

# EPIC® Rectangular Connectors

EPIC®

13



LAPP KABEL STUTTGART ÖLFLEX® FD ROBUST C ROHS CE

# EPIC® Rectangular Connectors

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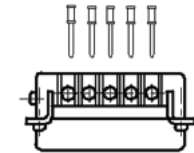
1



### 1. Strain Relief:

Strain Relief provides a seal between the cable and the connector housing. It may also be used to offer additional functions like strain relief and braid continuity for EMC protection.

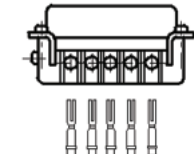
2



### 2. Hood:

The connector housing allows for cable entry. Contact's hoods are available as top entry or side entry in a variety of sizes (PG, Metric, NPT)

3

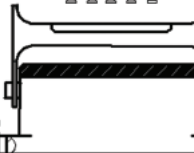


### 3. Male Insert:

Types of contact termination

- Screw
- Crimp (Stamped & Formed or Machined) **Contacts must be purchased separately.**
- Cage Clamp

4



### 4. Female Insert:

Types of contact termination

- Screw
- Crimp (Stamped & Formed or Machined) **Contacts must be purchased separately.**
- Cage Clamp (Screwless Spring)

5



### 5. Base:

- Panel Mount: cable entry through cut out in panel
- Surface Mount: cable entry through a gland into the side of the connector base
- Cable Connector Hood: cable to cable connection. The cable connector mates with a top entry hood. This is frequently used to extend cables.

## EPIC® RECTANGULAR HOUSINGS

EPIC  
HBE  
HA  
EP

DIN 43652

-40°C to +125°C

IP65, NEMA 4, NEMA 12, or IP 65, NEMA 4X, NEMA 12 (Consult for availability)

IP 65: HBE 6 - 48, HA 10 - 64: aluminum alloy, powder coated (grey), locking levers and bolts made of zinc plated steel. HA 3/4: Die cast zinc, powder coated or thermoplastic flame retardant material rated UL 94 V-0 (Grey or Black Plastic).

IP 65 & EP: HBE 6 - 48EP, HA 10 - 64 EP: Environmentally Protected: aluminum alloy, powder coated (black), locking levers and bolts made of stainless steel.



E75770

LR53004-1



EPIC® rectangular connectors shall comply with all applicable requirements of Underwriters Laboratory (UL) Standards 1977 and 498, VDE Standard 0110 for creepage and clearance distances and VDE Standard 0627 for the connector design. The HD and HDD series is developed according to DIN Standard 43652.

EPIC® connectors meet protection class standards only when in the mated condition.

### EPIC® HBE SERIES

#### STANDARD GREY (NEMA 4, IP 65)

PG

NPT

METRIC



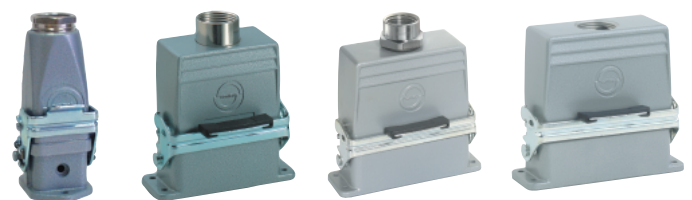
### EPIC® HA SERIES

#### STANDARD GREY (NEMA 4, IP 65)

PG

NPT

METRIC



\*\* Please note that all the rectangular plugs and receptacles either fit into a HBE or HA Series housing.

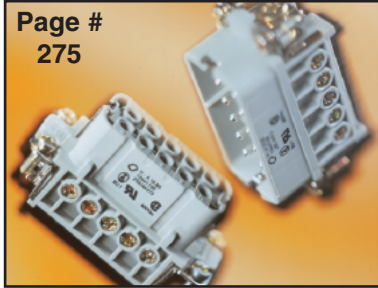
# EPIC® Rectangular Connectors

## Plugs & Receptacles Overview



### EPIC® RECTANGULAR PLUGS & RECEPTACLES

#### EPIC® HA



**Page #**  
275

**# of Contacts:** 3, 4, 10, 16, 32, 48, 64 (+PE)  
**Rated Voltage:** 600V  
**Rated Current:** 10A (HA 3/4), 14A (HA 10 - 48)  
**Termination:** Screw  
**Wire Size:** AWG 20 - 14 (0.5 - 2.5 mm<sup>2</sup>)

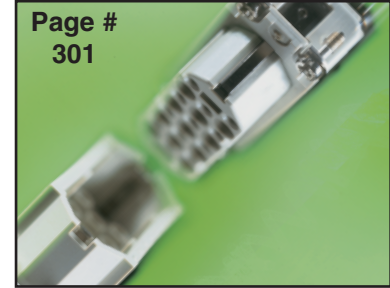
#### EPIC® HBE



**Page #**  
263

**# of Contacts:** 6, 10, 16, 24, 32, 48 (+PE)  
**Rated Voltage:** 600V  
**Rated Current:** 16A  
**Termination:** Screw, Crimp, Cage clamp  
**Wire Size:** AWG 20 - 14 (0.5 - 2.5 mm<sup>2</sup>)  
 AWG 20 - 12 (0.5 - 4 mm<sup>2</sup>)-Crimp

#### EPIC® HD



**Page #**  
301

**# of Contacts:** 7, 8, 15, 25, 40, 50, 64, 80, 128 (+PE)  
**Rated Voltage:** 600V  
**Rated Current:** 10A  
**Termination:** Crimp  
**Wire Size:** AWG 22 - 14 (0.14 - 2.5 mm<sup>2</sup>)

#### EPIC® STA



**Page #**  
282

**# of Contacts:** 6, 14, 20, 40 (+PE)  
**Rated Voltage:** 48V  
**Rated Current:** 10A  
**Termination:** Screw, Solder  
**Wire Size:** AWG 20 - 16 (0.5 - 1.5 mm<sup>2</sup>)

#### EPIC® HBVE



**Page #**  
297

**# of Contacts:** 3, 6, 10 (+PE)  
**Rated Voltage:** 600V  
**Rated Current:** 16A  
**Termination:** Screw  
**Wire Size:** AWG 20 - 14 (0.5 - 2.5 mm<sup>2</sup>)

#### EPIC® MC



**Page #**  
327

**# of Contacts:** 2 - 280 (+PE)  
**Rated Voltage:** 63 - 1000V  
**Rated Current:** 10 - 82A  
**Termination:** Crimp/Coax/Fiber Optic/Screw  
**Wire Size:** AWG 28 - 4 (0.06 - 25 mm<sup>2</sup>)

#### EPIC® HDD



**Page #**  
320

**# of Contacts:** 24, 42, 72, 108, 144, 216 (+PE)  
**Rated Voltage:** 600V  
**Rated Current:** 8.5A  
**Termination:** Crimp  
**Wire Size:** AWG 22 - 14 (0.14 - 2.5 mm<sup>2</sup>)

#### EPIC® HBS



**Page #**  
294

**# of Contacts:** 6, 12 (+PE)  
**Rated Voltage:** 600V  
**Rated Current:** 35A  
**Termination:** Screw  
**Wire Size:** AWG 20 - 10 (0.5 - 6.0 mm<sup>2</sup>)

#### MIXED POWER



**Page #**  
347

**# of Contacts:** 4 Pwr, 4 Pwr & 2 Sgl, 4 Pwr & 8 Sgl  
**Rated Voltage:** 600V  
**Rated Current:** 16 - 80A  
**Termination:** Screw  
**Wire Size:** up to AWG 6 (Pwr) up to AWG 14 (Sgl)

#### EPIC® HEE



**Page #**  
287

**# of Contacts:** 10, 18, 32, 46, 64, 92 (+PE)  
**Rated Voltage:** 600V  
**Rated Current:** 16A  
**Termination:** Crimp  
**Wire Size:** AWG 20 - 12 (0.5 - 4.0 mm<sup>2</sup>)

#### EPIC® HQ



**Page #**  
280

**# of Contacts:** 5 (+PE)  
**Rated Voltage:** 600V  
**Rated Current:** 16A  
**Termination:** Crimp  
**Wire Size:** AWG 20 - 14 (0.5 - 2.5 mm<sup>2</sup>)

# EPIC® Rectangular Connectors

## Overview



		HA	HQ	STA	HBE	HEE	HBS	HBVE	HD	HDD	MC	MP
<b># of Contacts + PE</b>	3	X						X				
	4	X										
	5		X									
	6			X	X		X	X				
	7								X			
	8								X			
	10	X			X	X		X				
	12						X					
	14			X								
	15								X			
	16	X			X							
	18					X						
	20			X								
	24				X					X		
	25								X			
	32	X			X	X						
	40			X					X			
	42									X		
	46					X						
	48	X			X							
50						X			X			
64	X					X			X			
72										X		
80								X				
92						X						
108									X			
128								X				
144									X			
216									X			
2-280											X	
4 Pwr/ 0 Signal												X
4 Pwr/ Signal												X
4 Pwr/ 8 Signal												X
<b>UL Rated Voltage</b>	48V			X								
	600V	X	X		X	X	X	X	X	X		
	63-1000V										X	
	380- 600V											X
<b>UL Rated Current</b>	7A								X			
	8.5A									X		
	10A	X (3/4)		X					X			
	14 A	X										
	16A		X		X	X		X				
	35A						X					
	10 - 82A										X	
16 - 80A											X	
<b>Termination Type</b>	Cage Clamp				X						X	
	Crimp		X		X	X			X	X	X	
	Screw	X		X	X		X	X			X	X
	Solder			X								
<b>Wire Size (AWG)</b>	20 - 16			X					X			
	26 - 14								X (Crimp)	X		
	20 - 14	X	X		X			X				X (Signal)
	up to 14											
	20 - 12				X (Crimp)	X						
	20 - 10						X					
30 - 6										X		
up to 6											X (Power)	
<b>Page #</b>		<b>275</b>	<b>280</b>	<b>282</b>	<b>263</b>	<b>287</b>	<b>294</b>	<b>297</b>	<b>301</b>	<b>320</b>	<b>327</b>	<b>347</b>

# EPIC® Rectangular Connectors



Rectangular Industrial Connectors: Quick Select Chart

Terminate your ÖLFLEX® Cable with the Right Connector

Wire Gauge AWG	# Conductors with Ground	HA	STA 10 A	HBE 16 A	HEE 16 A	HBS 35 A	HBVE 16 A	HD 10 A	HDD 8.5 A	HQ 16 A	MC	MP
AWG 6	3										MC2	Power
	4										MC2	Power
	5										MC2	Power
AWG 8	3										MC2/MC3	Power
	4										MC2/MC3	Power
	5										MC3 x 2	Power
AWG 10	3					HBS6					MC2/MC3	Power
	4					HBS6					MC2/MC3	Power
	5					HBS6					MC3 x 2	Power
	7					HBS6					MC3 x 2	Power
AWG 12	2			HBE6		HBS6					MC3	
	3			HBE6		HBS6					MC3	
	4			HBE6		HBS6					MC3/MC4/MC5	
	5			HBE6		HBS6					MC4/MC5	
	7			HBE6		HBS6					MC3 x 2	
AWG 14	2	HA3		HBE6		HBS6	HBVE3	HD7		HQ5	MC3	Signal
	3	HA3		HBE6		HBS6	HBVE3	HD7		HQ5	MC3	Signal
	4	HA3		HBE6		HBS6	HBVE3	HD7		HQ5	MC3/MC4/MC5	Signal
	5	HA4		HBE6		HBS6	HBVE6	HD7		HQ5	MC4/MC5	Signal
	7	HA10		HBE6	HEE10	HBS6	HBVE6	HD7			MC10	Signal
	9	HA10		HBE10	HEE10	HBS12	HBVE10	HD8			MC10	Signal
	12	HA16		HBE16	HEE18	HBS12		HD15			MC10 x 2	
	18	HA32		HBE24	HEE18			HD24	HDD24		MC10 x 2	
25	HA32		HBE24	HEE32			HD24	HDD24		MC10 x 3		
AWG 16	2	HA3	STA6	HBE6		HBS6	HBVE3	HD7		HQ5	MC3	Signal
	3	HA3	STA6	HBE6		HBS6	HBVE3	HD7		HQ5	MC3	Signal
	4	HA3	STA6	HBE6		HBS6	HBVE3	HD7		HQ5	MC3/MC4/MC5	Signal
	5	HA4	STA6	HBE6		HBS6	HBVE6	HD7		HQ5	MC4/MC5	Signal
	7	HA10	STA6	HBE6	HEE10	HBS6	HBVE6	HD7			MC10	Signal
	9	HA10	STA14	HBE10	HEE10	HBS12	HBVE10	HD8			MC10	Signal
	12	HA16	STA14	HBE16	HEE18	HBS12		HD15			MC10 x 2	
	18	HA32	STA20	HBE24	HEE18			HD24	HDD24		MC10 x 2	
	25	HA32	STA40	HBE24	HEE32			HD24	HDD24		MC10 x 3	
	34	HA48	STA40	HBE48	HEE46			HD40	HDD42		MC10 x 4	
	41	HA48	STA40	HBE48	HEE46			HD40	HDD42		MC10 x 4	
	50	HA64			HEE64			HD50	HDD72		MC10 x 5	
	60	HA64			HEE64			HD64	HDD72		MC10 x 6	
61	HA64			HEE64			HD64	HDD72		MC10 x 6		
AWG 18	2	HA3	STA6	HBE6		HBS6	HBVE3	HD7		HQ5	MC4	Signal
	3	HA3	STA6	HBE6		HBS6	HBVE3	HD7		HQ5	MC4	Signal
	4	HA3	STA6	HBE6		HBS6	HBVE3	HD7		HQ5	MC4/MC5	Signal
	5	HA4	STA6	HBE6		HBS6	HBVE6	HD7		HQ5	MC4/MC5	Signal
	7	HA10	STA6	HBE6	HEE10	HBS6	HBVE6	HD7			MC10	Signal
	9	HA10	STA14	HBE10	HEE10	HBS12	HBVE10	HD8			MC10	Signal
	12	HA16	STA14	HBE16	HEE18	HBS12		HD15			MC10 x 2	
	18	HA32	STA20	HBE24	HEE18			HD24	HDD24		MC10 x 2	
	25	HA32	STA40	HBE24	HEE32			HD24	HDD24		MC10 x 3	
	34	HA48	STA40	HBE48	HEE46			HD40	HDD42		MC10 x 4	
	41	HA48	STA40	HBE48	HEE46			HD40	HDD42		MC10 x 4	
	50	HA64			HEE64			HD50	HDD72		MC10 x 5	
	61	HA64			HEE64			HD64	HDD72		MC10 x 6	
AWG 20	2	HA3	STA6	HBE6		HBS6	HBVE3	HD7		HQ5	MC4	Signal
	3	HA3	STA6	HBE6		HBS6	HBVE3	HD7		HQ5	MC4	Signal
	4	HA3	STA6	HBE6		HBS6	HBVE3	HD7		HQ5	MC4/MC5	Signal
	5	HA4	STA6	HBE6		HBS6	HBVE6	HD7		HQ5	MC4/MC5	Signal
	7	HA10	STA6	HBE6	HEE10	HBS6	HBVE6	HD7			MC10	Signal
	9	HA10	STA14	HBE10	HEE10	HBS12	HBVE10	HD8			MC10	Signal
	10	HA10	STA14	HBE10	HEE10	HBS12		HD15			MC10	
	12	HA16	STA14	HBE16	HEE18	HBS12		HD15			MC20	
	18	HA32	STA20	HBE24	HEE18			HD24	HDD24		MC20	
	24	HA32	STA40	HBE24	HEE32			HD24	HDD24		MC20 x 2	
	25	HA32	STA40	HBE24	HEE32			HD24	HDD24		MC20 x 2	
	34	HA48	STA40	HBE48	HEE46			HD40	HDD42		MC20 x 2	

Please note that the amperage for all series listed in black can be found at the top of the column.

**4 Amps, 10 Amps, 14 Amps, 16 Amps, 20 Amps, 25 Amps, 50 Amps, 80 Amps, 83 Amps**

- Notes: 1) The above chart shows the relationship between cable wire gauge and conductor count with connector contact count. Final connector selection and application suitability will depend on voltage and current limits of the cable and connector
- 2) The MC Series modular connector offers a wide variety of mix-and-match combinations. The combinations shown in the chart are offered as suggestions based on providing a solution in the smallest housing size.

# EPIC® Rectangular Connectors



Rectangular Industrial Connectors: Quick Select Chart

Terminate your ÖLFLEX® Cable with the Right Connector

Wire Gauge AWG	# Conductors with Ground	HA	STA 10 A	HBE 16 A	HEE 16 A	HBS 35 A	HBVE 16 A	HD 10 A	HDD 8.5 A	HQ 16 A	MC	MP
AWG 22 with or without ground	2							HD7				
	3							HD7				
	4							HD7				
	5							HD7			MC10	
	7							HD7			MC10	
	8							HD7			MC10	
	10							HD15			MC10	
	12							HD15			MC20	
	14							HD15			MC20	
	15							HD15			MC20	
	16							HD15			MC20	
	18							HD24	HDD24		MC20	
	20							HD24	HDD24		MC20	
	21							HD24	HDD24		MC20	
	25							HD24	HDD24		MC20 x 2	
	28							HD40	HDD42		MC20 x 2	
	30							HD40	HDD42		MC20 x 2	
	32							HD40	HDD42		MC20 x 2	
	36							HD40	HDD42		MC20 x 2	
40							HD40	HDD42		MC20 x 2		
44							HD50	HDD72		MC20 x 3		
50							HD50	HDD72		MC20 x 3		
61							HD64	HDD72		MC20 x 3		
AWG 24, 26 with or with- out ground	5										MC10	
	7										MC10	
	8										MC10	
	10										MC10	
	12										MC20	
	14										MC20	
	15										MC20	
	16										MC20	
	18										MC20	
	20										MC20	
	21										MC20	
	25										MC20 x 2	
	28										MC20 x 2	
30										MC20 x 2		
32										MC20 x 2		
36										MC20 x 2		
40										MC20 x 2		
44										MC20 x 3		
50										MC20 x 3		
61										MC20 x 3		
AWG 28 with or without ground	10										MC20	
	12										MC20	
	14										MC20	
	15										MC20	
	16										MC20	
	18										MC20	
	20										MC20	
	21										MC20	
	25										MC20 x 2	
	28										MC20 x 2	
	30										MC20 x 2	
32										MC20 x 2		
36										MC20 x 2		
40										MC20 x 2		
44										MC20 x 3		
50										MC20 x 3		
61										MC20 x 3		

Please note that the amperage for all series listed in black can be found at the top of the column.  
**4 Amps, 10 Amps, 14 Amps, 16 Amps, 20 Amps, 25 Amps, 50 Amps, 80 Amps, 83 Amps**

- Notes: 1) The above chart shows the relationship between cable wire gauge and conductor count with connector contact count. Final connector selection and application suitability will depend on voltage and current limits of the cable and connector
- 2) The MC Series modular connector offers a wide variety of mix-and-match combinations. The combinations shown in the chart are offered as suggestions based on providing a solution in the smallest housing size.

Note: Industrial wire gauge may not be suitable for all insert termination types. Check the main catalog before making final selection.

# EPIC® Rectangular Connectors



## Plugs & Receptacles: Quick Select Chart

### EPIC® HA

**# of Contacts:** 3, 4, 10, 16, 32, 48, 64 (+PE)  
**Rated Voltage:** 600V  
**Rated Current:** 10A (HA 3/4), 14A (HA 10 - 64)  
**Termination:** Screw  
**Wire Size:** AWG 20 - 14 (0.5 - 2.5 mm<sup>2</sup>)



EPIC® HA: Screw Terminated with Wire Protection							
# of Contacts	3	4	10	16	32 *	48 *	64 *
Page #	Pg 276	Pg 276	Pg 276	Pg 277	Pg 278	Pg 278	Pg 279
Plug	10420000	10431000	10440100	10530000	10540000	10540100	105300LE64
Receptacle	10421000	10432000	10441100	10531000	10541000	10541100	105310LE64
EPIC® HA: Screw Terminated without Wire Protection							
# of Contacts	3	4	10	16	32 *	48 *	64 *
Page #	Pg 276	Pg 276	Pg 276	Pg 277	Pg 277	Pg 278	Pg 278
Plug	-	-	10440000	10532000	10542000	10542100	-
Receptacle	-	-	10441000	10533000	10543000	10543100	-

Mating Housings	
Insert:	Housing:
HA 3/4	HA 3/4
HA 10	HA 10
HA 16	HA 16
HA 32	HA 32
HA 48	HA 48
HA 64	HA 64

\*HA 32 = HA 16+32, HA 48= HA 16+32+48, HA 64= HA 16+32+48+64

### EPIC® HBE



Screw Terminated



Crimp Terminated

Crimp Contacts  
Pg 257



Cage Clamp

Mating Housings	
Insert:	Housing:
HBE 6	HBE 6
HBE 10	HBE 10
HBE 16	HBE 16
HBE 24	HBE 24
HBE 32	HBE 32
HBE 48	HBE 48

**# of Contacts:** 6, 10, 16, 24, 32, 48 (+PE)  
**Rated Voltage:** 600V  
**Rated Current:** 16A  
**Termination:** Screw, Crimp, Cage Clamp  
**Wire Size:** AWG 20 - 14 (0.5 - 2.5 mm<sup>2</sup>)  
 AWG 20 - 12 (0.5 - 4 mm<sup>2</sup>)- Crimp

EPIC® HBE: Screw Terminated with Wire Protection						
# of Contacts	6	10	16	24	32 *	48 *
Page	Pg 265	Pg 267	Pg 269	Pg 271	Pg 273	Pg 274
Plug	10190000	10192000	10194000	10196000	10202000	10204000
Receptacle	10191000	10193000	10195000	10197000	10203000	10205000
EPIC® HBE: Screw Terminated without Wire Protection						
# of Contacts	6	10	16	24	32 *	48 *
Page	Pg 265	Pg 267	Pg 269	Pg 271	Pg 273	Pg 274
Plug	10190100	10192100	10194100	10196100	10202100	10204100
Receptacle	10191100	10193100	10195100	10197100	10203100	10205100
EPIC® HBE: Crimp Terminated						
# of Contacts	6	10	16	24	32 *	48 *
Page	Pg 265	Pg 267	Pg 269	Pg 271	Pg 273	Pg 274
Plug	10180000	10182000	10184000	10186000	10184200	10186200
Receptacle	10181000	10183000	10185000	10187000	10185200	10187200
EPIC® HBE: Screwless Cage Clamp						
# of Contacts	6	10	16	24	32 *	48 *
Page	Pg 266	Pg 268	Pg 270	Pg 272	Pg 273	Pg 274
Plug	10400000	10400100	10400200	10400300	10400400	10400500
Receptacle	10401000	10401100	10401200	10401300	10401400	10401500
EPIC® HBE: Terminal Block Receptacles						
# of Contacts	6	10	16	24	32	48 *
Page	Pg 266	Pg 268	Pg 270	Pg 272	-	-
Left Ground	70310100	70312100	70314100	70316100	-	-
Right Ground	70311100	-	70315100	70317100	-	-

\* HBE 32 = HBE 16+32, HBE 48= HBE 24 +48

Please note that contacts must be purchased separately for crimp terminated inserts.

### EPIC® HD

**# of Contacts:** 7, 8, 15, 25, 40, 50, 64, 80, 128 (+PE)  
**Rated Voltage:** 600V  
**Rated Current:** 10A  
**Termination:** Crimp  
**Wire Size:** AWG 26 - 14 (0.14 - 2.5 mm<sup>2</sup>)



Machine Crimp Contacts  
Page 257

Stamped & Formed Contacts  
Page 257

EPIC® HD: Crimp Terminated									
# of Contacts	7(M)	7(S)	8 (M)	15 (M)	15 (S)	25 (M)	25 (S)	40 (M)	40(S)
Page #	Pg 303	Pg 304	Pg 305	Pg 306	Pg 306	Pg 308	Pg 309	Pg 310	Pg 311
Plug	11250500	11250000	11252500	11283200	11255000	11283300	11260000	11265200	11265000
Receptacle	11251500	11251000	11253500	11282200	11256000	11282300	11261000	11266200	11266000
# of Contacts		50 (M) *	50 (S)*	64 (M)	64 (S)	80 (M)*	80 (S)*	128 (M)*	128 (S)*
Page #		Pg 312	Pg 313	Pg 314	Pg 315	Pg 316	Pg 317	Pg 318	Pg 319
Plug	*2 sets	11283300	11260000	11272000	11270000	11265200	11265000	11272000	11270000
Receptacle	*2 sets	11282300	11261000	11273000	11271000	11266200	11266000	11273000	11271000

Crimp Terminated- M=Machine, S= Stamped & Formed

Please note that contacts must be purchased separately for crimp terminated inserts.

Mating Housings							
Insert:	Housing:	Insert:	Housing:	Insert:	Housing:	Insert:	Housing:
HD 7/8	HA 3/4	HD 25	HA 16	HD 50	HA 32	HD 80	HBE 32
HD 15	HA 10	HD 40	HBE 16	HD 64	HBE 24	HD 128	HBE 48

# EPIC® Rectangular Connectors

## Plugs & Receptacles: Quick Select Chart

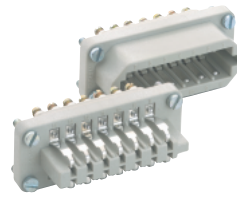


### EPIC® HEE



**# of Contacts:** 10, 18, 32, 46, 64, 92 (+PE)  
**Rated Voltage:** 600V  
**Rated Current:** 16A  
**Termination:** Crimp  
**Wire Size:** AWG 20 - 12  
 (0.5 - 4.0 mm<sup>2</sup>)

### EPIC® STA



**# of Contacts:** 6, 14, 20, 40\* (+PE)  
**Rated Voltage:** 48V  
**Rated Current:** 10A  
**Termination:** Screw, Solder  
**Wire Size:** AWG 20 - 16  
 (0.5 - 1.5 mm<sup>2</sup>)

EPIC® HEE: Crimp Terminated			
# of Contacts	10	18	32
Page #	Pg 288	Pg 289	Pg 290
Plug	10180400	10182400	10184400
Receptacle	10181400	10183400	10185400
# of Contacts	46	64 *	92*
Page #	Pg 291	Pg 292	Pg 293
Plug	10186400	10184500	10186500
Receptacle	10187400	10185500	10187500

Mating Housings	
Insert:	Housing:
HEE 10	HBE 6
HEE 18	HBE 10
HEE 32	HBE 16
HEE 46	HBE 24
HEE 64	HBE 32
HEE 92	HBE 48

EPIC® STA: Screw Terminated			
# of Contacts	6	14	20
Page #	Pg 283	Pg 284	Pg 285
Plug	10488100	10493100	10503100
Receptacle	10486100	10491100	10501100

Mating Housings	
Insert:	Housing:
STA 6	HA 3/4
STA 14	HA 10
STA 20	HA 16
STA 40	HA 32

EPIC® STA: Solder Terminated			
# of Contacts	6	14	20
Page #	Pg 283	Pg 284	Pg 285
Plug	10487200	10492200	10502200
Receptacle	10485200	10490200	10500200

\* STA 40= 2 X STA 20  
Pg 286

\* HEE 64 = HEE 32+64, HEE 92= HEE 46 +92  
 Please note that contacts must be purchased separately for crimp terminated inserts

Crimp Contacts  
Pg 257

### EPIC® HDD



**# of Contacts:** 24, 42, 72, 108, 144, 216, (+PE)  
**Rated Voltage:** 600V  
**Rated Current:** 8.5A  
**Termination:** Crimp  
**Wire Size:** AWG 26 - 14; (0.14 - 2.5 mm<sup>2</sup>)

EPIC® HDD: Crimp Terminated						
# of Contacts	24	42	72	108	144 *	216 *
Page #	Pg 321	Pg 322	Pg 323	Pg 324	Pg 325	Pg 326
Plug	11285000	11285100	11285200	11285300	11285400	11285500
Receptacle	11286000	11286100	11286200	11286300	11286400	11286500

\* HDD 144= HDD 72+HDD 144, HDD 216= HDD 108+HDD 216

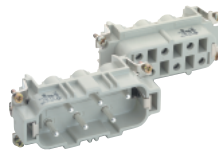
Please note that contacts must be purchased separately for crimp terminated inserts

Mating Housings	
Insert:	Housing:
HDD 24	HBE 6
HDD 42	HBE 10
HDD 72	HBE 16
HDD 108	HBE 24
HDD 144	HBE 32
HDD 216	HBE 48

Crimp Contacts  
Pg 257

### EPIC® HBS

**# of Contacts:** 6, 12 (+PE)  
**Rated Voltage:** 600V  
**Rated Current:** 35A  
**Termination:** Screw  
**Wire Size:** AWG 20 - 10 ; (0.5 - 6.0 mm<sup>2</sup>)



EPIC® HBS		
# of Contacts	6	12 *
Page #	Pg 295	Pg 296
Plug	10170000	10170600
Receptacle	10171000	10171600

Mating Housings	
Insert:	Housing:
HBS 6	HBE 16
HBS 12	HBE 32

\* HBS 12= HBS 6+HBS 12

### MIXED POWER

**# of Contacts:** 4 Pwr/0 Signal, 4 Pwr/2 Signal, 4 Pwr/8 Signal  
**Rated Voltage:** 600V  
**Rated Current:** 16 - 80A  
**Termination:** Screw  
**Wire Size:** up to AWG 6 (Power)  
 up to AWG 14 (Signal)



Mixed Power			
# of Contacts	4 P/ 0 S	4 P/ 2 S	4 P/ 8 S
Page #	Pg 349	Pg 349	Pg 350
Plug	MP/M400	MP/M402	11/2408
Receptacle	MP/F400	MP/F402	11/1408

Mating Housings	
Insert:	Housing:
4P/ 0 S	HBE 16
4P/ 2 S	HBE 16
4P / 8 S	HBE 24

P= Power, S=Signal

### EPIC® HQ



**# of Contacts:** 5 (+PE)  
**Rated Voltage:** 600V  
**Rated Current:** 16A  
**Termination:** Crimp  
**Wire Size:** AWG 20 - 14  
 (0.5 - 2.5 mm<sup>2</sup>)

EPIC® HQ	
# of Contacts	5
Page #	Pg 281
Plug	10431500
Receptacle	10432500

Mating Housings	
Insert:	Housing:
HQ5	HA 3/4

Please note that contacts must be purchased separately for crimp terminated inserts

Crimp Contacts  
Pg 257

### EPIC® HBVE



**# of Contacts:** 3, 6, 10 (+PE)  
**Rated Voltage:** 600V  
**Rated Current:** 16A  
**Termination:** Screw  
**Wire Size:** AWG 20 - 14 (0.5 - 2.5 mm<sup>2</sup>)

EPIC® HBVE: Screw Terminated			
# of Contacts	3	6	10
Page #	Pg 298	Pg 299	300
Plug	10210010	10239010	10270010
Receptacle	10211010	10240010	10271010

Cage Clamp	
# of Contacts	3
Page #	Pg 298
Plug	10210040
Receptacle	10211040

EPIC® HBVE: without Wire Protection			
# of Contacts	3	6	10
Page #	Pg 298	Pg 299	Pg 300
Plug	10210110	10239110	10270110
Receptacle	10211110	10240110	10271110

Mating Housings	
Insert:	Housing:
HBVE 3	HBE 10
HBVE 6	HBE 16
HBVE 10	HBE 24

### CHOOSE YOUR MODULES

Modules	Contacts Next Page	Plug	Receptacle	Rated Voltage	Rated Current	Page #
2 Contact Module: 2 Working Contacts		10344100	10345100	1000V	82A	331
2 Contact Module with ground		10344600	10345600	1000V	82A	331
3 Contact Coax Module		10399200	10399300	250V	-	332
3 Contact Module		10382000	10382100	630V	40A	333
3 Contact High Voltage Module		10399800	10399900	1000V	50A	334
4 Contact Module		10399000	10399100	630V	25A	335
4+PE Contact High Voltage Module		10383200	10383300	1000V	16A	336
5 Contact Module		10382200	10382300	400V	20A	337
10 Contact Module: Stamped & Formed		10383400	10383500	250V	10A	338
10 Contact Module: Machine Crimp		10382400	10382500	250V	10A	339
20 Contact Module		10383600	10383700	100V	4A	340
Dummy Module		10399400	10399500	-	-	341
4 Contact Cage Clamp Module		10399600	10399700	400V	14A	341
Profibus DP Module		10390400	10390500	30V	1A	341
Ethernet Module- RJ 45 Connectors + 4 Power Contacts		10344300	10345300			342
Universal Bus Modules		10390600	10390700	30V	1A	342
Pneumatic Modules: 1 Contact with 2.5 mm Hose diameter		44424004	44424005			342
Pneumatic Modules: 1 Contact with 4.0 mm Hose diameter		44424006	44424007			342
Pneumatic Modules: 2 Contacts with 2.5 mm Hose diameter		44424008	44424009			342
Pneumatic Modules: 2 Contacts with 4.0 mm Hose diameter		44424010	44424011			342

### CHOOSE YOUR FRAME BASED ON THE NUMBER OF MODULES

Frames	For Plugs	For Receptacles	Corresponding Housing	Page #
Frames for 2 modules	10381000	10381100	HBE 6 Series	343
Frames for 3 modules	10381200	10381300	HBE 10 Series	343
Frames for 5 modules	10381400	10381500	HBE 16 Series	344
Frames for 7 modules	10381600	10381700	HBE 24 Series	344
Frames for 10 modules	10381400(2X)	10381500(2X)	HBE 32 Series	345
Frames for 14 modules	10381600(2X)	10381700(2X)	HBE 48 Series	346

Modules snap  
into frame



**Note:**  
Color of components  
may be different then  
shown.

# EPIC® Rectangular Connectors



## Quick Select Chart: Contacts & Tools

### MACHINED CONTACTS: DIAMETER 2.5 MM FOR HBE CRIMP SERIES, HEE SERIES, HQ SERIES & MC PART # 10399000 & 10399100



**Crimp Tool:** 11147000  
**Crimp Die:** 11147100  
**Locator:** 11147200  
**Removal Tool:** 11182500

Part number= 1 contact,  
Sold in bags of 100

mm <sup>2</sup>	AWG	Silver		1 Micron Gold		2 Micron Gold	
		Pin	Socket	Pin	Socket	Pin	Socket
0.5	20	11190000	11195000	11192000	11197000	11194000	11199000
.75 - 1.0	18	11190100	11195100	11192100	11197100	11194100	11199100
1.5	16	11190200	11195200	11192200	11197200	11194200	11199200
2.5	14	11190300	11195300	NA	NA	NA	NA
4.0	12	11190400	11195400	NA	NA	NA	NA

### MACHINED CONTACTS: DIAMETER 1.6 MM FOR HD MACHINE, HDD SERIES INSERTS & MC PART # 10382400, 10382500

mm <sup>2</sup>	AWG	Silver		Gold	
		Pin	Socket	Pin	Socket
0.14 - 0.37	26 - 22	13162000	13163000	13162500	13163500
0.5	20	13162100	13163100	13162600	13163600
0.75 - 1.0	18	13162200	13163200	13162700	13163700
1.5	16	13162300	13163300	13162800	13163800
2.5	14	13162400	13163400	13162900	13163900

**Crimp Tool:** 11147000  
**Crimp Dies:** 11147100  
**Locator:** 11147200  
**Removal Tool:** 11161000



Part number= 1 contact,  
Sold in bags of 100

### STAMPED & FORMED CONTACTS: DIAMETER 1.6MM FOR HD INSERTS & MC PART # 10383400 & 10383500



**Crimp Tool:** 11147000  
**Removal Tool:** 11161000

**Crimp Tool for Reel:**  
(200 contacts max)  
11153500

**Crimp Dies for Reel:**  
0.14 - 0.5: 11153600  
0.5 - 1.5: 11153700  
1.5 - 2.5: 11153800

	Crimp Dies	Locator:
0.14 - 0.5:	11147170	11147300
0.5 - 1.5:	11147180	11147300
1.5 - 2.5:	11147190	11147310

mm <sup>2</sup>	AWG	Silver		Gold		Reel of 200	
		Pin	Socket	Pin	Socket	Pin	Socket
0.14 - 0.5	26 - 20	11241100	11231100	11243100	11233100	11240700	11230700
0.5 - 1.5	20 - 16	11221000	11236100	11221300	11238100	11220700	11235700
1.5 - 2.5	16 - 14	11223500	11228500	-	-	11223000	11228000

Part number= 1 contact (bags) or 1 reel.

mm <sup>2</sup>	AWG	Reel of 2000: Right Hand Feed				Left Hand Feed	
		Silver		Gold		Silver	
		Pin	Socket	Pin	Socket	Pin	Socket
0.14 - 0.5	26 - 20	11240000	11230000	-	-	11240400	11230400
0.5 - 1.5	20 - 16	11220000	11235000	11220100	11235200	11226000	11226500
1.5 - 2.5	16 - 14	-	-	-	-	11222700	11227700

### SILVER MACHINED CONTACTS: DIAMETER 3.6 MM FOR MC PART # 10382000 & 10382100; 10399800 & 10399900

mm <sup>2</sup>	AWG	Pin	Socket
1.5	16	1121070C	1121570C
2.5	14	1121060C	1121560C
4.0	12	1121000C	1121500C
6.0	10	1121010C	1121510C
10	8	1121020C	1121520C

**mm<sup>2</sup>:** **Tool:** **Die:** **Locator:**  
1.5 - 2.5: 11147000 11147110 11147210  
4.0 - 10: 11147000 11147120 11147210



**Removal Tool:** 11171100

Part number= 1 contact,  
Sold in bags of 100

### STAMPED & FORMED CONTACTS: DIAMETER 2.5 MM FOR MC PART # 10383200 & 10383300



**Crimp Tool:** 11147000  
**Removal Tool:** 11160000

**Crimp Dies:**  
0.5 - 1.5: 11147180  
1.5 - 2.5: 11147190  
**Locator:**  
0.5 - 1.5: 11147300  
1.5 - 2.5: 11147300

**Crimp Tool for Reel:**  
11153500  
**Crimp Dies for Reel:**  
0.5 - 1.5: 11153700  
1.5 - 2.5: 11153800

mm <sup>2</sup>	AWG	Silver		Bags of 100		Reels of 200 (LF)	
		Pin	Socket	Pin	Socket	Pin	Socket
0.5 - 1.5	20 - 16	11201000	11205000	11208000	11209000	11208000	11209000
1.5 - 2.5	16 - 14	11202000	11206000	11208500	11209500	11208500	11209500

### SILVER MACHINED CONTACTS: DIA. 2.5 MM FOR MC PART # 10382200 & 10382300



**Crimp Tool:** 11147000  
**Crimp Die:** 11147100  
**Locator:** 11147200

mm <sup>2</sup>	AWG	Pin	Socket
0.5	20	1121300C	1121800C
0.75 - 1.0	18	1121310C	1121810C
1.5	16	1121320C	1121820C
2.5	14	1121330C	1121830C
4.0	12	1121340C	1121840C

