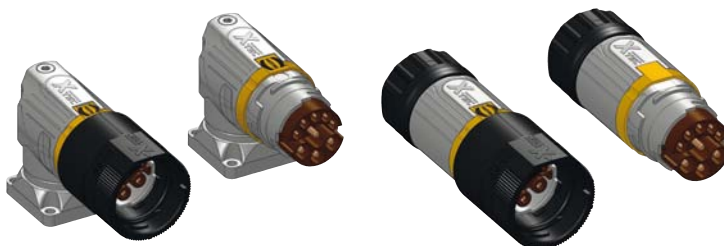
7.5 mm ... 17 mm

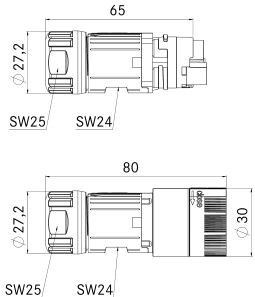
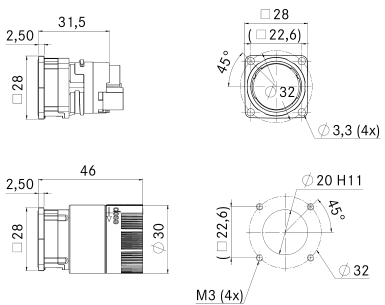
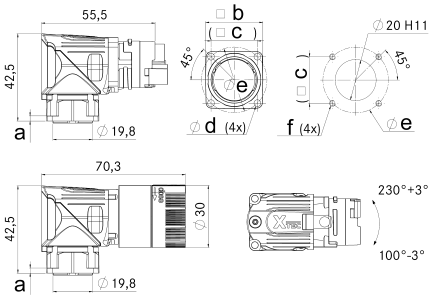
Han® X-TEC 23 with Metal Hoods/Housings



Number of contacts

3 / 5 +



Identification	Cable diameter (mm)	Male insert (M)	Female insert (F)	Drawings	Dimensions in mm																					
Connector straight crimp terminal 	7.5-12 9.5-14 14-17	09 15 408 2101 09 15 408 2102 09 15 408 2103	09 15 408 2201 09 15 408 2202 09 15 408 2203		 M  F																					
Receptacle straight crimp terminal 	-	09 15 408 2501	09 15 408 2601		 M  F																					
Receptacle angled crimp terminal flange 25x25 mm flange 28x28 mm  Order crimp contacts separately	- - -	09 15 408 2505 09 15 408 2506	09 15 408 2605 09 15 408 2606	 <table><thead><tr><th>flange</th><th>a (mm)</th><th>b (mm)</th><th>c (mm)</th><th>d (mm)</th><th>e (mm)</th><th>f</th></tr></thead><tbody><tr><td>25x25 mm</td><td>2.5</td><td>25.7</td><td>19.8</td><td>2.7</td><td>28</td><td>M2.5</td></tr><tr><td>28x28 mm</td><td>4.5</td><td>28.0</td><td>22.6</td><td>3.3</td><td>32</td><td>M3</td></tr></tbody></table>	flange	a (mm)	b (mm)	c (mm)	d (mm)	e (mm)	f	25x25 mm	2.5	25.7	19.8	2.7	28	M2.5	28x28 mm	4.5	28.0	22.6	3.3	32	M3	 M  F
flange	a (mm)	b (mm)	c (mm)	d (mm)	e (mm)	f																				
25x25 mm	2.5	25.7	19.8	2.7	28	M2.5																				
28x28 mm	4.5	28.0	22.6	3.3	32	M3																				

Identification	Wire gauge (mm²)	Part-Number		Drawings	Dimensions in mm
		Male insert (M)	Female insert (F)		
Crimp contacts gold plated contact Ø 1 mm contact Ø 2 mm 	0.14-1.0 0.5-1.5 0.35-2.5 2.5-4.0	09 15 400 6121 09 15 400 6122 09 15 400 6124 09 15 400 6125	09 15 400 6221 09 15 400 6222 09 15 400 6224 09 15 400 6225		

Han® X-TEC 23 with Plastic Hoods/Housings



Number of contacts

3 / 5 +



Identification		Cable diameter (mm)	Part-Number		Drawings	Dimensions in mm
			Male insert (M)	Female insert (F)		
Connector straight crimp terminal 		7.5-12 9.5-14 14-17	09 15 408 2301 09 15 408 2302 09 15 408 2303	09 15 408 2401 09 15 408 2402 09 15 408 2403	 	 M F
		-	09 15 408 2701	09 15 408 2801	 	 M F
Order crimp contacts separately						
Identification		Wire gauge (mm²)	Part-Number		Drawings	Dimensions in mm
			Male insert (M)	Female insert (F)		
Crimp contacts gold plated contact Ø 1 mm 		0.14-1.0 0.5-1.5	09 15 400 6121 09 15 400 6122	09 15 400 6221 09 15 400 6222		
		0.35-2.5 2.5-4.0	09 15 400 6124 09 15 400 6125	09 15 400 6224 09 15 400 6225		
contact Ø 2 mm 						

Features

- Available in metal and plastic housings
- Fast locking system saves time and ensures tight connection
- Easy to operate
- Power and signal connectors suit for Servo and Three-phase drives
- Standardized system cable solutions reduce assembling time and costs
- Reliable crimp termination

Technical characteristics

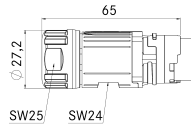
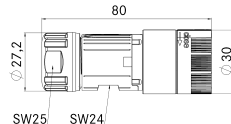
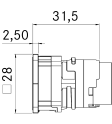
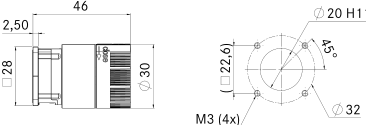
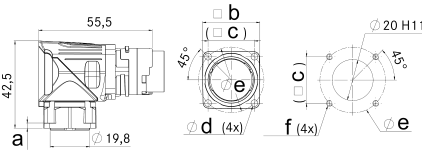
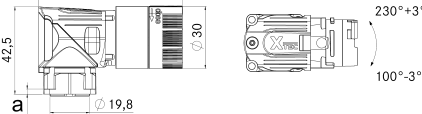
Specifications	DIN EN 60 664-1 DIN EN 61 984	
Inserts		
Number of contacts	12 / 17 + 	
	<u>12 poles</u>	<u>17 poles</u>
Electrical data acc. to DIN EN 61 984	7 A 160 V 2 kV 3	7 A 125 V 2 kV 3
Rated current	7 A	7 A
Rated voltage	160 V	125 V
Rated impulse voltage	2 kV	2 kV
Pollution degree	3	3
Rated voltage acc. to UL/CSA	125 V	125 V
Material	Polyamide	
Limiting temperatures	-20 °C ... +125 °C	
Flammability accd. to UL 94	V 0	
Mechanical working life	≥ 500 mating cycles	
Contacts		
Pin diameter	2 mm	
Material	Copper alloy	
Surface	hard-gold plated	
Contact resistance	≤ 5 mΩ	
Crimp terminal		
- mm²	0.14 mm² ... 1.5 mm²	
- AWG	26 ... 16	
Housings		
Material	Die cast zinc alloy	
Surface	Nickel	
Locking element	Polyamide	
Sealing	FPM	
Limiting temperatures	-20 °C ... +125 °C	
Degree of protection acc. to DIN EN 60529 in locked position	IP 67	
Cable Ø	7.5 mm ... 17 mm	