**Removal Tool:** 11171000

### GOLD STAMPED & FORMED CONTACTS: DIA. 1.0 MM FOR MC PART # 10383600 & 10383700

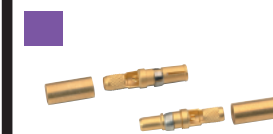


**Crimp Tool:** 11158400  
**Removal Tool:** 11132500

Left Feed

mm <sup>2</sup>	AWG	Pin	Socket
.08 - 0.2	28 - 25	44429013	44429009
0.2 - .52	25 - 20	44429014	44429010

### COAX CONTACTS: FOR MC PART # 10399200 & 10399300



**Crimp Tool:** 11147000  
**Crimp Die:** 11147130  
**Removal Tool:** 11171100

Pin	Socket	Gauge
11214200	11219200	RG 58

### FIBER OPTIC CONTACTS



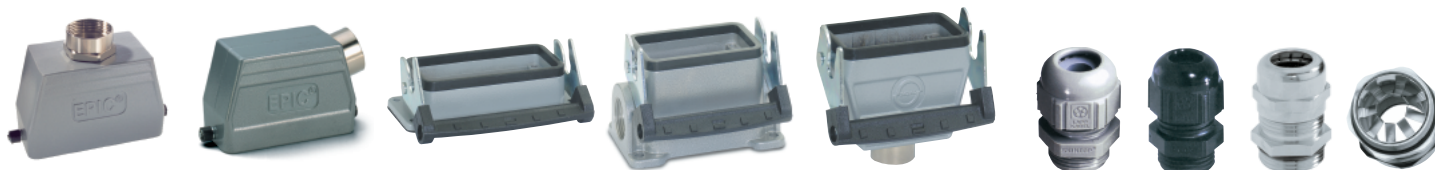
**Assembly Tool Set:**  
11184700

Pin	Socket
11214100	11219100

# EPIC® Rectangular Connectors



Quick Select Chart: HBE Series Housings with Single Lever on Base



EPIC® HBE Series Rectangular Connectors: Single Lever on Bases							Complete with a PG SKINTOP®				
	PG	HBE 6	HBE 10	HBE 16	HBE 24	HBE 48	Gray	Black	Metal	MS-SC	
<b>Top Entry Hood with Single Lever Bolts</b>	13.5	100110	-	-	-	-	53015130	53015330	52015700	53112230	
	16	100210	10040900	-	-	-	53015140	53015340	52015740	53112240	
	21	-	10040700	10080900	10121900	-	53015150	53015350	52015750	53112250	
	29	-	-	-	10111900	10155000	53015160	53015360	52015760	53112260	
	36	-	-	-	-	10156000	53015170	53015370	52015765	53112270	
	42	-	-	-	-	10157000	53015180	53015380	52015766	-	
<b>Top Entry High Profile Hood with Single Lever Bolts</b>	21	70020200	70044200	70094200	70144400	-	53015150	53015350	52015750	53112250	
	29	70020400	70044400	70094400	70144600	-	53015160	53015360	52015760	53112260	
<b>Side Entry Hood with Single Lever Bolts</b>	13.5	100120	-	-	-	-	53015130	53015330	52015700	53112230	
	16	100220	10042900	-	-	-	53015140	53015340	52015740	53112240	
	21	-	10042800	10082900	10113900	-	53015150	53015350	52015750	53112250	
	29	-	-	10092900	10123900	10158000	53015160	53015360	52015760	53112260	
	36	-	-	-	-	10159000	53015170	53015370	52015765	53112270	
	42	-	-	-	-	10160000	53015180	53015380	52015766	-	
<b>Side Entry High Profile Hood with Single Lever Bolts</b>	21	70022200	70054200	70104200	70154400	-	53015150	53015350	52015750	53112250	
	29	70022400	70054400	70104400	70154600	-	53015160	53015360	52015760	53112260	
<b>Panel Mount Base with Single Lever</b>	Without dust cover	-	100030C0	10032900	100729C0	101029C0	10161000	-	-	-	
	With dust cover	-	100040C0	10033900	100739C0	101039C0	10152500	-	-	-	
	With dust cover and no dust cover bolts	-	-	-	-	-	10152000	-	-	-	
<b>Surface Mount Base with Single Lever</b>	2 Entries	16	100060	10035900	-	-	53015140	53015340	52015740	53112240	
	1 Entry	16	-	10034900	-	-	53015140	53015340	52015740	53112240	
	2 Entries with dust cover	16	100090	10038900	-	-	53015140	53015340	52015740	53112240	
	1 Entry with dust cover	16	100070	10036900	-	-	53015140	53015340	52015740	53112240	
	2 Entries	21	-	-	10075900	10105900	-	53015150	53015350	52015750	
	1 Entry	21	-	10034700	10074900	10104900	-	53015150	53015350	52015750	
	2 Entries with dust cover	21	-	-	10078900	10109900	-	53015150	53015350	52015750	
	1 Entry with dust cover	21	-	-	10076900	10107900	-	53015150	53015350	52015750	
	<b>High Profile Surface Mount Base</b>	2 Entries	21	70006200	70061200	70111200	70161200	-	53015150	53015350	52015750
1 Entry		21	70005200	70060200	70110200	70160200	-	53015150	53015350	52015750	
2 Entries with dust cover		21	70016200	70065200	70115200	70165200	-	53015150	53015350	52015750	
1 Entry with dust cover		21	70015200	70064200	70114200	70164200	-	53015150	53015350	52015750	
2 Entries		29	70006400	70061400	70111400	70161400	10166000	53015160	53015360	52015760	
1 Entry		29	70005400	70060400	70110400	70160400	10165000	53015160	53015360	52015760	
2 Entries with dust cover		29	700164C0	70065400	70115400	70165400	10168000	53015160	53015360	52015760	
1 Entry with dust cover		29	70015400	70064400	70114400	70164400	10167000	53015160	53015360	52015760	
2 Entries		36	-	-	-	-	10166100	53015170	53015370	52015765	
1 Entry		36	-	-	-	-	10165100	53015170	53015370	52015765	
2 Entries with dust cover		36	-	-	-	-	10168100	53015170	53015370	52015765	
1 Entry with dust cover		36	-	-	-	-	10167100	53015170	53015370	52015765	
<b>Cable Coupler Hood with Single Lever</b>		13.5	100140	-	-	-	-	53015130	53015330	52015700	53112230
		16	100240	10046900	-	-	-	53015140	53015340	52015740	53112240
	21	-	70042200	10086900	10127900	-	53015150	53015350	52015750	53112250	
	29	-	-	-	10117900	-	53015160	53015360	52015760	53112260	
<b>High Profile Cable Coupler Hood with Single Lever</b>	21	70010200	70042400	70092200	70142400	-	53015150	53015350	52015750	53112250	
	29	70010400	70042600	70092400	70142600	-	53015160	53015360	52015760	53112260	

For NPT Parts delete the last 00 or C0 and replace with NP at the end of the part number. Ex. 10011000 = 100110NP. Metric parts are also available

# EPIC® Rectangular Connectors



Quick Select Charts: HBE Series Housings with Double Levers on Base & HA Series with Single Lever On Base



EPIC® HBE Series Rectangular Connectors: Double Levers on Bases						Complete with a PG SKINTOP®			
	PG	HBE 10	HBE 16	HBE 24	HBE 32	Gray	Black	Metal	MS-SC
Top Entry Hood with Double Lever Bolts	16	100400C0	-	-	-	53015140	53015340	52015740	53112240
	21	100401C0	100800C0	101210C0	10133000	53015150	53015350	52015750	53112250
	29	-	100900C0	101110C0	10134000	53015160	53015360	52015760	53112260
	36	-	-	-	-	53015170	53015370	52015765	53112270
High Profile Top Entry Hood with Bolts	21	700504C0	701002C0	701504C0	-	53015150	53015350	52015750	53112250
	29	700506C0	701004C0	701506C0	-	53015160	53015360	52015760	53112260
Side Entry Hood with Double Lever Bolts	16	100420C0	-	-	-	53015140	53015340	52015740	53112240
	21	100421C0	100820C0	101130C0	10135000	53015150	53015350	52015750	53112250
	29	-	100920C0	101230C0	10136000	53015160	53015360	52015760	53112260
High Profile Side Entry Hood with Double Lever Bolts	21	70052400	701022C0	701524C0	-	53015150	53015350	52015750	53112250
	29	70052600	701024C0	701526C0	-	53015160	53015360	52015760	53112260
Panel Mount Base with Double Levers	-	100320C0	100720C0	101020C0	101320C0	-	-	-	-
Surface Mount Base with Double Levers									
2 Entries	16	100350C0	-	-	-	53015140	53015340	52015740	53112240
1 Entry	16	100340C0	-	-	-	53015140	53015340	52015740	53112240
2 Entries	21	-	100750C0	101050C0	-	53015150	53015350	52015750	53112250
1 Entry	21	-	100740C0	101040C0	-	53015150	53015350	52015750	53112250
2 Entries	29	-	-	-	101380C0	53015160	53015360	52015760	53112260
1 Entry	29	-	-	-	101370C0	53015160	53015360	52015760	53112260
High Profile Surface Mount Bases	21	70036200	700862C0	70136200	-	53015150	53015350	52015750	53112250
	21	70035200	70085200	701352C0	-	53015150	53015350	52015750	53112250
	29	70036400	700864C0	701364C0	-	53015160	53015360	52015760	53112260
	1 Entry	29	70035400	700854C0	701354C0	-	53015160	53015360	52015760
Cable Coupler Hood with Double Levers	16	100460C0	-	-	-	53015140	53015340	52015740	53112240
	21	70040200	100860C0	101270C0	101390C0	53015150	53015350	52015750	53112250
	29	-	100960C0	101170C0	101395C0	53015160	53015360	52015760	53112260
High Profile Cable Coupler Hood with Double Levers	16	-	-	-	-	53015140	53015340	52015740	53112240
	21	70040400	700902C0	701404C0	-	53015150	53015350	52015750	53112250
	29	70040600	700904C0	701406C0	-	53015160	53015360	52015760	53112260

For NPT Parts delete the last 00 or C0 and replace with NP at the end of the part number. Ex. 10011000 = 100110NP. Metric parts are also available

PG	NPT
13.5/ 16	1/2"
21	3/4"
29	1"
36	1 1/4"
42	-



EPIC® HA 3/4 Series Rectangular Connectors: Single Lever on Bases												
Material	HOODS						SURFACE MOUNT BASE & CABLE COUPLER HOODS				PANEL MOUNT BASE	
	PG	NPT	NPT Without Cable Gland		PG With Cable Gland		NPT Without Cable Gland		PG With Cable Gland			
			TOP	SIDE	TOP	SIDE	BASE	COUPLER	BASE	COUPLER	STANDARD	ANGLED
Zinc Die Cast	11	1/2"	105121NP	105123NP	10426500	10427500	105127NP	105129NP	10424500	10429500	10422500	10423500
Black Plastic	11	1/2"	104255NP	104273NP	10426700	10620600	-	104292NP	-	10620300	10422200	10423100
Grey Plastic	11	1/2"	104260NP	104270NP	10426400	10427100	104240NP	104290NP	10424200	10429100	10422000	10423000



Complete with a SKINTOP®				
PG	Gray	Black	Metal	MS-SC
11	53015120	53015320	52015720	53112220

# EPIC® Rectangular Connectors



Quick Select Charts: HA Series Connectors with Single Levers on Base & HA Series with Double Levers On Base



EPIC® HA Series Rectangular Connectors: Single Lever on Bases							Complete with a PG SKINTOP®			
	PG	HA 10 Standard	HA 10 High Profile	HA 16 Standard	HA 16 High Profile	HA 64	Gray	Black	Metal	MS-SC
<b>Top Entry Hood with Single Lever</b>	13.5	10446000	-	-	-	-	53015130	53015330	52015800	53112230
<b>Bolts</b>	16	10446100	70460200	10565000	70490200	-	53015140	53015340	52015810	53112240
	21	-	70460400	10565200	70490400	-	53015150	53015350	52015820	53112250
	29	-	-	-	-	101550HA	53015160	53015360	52015830	53112260
	36	-	-	-	-	101560HA	53015170	53015370	52015831	53112270
	42	-	-	-	-	101570HA	53015180	53015380	52015832	-
<b>Side Entry Hood with Single Lever</b>	16	10445000	70462200	10564000	70492200	-	53015140	53015340	52015810	53112240
<b>Bolts</b>	21	10445500	70462400	10564500	70492400	-	53015150	53015350	52015820	53112250
	29	-	-	-	-	101580HA	53015160	53015360	52015830	53112260
	36	-	-	-	-	101590HA	53015170	53015370	52015831	53112270
	42	-	-	-	-	101600HA	53015180	53015380	52015832	-
<b>Panel Mount Base with Single Lever without Dust Cover</b>	--	104420C0	-	104620C0	-	101610HA	-	-	-	-
<b>with Dust Cover</b>	--	704440C0	-	704740C0	-	101525HA	-	-	-	-
<b>with DC &amp; no bolts</b>	--	-	-	-	-	101520HA	-	-	-	-
<b>Surface Mount Base with Single Lvr</b>		<b>HA 10 Std w/o cover</b>	<b>HA 10 Std with cover</b>	<b>HA 16 Std w/o cover</b>	<b>HA 16 Std with cover</b>					
1 Entry	16	104481C0	704552C0	105671C0	70485200	-	53015140	53015340	52015810	53112240
2 Entries	16	104501C0	70456200	105681C0	704862C0	-	53015140	53015340	52015810	53112240
1 Entry	21	104480C0	70455400	105670C0	704854C0	-	53015150	53015350	52015820	53112250
2 Entries	21	104500C0	70456400	105680C0	704864C0	-	53015150	53015350	52015820	53112250
1 Entry w/o Cover	29	-	-	-	-	101650HA	53015160	53015360	52015830	53112260
2 Entries w/o cover	29	-	-	-	-	101660HA	53015160	53015360	52015830	53112260
1 Entry w/o cover	36	-	-	-	-	101651HA	53015170	53015370	52015831	53112270
2 Entries w/o cover	36	-	-	-	-	101661HA	53015170	53015370	52015831	53112270
1 Entry with Cover	29	-	-	-	-	101670HA	53015160	53015360	52015830	53112260
2 Entries with cover	29	-	-	-	-	101680HA	53015160	53015360	52015830	53112260
1 Entry with cover	36	-	-	-	-	101671HA	53015170	53015370	52015831	53112270
2 Entries with cover	36	-	-	-	-	101681HA	53015170	53015370	52015831	53112270
<b>Cable Coupler Hood with Single Lever</b>		<b>Standard</b>	<b>High Profile</b>	<b>Standard</b>	<b>High Profile</b>					
	13.5	10439000	-	-	-	-	53015130	53015330	52015800	53112230
	16	704500C0	-	105630C0	70480200	-	53015140	53015340	52015810	53112240
	21	-	704504C0	-	704804C0	-	53015150	53015350	52015820	53112250



EPIC® HA Series Rectangular Connectors: Double Levers on Bases				Complete with a PG SKINTOP®			
	PG	HA 32	HA 48	Gray	Black	Metal	MS-SC
<b>Top Entry Hood with Double Lever Bolts</b>	21	105820C0	-	53015150	53015350	52015820	53112250
	29	105830C0	10631800	53015160	53015360	52015830	53112260
<b>Side Entry Hood with Double Lever Bolts</b>	21	105760C0	-	53015150	53015350	52015820	53112250
	29	105770C0	10630800	53015160	53015360	52015830	53112260
<b>Panel Mount Base with Double Levers</b>	-	104720C0	106255C0	-	-	-	-
<b>Surface Mount Bases with Double Levers</b>							
1 Entry with Dust Cover	21	104740C0	-	53015150	53015350	52015820	53112250
2 Entries with Dust Cover	21	104820C0	-	53015150	53015350	52015820	53112250
1 Entry with Dust Cover	29	104741C0	106338C0	53015160	53015360	52015830	53112260
2 Entries with Dust Cover	29	104821C0	106348C0	53015160	53015360	52015830	53112260
<b>Cable Coupler with Double Levers</b>	21	105880C0	-	53015150	53015350	52015820	53112250
	29	105885C0	-	53015160	53015360	52015830	53112260

For NPT Parts delete the last 00 or C0 and replace with NP at the end of the part number.  
Ex. 10011000 = 100110NP.  
Metric parts are also available

PG	NPT
13.5/ 16	1/2"
21	3/4"
29	1"
36	1 1/4"
42	-

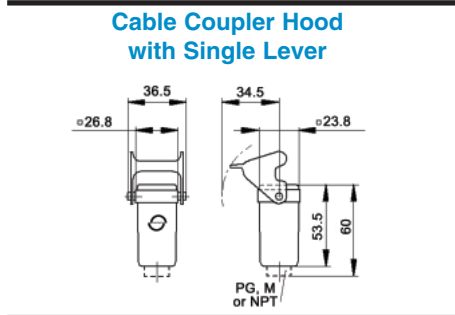
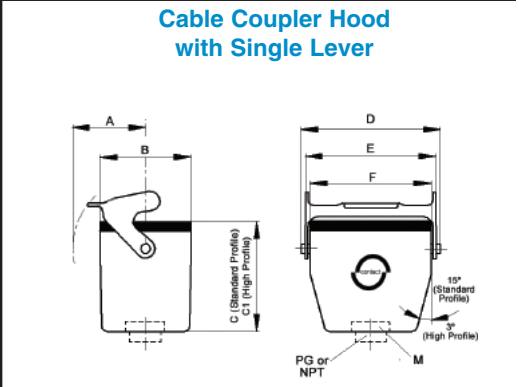
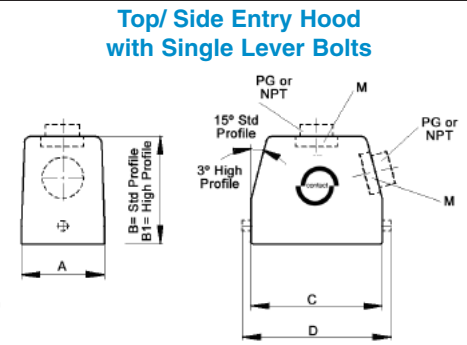
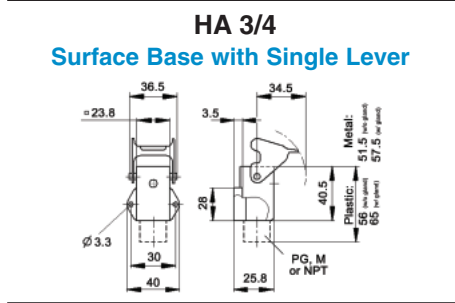
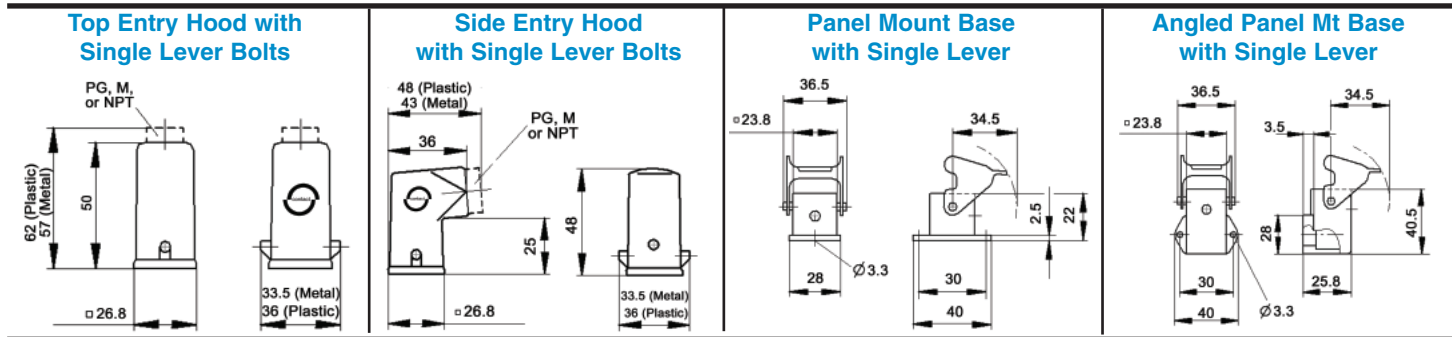


# EPIC® Rectangular Connectors

## Dimensional Drawings of Hoods & Bases



### HA 3/4

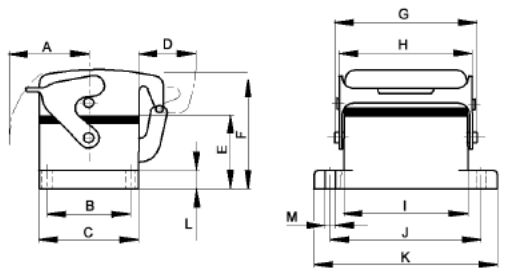


Series	A	B	B1	C	D
HA 10	29.5	53.3	67.3	63	73
HA 16	29.5	58.3	72.3	79	89
HBE 6	43	52	72	60	74.8
HBE 10	43	52	72	73	90
HBE 16	43	61	76	93.3	110
HBE 24	43	61	76	120	137
HBE 48	90	105	-	132	152

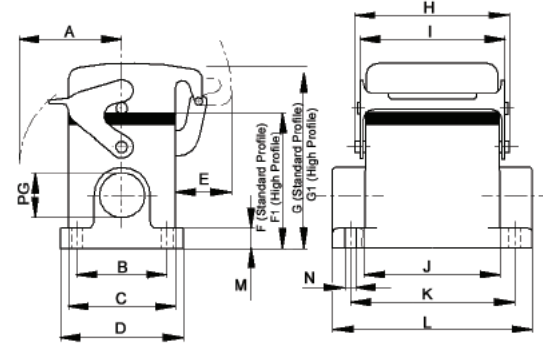
Series	A	B	C	C1	D	E	F
HA 10	36.5	29.5	48	62	74.4	71.4	63
HA 16	36.5	29.5	53	67	90.4	87.8	79
HBE 6	44	43	54.8	74.8	74.8	70	60
HBE 10	50	43	54.8	74.8	91	88.5	73
HBE 16	50	43	63.5	78.8	111	109.5	93.3
HBE 24	50	43	63.8	78.8	138	136.5	120

### Panel Mount Base with Single Lever

Series	A	B	C	D	E	F	G	H	I	J	K	L	M
HA 10	36.5	17.5	29.5	25	25	42	74.4	71.4	63	70	81	3.5	3.6
HA 16	36.5	17.5	29.5	25	25	42	90.4	87.5	79	86	96	3.5	3.6
HBE 6	44	32	43	25	27.8	44.8	74.8	70	60	70	80	4	4.3
HBE 10	50	32	43	25	27.8	44.8	91	88.5	73	83	93	4	4.3
HBE 16	50	32	43	25	27.8	44.8	111	109.5	93.3	103	113	4	4.3
HBE 24	50	32	43	25	27.8	44.8	138	136.5	120	130	140	4	4.3
HBE 48	105	70	90	30	39.5	56.5	152	139.5	132	148	165	10	7



### Surface Base with Single Lever



Series	A	B	C	D	E	F	F1	G	G1	H	I	J	K	L	M	N
HA 10	36.5	40	29.5	50	25	57	-	74	-	74.4	71.4	63	48	80	3.5	4.5
HA 16	36.5	40	29.5	50	25	57	-	74	-	90.4	87.8	79	64	96	3.5	4.5
HBE 6	44	40	43	52	25	54	74	71	91	74.8	70	60	70	84	4.5/6	5.5
HBE 10	50	40	43	52	25	57	74	74	91	91	88.5	73	82	94	4.5/6	5.5
HBE 16	50	45	43	57	25	64	84	81	101	111	109.5	93	105	117	4.5/6	5.5
HBE 24	50	45	43	57	25	64	84	81	101	138	136.5	120	132	144	4.5/6	5.5
HBE 48	105	106	90	120	30	100	-	117	-	152	139.5	132	111	132	12	6.5

\*M dimension (standard profile/high profile)

### Notes:

1. All dimensions are in mm.
2. HA 64 & HBE 48 dimensions are the same.

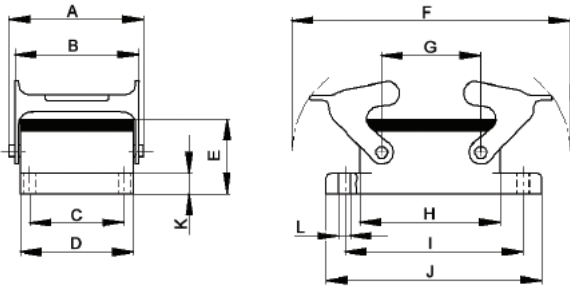
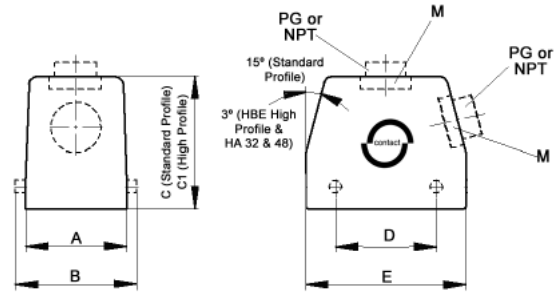
# EPIC® Rectangular Connectors

## Dimensional Drawings of Hoods & Bases



### Top/ Side Entry Hood with Double Lever Bolts

Series	A	B	C	C1	D	E
HA 32	56	67.8	75	-	49.6	82
HA 48	79	89.5	95	-	64.5	93.5
HBE 10	43	55	52	72	27	73
HBE 16	43	55	61	76	47.5	93.3
HBE 24	43	55	61	76	74	120
HBE 32	79	89.5	95	-	64.5	93.5



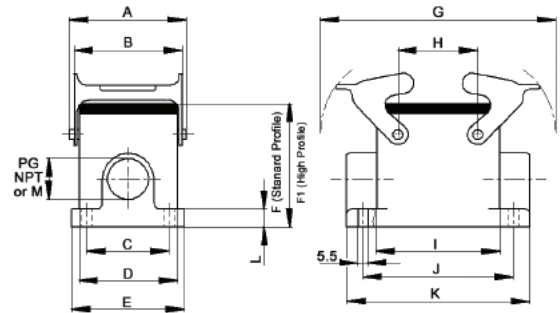
### Panel Mount Base with Double Levers

Series	A	B	C	D	E	F	G	H	I	J	K	L
HA 32	67.8	66	42	56	25.4	124.5	49.6	82	92	102	4	4.3
HA 48	93.8	87.8	65	79	30.3	136.5	64.5	93.5	110	124	5	5.5
HBE 10	55	53	32	43	27.8	116	27	73	83	93	4	4.3
HBE 16	55	53	32	43	27.8	136.5	47.5	93.3	103	113	4	4.3
HBE 24	55	53	32	43	27.8	163	74	120	130	140	4	4.3
HBE 32	93.8	87.8	65	79	30.3	136.5	64.5	93.5	110	124	5	5.5

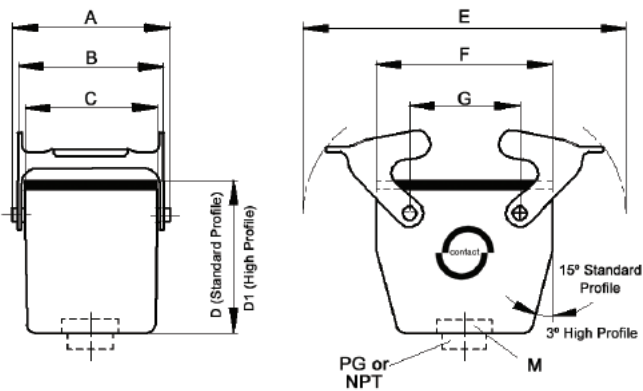
### Surface Mount Base with Double Levers

Series	A	B	C	D	E	F	F1	G	H	I	J	K	L
HA 32	67.8	66	46	56	57	75	-	124.5	49.6	82	94	106	4
HA 48	93.8	87.8	67	79	81	72	-	136.5	64.5	82	94	106	5
HBE 10	55	53	40	43	54	57	74	116	27	73	82	94	4.5/6
HBE 16	55	53	45	43	57	64	84	136.5	47.5	93	105	117	4.5/6
HBE 24	55	53	45	43	57	64	84	163	74	120	132	144	4.5/6
HBE 32	93.8	87.8	67	79	81	72	-	136.5	64.5	93.5	112	124.5	5

\*L dimension (standard profile/high profile)

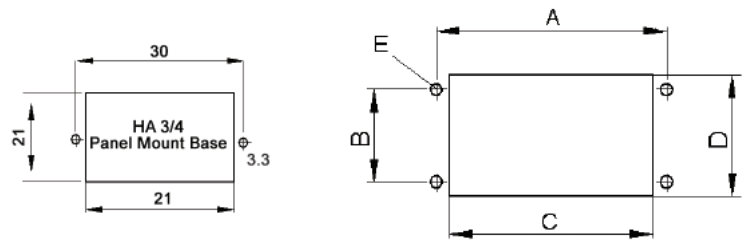


### Cable Coupler Hood with Double Levers



Series	A	B	C	D	D1	E	F	G
HA 32	67.8	66	56	76.5	-	124.5	82	49.6
HBE 10	55	53	43	54.8	74.8	116	73	27
HBE 16	55	53	43	63.6	78.8	136.5	93.3	47.5
HBE 24	55	53	43	63.8	78.8	163	120	74
HBE 32	93.8	87.8	79	97	-	136.5	93.5	64.5

### Panel Mount Base Cut-Outs



Panel Mount Base	A	B	C	D	E
HA 3	30	-	21	21	3.3
HA 10	70	17.5	57.5	24	3.6
HA 16	86	17.5	73.7	24	3.6
HA 32	92	42	74.2	48.4	4.3
HA 48	110	65	85.5	71	5.5
HBE 6	70	32	52.2	35	4.3
HBE 10	83	32	65.2	35	4.3
HBE 16	103	32	85.5	35	4.3
HBE 24	130	32	112.2	35	4.3
HBE 32	110	65	85.5	71	5.5
HBE 48 & HA 64	148	70	117	82	7

#### Notes:

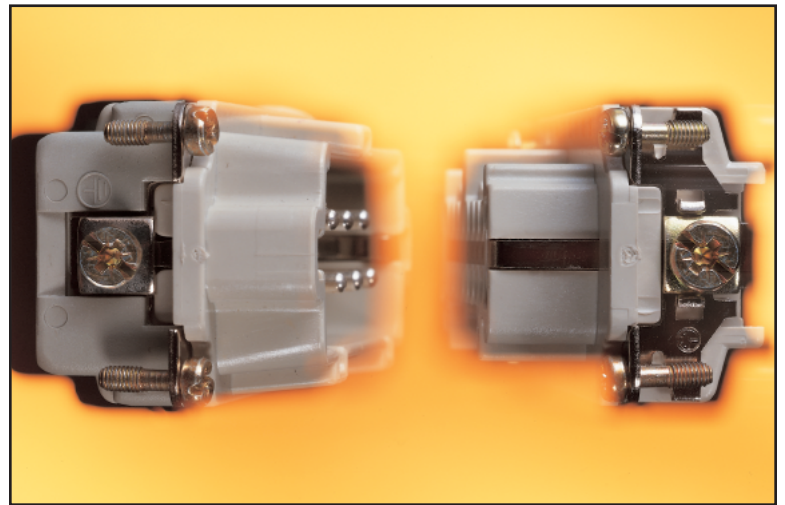
- All dimensions are in mm.
- HA 64 & HBE 48 dimensions are the same.

# EPIC® Rectangular Connectors

HBE Series



The HBE series inserts are suitable for applications with high voltages and current. The inserts can be terminated in a variety of ways: screw, crimp, or “spring” cage clamp.



## TECHNICAL DATA

**Number of Contacts:** 6, 10, 16, 24, 32, 48 (+PE)

**Screw Termination & Crimp Termination:**

**Rated Voltage:** VDE: 500V EPIC® HBE 6 - 48      UL: 600V EPIC® HBE 6 - 48  
 CSA: 600V EPIC® HBE 6 - 48

**Rated Current:** VDE: 16A EPIC® HBE 6 - 48      UL: 16A EPIC® HBE 6 - 48  
 CSA: 16A EPIC® HBE 6 - 48

**Temperature Range:** -40°C to +125°C

**Cage Clamp:**

**Rated Voltage:** VDE: 500V EPIC® HBE 6 - 48      UL: 600V EPIC® HBE 6 - 48  
 CSA: 600V EPIC® HBE 6 - 48

**Rated Current:** VDE: 16A EPIC® HBE 6 - 48      UL: 16A EPIC® HBE 6 - 48  
 CSA: 16A EPIC® HBE 6 - 48

**Pollution Level:** 3  
**Dimensioning Transient:** 6 kV

**Termination Type:**

	<u>mm<sup>2</sup></u>	<u>AWG</u>
<b>Screw Termination:</b>	0.5 - 2.5 mm <sup>2</sup>	20 - 14
<b>Crimp Termination:</b>	0.5 - 4.0 mm <sup>2</sup>	20 - 12
<b>Cage Clamp Termination:</b>	0.5 - 2.5 mm <sup>2</sup>	20 - 14

**Contacts:**

**Screw Termination:** Copper alloy, silver plated  
**Crimp Termination:** Copper alloy, silver plated/ gold plated  
**Cage Clamp Termination:** Copper alloy, silver plated  
**Mating Cycles:** 100 (higher mating cycles depending on the application)

**Contact Resistance:**

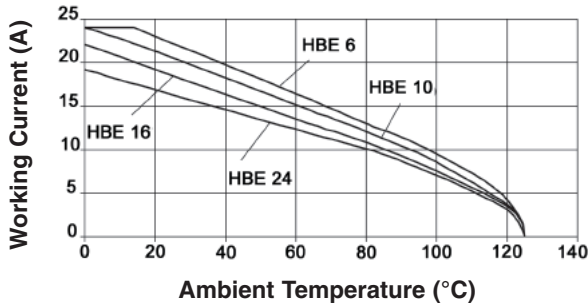
**Screw Termination:** <2 mOhm  
**Crimp Termination:** <2 mOhm  
**Cage Clamp termination:** 1.5 - 4 mOhm

# EPIC<sup>®</sup> Rectangular Connectors

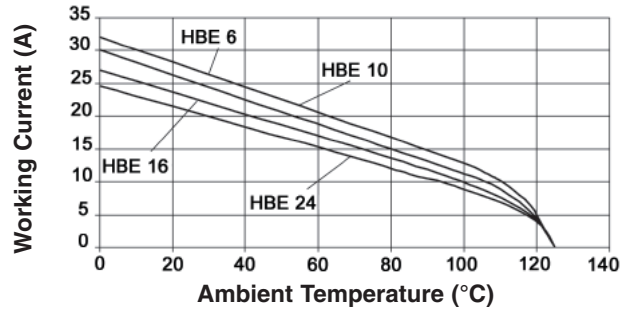
HBE Series

## HBE INSERTS: DERATING CURVES

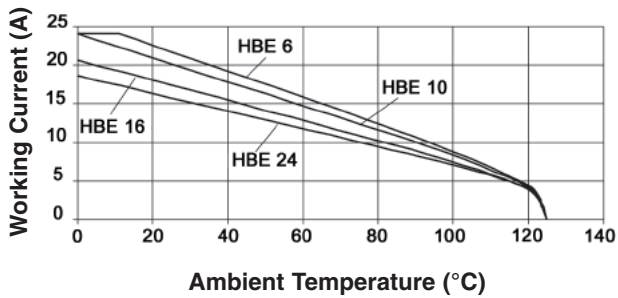
**HBE SCREW TERMINATED:  
1.5 mm<sup>2</sup> (16 AWG)**



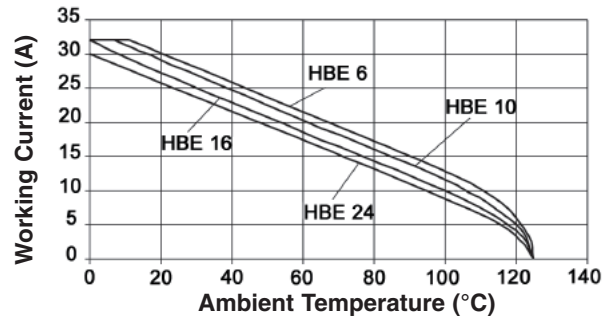
**HBE SCREW TERMINATED:  
2.5 mm<sup>2</sup> (14 AWG)**



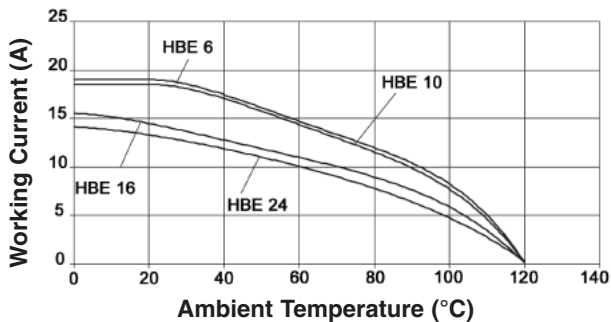
**HBE CRIMP TERMINATED:  
1.5 mm<sup>2</sup> (16 AWG)**



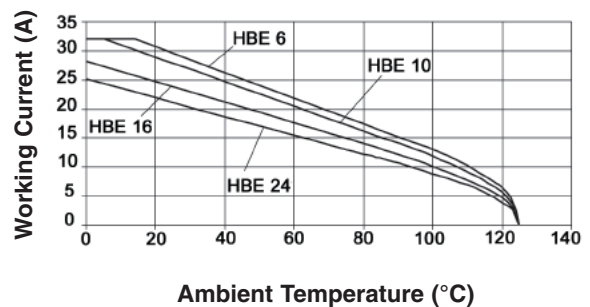
**HBE CRIMP TERMINATED:  
2.5 mm<sup>2</sup> (14 AWG)**



**HBE CAGE CLAMP:  
1.5 mm<sup>2</sup> (16 AWG)**



**HBE CAGE CLAMP:  
2.5 mm<sup>2</sup> (14 AWG)**



# EPIC® Rectangular Connectors



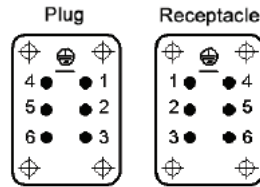
HBE 6 Plugs & Receptacles

## HBE 6 SCREW & CRIMP TERMINATED INSERTS

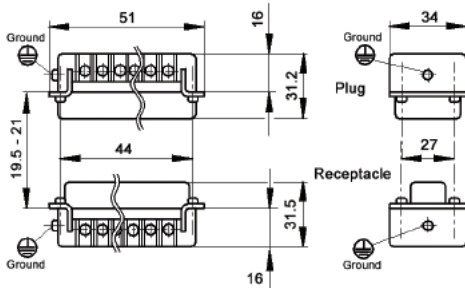
### SCREW TERMINATED

### CRIMP TERMINATED

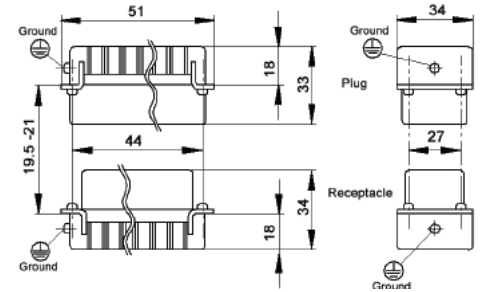
View from Cable Side



Contacts Sold Separately



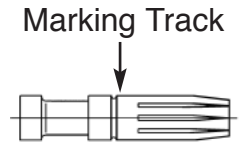
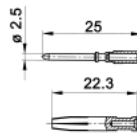
All dimensions are in mm.



Description	Plug	Receptacle
Screw Terminated with wire protection	10190000	10191000
Screw Terminated without wire protection	10190100	10191100
Crimp Terminated: Machine	10180000	10181000



## MACHINED CONTACTS: DIAMETER 2.5 MM<sup>2</sup>



Bags of 100							
mm <sup>2</sup>	AWG	Silver		Gold		Stripping Length (mm)	# of Marking Tracks
		Pin	Socket	Pin	Socket		
0.5	20	11190000	11195000	11192000	11197000	Pin=7.4, Socket =7.3	-
.75 - 1.0	18	11190100	11195100	11192100	11197100	Pin=7.4, Socket =7.3	1
1.5	16	11190200	11195200	11192200	11197200	Pin=7.4, Socket =7.3	2
2.5	14	11190300	11195300	-	-	Pin=7.4, Socket =7.3	3
4.0	12	11190400	11195400	-	-	Pin=7.4, Socket =7.3	-

Part number= 1 contact



**Crimp Tool**  
11147000



**Crimp Dies**  
11147100

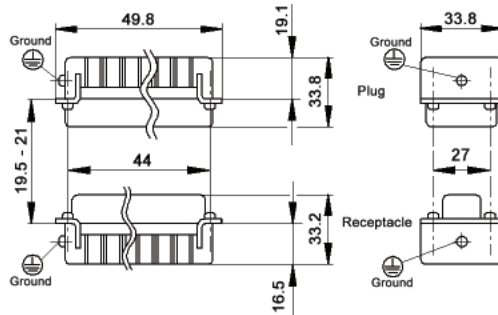


**Locator**  
11147200

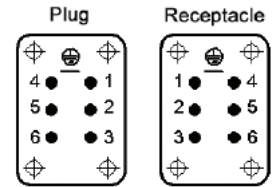
For removal of contacts use a slotted screwdriver.  
No special tool is necessary.

Please note that the crimp range for this tool is 0.14 to 4.0 mm<sup>2</sup>  
(AWG 26 - 12) with the appropriate crimp dies.

### HBE 6 SCREWLESS SPRING CAGE CLAMP INSERTS



View from Cable Side



All dimensions are in mm.

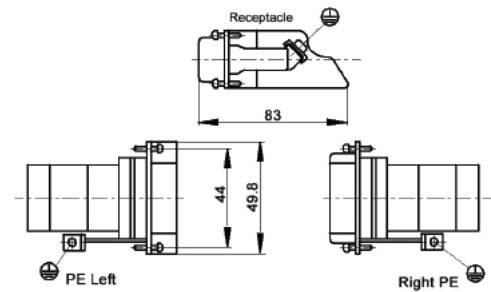
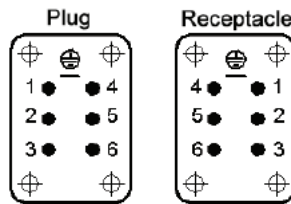


Description	Plug	Receptacle
Screwless Cage Clamp	10400000	10401000

### SCREW TERMINATED TERMINAL BLOCK INSERTS



View from Cable Side



All dimensions are in mm.



These terminal block inserts only fit in HBE 6 panel mount bases

Description	Receptacle
Terminal Block: Right Ground	70311100
Terminal Block: Left Ground	70310100

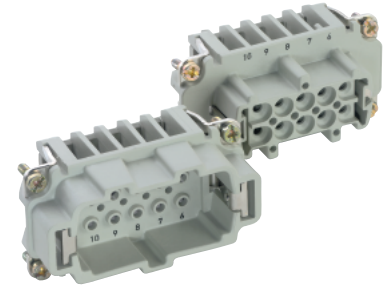
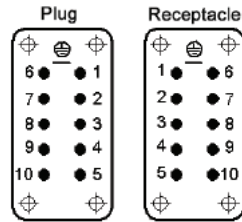
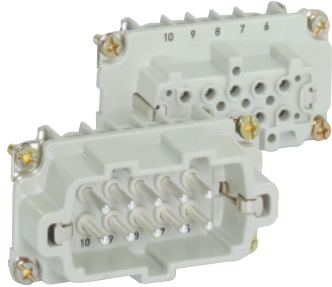
One terminal block insert mates with one screw terminated insert.

### HBE 10 SCREW & CRIMP TERMINATED INSERTS

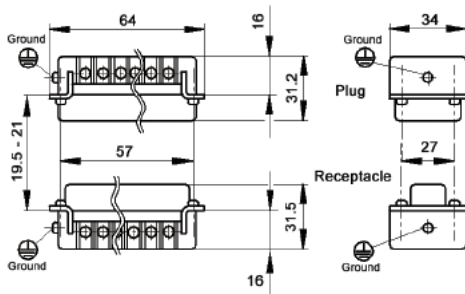
#### SCREW TERMINATED

#### CRIMP TERMINATED

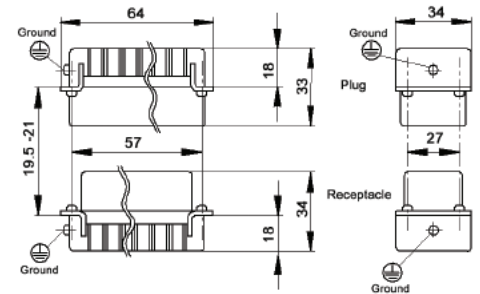
View from Cable Side



Contacts Sold Separately



All dimensions are in mm.



Description	Plug	Receptacle
Screw Terminated with wire protection	10192000	10193000
Screw Terminated without wire protection	10192100	10193100
Crimp Terminated: Machine	10182000	10183000



### MACHINED CONTACTS: DIAMETER 2.5 MM<sup>2</sup>



Bags of 100							
mm <sup>2</sup>	AWG	Silver		Gold		Stripping Length (mm)	# of Marking Tracks
		Pin	Socket	Pin	Socket		
0.5	20	11190000	11195000	11192000	11197000	Pin=7.4, Socket =7.3	-
.75 - 1.0	18	11190100	11195100	11192100	11197100	Pin=7.4, Socket =7.3	1
1.5	16	11190200	11195200	11192200	11197200	Pin=7.4, Socket =7.3	2
2.5	14	11190300	11195300	-	-	Pin=7.4, Socket =7.3	3
4.0	12	11190400	11195400	-	-	Pin=7.4, Socket =7.3	-

Part number= 1 contact



**Crimp Tool**  
11147000



**Crimp Dies**  
11147100

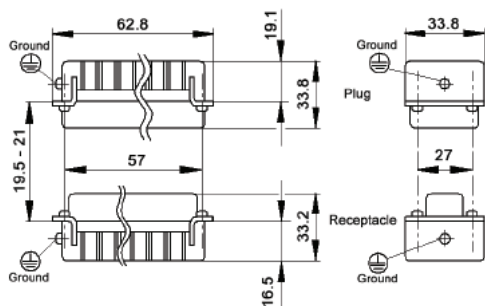


**Locator**  
11147200

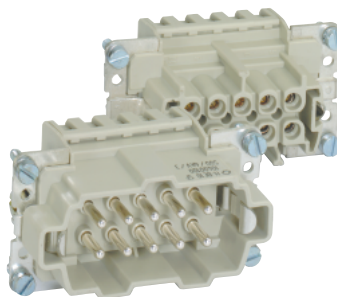
For removal of contacts use a slotted screwdriver.  
No special tool is necessary.

Please note that the crimp range for this tool is 0.14 to 4.0 mm<sup>2</sup> (AWG 26 - 12) with the appropriate crimp dies.

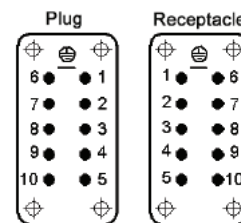
### HBE 10 SCREWLESS SPRING CAGE CLAMP INSERTS



All dimensions are in mm.

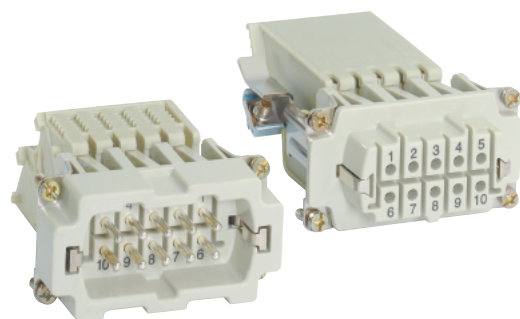


View from Cable Side

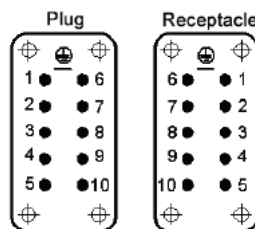


Description	Plug	Receptacle
Screwless Cage Clamp	10400100	10401100

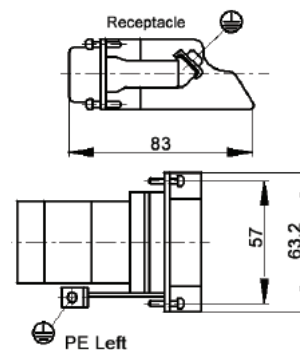
### HBE 10 SCREW TERMINATED TERMINAL BLOCK INSERTS



View from Cable Side



All dimensions are in mm.



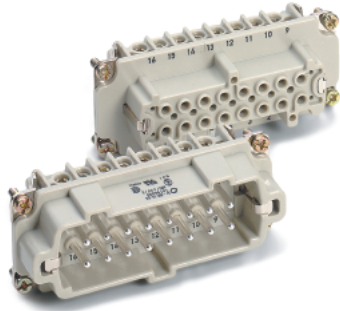
These terminal block inserts only fit in HBE 10 panel mount bases

One terminal block insert mates with one screw terminated insert.

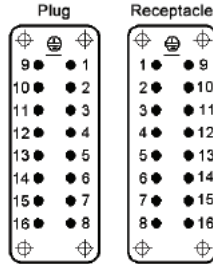
Description	Receptacle
Terminal Block: Left Ground	70312100

### HBE 16 SCREW & CRIMP TERMINATED INSERTS

#### SCREW TERMINATED



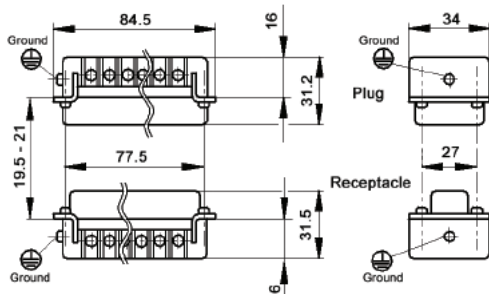
View from Cable Side



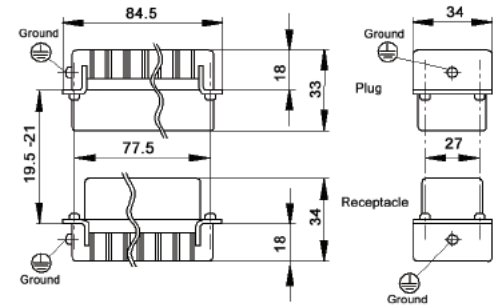
#### CRIMP TERMINATED



Contacts Sold Separately



All dimensions are in mm.



Description	Plug	Receptacle
Screw Terminated with wire protection	10194000	10195000
Screw Terminated without wire protection	10194100	10195100
Crimp Terminated: Machine	10184000	10185000



### MACHINED CONTACTS: DIAMETER 2.5 MM<sup>2</sup>



Bags of 100							
mm <sup>2</sup>	AWG	Silver		Gold		Stripping Length (mm)	# of Marking Tracks
		Pin	Socket	Pin	Socket		
0.5	20	11190000	11195000	11192000	11197000	Pin=7.4, Socket =7.3	-
.75 - 1.0	18	11190100	11195100	11192100	11197100	Pin=7.4, Socket =7.3	1
1.5	16	11190200	11195200	11192200	11197200	Pin=7.4, Socket =7.3	2
2.5	14	11190300	11195300	-	-	Pin=7.4, Socket =7.3	3
4.0	12	11190400	11195400	-	-	Pin=7.4, Socket =7.3	-

Part number= 1 contact



**Crimp Tool**  
11147000



**Crimp Dies**  
11147100

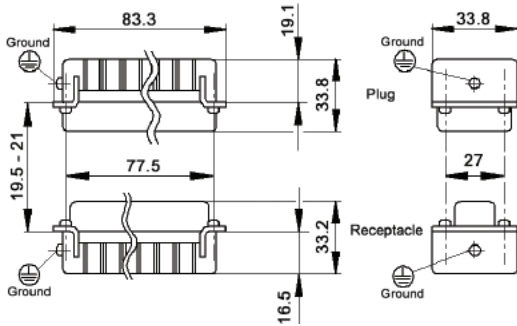


**Locator**  
11147200

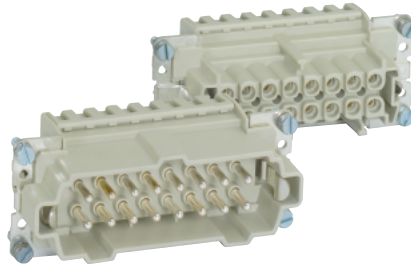
For removal of contacts use a slotted screwdriver.  
No special tool is necessary.

Please note that the crimp range for this tool is 0.14 to 4.0 mm<sup>2</sup> (AWG 26 - 12) with the appropriate crimp dies.

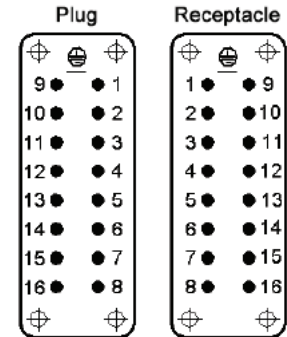
### HBE 16 SCREWLESS SPRING CAGE CLAMP INSERTS



All dimensions are in mm.



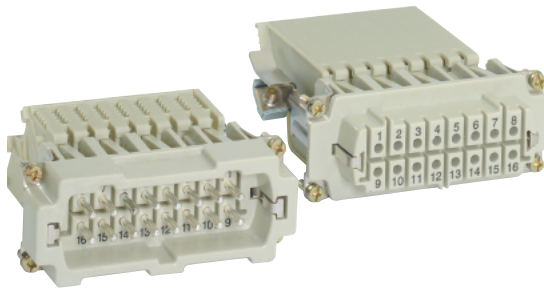
View from Cable Side



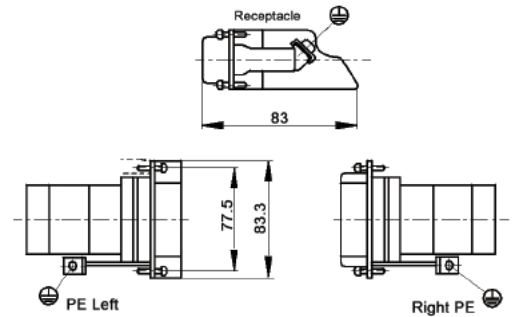
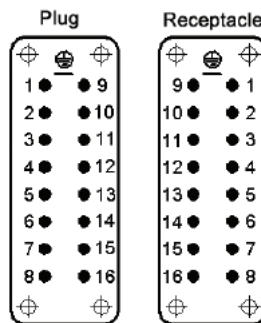
Description	Plug	Receptacle
Screwless Cage Clamp	10400200	10401200



### HBE 16 SCREW TERMINATED TERMINAL BLOCK INSERTS



View from Cable Side



All dimensions are in mm.



These terminal block inserts only fit in HBE 16 panel mount bases

One terminal block insert mates with one screw terminated insert.

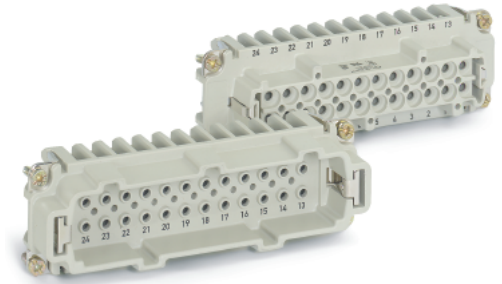
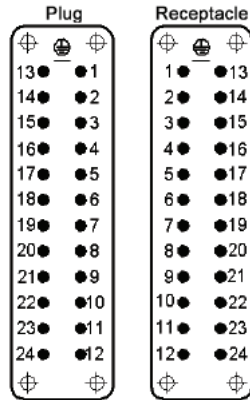
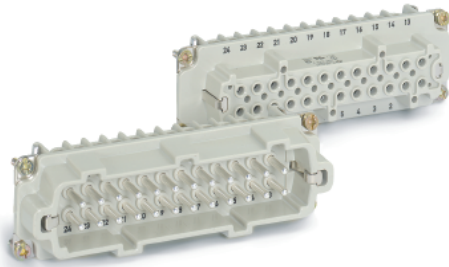
Description	Receptacle
Terminal Block: Right Ground	70315100
Terminal Block: Left Ground	70314100

### HBE 24 SCREW & CRIMP TERMINATED INSERTS

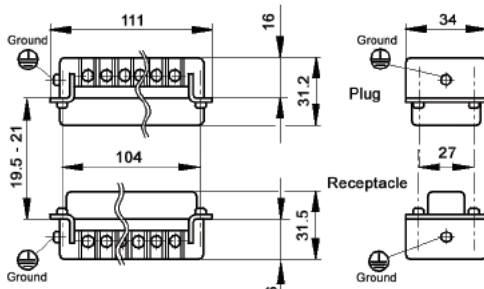
#### SCREW TERMINATED

View from Cable Side

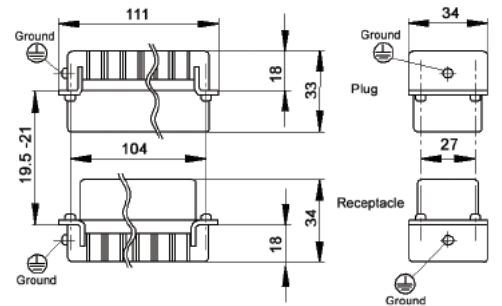
#### CRIMP TERMINATED



Contacts Sold Separately



All dimensions are in mm.



Description	Plug	Receptacle
Screw Terminated with wire protection	10196000	10197000
Screw Terminated without wire protection	10196100	10197100
Crimp Terminated: Machine	10186000	10187000



### MACHINED CONTACTS: DIAMETER 2.5 MM<sup>2</sup>



Bags of 100							
mm <sup>2</sup>	AWG	Silver		Gold		Stripping Length (mm)	# of Marking Tracks
		Pin	Socket	Pin	Socket		
0.5	20	11190000	11195000	11192000	11197000	Pin=7.4, Socket =7.3	-
.75 - 1.0	18	11190100	11195100	11192100	11197100	Pin=7.4, Socket =7.3	1
1.5	16	11190200	11195200	11192200	11197200	Pin=7.4, Socket =7.3	2
2.5	14	11190300	11195300	-	-	Pin=7.4, Socket =7.3	3
4.0	12	11190400	11195400	-	-	Pin=7.4, Socket =7.3	-

Part number= 1 contact



**Crimp Tool**  
11147000



**Crimp Dies**  
11147100

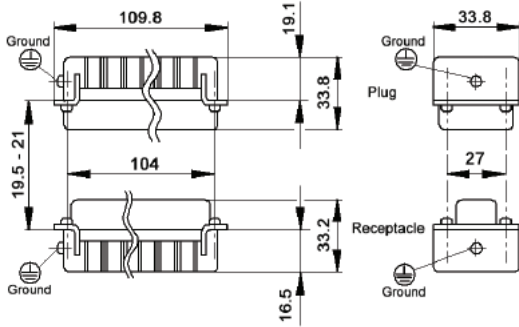


**Locator**  
11147200

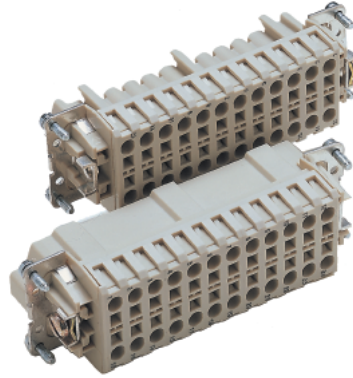
For removal of contacts use a slotted screwdriver.  
No special tool is necessary.

Please note that the crimp range for this tool is 0.14 to 4.0 mm<sup>2</sup> (AWG 26 - 12) with the appropriate crimp dies.

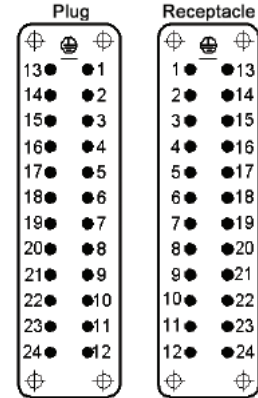
### HBE 24 SCREWLESS SPRING CAGE CLAMP INSERTS



All dimensions are in mm.



View from Cable Side

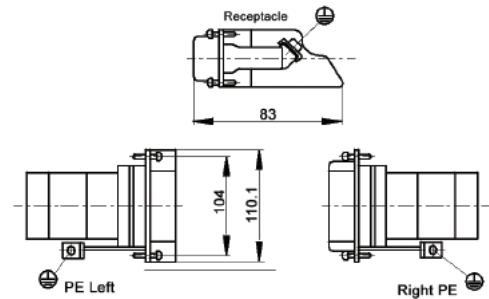
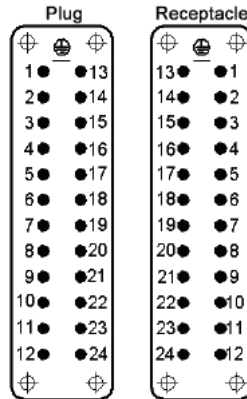
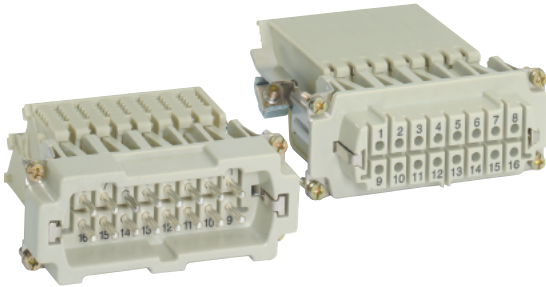


Description	Plug	Receptacle
Screwless Cage Clamp	10400300	10401300



### HBE 24 SCREW TERMINATED TERMINAL BLOCK INSERTS

View from Cable Side



All dimensions are in mm.

Description	Receptacle
Terminal Block: Right Ground	70317100
Terminal Block: Left Ground	70316100

One terminal block insert mates with one screw terminated insert.

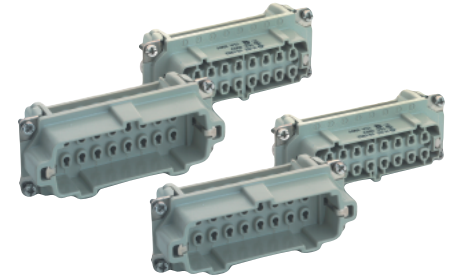
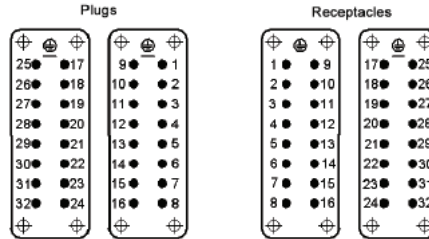
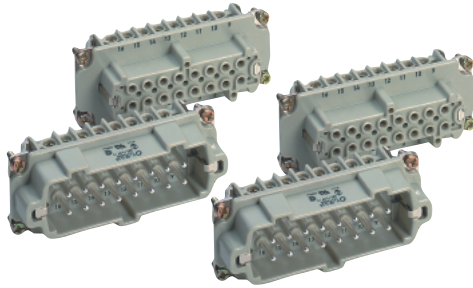
These terminal block inserts only fit in HBE 24 panel mount bases

### HBE 32 SCREW & CRIMP TERMINATED INSERTS

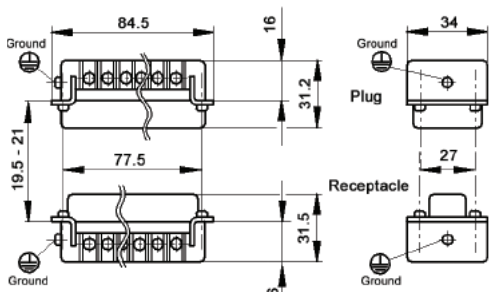
#### SCREW TERMINATED

View from Cable Side

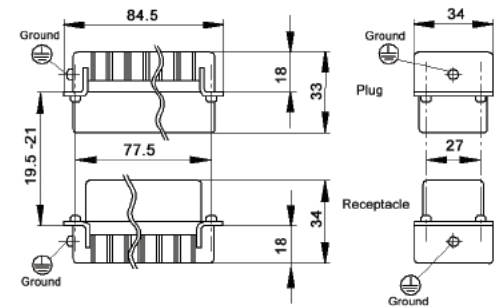
#### CRIMP TERMINATED



Contacts Sold Separately



All dimensions are in mm.

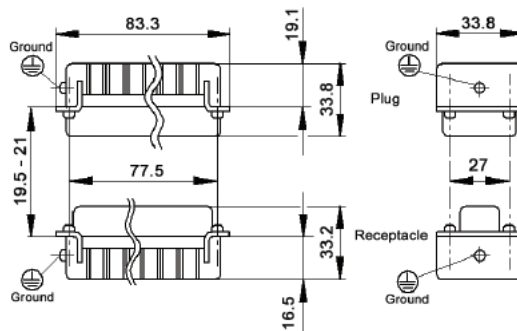
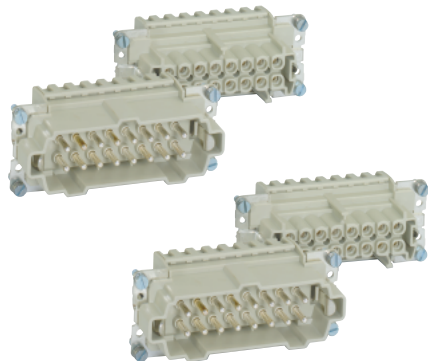


HBE 32  
Pg 374

Crimp Contacts  
Page 271

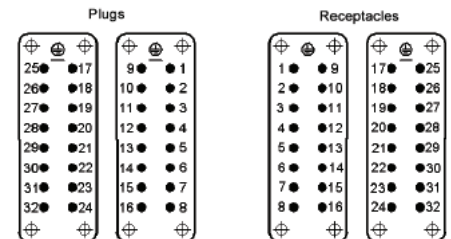
Description	Plug	Receptacle
Screw Terminated with wire protection (#1-16)	10194000	10195000
Screw Terminated with wire protection (#17-32)	10202000	10203000
Screw Terminated without wire protection (#1-16)	10194100	10195100
Screw Terminated without wire protection (#17-32)	10202100	10203100
Crimp Terminated: Machine (#1-16)	10184000	10185000
Crimp Terminated: Machine (#17-32)	10184200	10185200

### HBE 32 SCREWLESS SPRING CAGE CLAMP INSERTS



All dimensions are in mm.

View from Cable Side



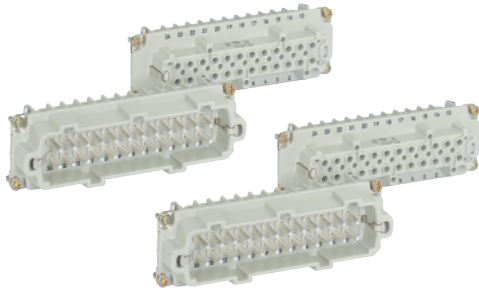
Description	Plug	Receptacle
Screwless Cage Clamp (#1-16)	10400200	10401200
Screwless Cage Clamp (#17-32)	10400400	10401400



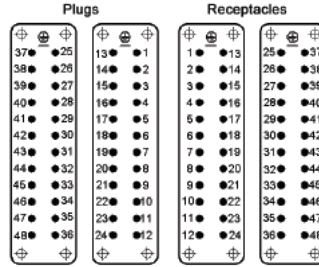
HBE 32  
Pg 374

### HBE 48 SCREW & CRIMP TERMINATED INSERTS

#### SCREW TERMINATED



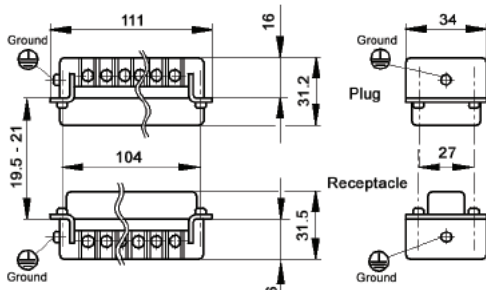
View from Cable Side



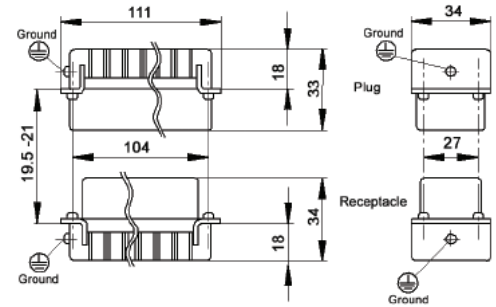
#### CRIMP TERMINATED



Contacts Sold Separately



All dimensions are in mm.

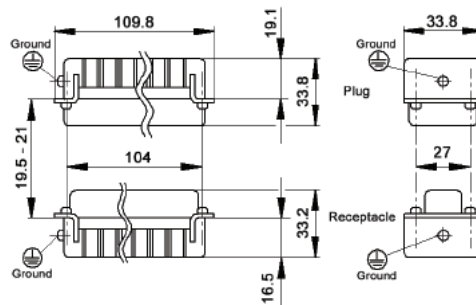
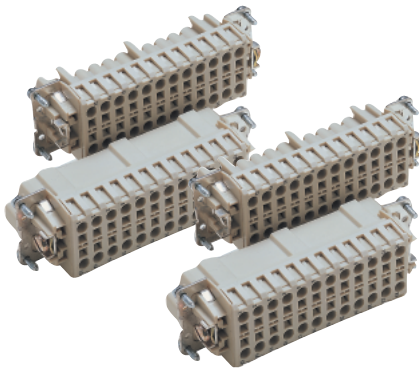


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Pg 376

Description	Plug	Receptacle
Screw Terminated with wire protection (#1-24)	10196000	10197000
Screw Terminated with wire protection (#25-48)	10204000	10205000
Screw Terminated without wire protection (#1-24)	10196100	10197100
Screw Terminated without wire protection (#25-48)	10204100	10205100
Crimp Terminated: Machine (#1-24)	10186000	10187000
Crimp Terminated: Machine (#25-48)	10186200	10187200

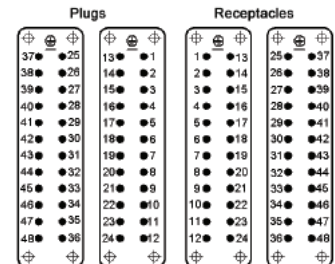
Crimp  
Contacts  
Page 271

### SCREWLESS SPRING CAGE CLAMP INSERTS



All dimensions are in mm.

View from Cable Side

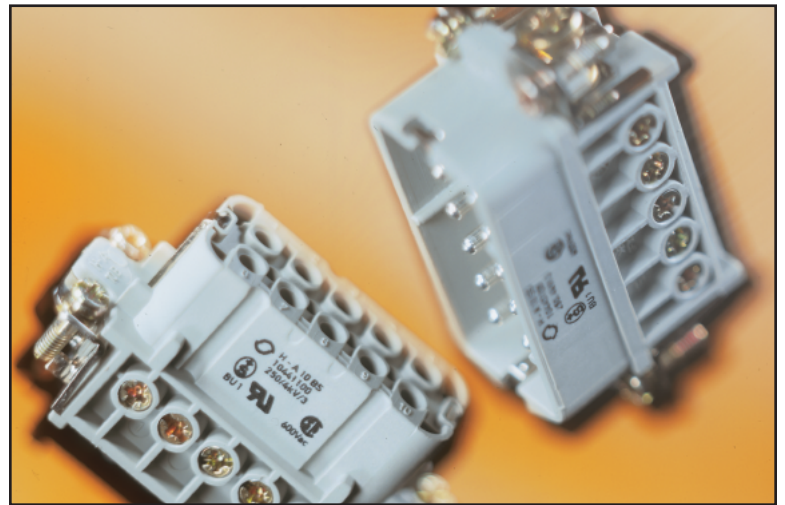


Description	Plug	Receptacle
Screwless Cage Clamp (#1-24)	10400300	10401300
Screwless Cage Clamp (#25-48)	10400500	10401500



HBE 48  
Pg 376

The small HA 3/4 inserts are used whenever space is limited. The HA Series 10 - 48 inserts now have shortened ground straps. These inserts are unique because the wire cross section can still be up to 2.5 mm<sup>2</sup>. The HA 3 - 48 screw terminated inserts fit into HA Series Housings. A modified HBE 48 Housing can fit 64 contacts.

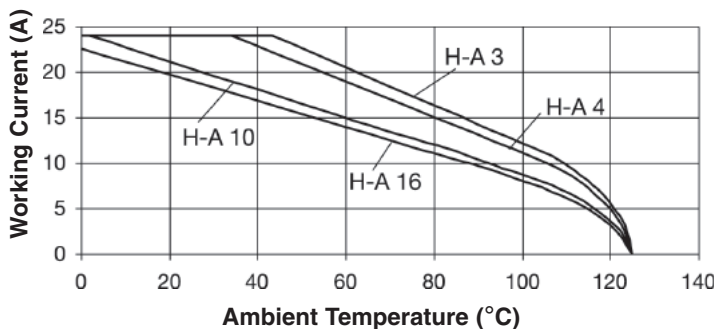


### TECHNICAL DATA

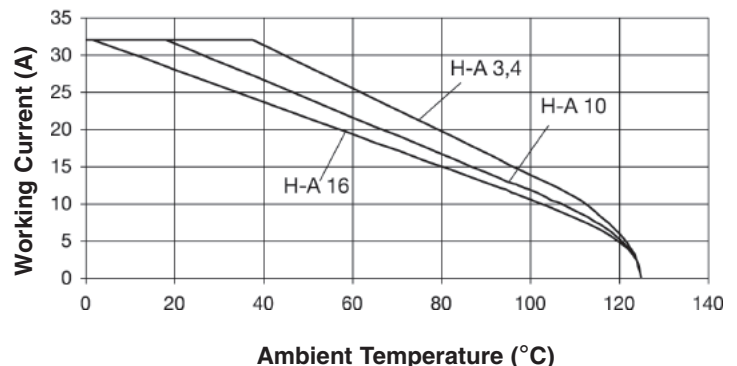
<b>Number of Contacts:</b>	3, 4, 10, 16, 32, 48, 64 (+PE)	<b>Screw Termination:</b>	<u>HA 3/4:</u> 0.5 - 2.5 mm <sup>2</sup> (AWG: 20 - 14) for solid wire or stranded wire with short wire end ferrule and without insulation
<b>Rated Voltage:</b>	VDE: 400V EPIC® HA 3/4 250V EPIC® HA 10 - 64 UL: 600V EPIC® HA 3 - 64 CSA: 600V EPIC® HA 3 - 64 SEV: 250V EPIC® HA 3 - 64		<u>HA 10 - 64:</u> • 0.5 - 1.5 mm <sup>2</sup> (AWG: 20 - 14): for solid wire or stranded wire with wire end ferrule and with insulation. • 0.75 - 2.5 mm <sup>2</sup> (18 - 14 AWG): for stranded wire without wire end ferrule (requires insert with wire protection)
<b>Rated Current:</b>	VDE: 10A EPIC® HA 3/4 16A EPIC® HA 10 - 64 UL: 10A EPIC® HA 3/4 14A EPIC® HA 10 - 64 CSA: 10A EPIC® HA 3/4 16A EPIC® HA 10 - 64 SEV: 16A EPIC® HA 3 - 64	<b>Temperature Range:</b>	-40°C to +125°C
<b>Pollution Level:</b>	3	<b>Contacts:</b>	Copper alloy, silver plated
<b>Dimensioning Transient:</b>	4 kV	<b>Contact Resistance:</b>	1.5 - 4 mOhm
		<b>Test Voltage:</b>	4 kv
		<b>Mating Cycles:</b>	100 (higher mating cycles depending on the application)

### HA INSERTS: DERATING CURVES

1.5 mm<sup>2</sup> (16 AWG)



2.5mm<sup>2</sup> (14 AWG)



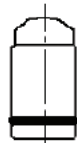
# EPIC® Rectangular Connectors



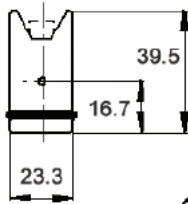
HA Plugs & Receptacles: Screw Terminated Inserts

## HA 3/4 Inserts

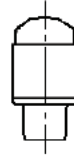
HA 3



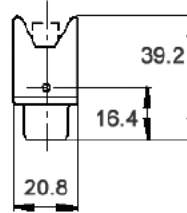
Plug



All dimensions are in mm.



Receptacle

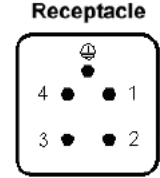
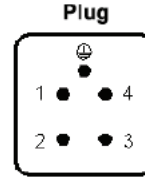
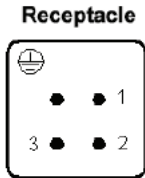
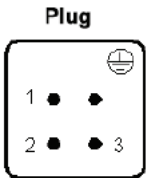


HA 4



Plug

Receptacle



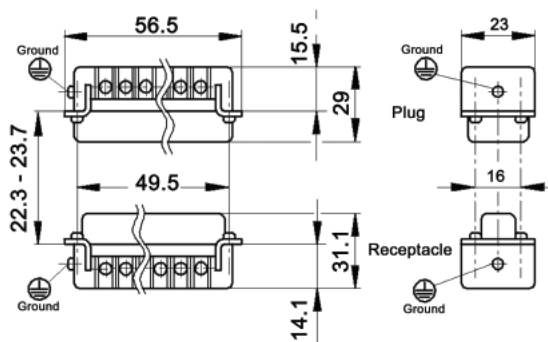
These inserts fit in the HA 3/4 Series Housings.