Han® X-TEC 23 with Metal Hoods/Housings



Number of contacts

12 +

Identification		Cable diameter (mm)	Part-Number		Drawings	Dimensions in mm																			
			Male insert (M)	Female insert (F)																					
Connector straight crimp terminal 		7.5-12 9.5-14.5 14-17	09 15 412 2101 09 15 412 2102 09 15 412 2103	09 15 412 2201 09 15 412 2202 09 15 412 2203	 	 M  F																			
		-	09 15 412 2501	09 15 412 2601	 	 M  F																			
Receptacle angled crimp terminal flange 25x25 mm flange 28x28 mm  Order crimp contacts separately		- -	09 15 412 2505 09 15 412 2506	09 15 412 2605 09 15 412 2606	 	 M  F																			
					<table border="1"> <thead> <tr> <th>flange</th><th>a (mm)</th><th>b (mm)</th><th>c (mm)</th><th>d (mm)</th><th>e (mm)</th><th>f</th></tr> </thead> <tbody> <tr> <td>25x25 mm</td><td>2.5</td><td>25.7</td><td>19.8</td><td>2.7</td><td>28</td><td>M2.5</td></tr> <tr> <td>28x28 mm</td><td>4.5</td><td>28.0</td><td>22.6</td><td>3.3</td><td>32</td><td>M3</td></tr> </tbody> </table>	flange	a (mm)	b (mm)	c (mm)	d (mm)	e (mm)	f	25x25 mm	2.5	25.7	19.8	2.7	28	M2.5	28x28 mm	4.5	28.0	22.6	3.3	32
flange	a (mm)	b (mm)	c (mm)	d (mm)	e (mm)	f																			
25x25 mm	2.5	25.7	19.8	2.7	28	M2.5																			
28x28 mm	4.5	28.0	22.6	3.3	32	M3																			
Identification		Wire gauge (mm²)	Part-Number		Drawings	Dimensions in mm																			
			Male insert (M)	Female insert (F)																					
Crimp contacts gold plated contact Ø 1 mm 		0.14-1.0 0.5-1.5	09 15 400 6121 09 15 400 6122	09 15 400 6221 09 15 400 6222																					

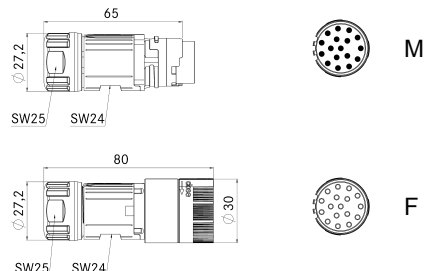
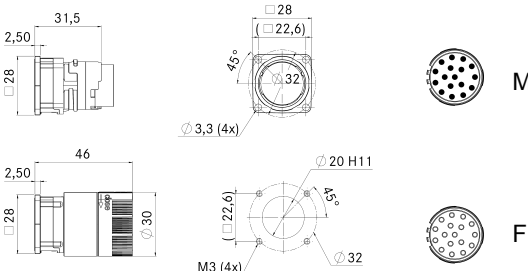
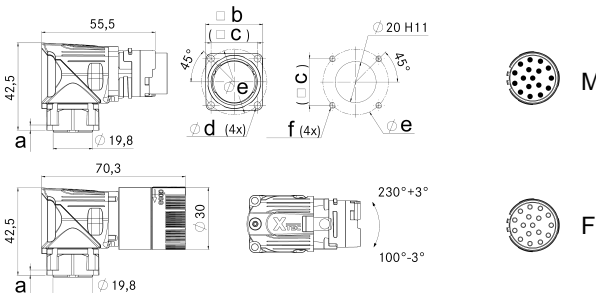
Han® X-TEC 23 with Metal Hoods/Housings



Number of contacts

17 +



Identification		Cable diameter (mm)	Part-Number		Drawings	Dimensions in mm
			Male insert (M)	Female insert (F)		
Connector straight						
crimp terminal						
		7.5-12 9.5-14 14-17	09 15 417 2101 09 15 417 2102 09 15 417 2103	09 15 417 2201 09 15 417 2202 09 15 417 2203		
Receptacle straight						
crimp terminal						
		-	09 15 417 2501	09 15 417 2601		
Receptacle angled						
crimp terminal						
flange 25x25 mm		-	09 15 417 2505	09 15 417 2605		
flange 28x28 mm		-	09 15 417 2506	09 15 417 2606		
						