Description	Plug	Receptacle
HA 3	10420000	10421000
HA 4	10431000	10432000

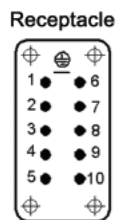
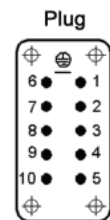


Coding Pin: 10451200

## HA 10 Inserts



View from cable side



All dimensions are in mm.



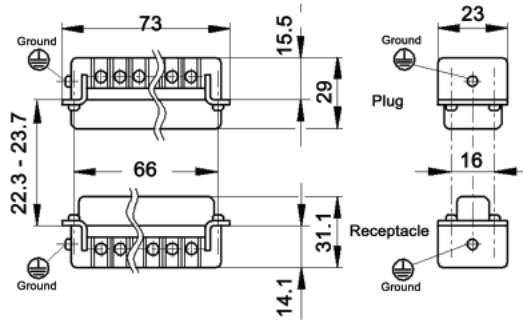
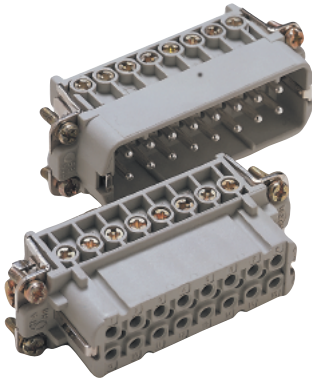
Description	Plug	Receptacle
HA 10 with Wire Protection	10440100	10441100
HA 10 without Wire Protection	10440000	10441000

# EPIC® Rectangular Connectors

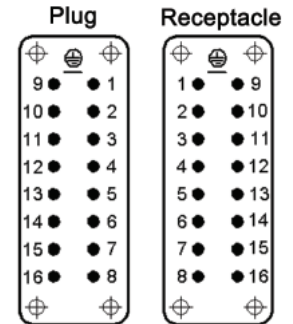


HA Plugs & Receptacles: Screw Terminated Inserts

## HA 16 Inserts



View from cable side

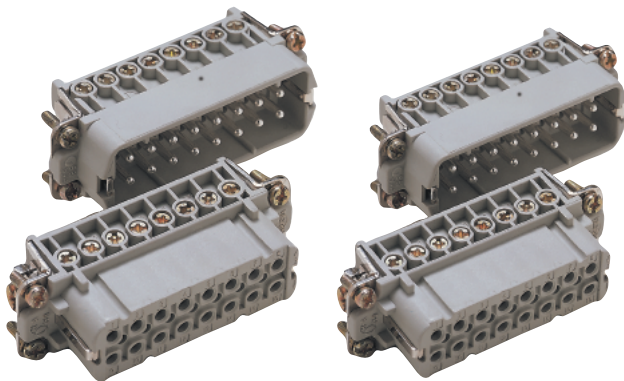


All dimensions are in mm.

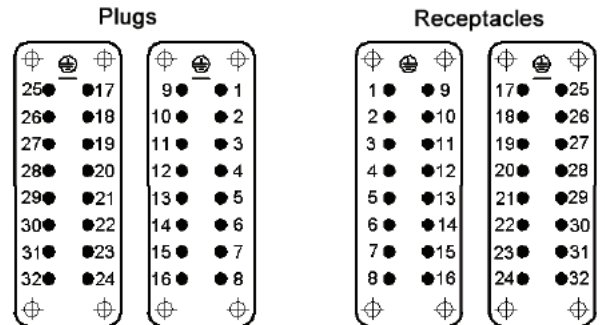


Description	Plug	Receptacle
HA 16 with Wire Protection	10530000	10531000
HA 16 without Wire Protection	10532000	10533000

## HA 32 Inserts



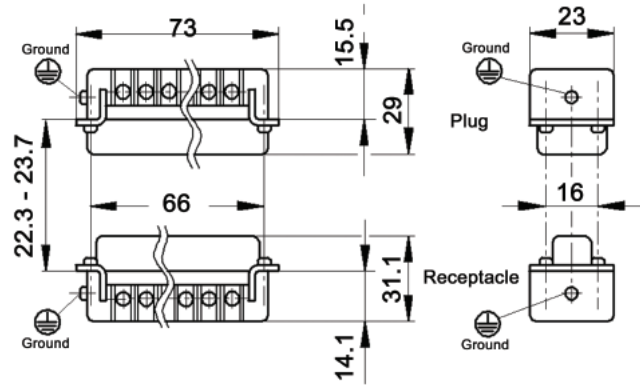
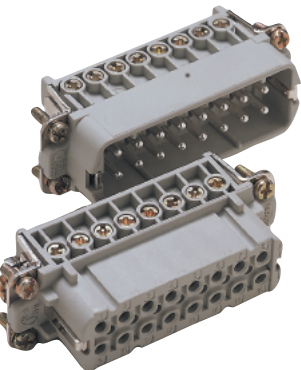
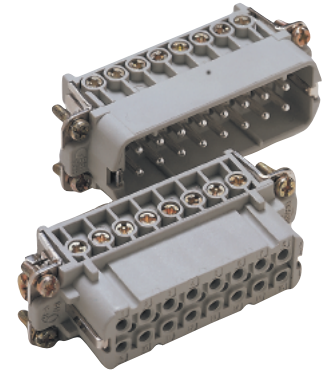
View from cable side



### 2 Sets of HA 16 Inserts

Description	Plug	Receptacle
#1-16 with Wire Protection	10530000	10531000
#17-32 with Wire Protection	10540000	10541000
#1-16 without Wire Protection	10532000	10533000
#17-32 without Wire Protection	10542000	10543000

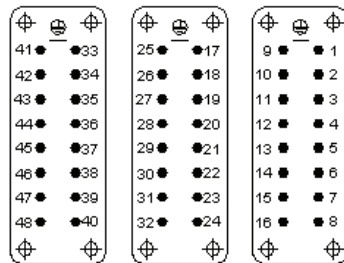
### HA 48 SCREW TERMINATED INSERTS



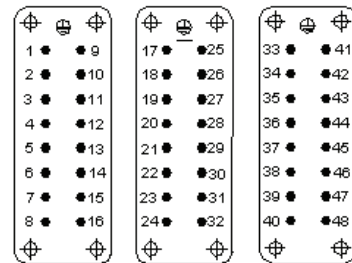
All dimensions are in mm.

View from cable side

#### Plugs



#### Receptacles

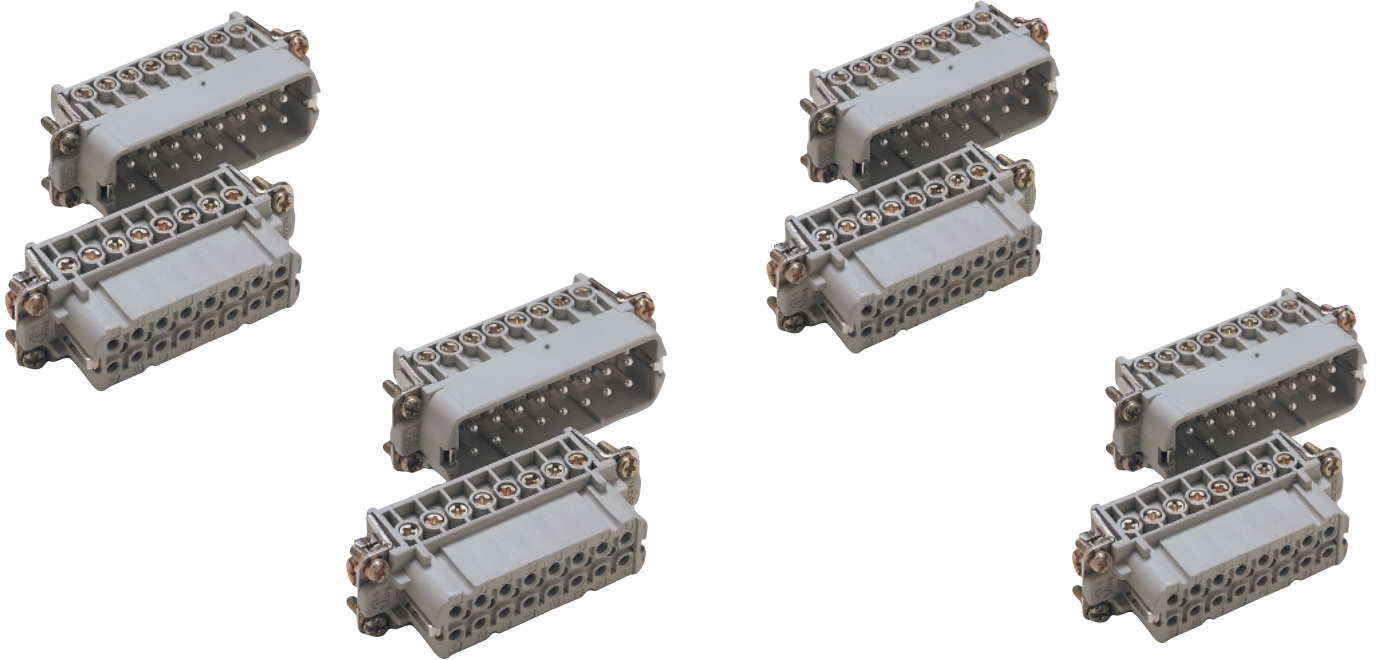


#### 3 Sets of HA 16 Inserts

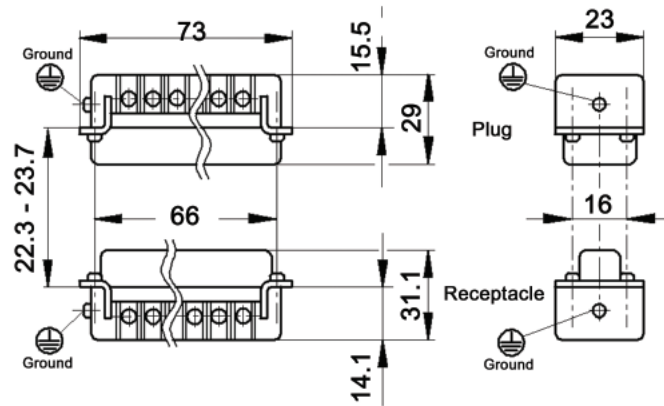
Description	Plug	Receptacle
#1-16 with Wire Protection	10530000	10531000
#17-32 with Wire Protection	10540000	10541000
#33-48: with Wire Protection	10540100	10541100
#1-16 without Wire Protection	10532000	10533000
#17-32 without Wire Protection	10542000	10543000
#33-48: without Wire Protection	10542100	10543100



### HA 64 SCREW TERMINATED INSERTS



4 Sets of HA 16 Inserts



All dimensions are in mm.



Description	Plug	Receptacle
#1-16 with Wire Protection	10530000	10531000
#17-32 with Wire Protection	10540000	10541000
#33-48: with Wire Protection	10540100	10541100
#48-64: with Wire Protection	105300LE64	105310LE64

The EPIC® HQ 5 insert fills the gap between the smallest configuration EPIC® HA and EPIC® HD connector inserts. It provides more contacts (5+PE) in the same housing space than the EPIC® HA 3 and HA 4 inserts, with a higher current capability (16A vs. 10A) than the EPIC® HD 7 and HD 8 inserts. They are ideal for applications in the transportation and automotive industries, and in many other industrial applications.

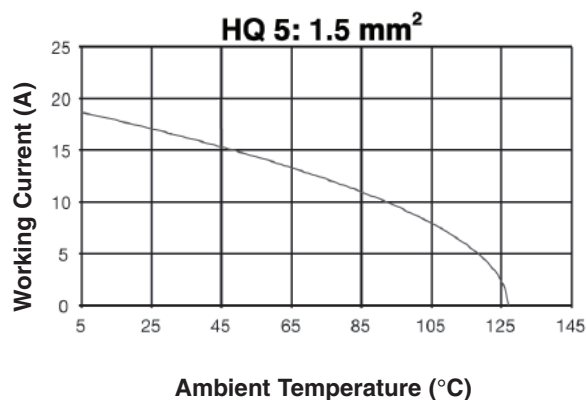


### TECHNICAL DATA

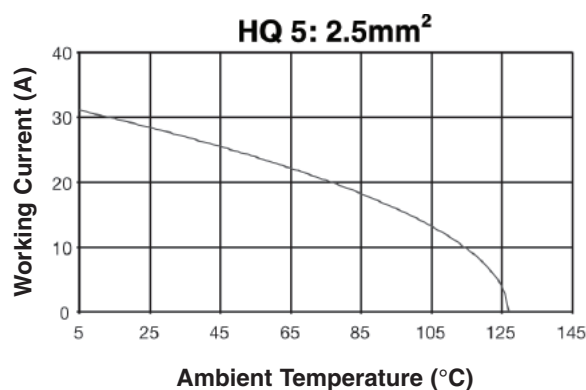
<b>Number of Contacts:</b>	5 (+PE)	<b>Termination Type:</b>	
<b>Rated Voltage:</b>	UL/CSA: 600V VDE: 400V	<b>Machined Crimp:</b>	0.5 - 2.5 mm <sup>2</sup> 20 - 14 AWG
<b>Rated Current:</b>	UL/CSA: 16A	<b>Contacts:</b>	
<b>Temperature Range:</b>	-40°C to +125°C	<b>Material:</b>	Copper alloy, silver plated/gold plated
<b>Pollution Degree:</b>	3	<b>Mating Cycles:</b>	100 (higher mating cycles depending on the application)
<b>Test Voltage:</b>	4 kV	<b>Contact Resistance:</b>	≤ 2 mΩ

### HQ INSERTS: DERATING CURVES

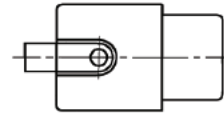
**HQ 5: 1.5 mm<sup>2</sup> (16 AWG)**



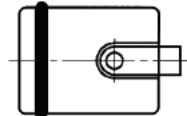
**HQ 5: 2.5 mm<sup>2</sup> (14 AWG)**



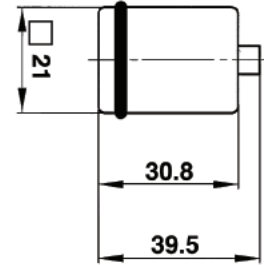
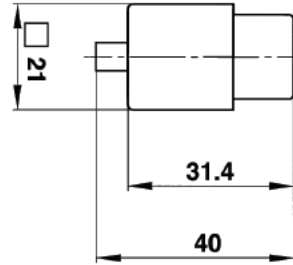
## HQ 5 CRIMP TERMINATED INSERTS



Receptacle

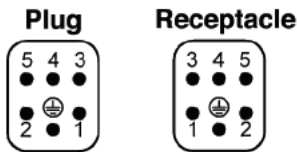


Plug



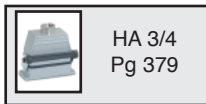
All dimensions are in mm.

View from cable side



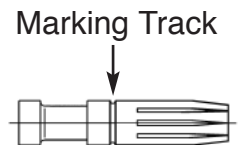
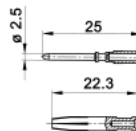
Description	Plug	Receptacle
Crimp Termination	10431500	10432500

Contacts Sold Separately



10436500: HQ5 Coding Pin (with contact loss)

## MACHINED CONTACTS: DIAMETER 2.5 MM<sup>2</sup>



Bags of 100							
mm <sup>2</sup>	AWG	Silver		Gold		Stripping Length (mm)	# of Marking Tracks
		Pin	Socket	Pin	Socket		
0.5	20	11190000	11195000	11192000	11197000	Pin=7.4, Socket =7.3	-
.75 - 1.0	18	11190100	11195100	11192100	11197100	Pin=7.4, Socket =7.3	1
1.5	16	11190200	11195200	11192200	11197200	Pin=7.4, Socket =7.3	2
2.5	14	11190300	11195300	-	-	Pin=7.4, Socket =7.3	3
4.0	12	11190400	11195400	-	-	Pin=7.4, Socket =7.3	-

Part number= 1 contact



Crimp Tool  
11147000



Crimp Dies  
11147100



Locator  
11147200



Removal Tool:  
11182500

The STA inserts with solid spring designed contacts are used extensively in the construction of devices, in control units, laboratories, and withdrawable unit design. These inserts are available with screw or solder termination which fit into the HA Series Housings.

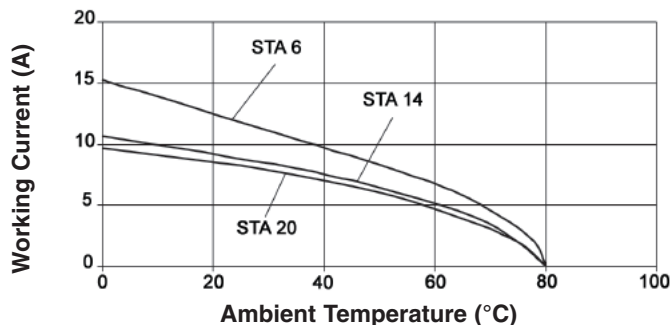


### TECHNICAL DATA

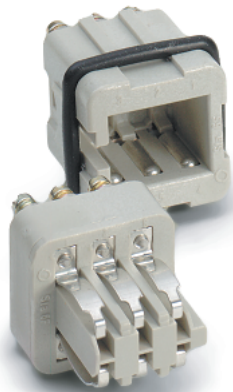
<b>Number of Contacts:</b>	6, 14, 20, 40	<b>Termination Type:</b>	Solder termination: up to 1.5 mm <sup>2</sup> Screw termination: 0.5 - 1.5 mm <sup>2</sup>
<b>Rated Voltage:</b>	VDE: 60V EPIC STA 6 - 20 UL: 48V EPIC STA 6 - 20 CSA: 48V EPIC STA 6 - 20	<b>Temperature Range:</b>	-40°C to +80°C
<b>Rated Current:</b>	VDE: 10A EPIC STA 6 - 20 UL: 10A EPIC STA 6 - 20 CSA: 10A EPIC STA 6 - 20	<b>Contacts:</b>	Copper alloy, silver plated
<b>Pollution Level:</b>	2	<b>Contact Resistance:</b>	<2mOhm
<b>Test Voltage:</b>	1.0 kV	<b>Mating Cycles:</b>	100 (higher mating cycles depends on the application)

### STA INSERTS: DERATING CURVES

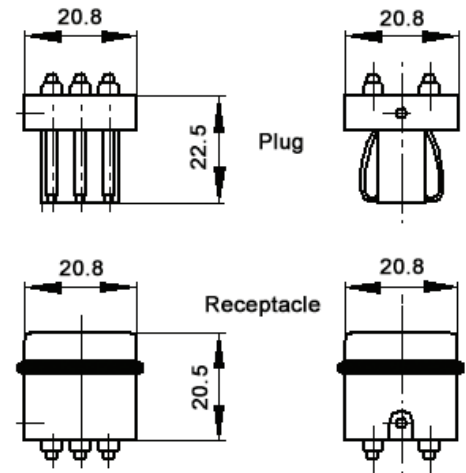
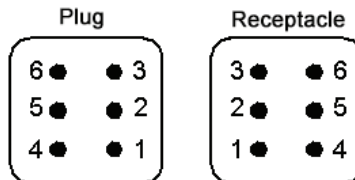
#### STA: 1.0 mm<sup>2</sup> (18 AWG)



### STA 6 SCREW TERMINATED INSERTS



View from cable side

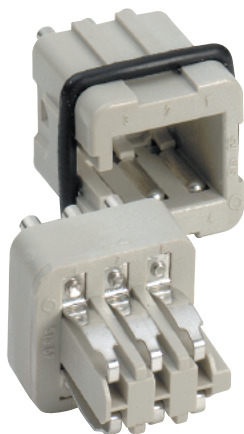


All dimensions are in mm.

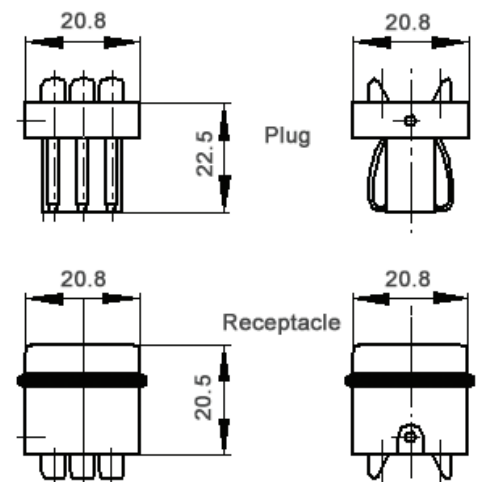
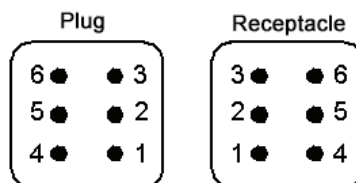
Description	Plug	Receptacle
Screw Termination	10488100	10486100



### SOLDER TERMINATED INSERTS

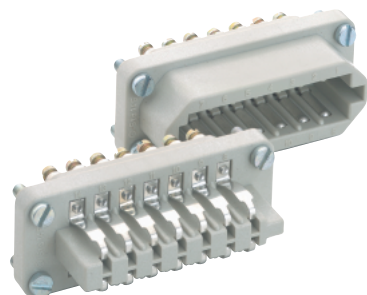


View from cable side

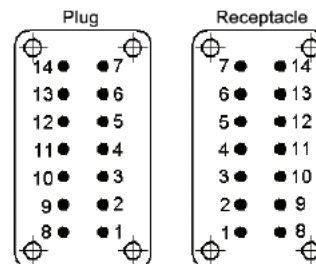
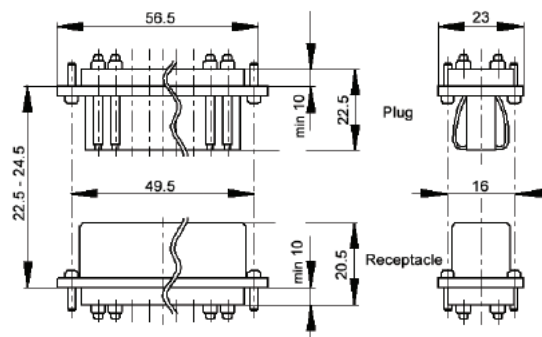


Description	Plug	Receptacle
Solder Termination	10487200	10485200

### STA 14 SCREW TERMINATED INSERTS



View from cable side

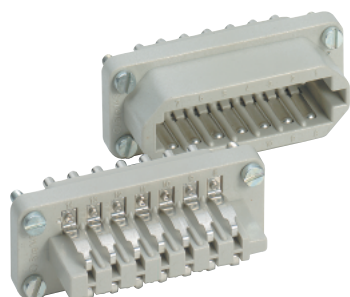


All dimensions are in mm.

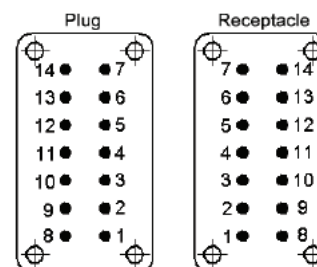
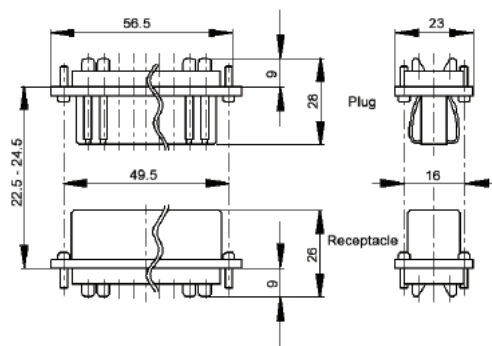


Description	Plug	Receptacle
Screw Termination	10493100	10491100

### STA 14 SOLDER TERMINATED INSERTS



View from cable side

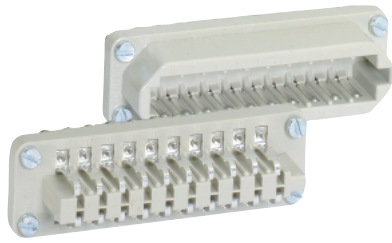


All dimensions are in mm.

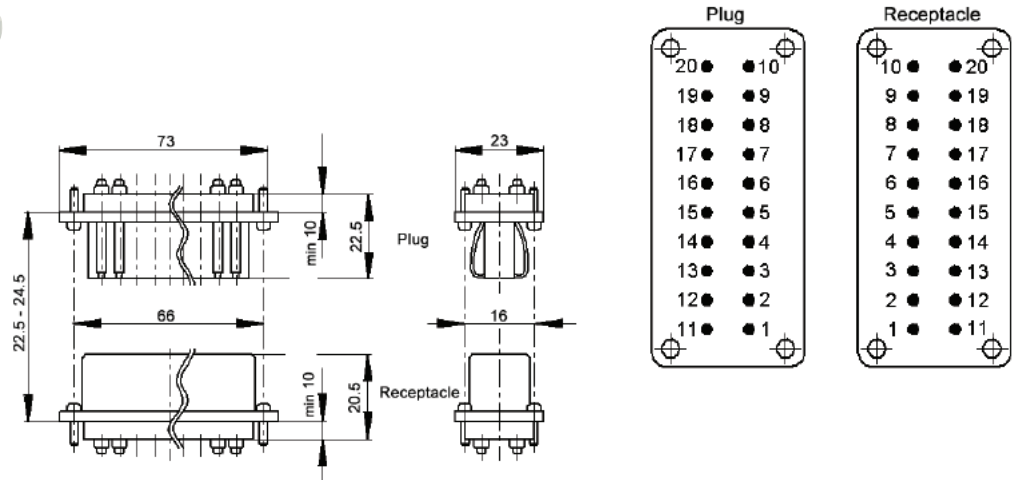


Description	Plug	Receptacle
Solder Termination	10492200	10490200

### STA 20 SCREW TERMINATED INSERTS



View from cable side

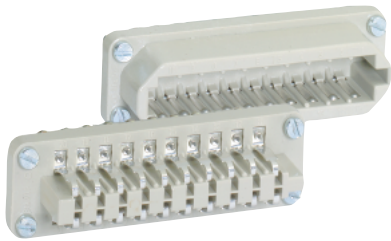


All dimensions are in mm.

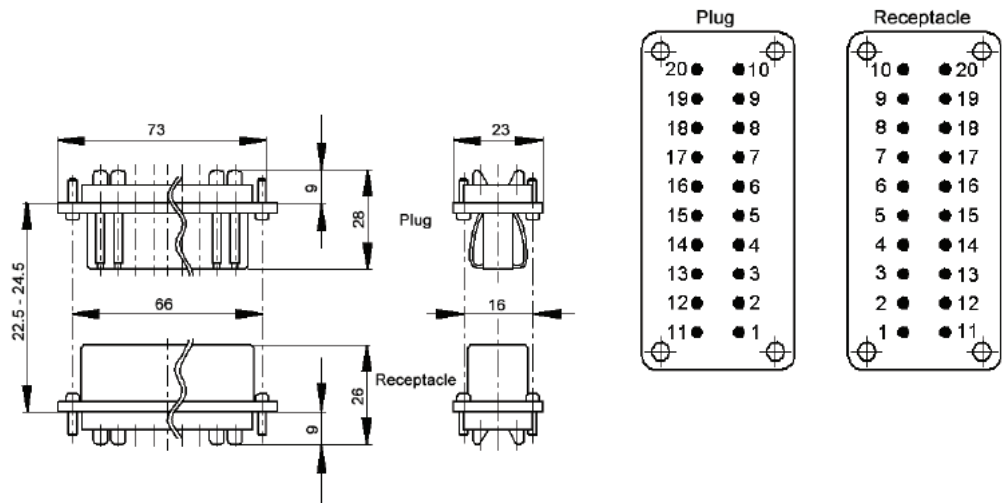


Description	Plug	Receptacle
Screw Termination	10503100	10501100

### STA 20 SOLDER TERMINATED INSERTS



View from cable side

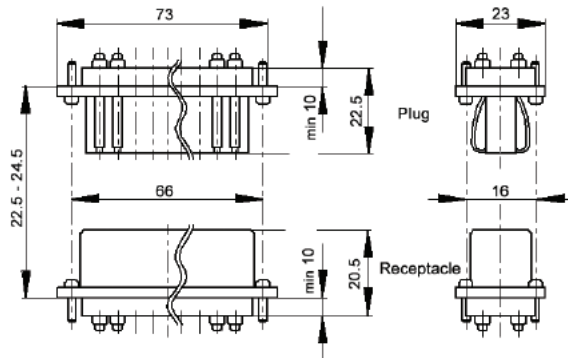
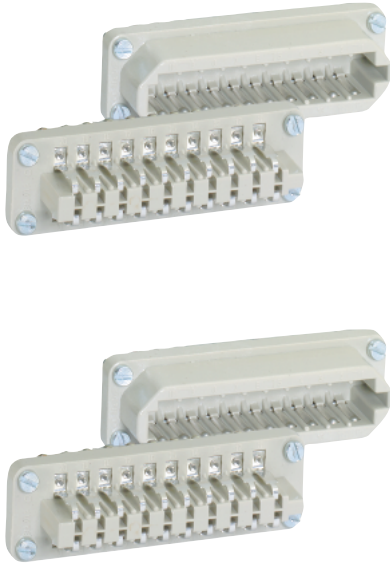


All dimensions are in mm.

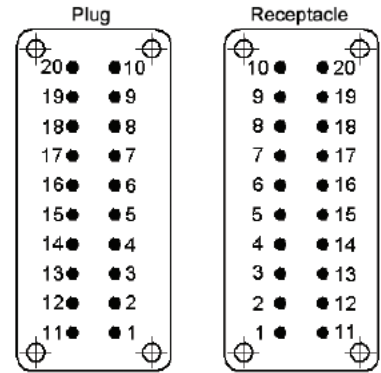
Description	Plug	Receptacle
Solder Termination	10502200	10500200



### STA 40 SCREW TERMINATED INSERTS



View from cable side

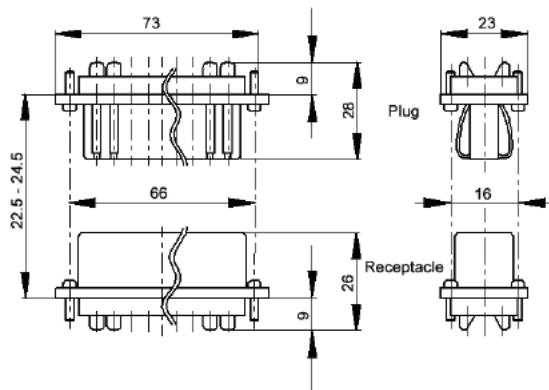
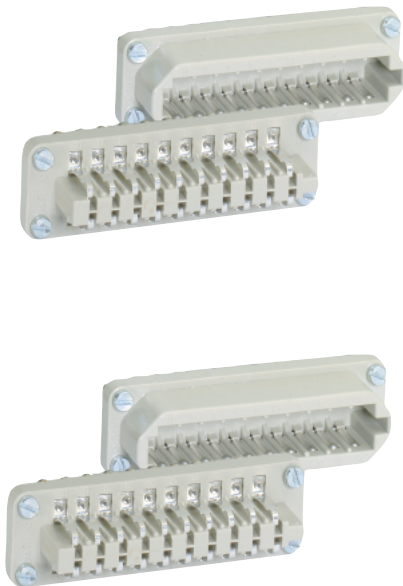


All dimensions are in mm.

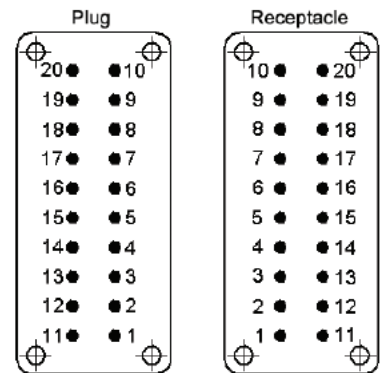
Description	Plug	Receptacle
Screw Termination (2X)	10503100	10501100



### STA 40 SOLDER TERMINATED INSERTS



View from cable side

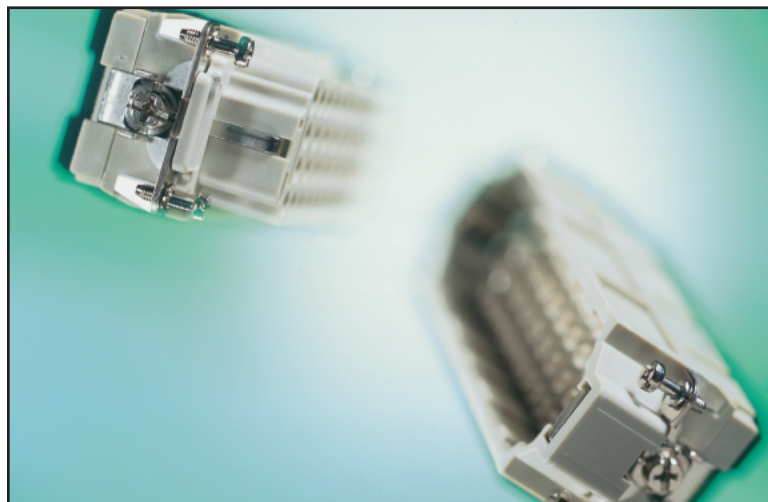


All dimensions are in mm.

Description	Plug	Receptacle
Solder Termination (2X)	10502200	10500200



The EPIC® HEE Series connector inserts are a high-density companion to the popular EPIC® HBE Series. Offering the same voltage and current ratings (600 V AC, 16 Amps), they provide a significant increase in contact density (67% - 100% increase) within the same footprint dimensions as an equivalent size HBE connector. They are ideal for applications in the automotive industries, and any other industrial application requiring high density contacts.



### TECHNICAL DATA

**Number of Contacts:** 10, 18, 32, 46, 64 (2x32),  
92 (2X46) (+PE)

**Rated Voltage:** VDE: 500V  
UL: 600V  
CSA: 600V

**Rated Current:** 16A

**Temperature Range:** -40°C to +125°C

**Pollution Degree:** 3

**Test Voltage:** 6 kV

**Termination Type:** mm<sup>2</sup> AWG  
**Machined Crimp:** 0.5 - 4.0 mm<sup>2</sup> 20 - 12

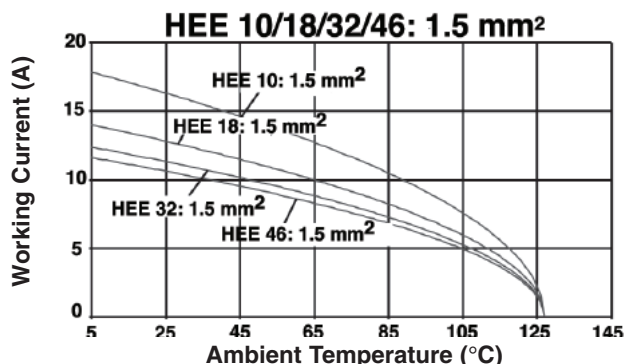
**Contacts:**  
**Material:** Copper alloy, silver plated/ gold plated

**Mating Cycles:** 100 (higher mating cycles depending on the application)

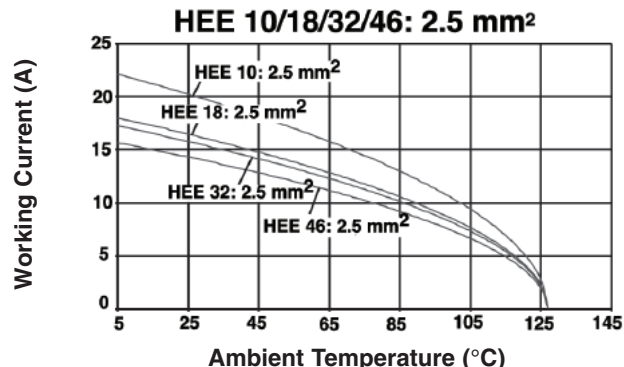
**Contact Resistance:** ≤ 2 mΩ

### HEE INSERTS: DERATING CURVES

HEE CRIMP MACHINED: 1.5 mm<sup>2</sup> (16 AWG)

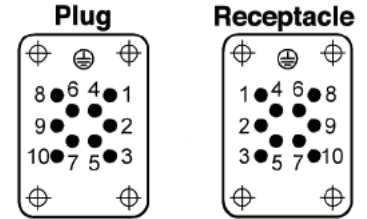
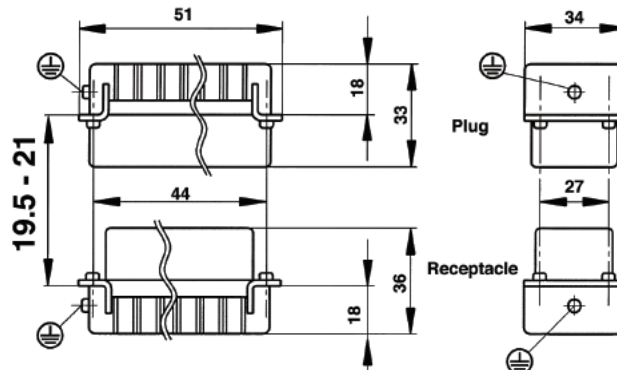
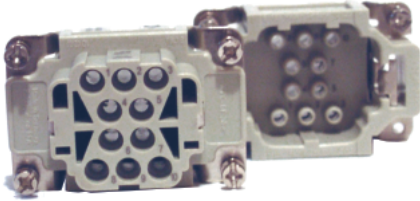


HEE CRIMP MACHINED: 2.5 mm<sup>2</sup> (14 AWG)



## HEE 10 CRIMP TERMINATED: MACHINE CONTACT INSERTS

View from Cable Side



All dimensions are in mm.



Plug	Receptacle
10180400	10181400

Contacts Sold Separately

## MACHINED CONTACTS: DIAMETER 2.5 MM<sup>2</sup>



Bags of 100							
mm <sup>2</sup>	AWG	Silver		Gold		Stripping Length (mm)	# of Marking Tracks
		Pin	Socket	Pin	Socket		
0.5	20	11190000	11195000	11192000	11197000	Pin=7.4, Socket =7.3	-
.75 - 1.0	18	11190100	11195100	11192100	11197100	Pin=7.4, Socket =7.3	1
1.5	16	11190200	11195200	11192200	11197200	Pin=7.4, Socket =7.3	2
2.5	14	11190300	11195300	-	-	Pin=7.4, Socket =7.3	3
4.0	12	11190400	11195400	-	-	Pin=7.4, Socket =7.3	-

Part number= 1 contact



Crimp Tool  
11147000



Crimp Dies  
11147100



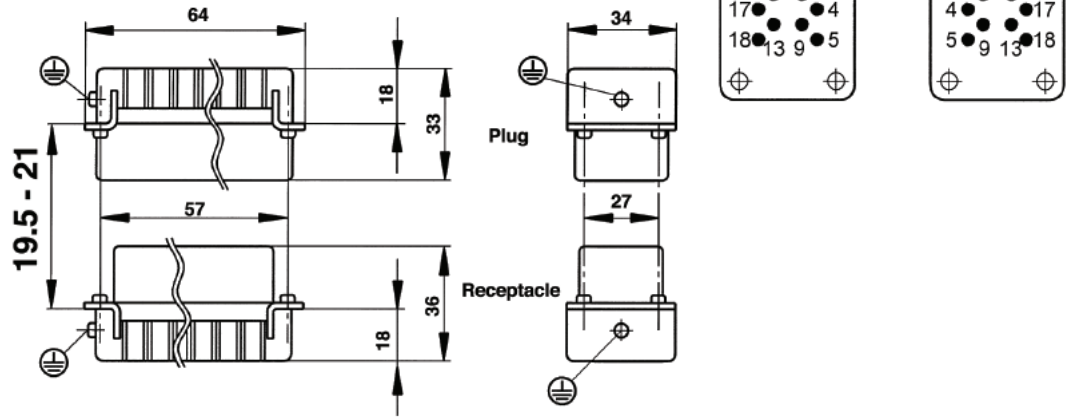
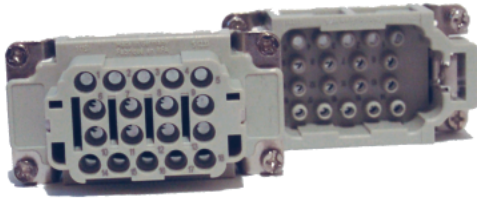
Locator  
11147200



Removal Tool:  
11182500

### HEE 18 CRIMP TERMINATED: MACHINE CONTACT INSERTS

View from Cable Side



All dimensions are in mm.



Plug	Receptacle
10182400	10183400

Contacts Sold Separately

### MACHINED CONTACTS: DIAMETER 2.5 MM<sup>2</sup>



Bags of 100							
mm <sup>2</sup>	AWG	Silver		Gold		Stripping Length (mm)	# of Marking Tracks
		Pin	Socket	Pin	Socket		
0.5	20	11190000	11195000	11192000	11197000	Pin=7.4, Socket =7.3	-
.75 - 1.0	18	11190100	11195100	11192100	11197100	Pin=7.4, Socket =7.3	1
1.5	16	11190200	11195200	11192200	11197200	Pin=7.4, Socket =7.3	2
2.5	14	11190300	11195300	-	-	Pin=7.4, Socket =7.3	3
4.0	12	11190400	11195400	-	-	Pin=7.4, Socket =7.3	-

Part number= 1 contact



**Crimp Tool**  
11147000



**Crimp Dies**  
11147100



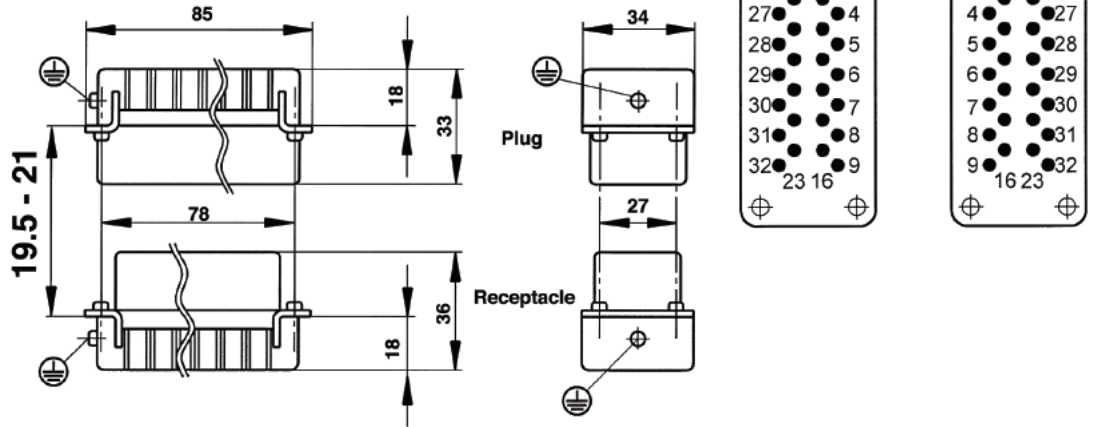
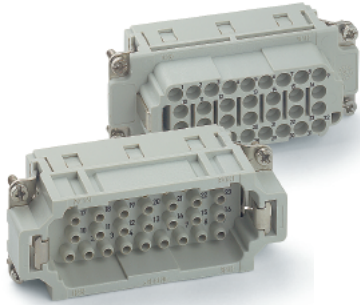
**Locator**  
11147200



**Removal Tool:**  
11182500

## HEE 32 CRIMP TERMINATED: MACHINE CONTACT INSERTS

View from Cable Side



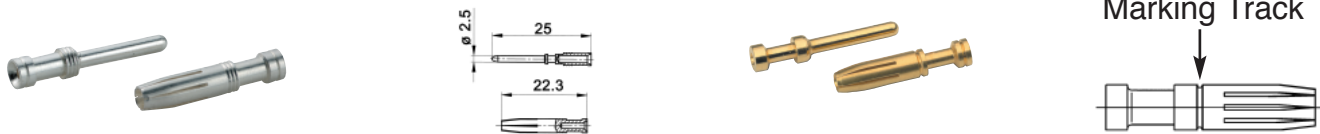
All dimensions are in mm.



Plug	Receptacle
10184400	10185400

Contacts Sold Separately

## MACHINED CONTACTS: DIAMETER 2.5 MM<sup>2</sup>



Bags of 100							
mm <sup>2</sup>	AWG	Silver		Gold		Stripping Length (mm)	# of Marking Tracks
		Pin	Socket	Pin	Socket		
0.5	20	11190000	11195000	11192000	11197000	Pin=7.4, Socket =7.3	-
.75 - 1.0	18	11190100	11195100	11192100	11197100	Pin=7.4, Socket =7.3	1
1.5	16	11190200	11195200	11192200	11197200	Pin=7.4, Socket =7.3	2
2.5	14	11190300	11195300	-	-	Pin=7.4, Socket =7.3	3
4.0	12	11190400	11195400	-	-	Pin=7.4, Socket =7.3	-

Part number= 1 contact



**Crimp Tool**  
11147000



**Crimp Dies**  
11147100

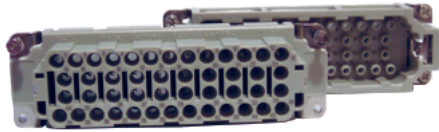


**Locator**  
11147200

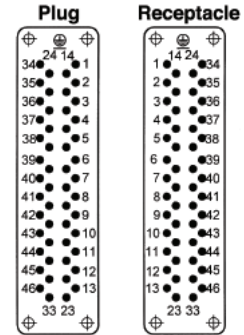
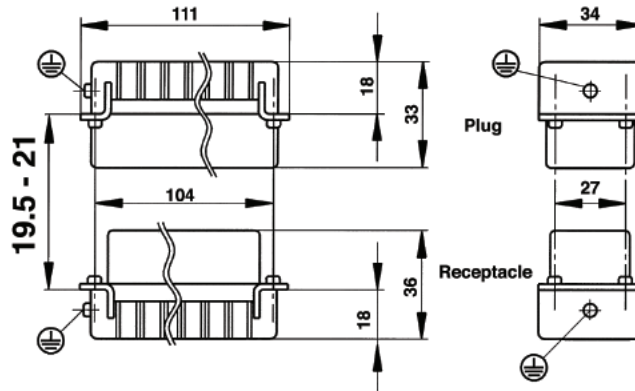


**Removal Tool:**  
11182500

### HEE 46 CRIMP TERMINATED: MACHINE CONTACT INSERTS



View from Cable Side



All dimensions are in mm.



Plug	Receptacle
10186400	10187400

Contacts Sold Separately

### MACHINED CONTACTS: DIAMETER 2.5 MM<sup>2</sup>



Bags of 100							
mm <sup>2</sup>	AWG	Silver		Gold		Stripping Length (mm)	# of Marking Tracks
		Pin	Socket	Pin	Socket		
0.5	20	11190000	11195000	11192000	11197000	Pin=7.4, Socket =7.3	-
.75 - 1.0	18	11190100	11195100	11192100	11197100	Pin=7.4, Socket =7.3	1
1.5	16	11190200	11195200	11192200	11197200	Pin=7.4, Socket =7.3	2
2.5	14	11190300	11195300	-	-	Pin=7.4, Socket =7.3	3
4.0	12	11190400	11195400	-	-	Pin=7.4, Socket =7.3	-

Part number= 1 contact



Crimp Tool  
11147000



Crimp Dies  
11147100

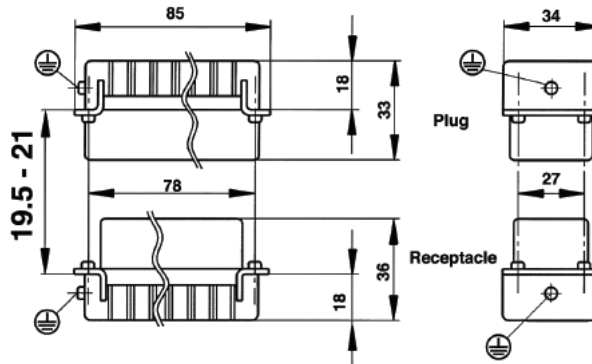
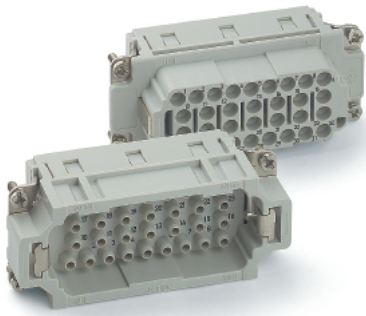


Locator  
11147200

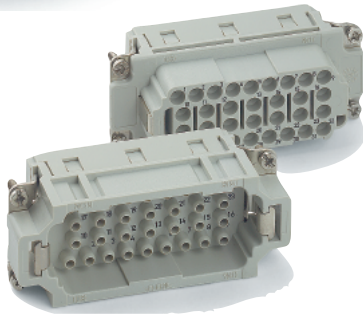


Removal Tool:  
11182500

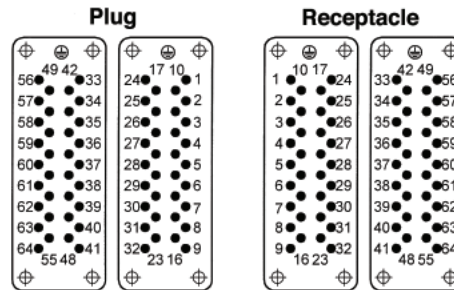
## HEE 64 CRIMP TERMINATED: MACHINE CONTACT INSERTS



All dimensions are in mm.



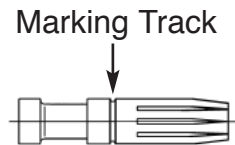
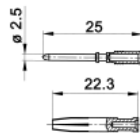
View from Cable Side



Description	Plug	Receptacle
#1 - 32	10184400	10185400
#33 - 64	10184500	10185500

Contacts Sold Separately

## MACHINED CONTACTS: DIAMETER 2.5 MM<sup>2</sup>



Bags of 100							
mm <sup>2</sup>	AWG	Silver		Gold		Stripping Length (mm)	# of Marking Tracks
		Pin	Socket	Pin	Socket		
0.5	20	11190000	11195000	11192000	11197000	Pin=7.4, Socket =7.3	-
.75 - 1.0	18	11190100	11195100	11192100	11197100	Pin=7.4, Socket =7.3	1
1.5	16	11190200	11195200	11192200	11197200	Pin=7.4, Socket =7.3	2
2.5	14	11190300	11195300	-	-	Pin=7.4, Socket =7.3	3
4.0	12	11190400	11195400	-	-	Pin=7.4, Socket =7.3	-

Part number= 1 contact



Crimp Tool  
11147000



Crimp Dies  
11147100

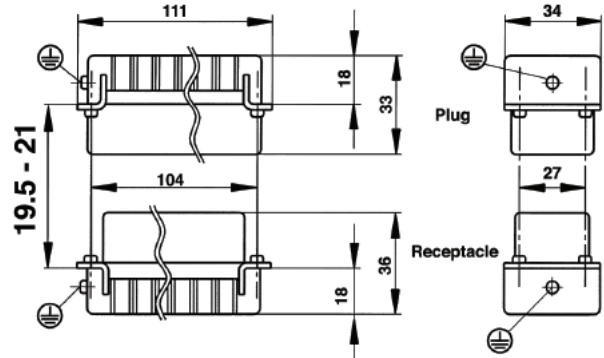
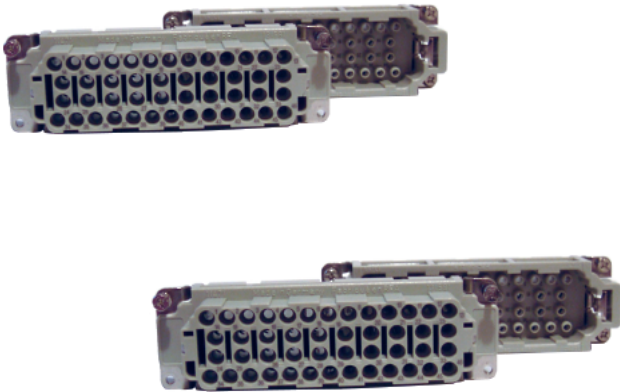


Locator  
11147200



Removal Tool:  
11182500

### HEE 92 CRIMP TERMINATED: MACHINE CONTACT INSERTS



All dimensions are in mm.

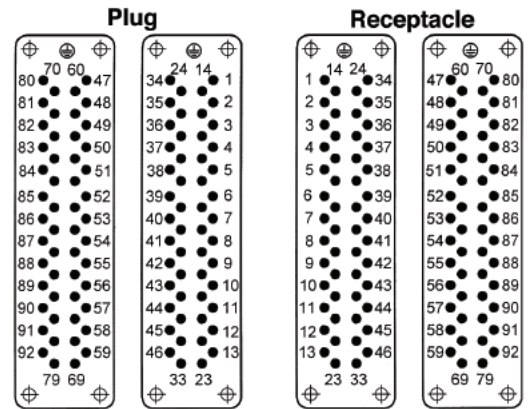
View from Cable Side



HBE 48  
Pg 376

Contacts Sold Separately

Description	Plug	Receptacle
#1 - 32	10186400	10187400
#33 - 64	10186500	10187500



### MACHINED CONTACTS: DIAMETER 2.5 MM<sup>2</sup>



mm <sup>2</sup>	AWG	Silver		Gold		Stripping Length (mm)	# of Marking Tracks
		Pin	Socket	Pin	Socket		
0.5	20	11190000	11195000	11192000	11197000	Pin=7.4, Socket =7.3	-
.75 - 1.0	18	11190100	11195100	11192100	11197100	Pin=7.4, Socket =7.3	1
1.5	16	11190200	11195200	11192200	11197200	Pin=7.4, Socket =7.3	2
2.5	14	11190300	11195300	-	-	Pin=7.4, Socket =7.3	3
4.0	12	11190400	11195400	-	-	Pin=7.4, Socket =7.3	-

Part number= 1 contact



Crimp Tool  
11147000



Crimp Dies  
11147100

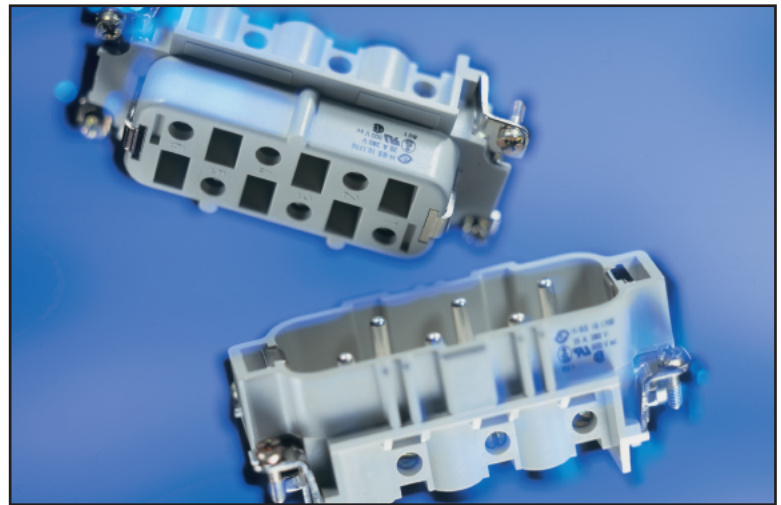


Locator  
11147200



Removal Tool:  
11182500

The HBS series inserts are characterized by their high current carrying capacity. A secure electrical connection can be made by simple screw termination for cables up to 10 AWG.

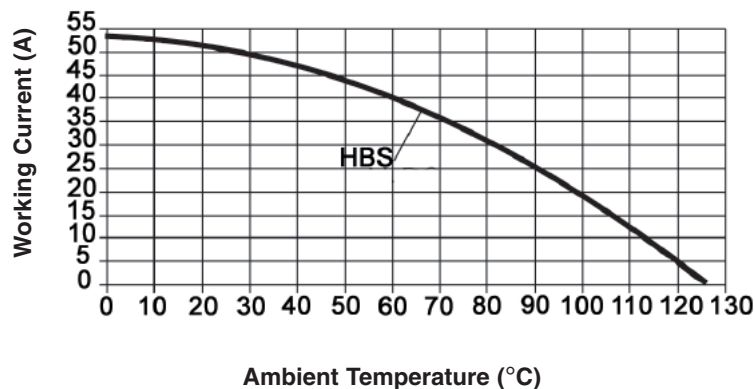


### TECHNICAL DATA

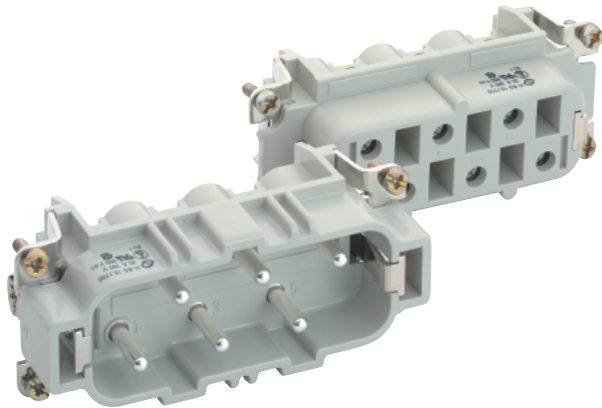
<b>Number of Contacts:</b>	6, 12 (+PE)	<b>Pollution Level:</b>	3
<b>Rated Voltage:</b>	VDE: 400V EPIC HBS 6 - 12	<b>Test Voltage:</b>	6 kV
	UL: 600V EPIC HBS 6 - 12	<b>Termination Type:</b>	Screw termination: 0.5 - 6 mm <sup>2</sup> AWG: 20 - 10
	CSA: 600V EPIC HBS 6 - 12		
<b>Rated Current:</b>	VDE: 35A EPIC HBS 6 - 12	<b>Temperature Range:</b>	-40°C to +125°C
	UL: 35A EPIC HBS 6 - 12	<b>Contacts:</b>	Copper alloy, silver plated
	CSA: 35A EPIC HBS 6 - 12	<b>Contact Resistance:</b>	<2mOhm
		<b>Mating Cycles:</b>	100 (higher mating cycles depends on the application)

### HBS INSERTS: DERATING CURVES

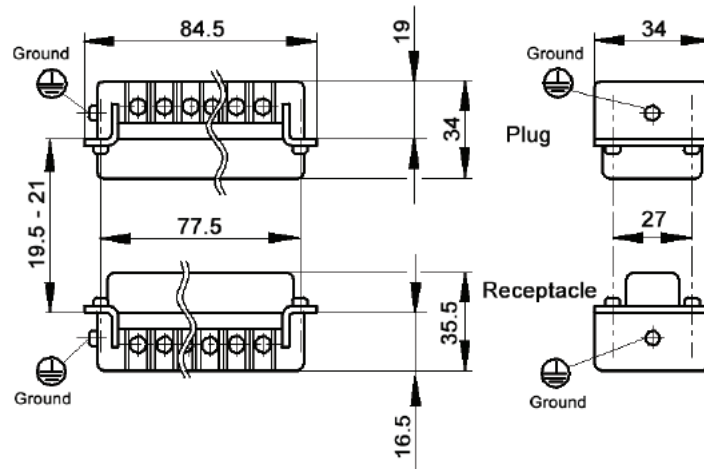
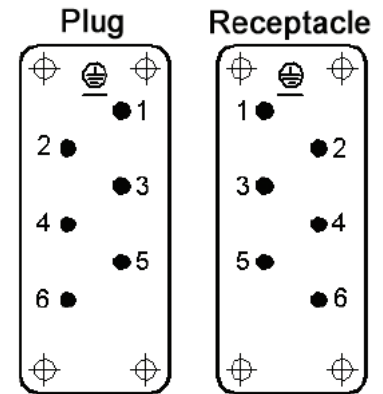
#### HBS: 6.0 mm<sup>2</sup> (10 AWG)



### HBS 6 SCREW TERMINATED INSERTS



View from cable side



All dimensions are in mm.

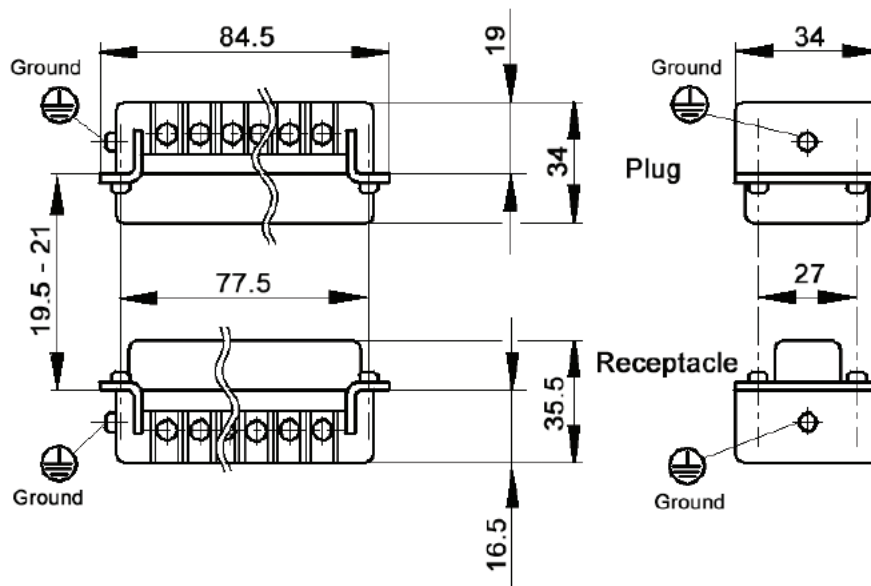
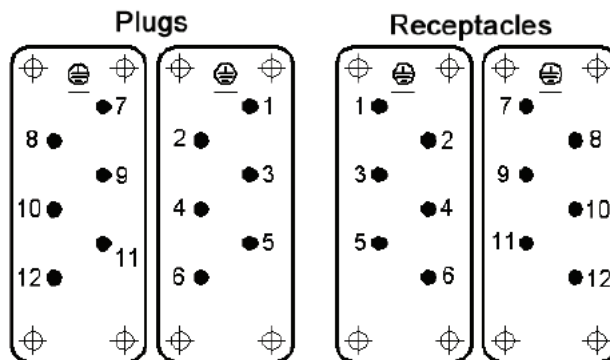


Description	Plug	Receptacle
#1-6	10170000	10171000

### HBS 12 SCREW TERMINATED INSERTS

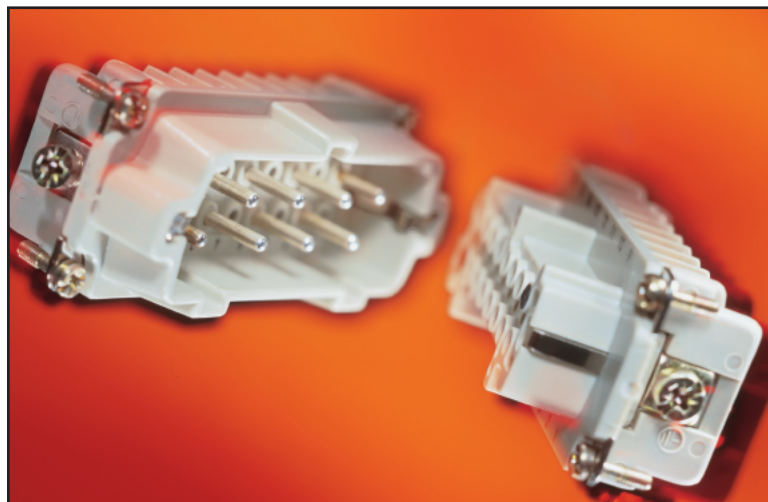


View from cable side



Description	Plug	Receptacle
#1-6	10170000	10171000
#7-12	10170600	10171600

The HBVE series inserts are high voltage inserts which are equipped with switch contacts. The switch contacts lag when inserted which prevents insertion of the connectors when the system is alive. The switching contacts interrupt the power supply to the system before the working contacts are separated.

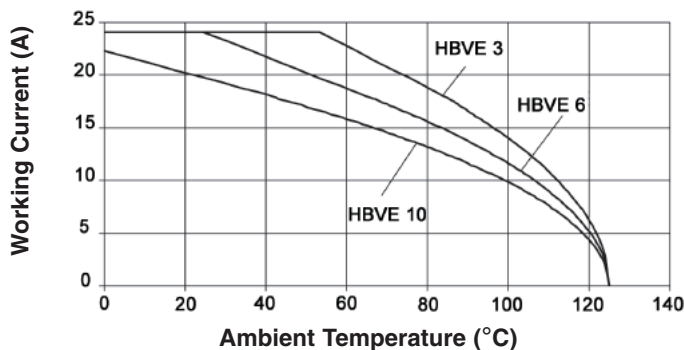


### TECHNICAL DATA

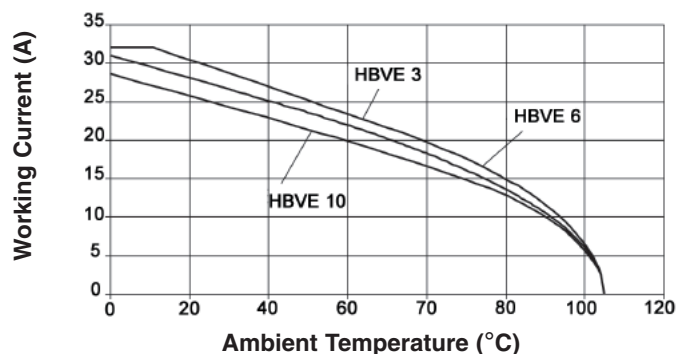
<b>Number of Contacts:</b>	3, 6, 10 (+PE)	<b>Termination Type:</b>	0.5 - 2.5 mm <sup>2</sup> AWG: 20 - 14
<b>Rated Voltage:</b>		<b>Temperature Range:</b>	-40°C to 125°C
<b>Screw Terminated:</b>	VDE: 630V EPIC HBVE 3 - 10 UL: 600V EPIC HBVE 3 - 10 CSA: 600V EPIC HBVE 3 - 10	<b>Contacts:</b>	Copper alloy, silver plated
<b>Cage Clamp:</b>	VDE: 830V EPIC HBVE 3	<b>Contact Resistance:</b>	<2mOhm
<b>Rated Current:</b>	VDE: 16A EPIC HBVE 3 - 10 UL: 16A EPIC HBVE 3 - 10 CSA: 16A EPIC HBVE 3 - 10	<b>Mating Cycles:</b>	100 (higher mating cycles depend on the application)
<b>Pollution Level:</b>	3		
<b>Test Voltage:</b>	6 kV		

### HBVE INSERTS TECHNICAL DATA: DERATING CURVES SCREW TERMINATED

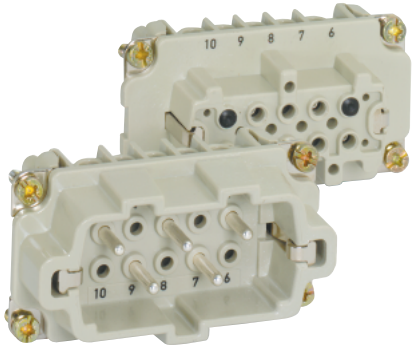
**HBVE: 1.5 mm<sup>2</sup> (16 AWG)**



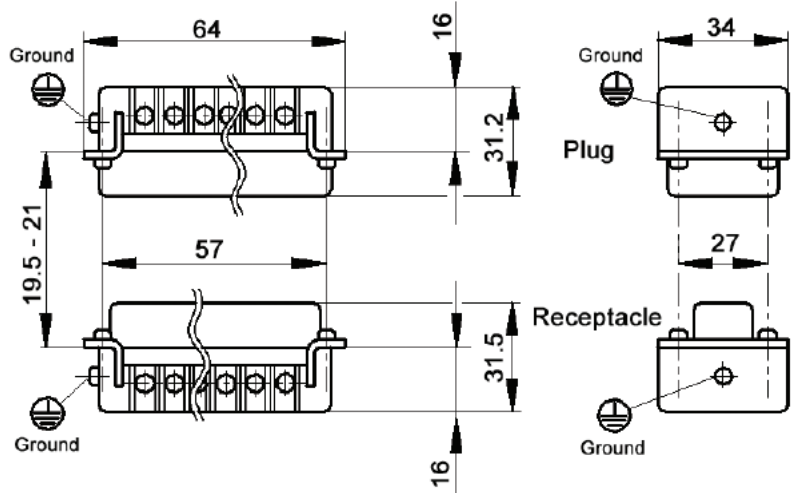
**HBVE: 2.5 mm<sup>2</sup> (14 AWG)**



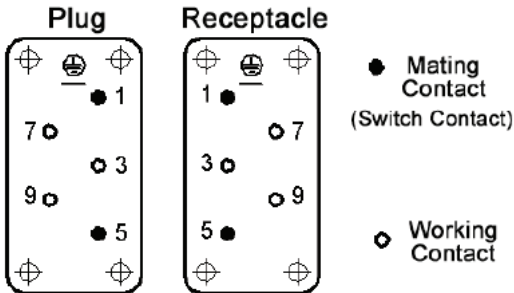
### HBVE 3 SCREW TERMINATED INSERTS



View from cable side



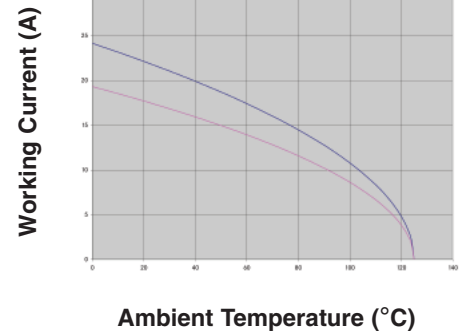
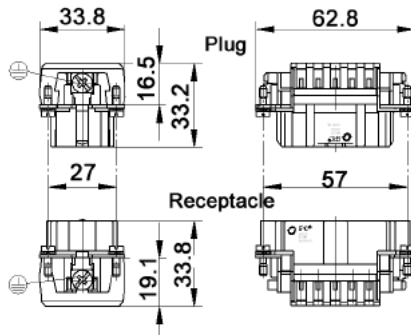
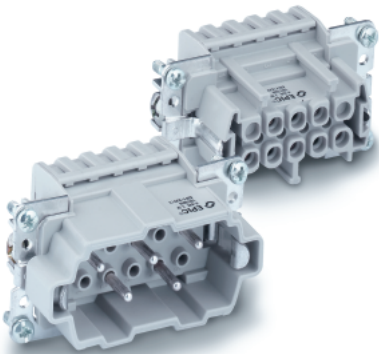
All dimensions are in mm.



HBVE 10  
Pg 356

Description	Plug	Receptacle
With wire protection	10210010	10211010
Without wire protection	10210110	10211110

### HBVE 3 CAGE CLAMP INSERTS



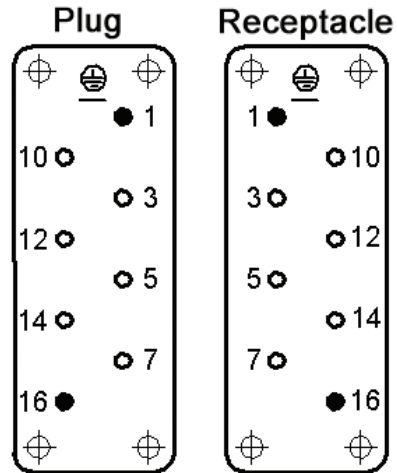
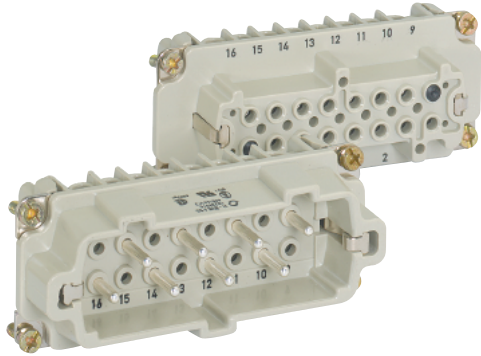
Plug	Receptacle
10/210040	10/211040



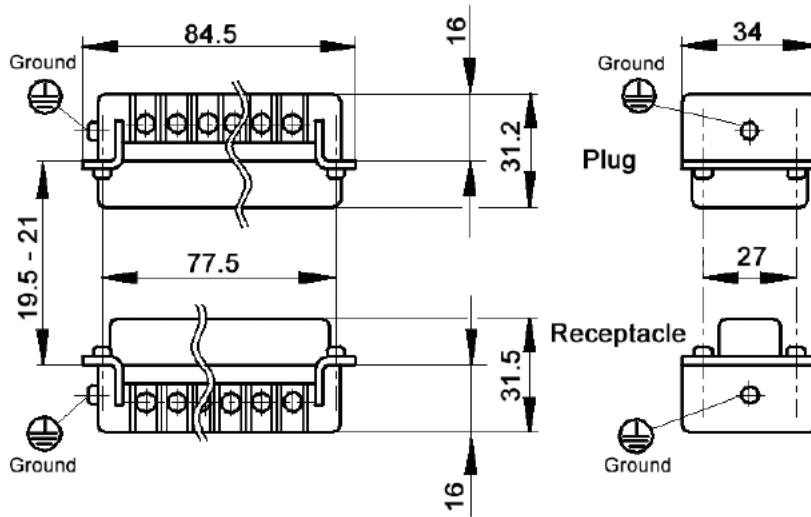
HBVE 10  
Pg 356

### HBVE 6 SCREW TERMINATED INSERTS

View from cable side



● Mating Contact (Switch Contact)  
○ Working Contact



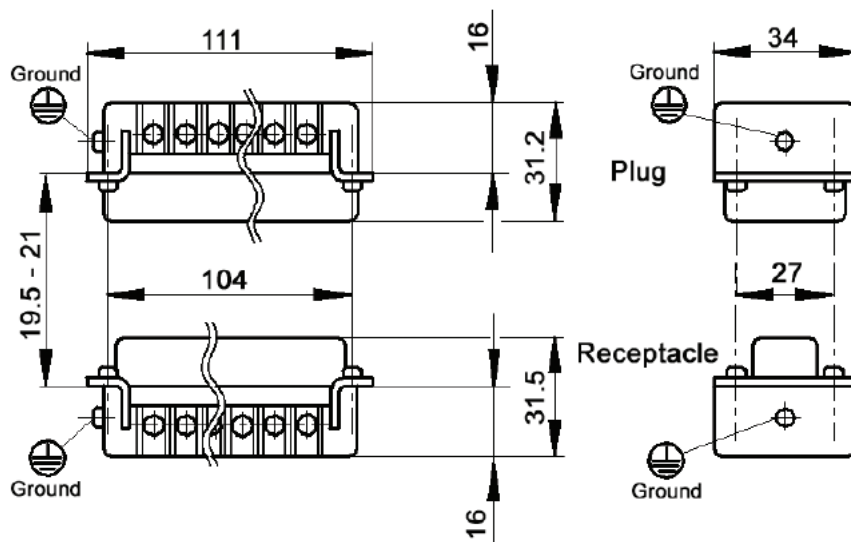
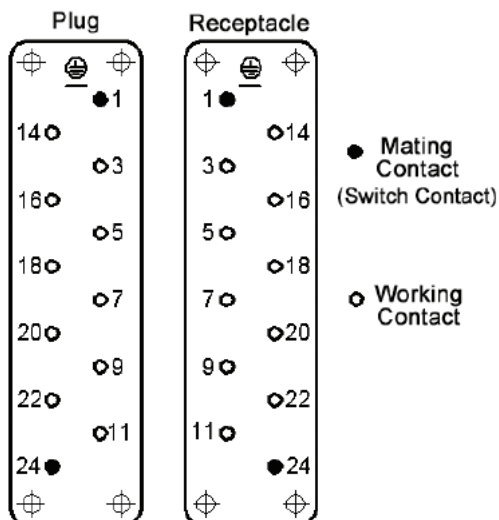
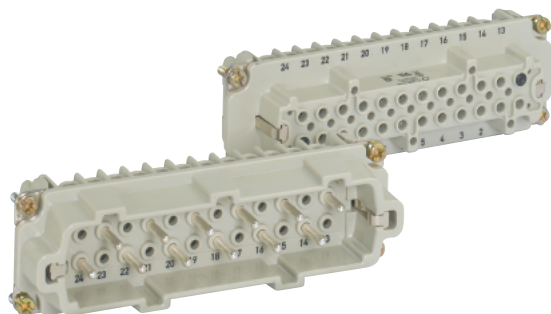
All dimensions are in mm.



Description	Plug	Receptacle
With wire protection	10239010	10240010
Without wire protection	10239110	10240110

### HBVE 10 SCREW TERMINATED INSERTS

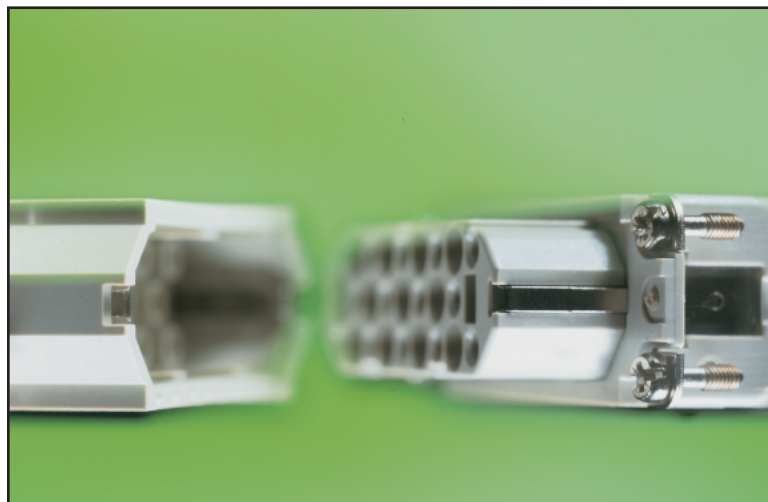
View from cable side



All dimensions are in mm.

Description	Plug	Receptacle
With wire protection	10270010	10271010
Without wire protection	10270110	10271110

The HD series inserts are designed for use in industries where large numbers of contacts are required. These crimp inserts are available with stamped and formed or machined contacts. These inserts fit into the HA and HBE Series housings.