Order crimp contacts separately						

Identification	Wire gauge (mm²)	Part-Number		Drawings	Dimensions in mm
		Male insert (M)	Female insert (F)		
Crimp contacts gold plated contact Ø 1 mm 	0.14-1.0 0.5-1.5	09 15 400 6121 09 15 400 6122	09 15 400 6221 09 15 400 6222		

Features

- Available in metal and plastic housings
- Fast locking system saves time and ensures tight connection
- Easy to operate
- Power and signal connectors suit for Servo and Three-phase drives
- Standardized system cable solutions reduce assembling time and costs
- Power and signal contacts combined in one connector
- Reliable crimp termination

Technical characteristics

Specifications	DIN EN 60 664-1 DIN EN 61 984	
Inserts		
Number of contacts	3 / 5 + 	
	<u>Power contacts</u>	<u>Signal contacts</u>
Electrical data acc. to DIN EN 61 984	40 A 630 V 6 kV 3	7 A 220 V 2.5 kV 3
Rated current	40 A	7 A
Rated voltage	630 V	220 V
Rated impulse voltage	6 kV	2.5 kV
Pollution degree	3	3
Rated voltage acc. to UL/CSA	600 V	220 V
Material	Polyamid	
Limiting temperatures	-20 °C ... +125 °C	
Flammability accd. to UL 94	V 0	
Mechanical working life	≥ 500 mating cycles	
Contacts	<u>Power contacts</u>	<u>Signal contacts</u>
Pin diameter	3 mm	1 mm
Material	Copper alloy	Copper alloy
Surface	hard-gold plated	hard-gold plated
Contact resistance	≤ 1.2 mΩ	≤ 5 mΩ
Crimp terminal		
- mm ²	1.5 mm ² ... 10 mm ²	0.14 mm ² ... 1.5 mm ²
- AWG	16 ... 8	26 ... 16
Housings	<u>Metal</u>	<u>Plastic</u>
Material	Die cast zinc alloy	Polyamide
Surface	Nickel	-
Locking element	Polyamide	Polyamide
Sealing	FPM	FPM
Limiting temperatures	-20 °C ... +125 °C	-20 °C ... +125 °C
Degree of protection acc. to DIN EN 60529 in locked position	IP 67	IP 67
Cable Ø	9 mm ... 20 mm	9 mm ... 20 mm

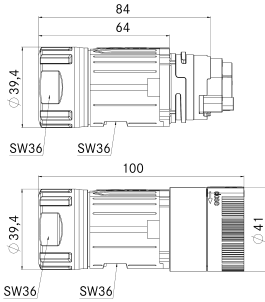
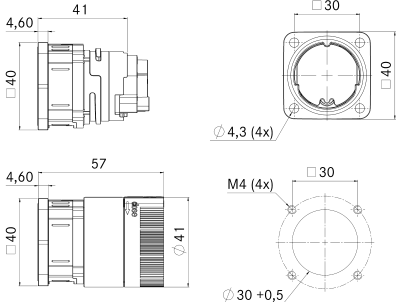
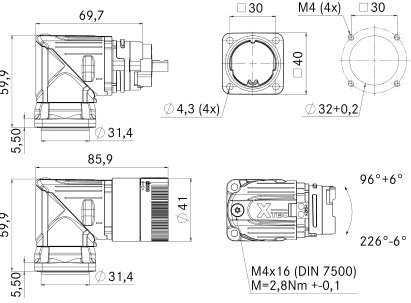
Han® X-TEC 32 with Metal Hoods/Housings



Number of contacts

3 / 5 +



Identification		Cable diameter (mm)	Part-Number		Drawings	Dimensions in mm
			Male insert (M)	Female insert (F)		
Connector straight						
crimp terminal						
		9-14 12-20	09 15 408 3101 09 15 408 3102	09 15 408 3201 09 15 408 3202		 M  F
Receptacle straight						
crimp terminal		-	09 15 408 3501	09 15 408 3601		 M  F
Receptacle angled						
crimp terminal		-	09 15 408 3505	09 15 408 3605		 M  F
Order crimp contacts separately						