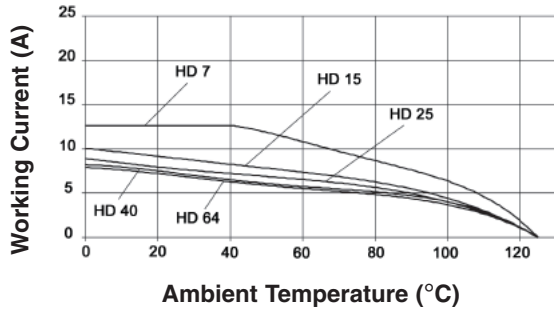


## TECHNICAL DATA

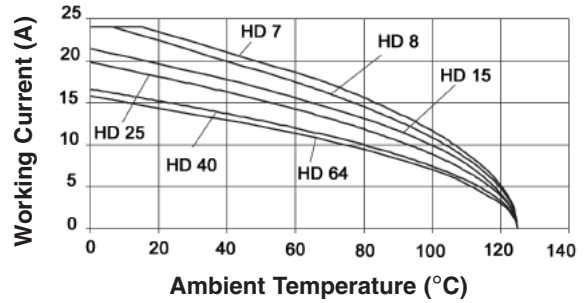
<b>Number of Contacts:</b> 7, 8, 15, 25, 40, 50, 64, 80, 128(+PE)	<b>Termination Type:</b> Crimp termination: 0.14 - 2.5 mm <sup>2</sup> AWG: 22 - 14
<b>Rated Voltage:</b> VDE: 42V (Metal Housing) 250V (Plastic Housing) EPIC HD 7 - 8 250V EPIC HD 15 - 128 UL: 600V EPIC HD 7 - 128	<b>Temperature Range:</b> -40°C to +125°C <b>Contacts:</b> Copper alloy, silver plated/ gold plated <b>Contact Resistance:</b> <2mOhm <3mOhm for HD 40/ 64/ 80/ 128 for Machined Contacts
<b>Rated Current:</b> VDE: 10A EPIC HD 7 - 128 UL: 10A EPIC HD 7 - 128	<b>Mating Cycles:</b> 100 (higher mating cycles depends on the application)
<b>Pollution Level:</b> 3	
<b>Test Voltage:</b> 2 kV 2.5 kV for HD 40/ 64/ 80/ 128 for Machined Contacts	

### HD INSERTS: DERATING CURVES

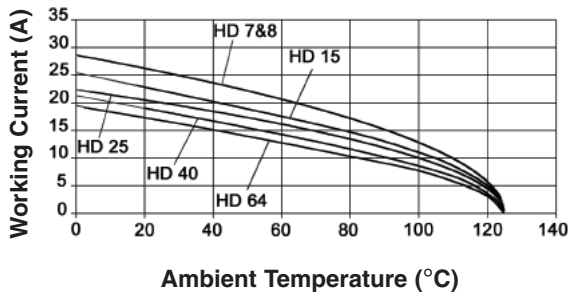
**HD STAMPED & FORMED:  
0.5 mm<sup>2</sup> (20 AWG)**



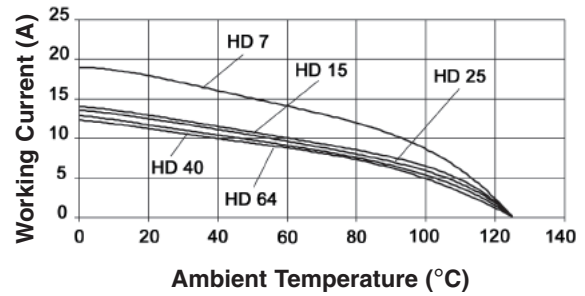
**HD CRIMP MACHINE:  
1.5 mm<sup>2</sup> (16 AWG)**



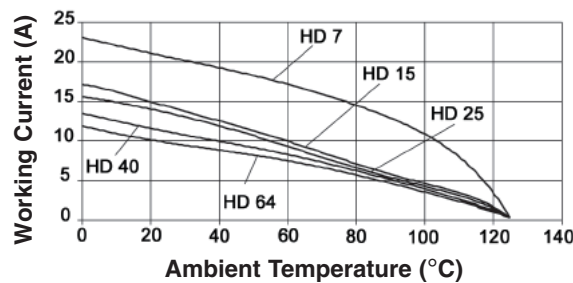
**HD CRIMP MACHINE:  
2.5 mm<sup>2</sup> (14 AWG)**



**HD STAMPED & FORMED:  
1.5 mm<sup>2</sup> (16 AWG)**



**HD STAMPED & FORMED:  
2.5 mm<sup>2</sup> (14 AWG)**



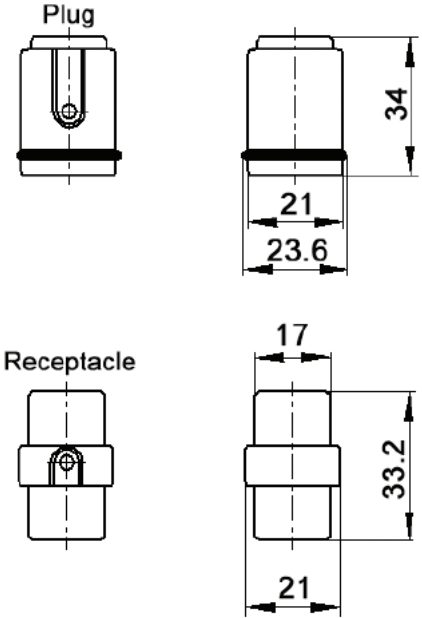
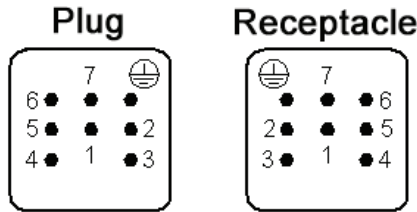
### HD 7 CRIMP TERMINATED: MACHINE CONTACT INSERTS



Contacts Sold Separately



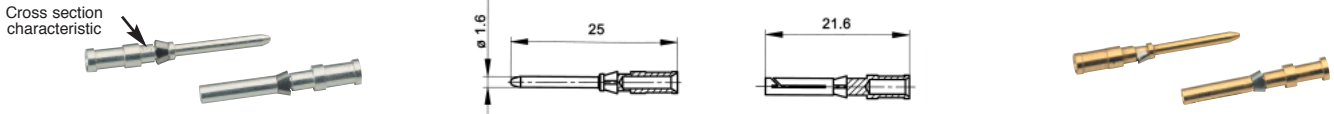
View from Cable Side



Plug	Receptacle
11250500	11251500

All dimensions are in mm.

### MACHINE CONTACTS: DIAMETER 1.6 MM



Bags of 100							
mm <sup>2</sup>	AWG	Silver		Gold		Stripping Length (mm)	# of Marking Tracks
		Pin	Socket	Pin	Socket		
0.14 - 0.37	26 - 22	13162000	13163000	13162500	13163500	8	1
0.5	20	13162100	13163100	13162600	13163600	8	2
0.75 - 1.0	18	13162200	13163200	13162700	13163700	8	3
1.5	16	13162300	13163300	13162800	13163800	8	4
2.5	14	13162400	13163400	13162900	13163900	5.8	5

Part number= 1 contact



### FIBER OPTIC CONTACTS & TOOLS



Pin	Socket
11214100	11219100

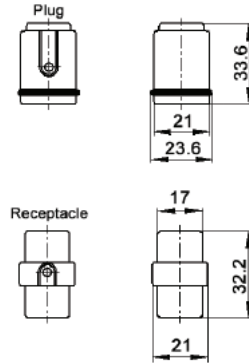
Fiber Optic Assembly Set
11184700



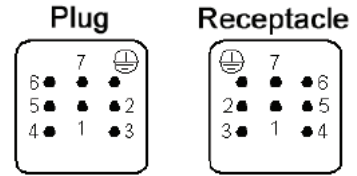
### HD 7 CRIMP TERMINATED: STAMPED & FORMED CONTACT INSERTS



Coding Pin: 11162000  
Removal Tool: 11161200



View from Cable Side



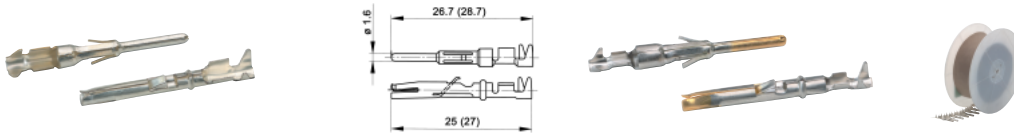
All dimensions are in mm.

Contacts Sold Separately

Plug	Receptacle
11250000	11251000



### STAMPED & FORMED CONTACTS: DIAMETER 1.6 MM



mm <sup>2</sup>	Stripping Length (mm)
0.14 - 0.5	2.5 - 0.5
0.5 - 1.5	3.5 - 0.5
1.5 - 2.5	3.5 - 0.5

		Bags of 100: Silver		Bags of 100: Gold		Reel of 100: Silver Left Hand Feed		Reel of 200: Silver Left Hand Feed	
mm <sup>2</sup>	AWG	Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket
0.14 - 0.5	26 - 20	11241100	11231100	11243100	11233100	-	-	11240700	11230700
0.5 - 1.5	20 - 16	11221000	11236100	11221300	11238100	-	-	11220700	11235700
1.5 - 2.5	16 - 14	11223500	11228500	-	-	11223000	11228000	-	-

mm <sup>2</sup>	AWG	Reel of 2000: Right Hand Feed- Silver		Reel of 2000: Right Hand Feed- Gold		Reel of 2000: Left Hand Feed- Silver		Reel of 2000: Left Hand Feed- Gold	
		Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket
0.14 - 0.5	26 - 20	11240000	11230000	-	-	11240400	11230400	1124500	11230500
0.5 - 1.5	20 - 16	11220000	11235000	11220100	11235200	11226000	11226500	-	-
1.5 - 2.5	16 - 14	-	-	-	-	11222700	11227700	-	-

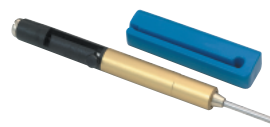
Part number= 1 contact (bags) or 1 reel.



Crimp Tool  
11147000



Locator  
11147300



Removal Tool: 11161000



Crimp Tool for Reel:  
11153500



**Crimp Dies**  
0.14-0.5: 11147170  
0.5-1.5: 11147180  
1.5-2.5: 11147190

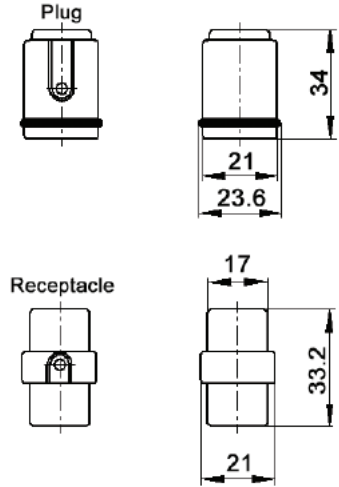
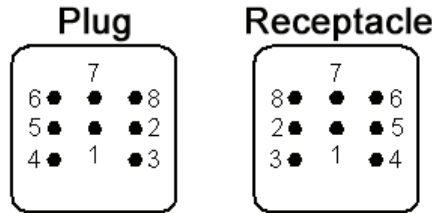
**Crimp Dies for Reel:**  
0.14-0.5: 11153600  
0.5-1.5: 11153700  
1.5-2.5: 11153800



### HD 8 CRIMP TERMINATED: MACHINE CONTACT INSERTS



View from Cable Side



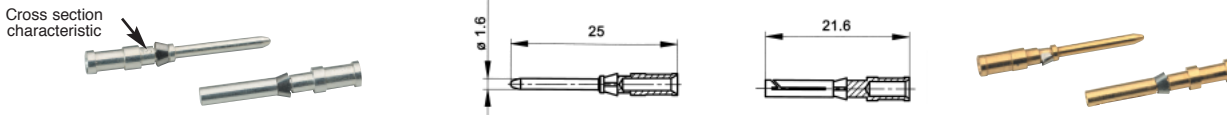
All dimensions are in mm.



Plug	Receptacle
11252500	11253500

Contacts Sold Separately

### MACHINE CONTACTS: DIAMETER 1.6 MM



mm <sup>2</sup>	AWG	Silver		Gold		Stripping Length (mm)	# of Marking Tracks
		Pin	Socket	Pin	Socket		
0.14 - 0.37	26 - 22	13162000	13163000	13162500	13163500	8	1
0.5	20	13162100	13163100	13162600	13163600	8	2
0.75 - 1.0	18	13162200	13163200	13162700	13163700	8	3
1.5	16	13162300	13163300	13162800	13163800	8	4
2.5	14	13162400	13163400	13162900	13163900	5.8	5

Part number= 1 contact



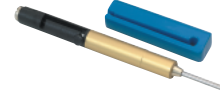
Crimp Tool  
11147000



Crimp Dies  
11147100



Locator  
11147200



Removal Tool:  
11161000

### FIBER OPTIC CONTACTS & TOOLS

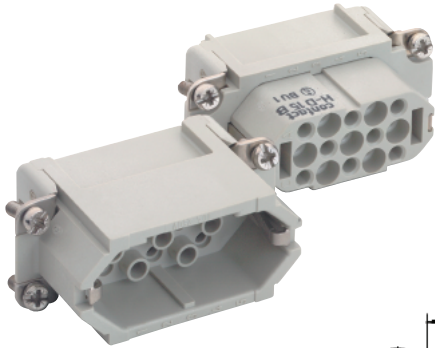


Pin	Socket
11214100	11219100

Fiber Optic Assembly Set
11184700



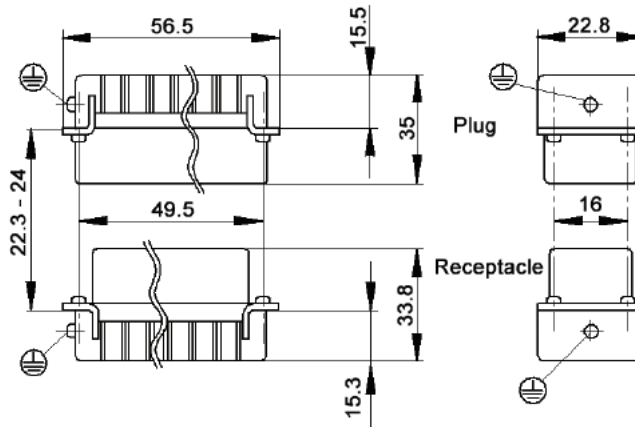
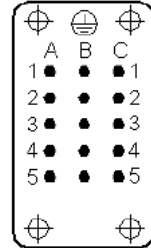
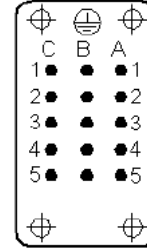
### HD 15 CRIMP TERMINATED: MACHINE CONTACT INSERTS



View from cable side

Plug

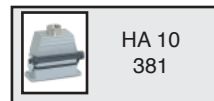
Receptacle



All dimensions are in mm.

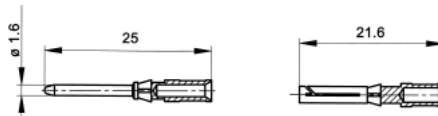
Contacts Sold Separately

Plug	Receptacle
11283200	11282200



### MACHINE CONTACTS: DIAMETER 1.6 MM

Cross section characteristic



mm <sup>2</sup>	AWG	Bags of 100				Stripping Length (mm)	# of Marking Tracks
		Silver		Gold			
		Pin	Socket	Pin	Socket		
0.14 - 0.37	26 - 22	13162000	13163000	13162500	13163500	8	1
0.5	20	13162100	13163100	13162600	13163600	8	2
0.75 - 1.0	18	13162200	13163200	13162700	13163700	8	3
1.5	16	13162300	13163300	13162800	13163800	8	4
2.5	14	13162400	13163400	13162900	13163900	5.8	5

Part number= 1 contact



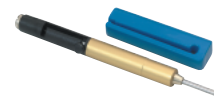
**Crimp Tool**  
11147000



**Crimp Dies**  
11147100

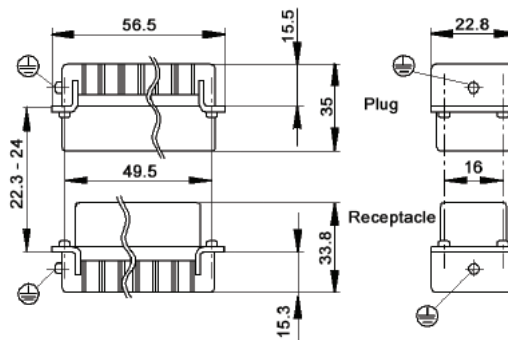
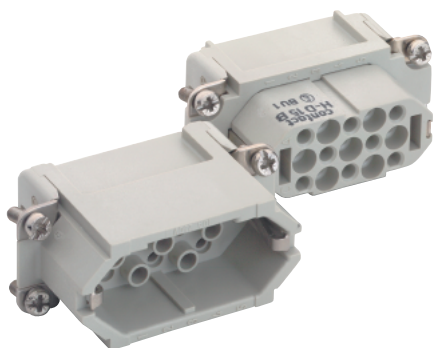


**Locator**  
11147200



**Removal Tool:**  
11161000

### HD 15 CRIMP TERMINATED: STAMPED & FORMED CONTACT INSERTS



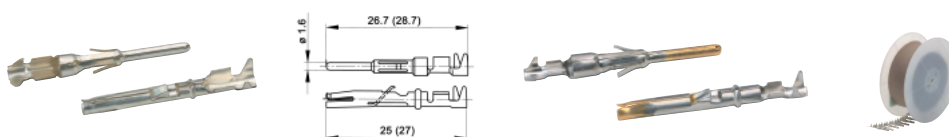
All dimensions are in mm.

Contacts Sold Separately

Plug	Receptacle
11255000	11256000



### STAMPED & FORMED CONTACTS: DIAMETER 1.6 MM



mm <sup>2</sup>	Stripping Length (mm)
0.14 - 0.5	2.5 - 0.5
0.5 - 1.5	3.5 - 0.5
1.5 - 2.5	3.5 - 0.5

		Bags of 100: Silver		Bags of 100: Gold		Reel of 100: Silver Left Hand Feed		Reel of 200: Silver Left Hand Feed	
mm <sup>2</sup>	AWG	Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket
0.14 - 0.5	26 - 20	11241100	11231100	11243100	11233100	-	-	11240700	11230700
0.5 - 1.5	20 - 16	11221000	11236100	11221300	11238100	-	-	11220700	11235700
1.5 - 2.5	16 - 14	11223500	11228500	-	-	11223000	11228000	-	-

mm <sup>2</sup>	AWG	Reel of 2000: Right Hand Feed- Silver		Reel of 2000: Right Hand Feed- Gold		Reel of 2000: Left Hand Feed- Silver		Reel of 2000: Left Hand Feed- Silver	
		Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket
0.14 - 0.5	26 - 20	11240000	11230000	-	-	11240400	11230400	11230500	11240500
0.5 - 1.5	20 - 16	11220000	11235000	11220100	11235200	11226000	11226500	-	-
1.5 - 2.5	16 - 14	-	-	-	-	11222700	11227700	-	-

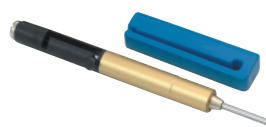
Part number= 1 contact (bags) or 1 reel.



**Crimp Tool**  
11147000



**Locator**  
11147300



**Removal Tool:** 11161000



**Crimp Tool for Reel:**  
11153500

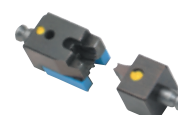


**Crimp Dies**

0.14-0.5:	11147170
0.5-1.5:	11147180
1.5-2.5:	11147190

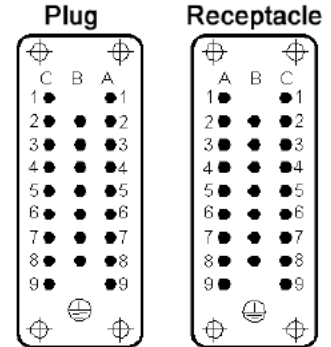
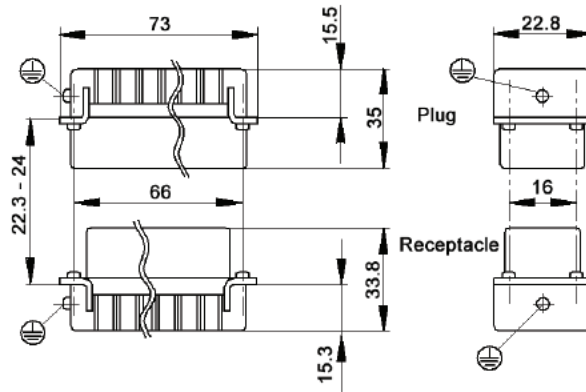
**Crimp Dies for Reel:**

0.14-0.5:	11153600
0.5-1.5:	11153700
1.5-2.5:	11153800



### HD 25 CRIMP TERMINATED: MACHINE CONTACT INSERTS

View from cable side

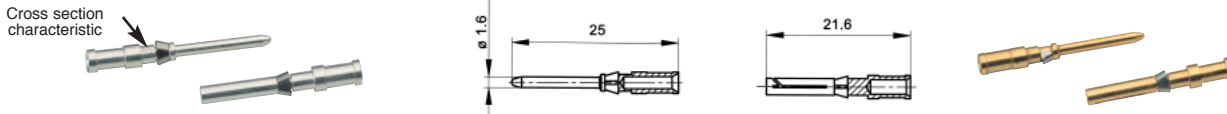


All dimensions are in mm.

Contacts Sold Separately

Plug	Receptacle
11283300	11282300

### MACHINE CONTACTS: DIAMETER 1.6 MM



Bags of 100							
mm <sup>2</sup>	AWG	Silver		Gold		Stripping Length (mm)	# of Marking Tracks
		Pin	Socket	Pin	Socket		
0.14 - 0.37	26 - 22	13162000	13163000	13162500	13163500	8	1
0.5	20	13162100	13163100	13162600	13163600	8	2
0.75 - 1.0	18	13162200	13163200	13162700	13163700	8	3
1.5	16	13162300	13163300	13162800	13163800	8	4
2.5	14	13162400	13163400	13162900	13163900	5.8	5

Part number= 1 contact



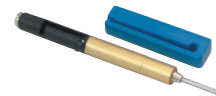
**Crimp Tool**  
11147000



**Crimp Dies**  
11147100

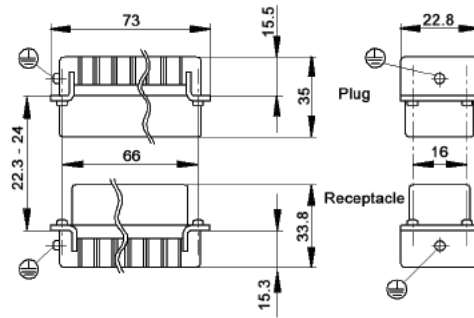


**Locator**  
11147200

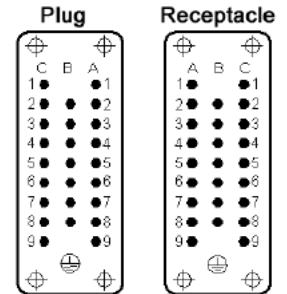


**Removal Tool:**  
11161000

### HD 25 CRIMP TERMINATED: STAMPED & FORMED CONTACT INSERTS



View from cable side



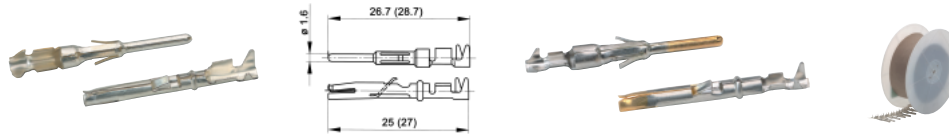
All dimensions are in mm.

Contacts Sold Separately

Plug	Receptacle
11260000	11261000



### STAMPED & FORMED CONTACTS: DIAMETER 1.6 MM



mm <sup>2</sup>	Stripping Length (mm)
0.14 - 0.5	2.5 - 0.5
0.5 - 1.5	3.5 - 0.5
1.5 - 2.5	3.5 - 0.5

		Bags of 100: Silver		Bags of 100: Gold		Reel of 100: Silver Left Hand Feed		Reel of 200: Silver Left Hand Feed	
mm <sup>2</sup>	AWG	Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket
0.14 - 0.5	26 - 20	11241100	11231100	11243100	11233100	-	-	11240700	11230700
0.5 - 1.5	20 - 16	11221000	11236100	11221300	11238100	-	-	11220700	11235700
1.5 - 2.5	16 - 14	11223500	11228500	-	-	11223000	11228000	-	-

mm <sup>2</sup>	AWG	Reel of 2000: Right Hand Feed- Silver		Reel of 2000: Right Hand Feed- Gold		Reel of 2000: Left Hand Feed- Silver		Reel of 2000: Left Hand Feed- Silver	
		Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket
0.14 - 0.5	26 - 20	11240000	11230000	-	-	11240400	11230400	11230500	11240500
0.5 - 1.5	20 - 16	11220000	11235000	11220100	11235200	11226000	11226500	-	-
1.5 - 2.5	16 - 14	-	-	-	-	11222700	11227700	-	-

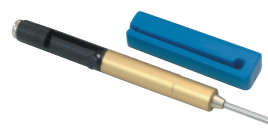
Part number= 1 contact (bags) or 1 reel.



**Crimp Tool**  
11147000



**Locator**  
11147300



**Removal Tool: 11161000**



**Crimp Tool for Reel:**  
11153500



**Crimp Dies**  
0.14-0.5: 11147170  
0.5-1.5: 11147180  
1.5-2.5: 11147190

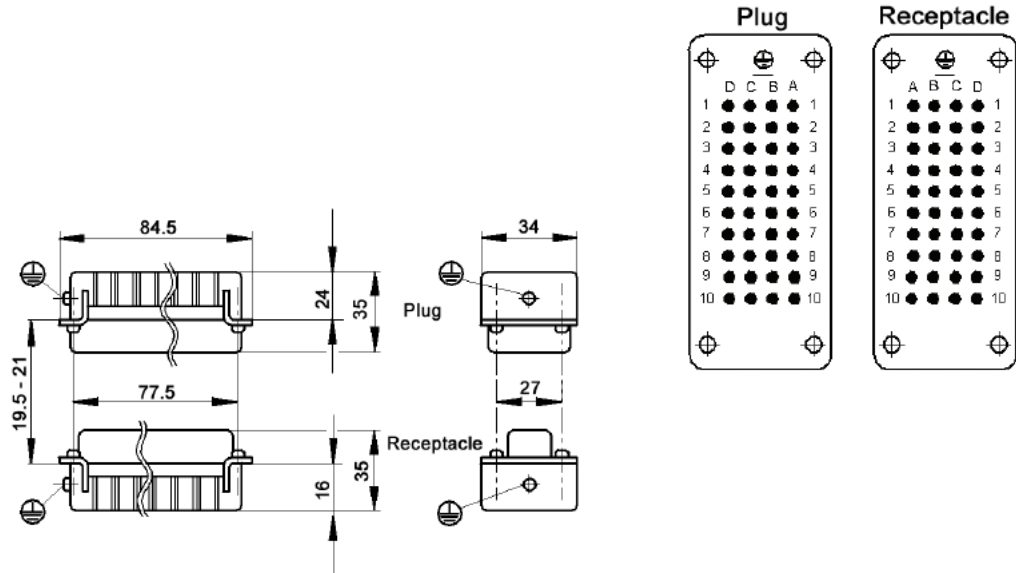
**Crimp Dies for Reel:**  
0.14-0.5: 11153600  
0.5-1.5: 11153700  
1.5-2.5: 11153800



### HD 40 CRIMP TERMINATED: MACHINE CONTACT INSERTS



View from cable side



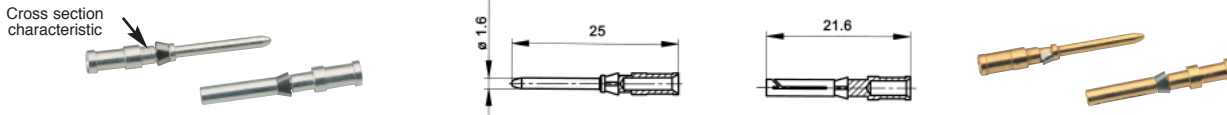
All dimensions are in mm.

Contacts Sold Separately

Plug	Receptacle
11265200	11266200



### MACHINE CONTACTS: DIAMETER 1.6 MM



Bags of 100							
mm <sup>2</sup>	AWG	Silver		Gold		Stripping Length (mm)	# of Marking Tracks
		Pin	Socket	Pin	Socket		
0.14 - 0.37	26 - 22	13162000	13163000	13162500	13163500	8	1
0.5	20	13162100	13163100	13162600	13163600	8	2
0.75 - 1.0	18	13162200	13163200	13162700	13163700	8	3
1.5	16	13162300	13163300	13162800	13163800	8	4
2.5	14	13162400	13163400	13162900	13163900	5.8	5

Part number= 1 contact



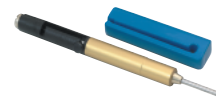
**Crimp Tool**  
11147000



**Crimp Dies**  
11147100



**Locator**  
11147200

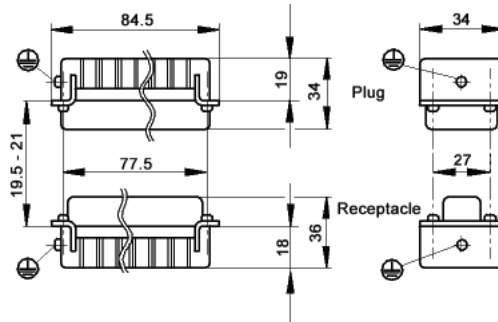


**Removal Tool:**  
11161000

### HD 40 CRIMP TERMINATED: STAMPED & FORMED CONTACT INSERTS

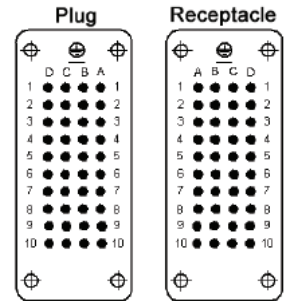


Contacts Sold Separately



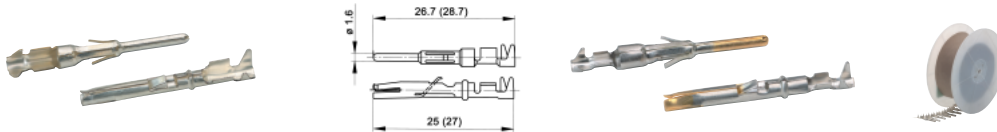
All dimensions are in mm.

View from cable side



Plug	Receptacle
11265000	11266000

### STAMPED & FORMED CONTACTS: DIAMETER 1.6 MM



mm <sup>2</sup>	Stripping Length (mm)
0.14 - 0.5	2.5 - 0.5
0.5 - 1.5	3.5 - 0.5
1.5 - 2.5	3.5 - 0.5

		Bags of 100: Silver		Bags of 100: Gold		Reel of 100: Silver Left Hand Feed		Reel of 200: Silver Left Hand Feed	
mm <sup>2</sup>	AWG	Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket
0.14 - 0.5	26 - 20	11241100	11231100	11243100	11233100	-	-	11240700	11230700
0.5 - 1.5	20 - 16	11221000	11236100	11221300	11238100	-	-	11220700	11235700
1.5 - 2.5	16 - 14	11223500	11228500	-	-	11223000	11228000	-	-

mm <sup>2</sup>	AWG	Reel of 2000: Right Hand Feed- Silver		Reel of 2000: Right Hand Feed- Gold		Reel of 2000: Left Hand Feed- Silver		Reel of 2000: Left Hand Feed- Silver	
		Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket
0.14 - 0.5	26 - 20	11240000	11230000	-	-	11240400	11230400	11230500	11240500
0.5 - 1.5	20 - 16	11220000	11235000	11220100	11235200	11226000	11226500	-	-
1.5 - 2.5	16 - 14	-	-	-	-	11222700	11227700	-	-

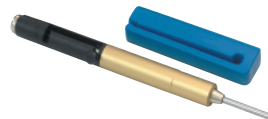
Part number= 1 contact (bags) or 1 reel.



**Crimp Tool**  
11147000



**Locator**  
11147300



**Removal Tool:** 11161000



**Crimp Tool for Reel:**  
11153500



**Crimp Dies**

0.14-0.5:	11147170
0.5-1.5:	11147180
1.5-2.5:	11147190

**Crimp Dies for Reel:**

0.14-0.5:	11153600
0.5-1.5:	11153700
1.5-2.5:	11153800



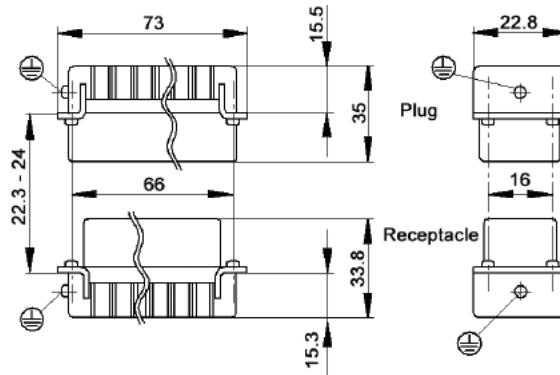
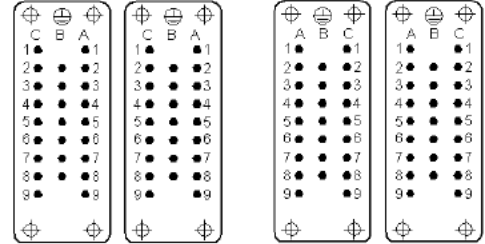
### HD 50 CRIMP TERMINATED: MACHINE CONTACT INSERTS

View from cable side



Plugs

Receptacles



All dimensions are in mm.

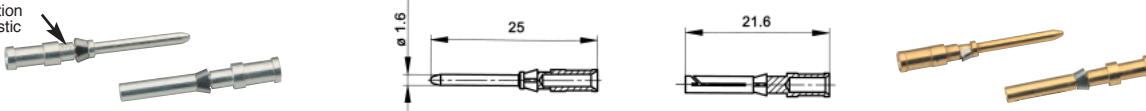
Contacts Sold Separately

Plug	Receptacle
11283300 (2X)	11282300 (2X)



### MACHINE CONTACTS: DIAMETER 1.6 MM

Cross section characteristic



Bags of 100

mm <sup>2</sup>	AWG	Silver		Gold		Stripping Length (mm)	# of Marking Tracks
		Pin	Socket	Pin	Socket		
0.14 - 0.37	26 - 22	13162000	13163000	13162500	13163500	8	1
0.5	20	13162100	13163100	13162600	13163600	8	2
0.75 - 1.0	18	13162200	13163200	13162700	13163700	8	3
1.5	16	13162300	13163300	13162800	13163800	8	4
2.5	14	13162400	13163400	13162900	13163900	5.8	5

Part number= 1 contact



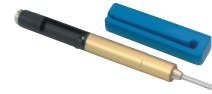
Crimp Tool  
11147000



Crimp Dies  
11147100

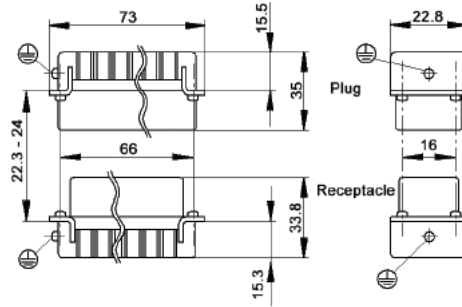


Locator  
11147200

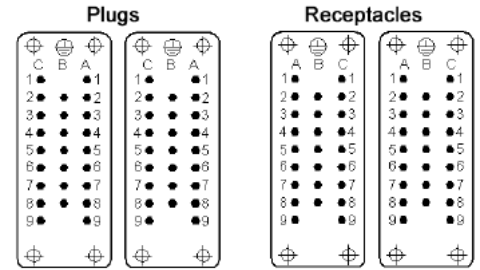


Removal Tool:  
11161000

### HD 50 CRIMP TERMINATED: STAMPED & FORMED CONTACT INSERTS



View from cable side



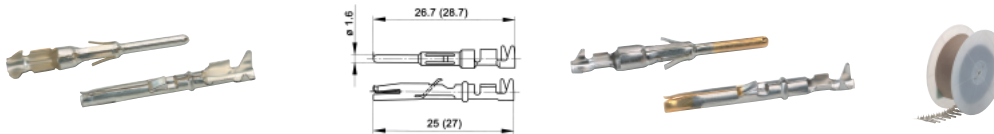
All dimensions are in mm.



Plug	Receptacle
11260000 (2X)	11261000 (2X)

Contacts Sold Separately

### STAMPED & FORMED CONTACTS: DIAMETER 1.6 MM



mm <sup>2</sup>	Stripping Length (mm)
0.14 - 0.5	2.5 - 0.5
0.5 - 1.5	3.5 - 0.5
1.5 - 2.5	3.5 - 0.5

		Bags of 100: Silver		Bags of 100: Gold		Reel of 100: Silver Left Hand Feed		Reel of 200: Silver Left Hand Feed	
mm <sup>2</sup>	AWG	Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket
0.14 - 0.5	26 - 20	11241100	11231100	11243100	11233100	-	-	11240700	11230700
0.5 - 1.5	20 - 16	11221000	11236100	11221300	11238100	-	-	11220700	11235700
1.5 - 2.5	16 - 14	11223500	11228500	-	-	11223000	11228000	-	-

mm <sup>2</sup>	AWG	Reel of 2000: Right Hand Feed- Silver		Reel of 2000: Right Hand Feed- Gold		Reel of 2000: Left Hand Feed- Silver		Reel of 2000: Left Hand Feed- Silver	
		Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket
0.14 - 0.5	26 - 20	11240000	11230000	-	-	11240400	11230400	11230500	11240500
0.5 - 1.5	20 - 16	11220000	11235000	11220100	11235200	11226000	11226500	-	-
1.5 - 2.5	16 - 14	-	-	-	-	11222700	11227700	-	-

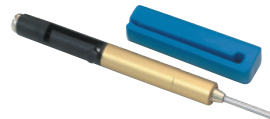
Part number= 1 contact (bags) or 1 reel.