Identification		Wire gauge (mm²)	Part-Number		Drawings	Dimensions in mm
			Male insert (M)	Female insert (F)		
Crimp contacts						
gold plated contact Ø 1 mm		0.14-1.0 0.5-1.5	09 15 400 6121 09 15 400 6122	09 15 400 6221 09 15 400 6222		
						
contact Ø 3 mm		6-10	09 15 400 6127	09 15 400 6227		
						

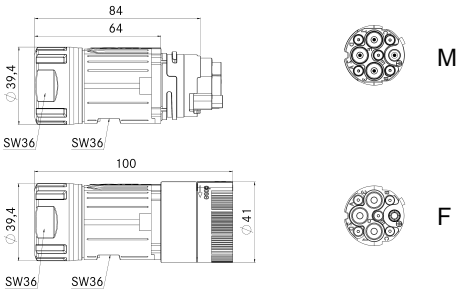
Han® X-TEC 32 with Plastic Hoods/Housings



Number of contacts

3 / 5 +



Identification		Cable diameter (mm)	Part-Number		Drawings	Dimensions in mm
			Male insert (M)	Female insert (F)		
Connector straight crimp terminal 		9-14 12-20 12-20*	09 15 408 3301 09 15 408 3302 09 15 408 3303	09 15 408 3401 09 15 408 3402 09 15 408 3403		
Receptacle straight crimp terminal 		-	09 15 408 3701	09 15 408 3801		
Order crimp contacts separately						

Identification		Wire gauge (mm²)	Part-Number		Drawings	Dimensions in mm
			Male insert (M)	Female insert (F)		
Crimp contacts gold plated contact Ø 1 mm 	0.14-1.0 0.5-1.5	09 15 400 6121 09 15 400 6122	09 15 400 6221 09 15 400 6222			
contact Ø 3 mm 	6-10	09 15 400 6127	09 15 400 6227			

* cable entry for flexible conduits

Features

- Available in metal and plastic housings
- Fast locking system saves time and ensures tight connection
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- Power and signal contacts combined in one connector
- Reliable crimp termination

Technical characteristics

Specifications	DIN EN 60 664-1 DIN EN 61 984	
Inserts		
Number of contacts	6 / 4 + 	
	<u>Power contacts</u>	<u>Signal contacts</u>
Electrical data acc. to DIN EN 61 984	16 A 630 V 6 kV 3	7 A 220 V 2.5 kV 3
Rated current	16 A	7 A
Rated voltage	630 V	220 V
Rated impulse voltage	6 kV	2.5 kV
Pollution degree	3	3
Rated voltage acc. to UL/CSA	600 V	220 V
Material	Polyamid	
Limiting temperatures	-20 °C ... +125 °C	
Flammability accd. to UL 94	V 0	
Mechanical working life	≥ 500 mating cycles	
Contacts	<u>Power contacts</u>	
Pin diameter	2 mm	
Material	Copper alloy	
Surface	hard-gold plated	
Contact resistance	≤ 3 mΩ	
Crimp terminal		
- mm ²	0.35 mm ² ... 4 mm ²	
- AWG	22 ... 12	
Housings	<u>Metal</u>	<u>Plastic</u>
Material	Die cast zinc alloy	Polyamide
Surface	Nickel	-
Locking element	Polyamide	Polyamide
Sealing	FPM	FPM
Limiting temperatures	-20 °C ... +125 °C	-20 °C ... +125 °C
Degree of protection acc. to DIN EN 60529 in locked position	IP 67	IP 67
Cable Ø	9 mm ... 20 mm	9 mm ... 20 mm