**Crimp Tool**  
11147000



**Locator**  
11147300



**Removal Tool:** 11161000



**Crimp Tool for Reel:**  
11153500

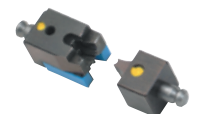


**Crimp Dies**

0.14-0.5:	11147170
0.5-1.5:	11147180
1.5-2.5:	11147190

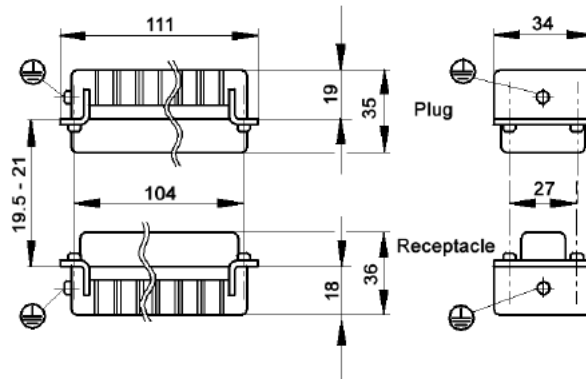
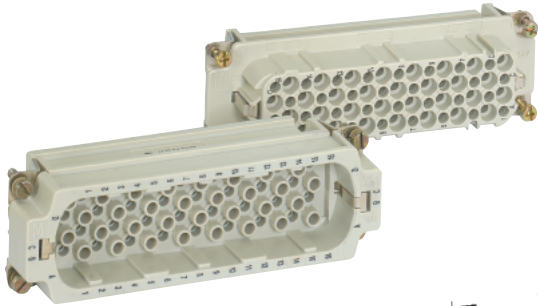
**Crimp Dies for Reel:**

0.14-0.5:	11153600
0.5-1.5:	11153700
1.5-2.5:	11153800

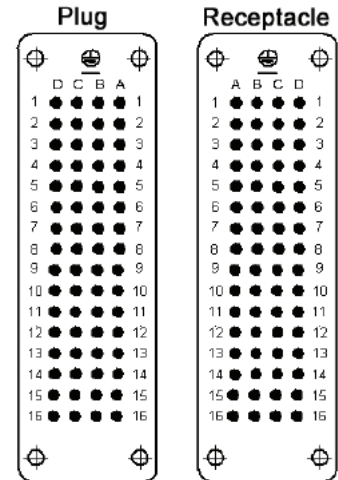


### HD 64 CRIMP TERMINATED: MACHINE CONTACT INSERTS

View from cable side



All dimensions are in mm.



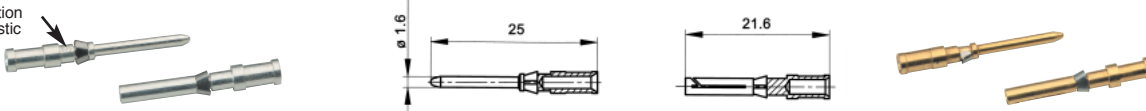
Contacts Sold Separately

Plug	Receptacle
11272000	11273000



### MACHINE CONTACTS: DIAMETER 1.6 MM

Cross section characteristic



Bags of 100

mm <sup>2</sup>	AWG	Silver		Gold		Stripping Length (mm)	# of Marking Tracks
		Pin	Socket	Pin	Socket		
0.14 - 0.37	26 - 22	13162000	13163000	13162500	13163500	8	1
0.5	20	13162100	13163100	13162600	13163600	8	2
0.75 - 1.0	18	13162200	13163200	13162700	13163700	8	3
1.5	16	13162300	13163300	13162800	13163800	8	4
2.5	14	13162400	13163400	13162900	13163900	5.8	5

Part number= 1 contact



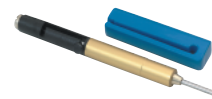
**Crimp Tool**  
11147000



**Crimp Dies**  
11147100



**Locator**  
11147200



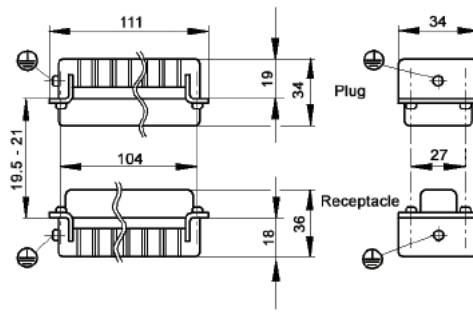
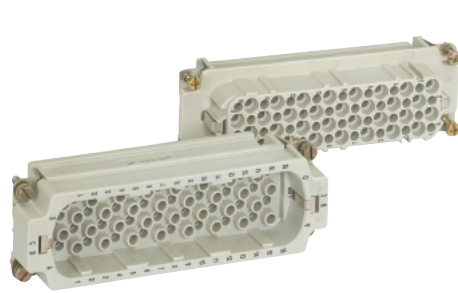
**Removal Tool:**  
11161000

# EPIC® Rectangular Connectors

HD Series

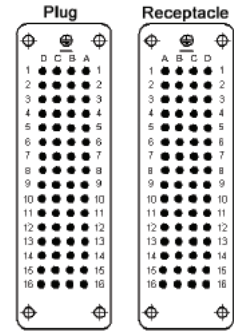


## HD 64 CRIMP TERMINATED: STAMPED & FORMED CONTACT INSERTS



All dimensions are in mm.

View from cable side

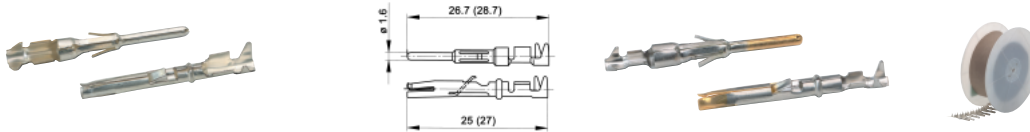


Contacts Sold Separately

Plug	Receptacle
11270000	11271000



## STAMPED & FORMED CONTACTS: DIAMETER 1.6 MM



mm <sup>2</sup>	Stripping Length (mm)
0.14 - 0.5	2.5 - 0.5
0.5 - 1.5	3.5 - 0.5
1.5 - 2.5	3.5 - 0.5

		Bags of 100: Silver		Bags of 100: Gold		Reel of 100: Silver Left Hand Feed		Reel of 200: Silver Left Hand Feed	
mm <sup>2</sup>	AWG	Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket
0.14 - 0.5	26 - 20	11241100	11231100	11243100	11233100	-	-	11240700	11230700
0.5 - 1.5	20 - 16	11221000	11236100	11221300	11238100	-	-	11220700	11235700
1.5 - 2.5	16 - 14	11223500	11228500	-	-	11223000	11228000	-	-

mm <sup>2</sup>	AWG	Reel of 2000: Right Hand Feed- Silver		Reel of 2000: Right Hand Feed- Gold		Reel of 2000: Left Hand Feed- Silver		Reel of 2000: Left Hand Feed- Silver	
		Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket
0.14 - 0.5	26 - 20	11240000	11230000	-	-	11240400	11230400	11230500	11240500
0.5 - 1.5	20 - 16	11220000	11235000	11220100	11235200	11226000	11226500	-	-
1.5 - 2.5	16 - 14	-	-	-	-	11222700	11227700	-	-

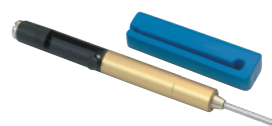
Part number= 1 contact (bags) or 1 reel.



**Crimp Tool**  
11147000



**Locator**  
11147300



**Removal Tool: 11161000**



**Crimp Tool for Reel:**  
11153500



**Crimp Dies**

0.14-0.5:	11147170
0.5-1.5:	11147180
1.5-2.5:	11147190

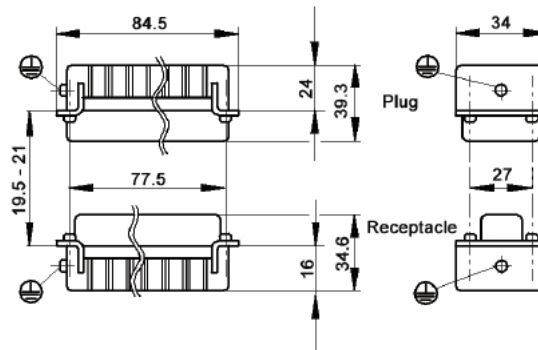
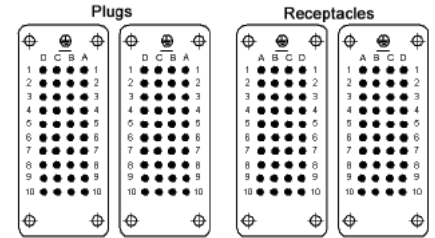
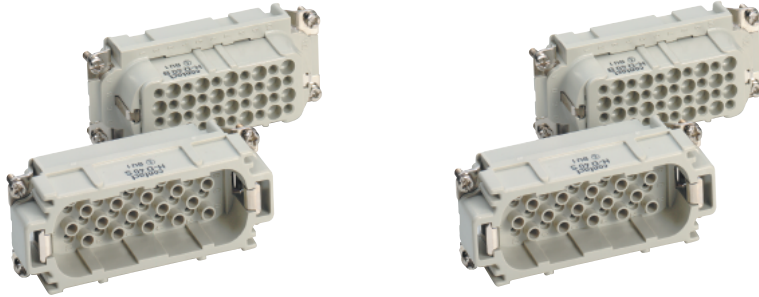
**Crimp Dies for Reel:**

0.14-0.5:	11153600
0.5-1.5:	11153700
1.5-2.5:	11153800



### HD 80 CRIMP TERMINATED: MACHINE CONTACT INSERTS

View from cable side



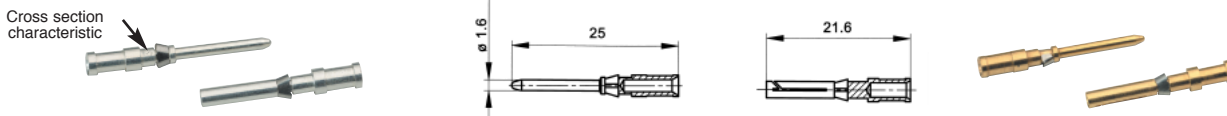
All dimensions are in mm.

Contacts Sold Separately

Plug	Receptacle
11265200 (2x)	11266200 (2X)



### MACHINE CONTACTS: DIAMETER 1.6 MM



Bags of 100							
mm <sup>2</sup>	AWG	Silver		Gold		Stripping Length (mm)	# of Marking Tracks
		Pin	Socket	Pin	Socket		
0.14 - 0.37	26 - 22	13162000	13163000	13162500	13163500	8	1
0.5	20	13162100	13163100	13162600	13163600	8	2
0.75 - 1.0	18	13162200	13163200	13162700	13163700	8	3
1.5	16	13162300	13163300	13162800	13163800	8	4
2.5	14	13162400	13163400	13162900	13163900	5.8	5

Part number= 1 contact



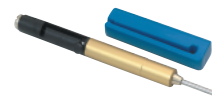
Crimp Tool  
11147000



Crimp Dies  
11147100



Locator  
11147200



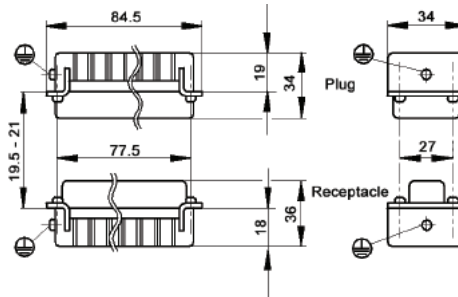
Removal Tool:  
11161000

# EPIC® Rectangular Connectors

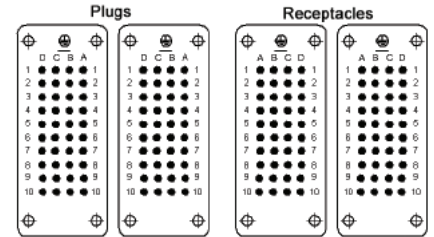
HD Series



## HD 80 CRIMP TERMINATED: STAMPED & FORMED CONTACT INSERTS



View from cable side



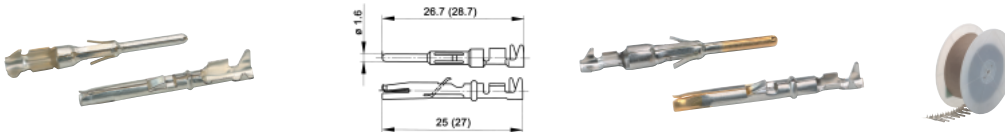
All dimensions are in mm.

Contacts Sold Separately

Plug	Receptacle
11265000 (2X)	11266000 (2X)



## STAMPED & FORMED CONTACTS: DIAMETER 1.6 MM



mm <sup>2</sup>	Stripping Length (mm)
0.14 - 0.5	2.5 - 0.5
0.5 - 1.5	3.5 - 0.5
1.5 - 2.5	3.5 - 0.5

		Bags of 100: Silver		Bags of 100: Gold		Reel of 100: Silver Left Hand Feed		Reel of 200: Silver Left Hand Feed	
mm <sup>2</sup>	AWG	Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket
0.14 - 0.5	26 - 20	11241100	11231100	11243100	11233100	-	-	11240700	11230700
0.5 - 1.5	20 - 16	11221000	11236100	11221300	11238100	-	-	11220700	11235700
1.5 - 2.5	16 - 14	11223500	11228500	-	-	11223000	11228000	-	-

mm <sup>2</sup>	AWG	Reel of 2000: Right Hand Feed- Silver		Reel of 2000: Right Hand Feed- Gold		Reel of 2000: Left Hand Feed- Silver		Reel of 2000: Left Hand Feed- Silver	
		Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket
0.14 - 0.5	26 - 20	11240000	11230000	-	-	11240400	11230400	11230500	11240500
0.5 - 1.5	20 - 16	11220000	11235000	11220100	11235200	11226000	11226500	-	-
1.5 - 2.5	16 - 14	-	-	-	-	11222700	11227700	-	-

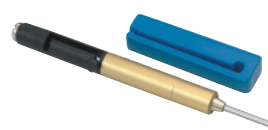
Part number= 1 contact (bags) or 1 reel.



**Crimp Tool**  
11147000



**Locator**  
11147300



**Removal Tool: 11161000**



**Crimp Tool for Reel:**  
11153500



**Crimp Dies**

0.14-0.5:	11147170
0.5-1.5:	11147180
1.5-2.5:	11147190

**Crimp Dies for Reel:**

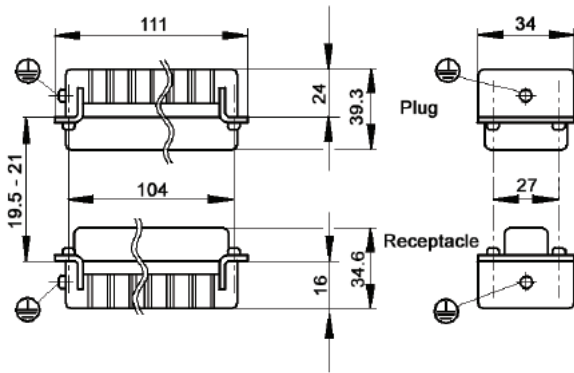
0.14-0.5:	11153600
0.5-1.5:	11153700
1.5-2.5:	11153800



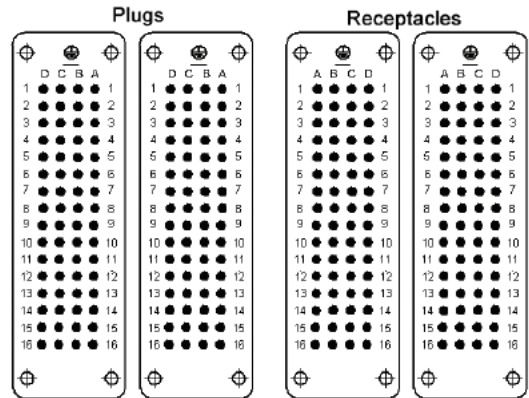
### HD 128 CRIMP TERMINATED: MACHINE CONTACT INSERTS



View from cable side



All dimensions are in mm.

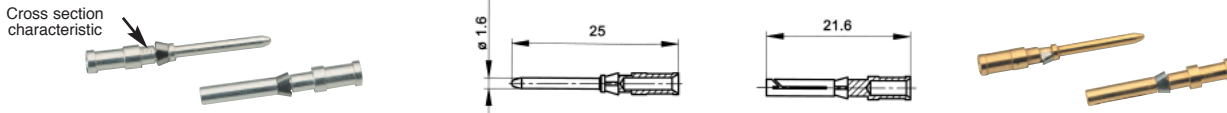


Contacts Sold Separately

Plug	Receptacle
11272000 (2x)	11273000 (2X)



### MACHINE CONTACTS: DIAMETER 1.6 MM



Bags of 100							
mm <sup>2</sup>	AWG	Silver		Gold		Stripping Length (mm)	# of Marking Tracks
		Pin	Socket	Pin	Socket		
0.14 - 0.37	26 - 22	13162000	13163000	13162500	13163500	8	1
0.5	20	13162100	13163100	13162600	13163600	8	2
0.75 - 1.0	18	13162200	13163200	13162700	13163700	8	3
1.5	16	13162300	13163300	13162800	13163800	8	4
2.5	14	13162400	13163400	13162900	13163900	5.8	5

Part number= 1 contact



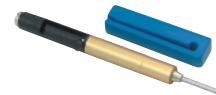
Crimp Tool  
11147000



Crimp Dies  
11147100



Locator  
11147200



Removal Tool:  
11161000

# EPIC® Rectangular Connectors

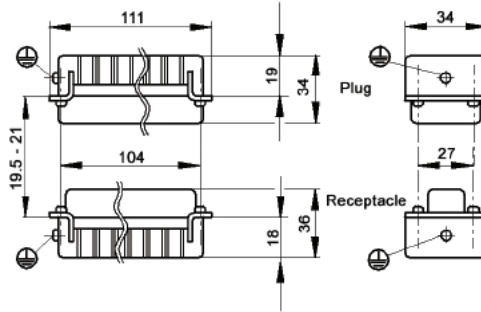
HD Series



## HD 128 CRIMP TERMINATED: STAMPED & FORMED CONTACT INSERTS

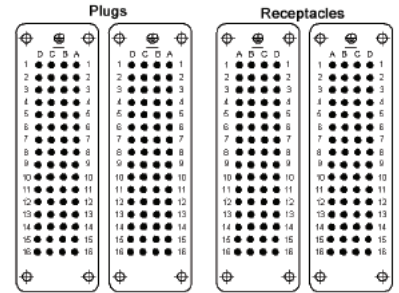


Contacts Sold Separately



All dimensions are in mm.

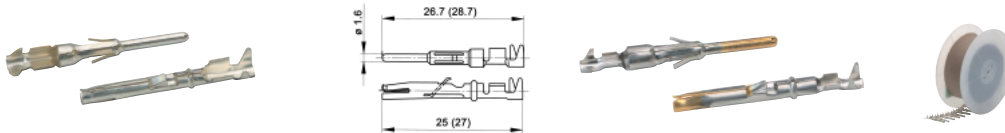
View from cable side



Plug	Receptacle
11270000 (2X)	11271000 (2X)



## STAMPED & FORMED CONTACTS: DIAMETER 1.6 MM



mm <sup>2</sup>	Stripping Length (mm)
0.14 - 0.5	2.5 - 0.5
0.5 - 1.5	3.5 - 0.5
1.5 - 2.5	3.5 - 0.5

		Bags of 100: Silver		Bags of 100: Gold		Reel of 100: Silver Left Hand Feed		Reel of 200: Silver Left Hand Feed	
mm <sup>2</sup>	AWG	Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket
0.14 - 0.5	26 - 20	11241100	11231100	11243100	11233100	-	-	11240700	11230700
0.5 - 1.5	20 - 16	11221000	11236100	11221300	11238100	-	-	11220700	11235700
1.5 - 2.5	16 - 14	11223500	11228500	-	-	11223000	11228000	-	-

mm <sup>2</sup>	AWG	Reel of 2000: Right Hand Feed- Silver		Reel of 2000: Right Hand Feed- Gold		Reel of 2000: Left Hand Feed- Silver		Reel of 2000: Left Hand Feed- Silver	
		Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket
0.14 - 0.5	26 - 20	11240000	11230000	-	-	11240400	11230400	11230500	11240500
0.5 - 1.5	20 - 16	11220000	11235000	11220100	11235200	11226000	11226500	-	-
1.5 - 2.5	16 - 14	-	-	-	-	11222700	11227700	-	-

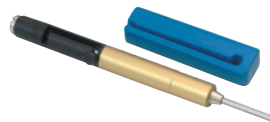
Part number= 1 contact (bags) or 1 reel.



**Crimp Tool**  
11147000



**Locator**  
11147300



**Removal Tool:** 11161000



**Crimp Tool for Reel:**  
11153500



**Crimp Dies**

0.14-0.5:	11147170
0.5-1.5:	11147180
1.5-2.5:	11147190

**Crimp Dies for Reel:**

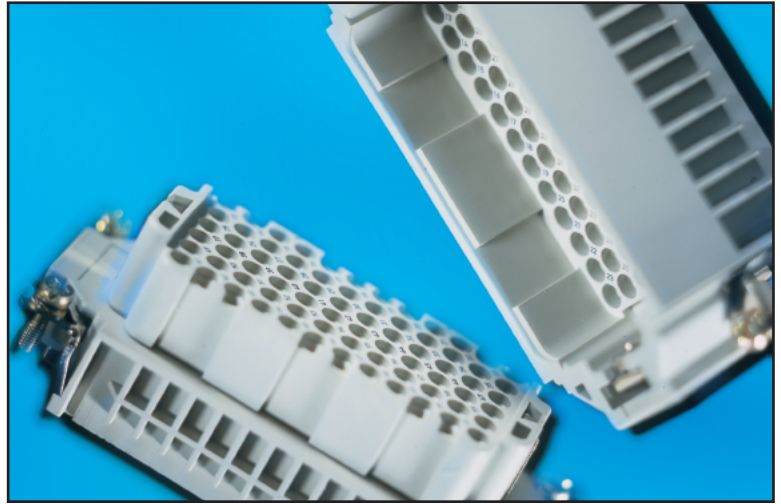
0.14-0.5:	11153600
0.5-1.5:	11153700
1.5-2.5:	11153800



## HDD Series

The HDD series machined contact inserts are designed for a large number of contacts in narrow spaces.

These inserts fit into the HBE Series housings.

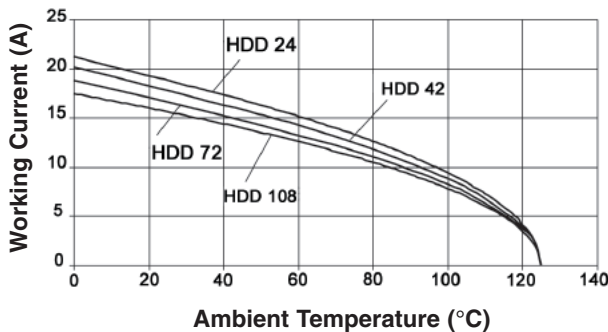


## TECHNICAL DATA

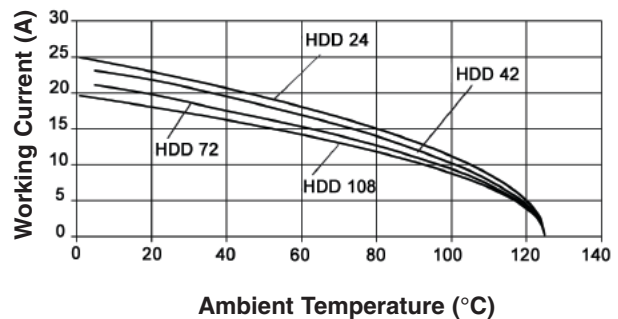
<b>Inserts:</b>		<b>Pollution Level:</b>	2
<b>Number of Contacts:</b>	24, 42, 72, 108, 144, 216 (+PE)	<b>Test Voltage:</b>	2.5 kV
<b>Rated Voltage:</b>	VDE: 250V EPIC HDD 24 - 216 UL: 600V EPIC HDD 24 - 216 CSA: 600V EPIC HDD 24 - 216	<b>Termination Type:</b>	Crimp termination: 0.14 - 2.5mm <sup>2</sup> AWG: 22 - 14
<b>Rated Current:</b>	VDE: 10A EPIC HDD 24 - 216 UL: 8.5A EPIC HDD 24 - 216 CSA: 10A EPIC HDD 24 - 216	<b>Temperature Range:</b>	-40°C to +125°C
		<b>Contacts:</b>	Copper alloy, silver plated/ gold plated
		<b>Contact Resistance:</b>	<2mOhm
		<b>Mating Cycles:</b>	100 (higher mating cycles depends on the application)

## HDD INSERTS TECHNICAL DATA: DERATING CURVES

**HDD CRIMP: 1.5 mm<sup>2</sup> (16 AWG)**



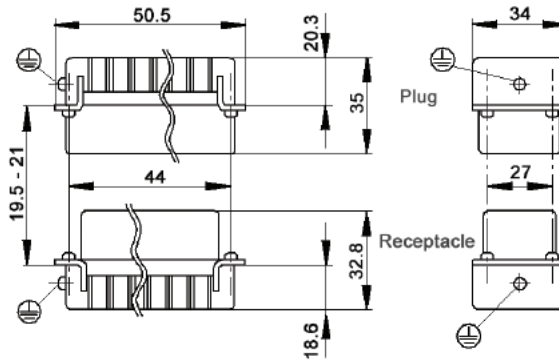
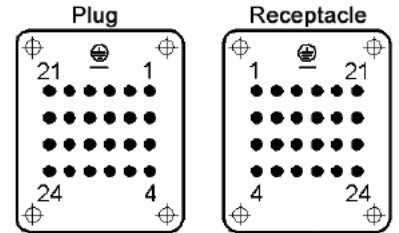
**HDD CRIMP: 2.5 mm<sup>2</sup> (14 AWG)**



### HDD 24 CRIMP TERMINATED: MACHINE CONTACT INSERTS



View from Cable Side



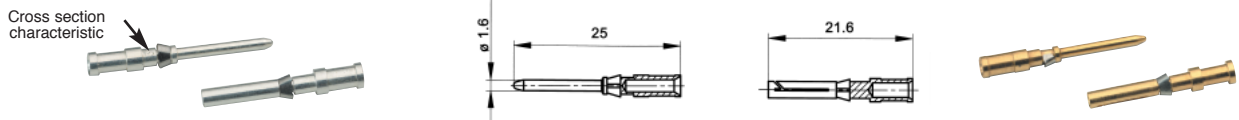
All dimensions are in mm.

Contacts Sold Separately

Plug	Receptacle
11285000	11286000



### MACHINE CONTACTS: DIAMETER 1.6 MM



Bags of 100							
mm <sup>2</sup>	AWG	Silver		Gold		Stripping Length (mm)	# of Marking Tracks
		Pin	Socket	Pin	Socket		
0.14 - 0.37	26 - 22	13162000	13163000	13162500	13163500	8	1
0.5	20	13162100	13163100	13162600	13163600	8	2
0.75 - 1.0	18	13162200	13163200	13162700	13163700	8	3
1.5	16	13162300	13163300	13162800	13163800	8	4
2.5	14	13162400	13163400	13162900	13163900	5.8	5

Part number= 1 contact



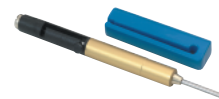
**Crimp Tool**  
11147000



**Crimp Dies**  
11147100



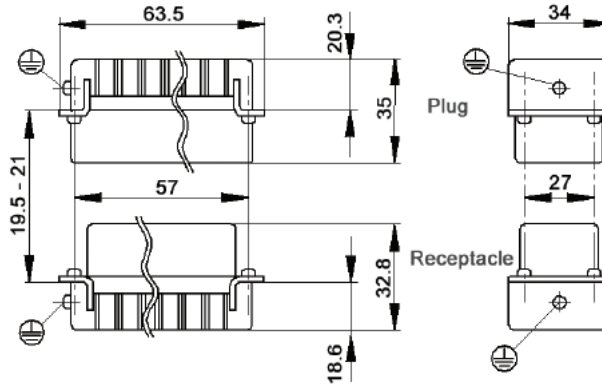
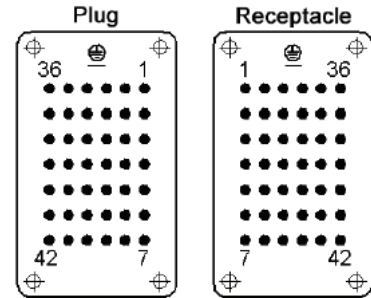
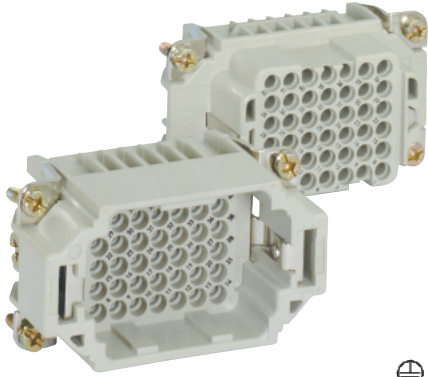
**Locator**  
11147200



**Removal Tool:**  
11161000

### HDD 42 CRIMP TERMINATED: MACHINE CONTACT INSERTS

View from Cable Side



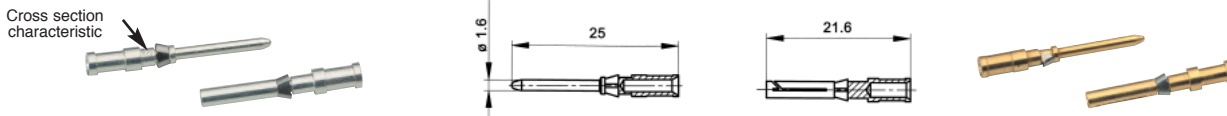
All dimensions are in mm.

Contacts Sold Separately

Plug	Receptacle
11285100	11286100



### MACHINE CONTACTS: DIAMETER 1.6 MM



Bags of 100							
mm <sup>2</sup>	AWG	Silver		Gold		Stripping Length (mm)	# of Marking Tracks
		Pin	Socket	Pin	Socket		
0.14 - 0.37	26 - 22	13162000	13163000	13162500	13163500	8	1
0.5	20	13162100	13163100	13162600	13163600	8	2
0.75 - 1.0	18	13162200	13163200	13162700	13163700	8	3
1.5	16	13162300	13163300	13162800	13163800	8	4
2.5	14	13162400	13163400	13162900	13163900	5.8	5

Part number= 1 contact



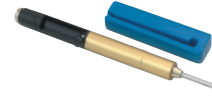
**Crimp Tool**  
11147000



**Crimp Dies**  
11147100



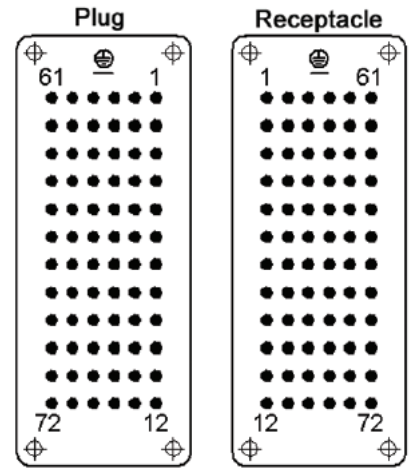
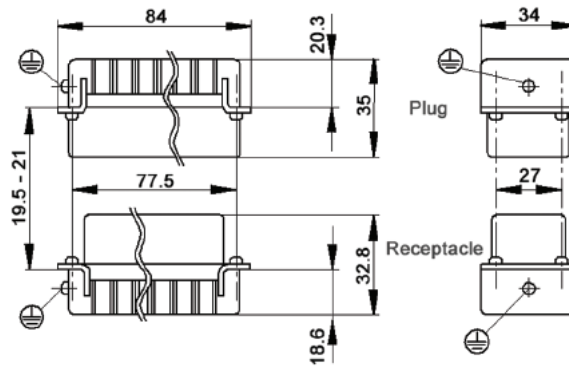
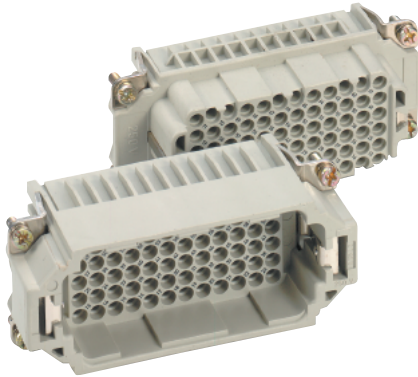
**Locator**  
11147200



**Removal Tool:**  
11161000

### HDD 72 CRIMP TERMINATED: MACHINE CONTACT INSERTS

View from Cable Side



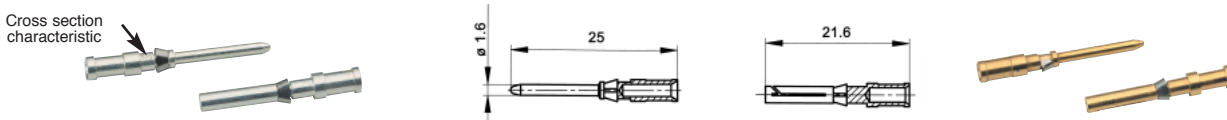
All dimensions are in mm.

Contacts Sold Separately

Plug	Receptacle
11285200	11286200



### MACHINE CONTACTS: DIAMETER 1.6 MM



Bags of 100

mm <sup>2</sup>	AWG	Silver		Gold		Stripping Length (mm)	# of Marking Tracks
		Pin	Socket	Pin	Socket		
0.14 - 0.37	26 - 22	13162000	13163000	13162500	13163500	8	1
0.5	20	13162100	13163100	13162600	13163600	8	2
0.75 - 1.0	18	13162200	13163200	13162700	13163700	8	3
1.5	16	13162300	13163300	13162800	13163800	8	4
2.5	14	13162400	13163400	13162900	13163900	5.8	5

Part number= 1 contact



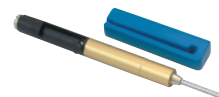
**Crimp Tool**  
11147000



**Crimp Dies**  
11147100



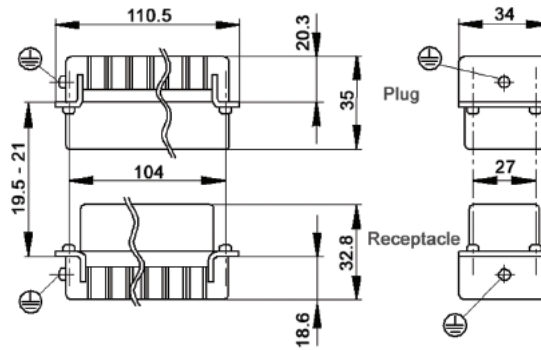
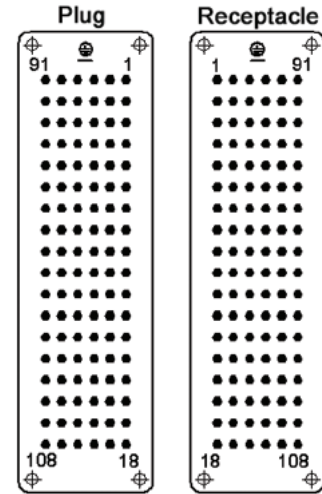
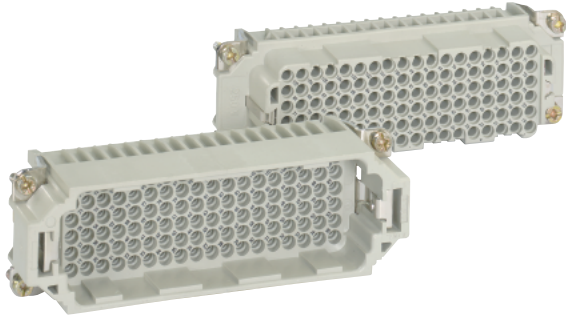
**Locator**  
11147200



**Removal Tool:**  
11161000

### HDD 108 CRIMP TERMINATED: MACHINE CONTACT INSERTS

View from Cable Side



All dimensions are in mm.

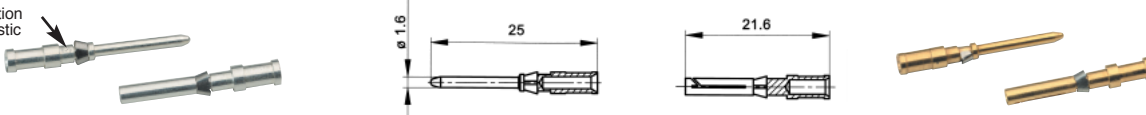


Plug	Receptacle
11285300	11286300

Contacts Sold Separately

### MACHINE CONTACTS: DIAMETER 1.6 MM

Cross section characteristic



Bags of 100

mm <sup>2</sup>	AWG	Silver		Gold		Stripping Length (mm)	# of Marking Tracks
		Pin	Socket	Pin	Socket		
0.14 - 0.37	26 - 22	13162000	13163000	13162500	13163500	8	1
0.5	20	13162100	13163100	13162600	13163600	8	2
0.75 - 1.0	18	13162200	13163200	13162700	13163700	8	3
1.5	16	13162300	13163300	13162800	13163800	8	4
2.5	14	13162400	13163400	13162900	13163900	5.8	5

Part number= 1 contact



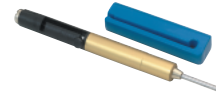
Crimp Tool  
11147000



Crimp Dies  
11147100

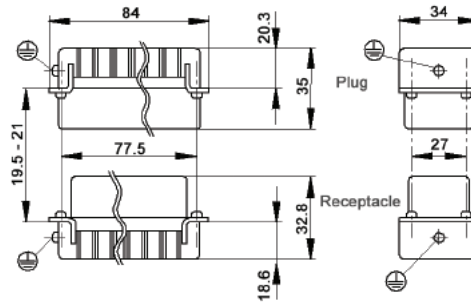
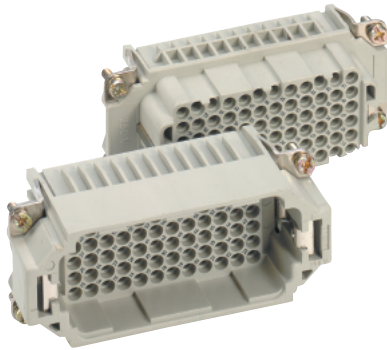


Locator  
11147200



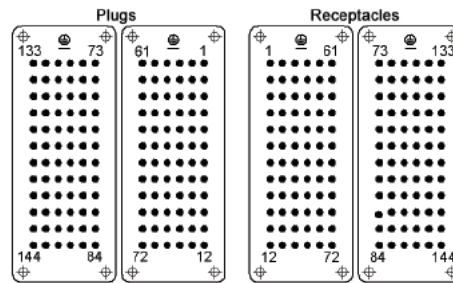
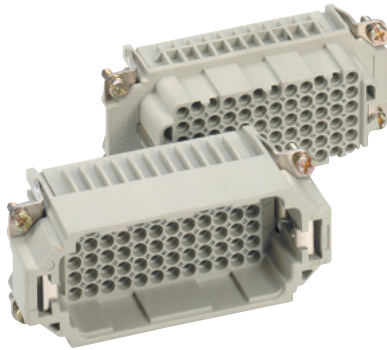
Removal Tool:  
11161000

### HDD 144 CRIMP TERMINATED: MACHINE CONTACT INSERTS



All dimensions are in mm.