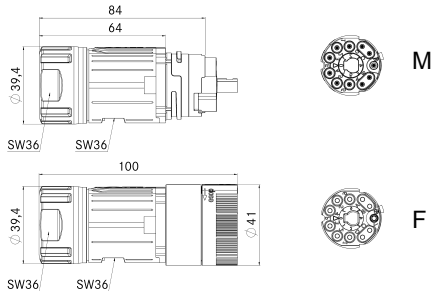
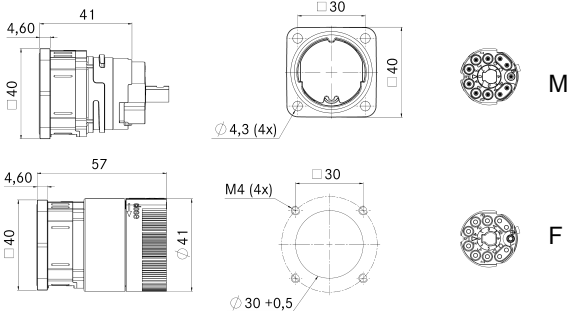
Han® X-TEC 32 with Plastic Hoods/Housings



Number of contacts

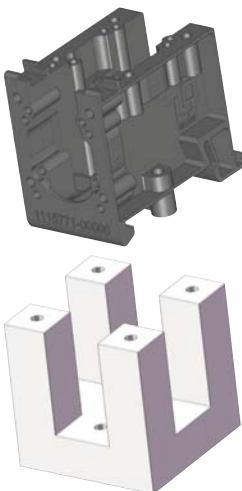
6 / 4 +



Identification		Cable diameter (mm)	Part-Number		Drawings	Dimensions in mm
			Male insert (M)	Female insert (F)		
Connector straight crimp terminal 		9-14 12-20 12-20*	09 15 410 3301 09 15 410 3302 09 15 410 3303	09 15 410 3401 09 15 410 3402 09 15 410 3403		
Receptacle straight crimp terminal 		-	09 15 410 3701	09 15 410 3801		
Order crimp contacts separately						

Identification		Wire gauge (mm²)	Part-Number		Drawings	Dimensions in mm
			Male insert (M)	Female insert (F)		
Crimp contacts gold plated contact Ø 2 mm 		0.35-2.5 2.5-4	09 15 400 6124 09 15 400 6125	09 15 400 6224 09 15 400 6225		

* cable entry for flexible conduits

Identification	Part-Number	Drawings	Dimensions in mm
Top-hat rail adapter 90° for Han® X-TEC 23 for Han® X-TEC 32	09 15 400 9901 09 15 400 9903		
Top-hat rail adapter 45° for Han® X-TEC 23	09 15 400 9902		
Locking element for Han® X-TEC 23 for Han® X-TEC 32	09 15 400 9905 09 15 400 9906		

Identification Part Number Drawings Dimensions in mm

Crimping tool

contact Ø 1 mm

09 99 000 0821



Part Number		Wire gauge		Tool adjustment
Male insert (M)	Female insert (F)	(mm²)	AWG	
09 15 400 6121	09 15 400 6221	0.14	26	4
		0.25	24	5
		0.34	22	6
		0.50	20	6
		0.75	18	7
		1.00	18	8
09 15 400 6122	09 15 400 6222	0.50	20	6
		0.75	18	5
		1.00	18	6
		1.50	16	7

Crimping tool

contact Ø 2 mm

09 99 000 0822



Locator
contact Ø 2 mm

09 99 000 0823

Part Number		Wire gauge		Tool adjustment
Male insert (M)	Female insert (F)	(mm²)	AWG	
09 15 400 6124	09 15 400 6224	0.35	22	5
		0.50	20	5
		0.75	18	6
		1.00	18	6
		1.50	16	7
		2.50	14	8
09 15 400 6125	09 15 400 6225	2.50	14	4
		4.00	12	5

Crimping tool

contact Ø 3 mm

09 99 000 0824



Locator
contact Ø 3 mm

09 99 000 0825

Part Number		Wire gauge		Tool adjustment
Male insert (M)	Female insert (F)	(mm²)	AWG	
09 15 400 6127	09 15 400 6227	6	10	4
		10	8	6