View from Cable Side



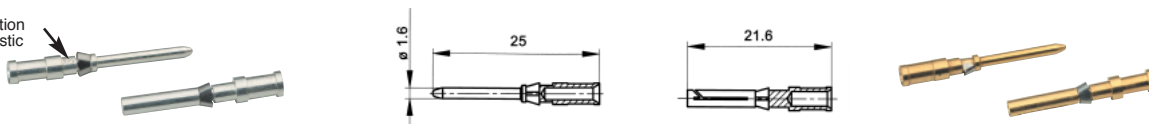
Contacts Sold Separately

Description	Plug	Receptacle
#1-72	11285200	11286200
#73-144	11285400	11286400



### MACHINE CONTACTS: DIAMETER 1.6 MM

Cross section characteristic



mm <sup>2</sup>	AWG	Bags of 100				Stripping Length (mm)	# of Marking Tracks
		Silver		Gold			
		Pin	Socket	Pin	Socket		
0.14 - 0.37	26 - 22	13162000	13163000	13162500	13163500	8	1
0.5	20	13162100	13163100	13162600	13163600	8	2
0.75 - 1.0	18	13162200	13163200	13162700	13163700	8	3
1.5	16	13162300	13163300	13162800	13163800	8	4
2.5	14	13162400	13163400	13162900	13163900	5.8	5

Part number= 1 contact



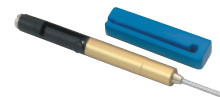
Crimp Tool  
11147000



Crimp Dies  
11147100

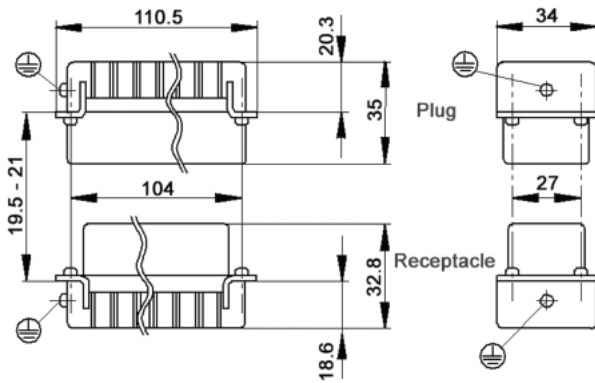


Locator  
11147200

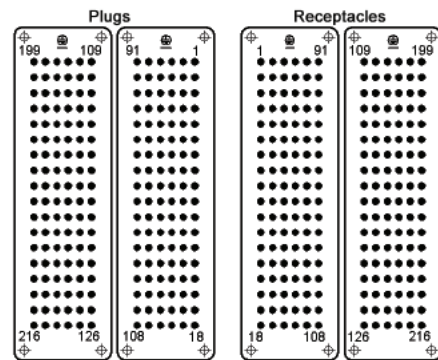


Removal Tool:  
11161000

### HDD 216 CRIMP TERMINATED: MACHINE CONTACT INSERTS



View from Cable Side



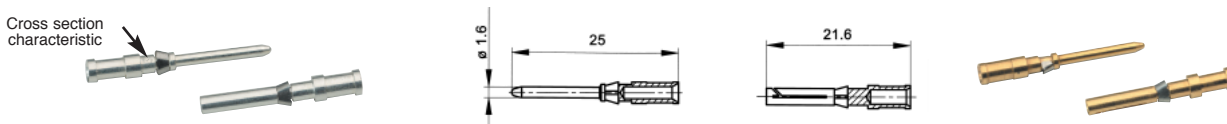
All dimensions are in mm.

Contacts Sold Separately

Description	Plug	Receptacle
#1-108	11285300	11286300
#109-216	11285500	11286500



### MACHINE CONTACTS: DIAMETER 1.6 MM



Bags of 100							
mm <sup>2</sup>	AWG	Silver		Gold		Stripping Length (mm)	# of Marking Tracks
		Pin	Socket	Pin	Socket		
0.14 - 0.37	26 - 22	13162000	13163000	13162500	13163500	8	1
0.5	20	13162100	13163100	13162600	13163600	8	2
0.75 - 1.0	18	13162200	13163200	13162700	13163700	8	3
1.5	16	13162300	13163300	13162800	13163800	8	4
2.5	14	13162400	13163400	13162900	13163900	5.8	5

Part number= 1 contact



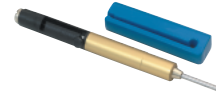
**Crimp Tool**  
11147000



**Crimp Dies**  
11147100



**Locator**  
11147200



**Removal Tool:**  
11161000

# EPIC<sup>®</sup> Rectangular Connectors

## MC Series

The MC Modular Series connector can be custom configured to meet application requirements by combining a variety of standard plug-and-play modules within various size support frames. Configurations include contacts for power and control, thermocouple contacts, data modules for Profibus and Ethernet, and pneumatic modules.



## TECHNICAL DATA

### Inserts:

**Number of Contacts:** 2 - 280 (+PE)  
**Rated Voltage:** VDE: 30 - 1000V  
 UL: 100 - 600V  
 CSA: 100 - 600V

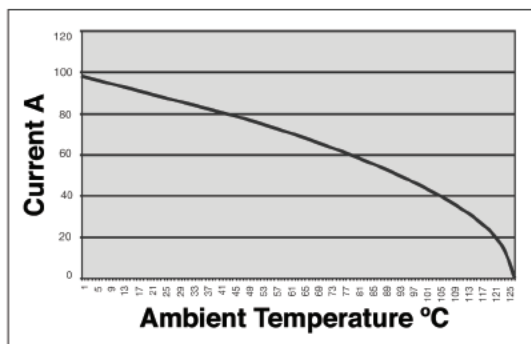
**Rated Current:** VDE: 1 - 82A  
 UL: 4 - 82A  
 CSA: 4 - 82A

**Pollution Level:** 3

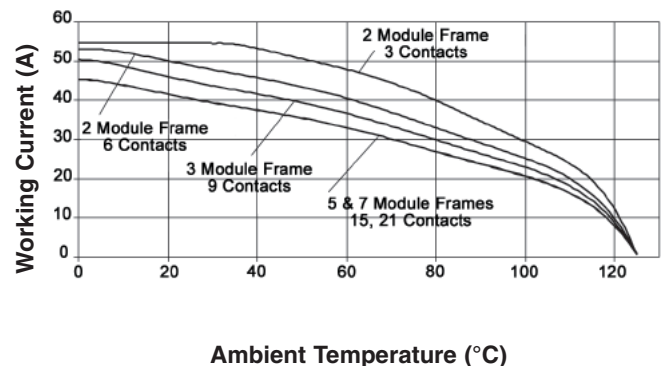
**Temperature Range:** -40°C to 125°C  
**Termination Type:** Crimp termination: .06 - 10 mm<sup>2</sup>, AWG: 30 - 6 AWG  
 Cage Clamp: 0.5 - 2.5 mm<sup>2</sup>, AWG: 20 - 14  
 Screw: 4 - 25 mm<sup>2</sup>, AWG: 12 - 4  
**Contacts:** Copper alloy, silver plated/ gold plated  
**Contact Resistance:** <1mOhm - <5mOhm  
**Dimension transient:** 1.5 - 8kV, depending on module  
**Mating Cycles:** 100 (higher mating cycles depends on the application)

## TECHNICAL DATA: DERATING CURVES

**2 CONTACT MODULE:**  
 4 - 25 mm<sup>2</sup> (12 - 4 AWG)



**3 MODULE MACHINE CONTACTS:**  
 6 mm<sup>2</sup> (10 AWG)

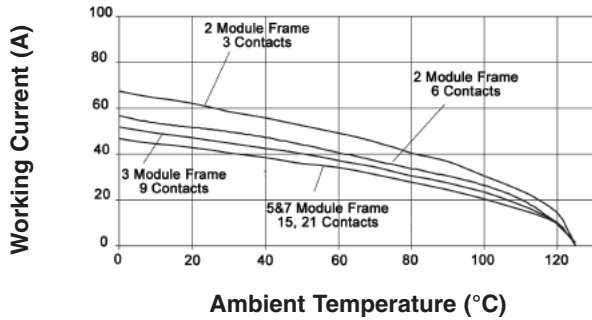


# EPIC<sup>®</sup> Rectangular Connectors

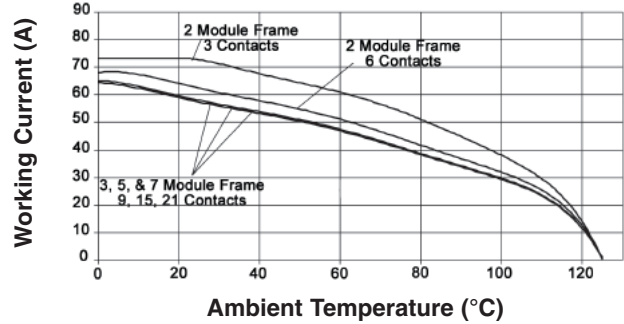
MC Series

## TECHNICAL DATA: DERATING CURVES

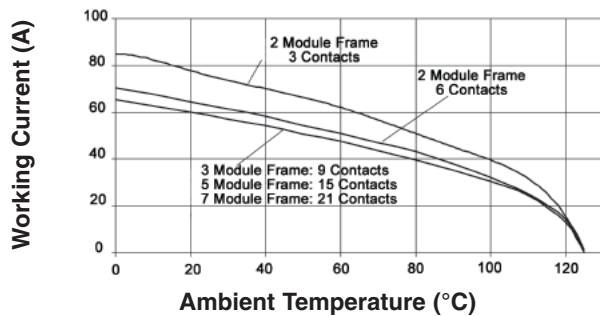
**3 MODULE HIGH VOLTAGE  
MACHINE CONTACTS: 6 mm<sup>2</sup> (10 AWG)**



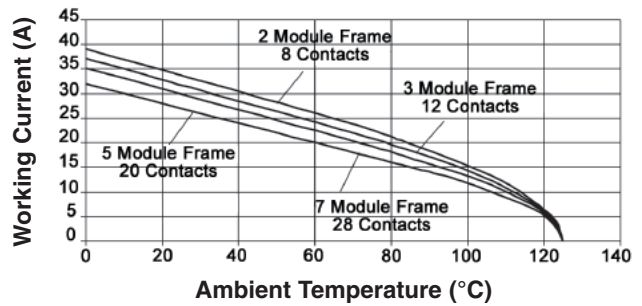
**3 MODULE MACHINE CONTACTS:  
10 mm<sup>2</sup> (8 AWG)**



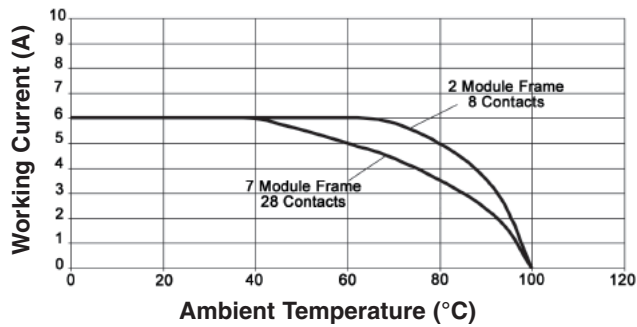
**3 MODULE HIGH VOLTAGE  
MACHINE CONTACTS: 10 mm<sup>2</sup> (8 AWG)**



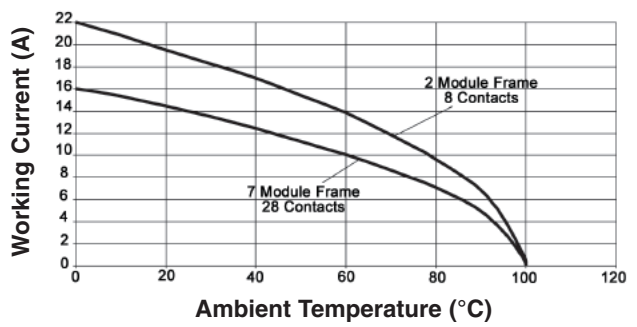
**4 MODULE MACHINE CONTACTS:  
4.0 mm<sup>2</sup> (12 AWG)**



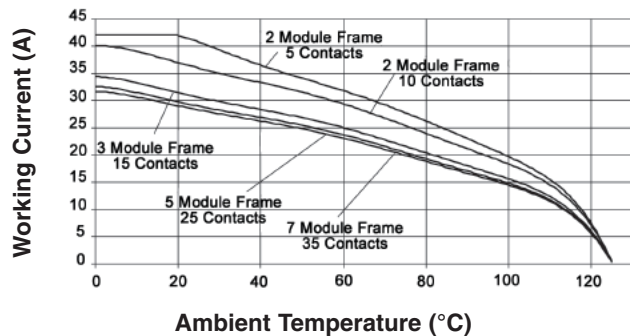
**4 MODULE CAGE CLAMP:  
0.5 mm<sup>2</sup> (20 AWG)**



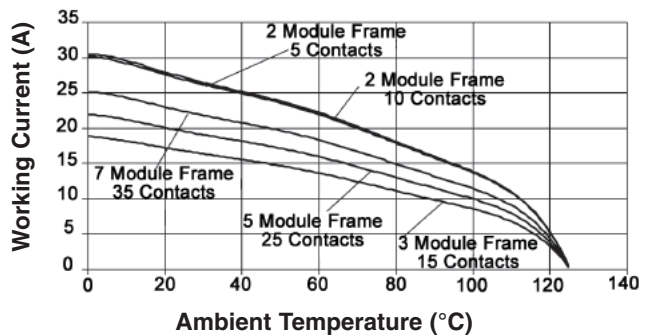
**4 MODULE MACHINE CONTACTS:  
2.5 mm<sup>2</sup> (14 AWG)**



**5 MODULE MACHINE CONTACTS:  
4 mm<sup>2</sup> (12 AWG)**



**5 MODULE MACHINE CONTACTS:  
2.5 mm<sup>2</sup> (14 AWG)**

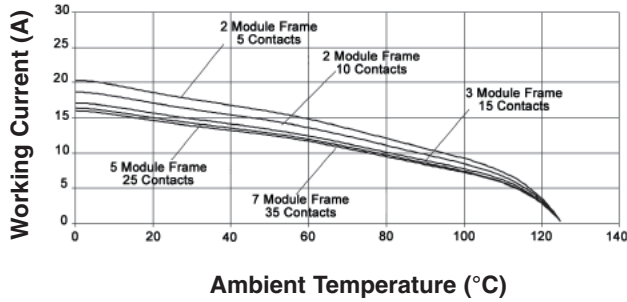


# EPIC<sup>®</sup> Rectangular Connectors

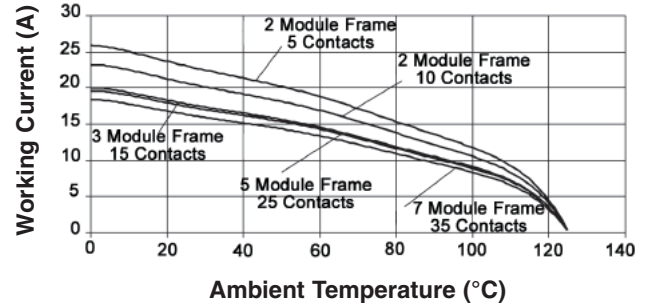
MC Series

## TECHNICAL DATA: DERATING CURVES

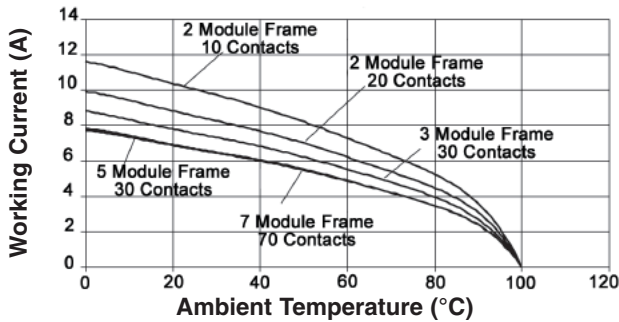
5 MODULE STAMPED CONTACTS:  
1.5 mm<sup>2</sup> (16 AWG)



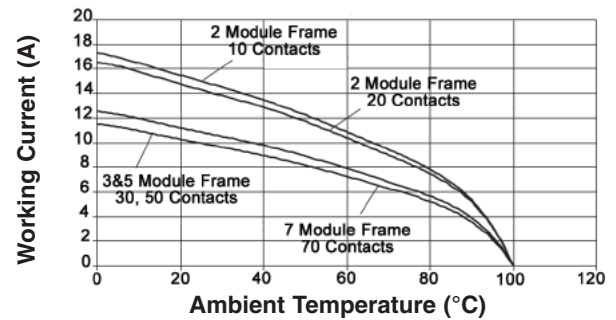
5 MODULE STAMPED CONTACTS:  
2.5 mm<sup>2</sup> (14 AWG)



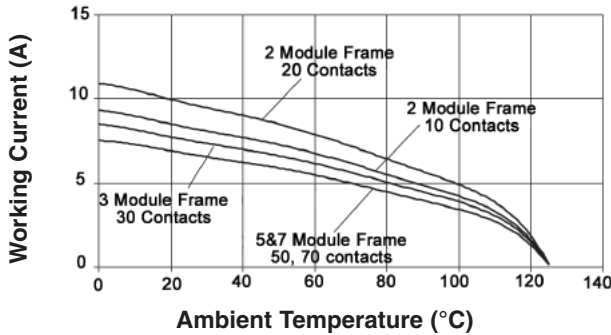
10 MODULE MACHINE CONTACTS:  
0.5 mm<sup>2</sup> (20 AWG)



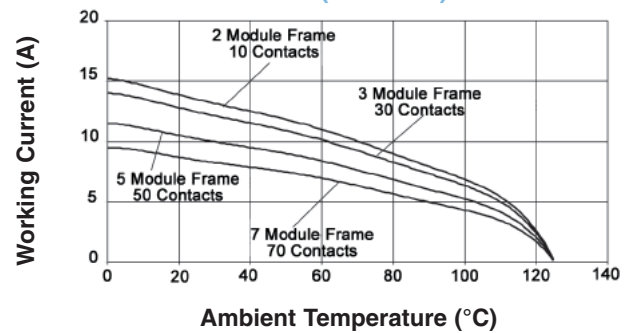
10 MODULE MACHINE CONTACTS:  
1.5 mm<sup>2</sup> (16 AWG)



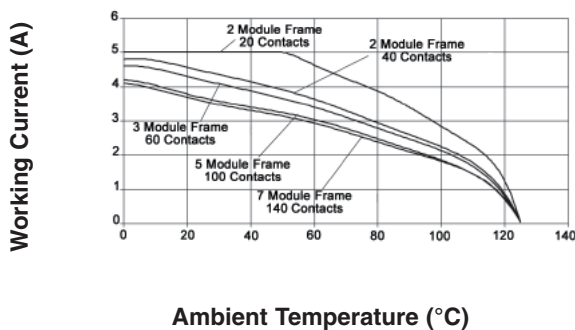
10 MODULE STAMPED CONTACTS:  
0.5 mm<sup>2</sup> (20 AWG)



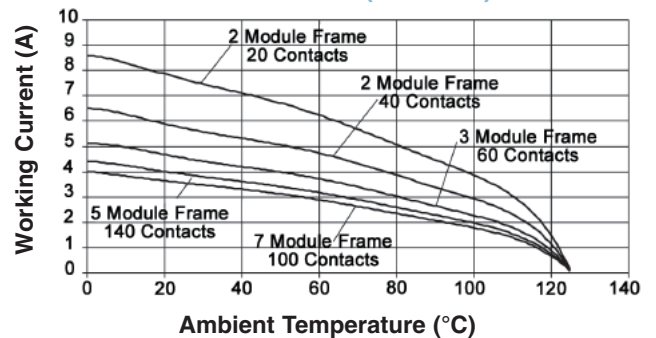
10 MODULE STAMPED CONTACTS:  
1.5 mm<sup>2</sup> (16 AWG)



20 MODULE STAMPED CONTACTS :  
0.25 mm<sup>2</sup> (24 AWG)



20 MODULE STAMPED CONTACTS:  
0.5 mm<sup>2</sup> (20 AWG)



# EPIC® Rectangular Connectors

MC Series

## CHOOSE YOUR MODULES

Modules	Plug	Receptacle	Rated Voltage	Rated Current	Page #
2 Contact Module: 2 Working Contacts	10344100	10345100	1000V	82A	331
2 Contact Module with ground	10344600	10345600	1000V	82A	331
3 Contact Coax Module	10399200	10399300	250V	-	332
3 Contact Module	10382000	10382100	630V	40A	333
3 Contact High Voltage Module	10399800	10399900	1000V	50A	334
4 Contact Module	10399000	10399100	630V	25A	335
4+PE Contact High Voltage Module	10383200	10383300	1000V	16A	336
5 Contact Module	10382200	10382300	400V	20A	337
10 Contact Module: Stamped & Formed	10383400	10383500	250V	10A	338
10 Contact Module: Machine Crimp	10382400	10382500	250V	10A	339
20 Contact Module	10383600	10383700	100V	4A	340
Dummy Module	10399400	10399500	-	-	341
4 Contact Cage Clamp Module	10399600	10399700	400V	14A	341
Profibus DP Module	10390400	10390500	30V	1A	341
Ethernet Module- RJ 45 Connectors + 4 Power Contacts	10344300	10345300	600V	10A	342
Universal Bus Modules	10390600	10390700	30V	1A	342
Pneumatic Modules: 1 Contact with 2.5 mm Hose diameter	44424004	44424005	145psi	-	342
Pneumatic Modules: 1 Contact with 4.0 mm Hose diameter	44424006	44424007	145psi	-	342
Pneumatic Modules: 2 Contacts with 2.5 mm Hose diameter	44424008	44424009	145psi	-	342
Pneumatic Modules: 2 Contacts with 4.0 mm Hose diameter	44424010	44424011	145psi	-	342

## CHOOSE YOUR FRAME BASED ON THE NUMBER OF MODULES

Frames	For Plugs	For Receptacles	Corresponding Housing	Page #
Frames for 2 modules	10381000	10381100	HBE 6 Series	343
Frames for 3 modules	10381200	10381300	HBE 10 Series	343
Frames for 5 modules	10381400	10381500	HBE 16 Series	344
Frames for 7 modules	10381600	10381700	HBE 24 Series	344
Frames for 10 modules	10381400(2X)	10381500(2X)	HBE 32 Series	345
Frames for 14 modules	10381600(2X)	10381700(2X)	HBE 48 Series	346

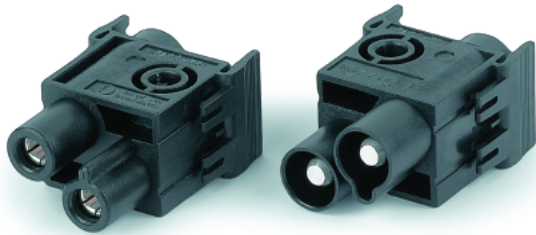
Modules snap into frame



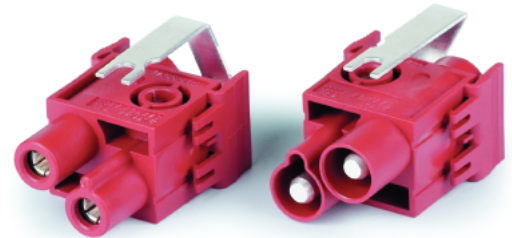
**Note:**  
Color of components may be different then shown.

### 2 CONTACT MODULES

#### 2 Working Contacts

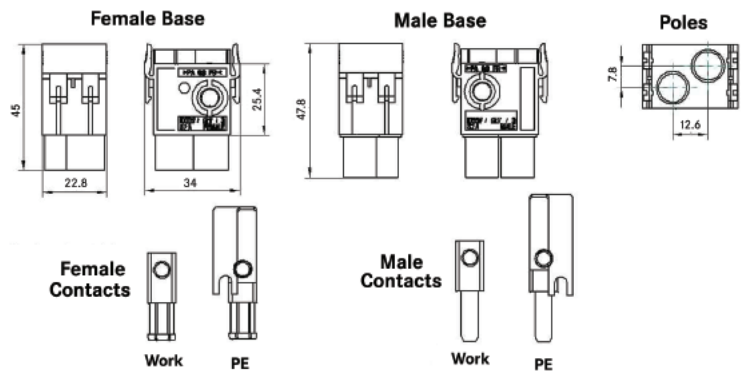


#### 1 Working Contact & 1 Ground



**Rated Voltage:**  
1000V

**Rated Current:**  
82A



All dimensions are in mm.

Description	Plug	Receptacle
2 Working Contacts	10344100	10345100
1 Working Contact & 1 Ground	10344600	10345600

### TECHNICAL DATA

**Termination Type:**  $\text{mm}^2$       AWG

**Screw:**                      4 - 25                      12 - 4

**Contacts:**

**Material:**                      Basic material brass; 2 $\mu$  Nickel and 2-3 $\mu$  Silver (AG)

**Contact Material:**              Silver plated

**Mating Cycles:**                  100 (higher mating cycles depending on the application)

**Contact Resistance:**              1.5 -4 m $\Omega$

### FEATURES

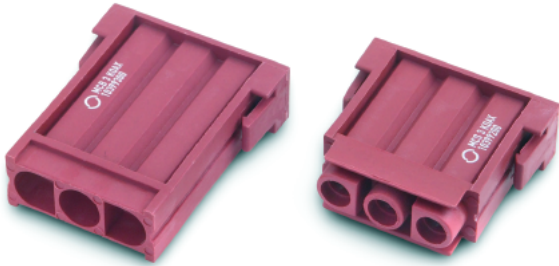
- The new module can be inserted into the standard EPIC® Modular Frames.
- The modules can be inserted or removed from the frame without a tool because of the snap hooks.
- These screw contact modules can be easily wired with a standard screwdriver.
- The flexibility of the modular series allows the arrangement of modules to fit requirements.
- This module takes up 2 slots in the modular frame.
- The high current modules require the usage of high profile HBE 16 and HBE 24 housings.

# EPIC® Rectangular Connectors



MC Series Plugs & Receptacles

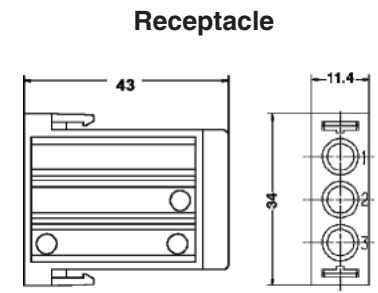
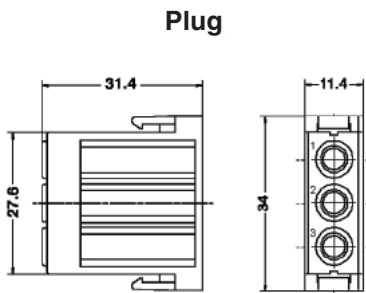
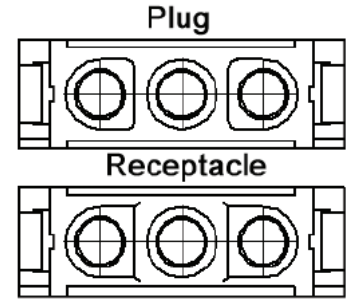
## 3 CONTACT COAX MODULES



**Rated Voltage:**  
250V

**Cable Sizes:**  
RG 58

**Impedance:**  
50 Ohm

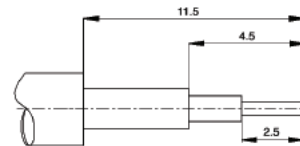


Plug	Receptacle
10399200	10399300

DIN 41612

Contacts Sold Separately

## COAX CONTACTS



Pin	Socket
11214200	11219200

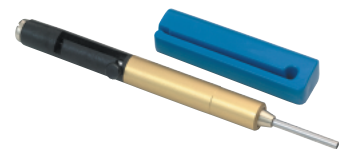
## TOOLS



**Crimp Dies**  
11147130



**Crimp Tool**  
11147000



**Removal Tool**  
11171100

# EPIC® Rectangular Connectors



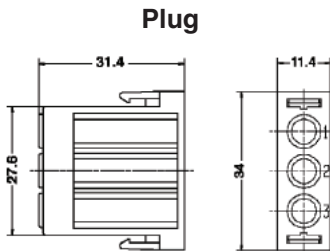
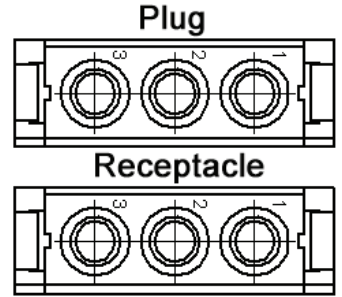
MC Series Plugs & Receptacles

## 3 CONTACT MODULES

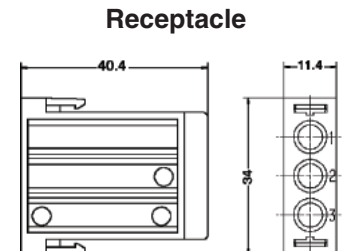


**Rated Voltage:**  
630V

**Rated Current:**  
40A

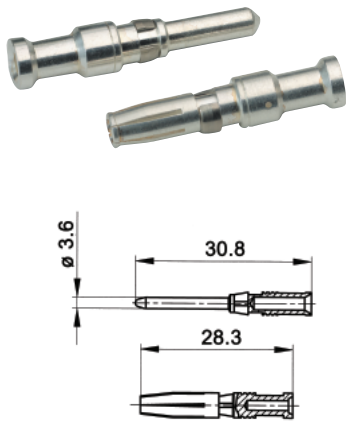


Plug	Receptacle
10382000	10382100



Contacts Sold Separately

## MACHINE CONTACTS: DIAMETER 3.6 MM



Bags of 100				
mm <sup>2</sup>	AWG	Silver		Stripping Length (mm)
		Pin	Socket	
1.5	16	1121070C	1121570C	10
2.5	14	1121060C	1121560C	10
4.0	12	1121000C	1121500C	10
6.0	10	1121010C	1121510C	10
10	8	1121020C	1121520C	10

Part number= 1 contact

## TOOLS



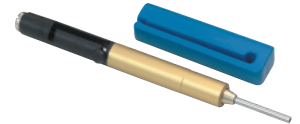
**Locator**  
11147210



**Crimp Dies**  
1.5 - 2.5: 11147110  
4.0 - 10: 11147120



**Crimp Tool**  
11147000



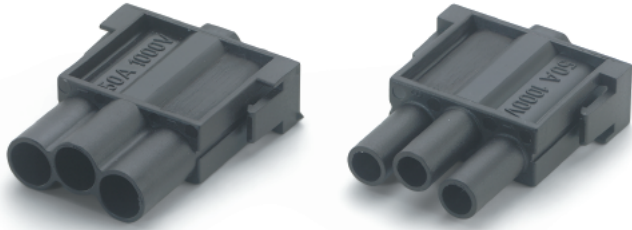
**Removal Tool**  
11171100

# EPIC® Rectangular Connectors



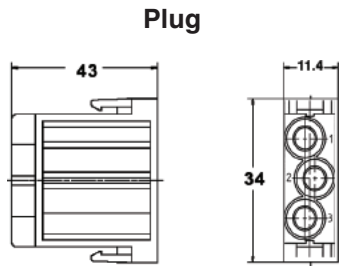
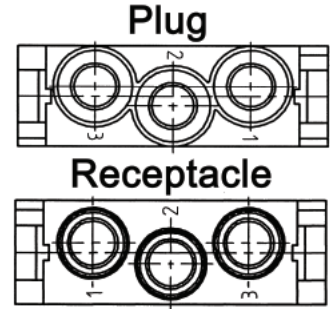
MC Series Plugs & Receptacles

## 3 CONTACT HIGH VOLTAGE MODULES

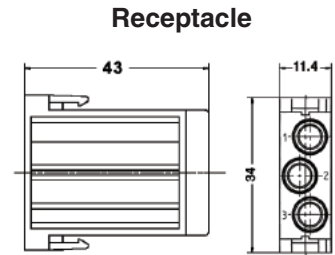


**Rated Voltage:**  
1000V

**Rated Current:**  
50A

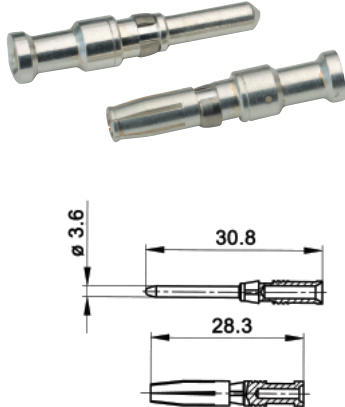


Plug	Receptacle
10399800	10399900



Contacts Sold Separately

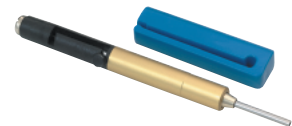
## MACHINE CONTACTS: DIAMETER 3.6 MM



Bags of 100				
mm <sup>2</sup>	AWG	Silver		Stripping Length (mm)
		Pin	Socket	
1.5	16	1121070C	1121570C	10
2.5	14	1121060C	1121560C	10
4.0	12	1121000C	1121500C	10
6.0	10	1121010C	1121510C	10
10	8	1121020C	1121520C	10

Part number= 1 contact

## TOOLS



**Locator**  
11147210

**Crimp Dies**  
1.5 - 2.5: 11147110  
4.0 - 10: 11147120

**Crimp Tool**  
11147000

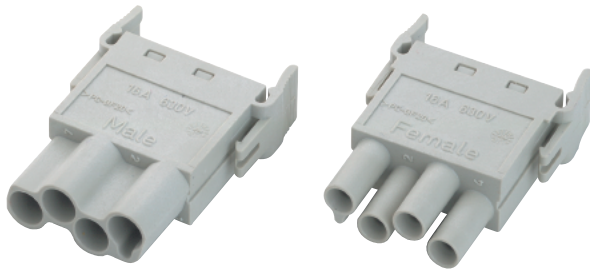
**Removal Tool**  
11171100

# EPIC® Rectangular Connectors



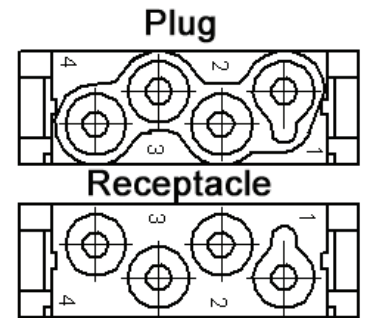
MC Series Plugs & Receptacles

## 4 CONTACT HE MODULES



**Rated Voltage:**  
630V

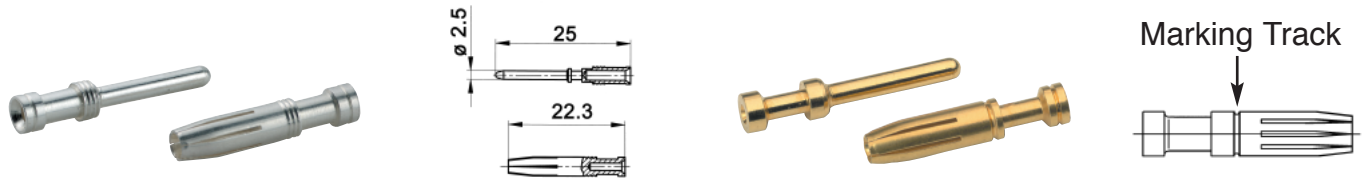
**Rated Current:**  
25A



Contacts Sold Separately

Plug	Receptacle
10399000	10399100

## MACHINE CONTACTS: DIAMETER 2.5 MM



Bags of 100							
mm <sup>2</sup>	AWG	Silver		Gold		Stripping Length (mm)	# of Marking Tracks
		Pin	Socket	Pin	Socket		
0.5	20	11190000	11195000	11192000	11197000	Pin=7.4, Socket =7.3	-
.75 - 1.0	18	11190100	11195100	11192100	11197100	Pin=7.4, Socket =7.3	1
1.5	16	11190200	11195200	11192200	11197200	Pin=7.4, Socket =7.3	2
2.5	14	11190300	11195300	-	-	Pin=7.4, Socket =7.3	3
4.0	12	11190400	11195400	-	-	Pin=7.4, Socket =7.3	-

Part number= 1 contact

## CRIMP TOOLS



**Crimp Tool**  
11147000



**Crimp Dies**  
11147100



**Locator**  
11147200



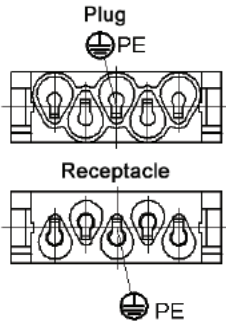
**Removal Tool**  
11182500

# EPIC® Rectangular Connectors



MC Series Plugs & Receptacles

## 4+PE CONTACT HIGH VOLTAGE MODULES

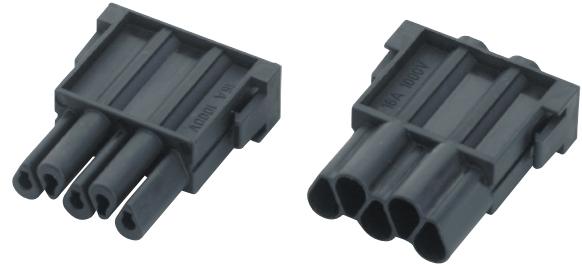


**Rated Voltage:**

1000V

**Rated Current:**

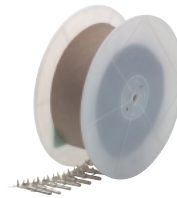
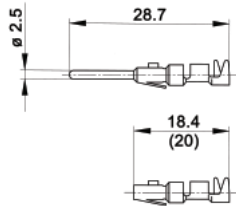
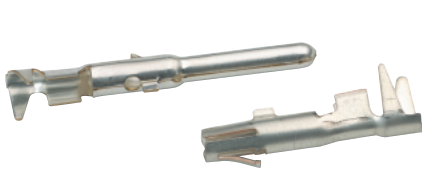
16A



Plug	Receptacle
10383200	10383300

Contacts Sold Separately

## STAMPED & FORMED CONTACTS: DIAMETER 2.5 MM



Reel feeds from the left.

Stripping Length:  
3.5 - 0.5

mm <sup>2</sup>	AWG	Bags of 100		Reels of 100		Reels of 200	
		Pin	Socket	Pin	Socket	Pin	Socket
0.5 - 1.5	20 - 16	11201000	11205000	-	-	11208000	11209000
1.5 - 2.5	16 - 14	11202000	11206000	11208500	11209500	-	-

Part number= 1 contact (bags) or 1 reel.

## TOOLS

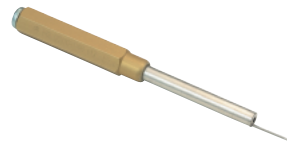


**Crimp Tool**  
11147000

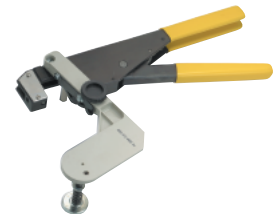


**Locator**

0.5 - 1.5: 11147300  
1.5 - 2.5: 11147310



**Removal Tool**  
11160000



**Crimp Tool for Reel**  
11153500



**Crimp Dies**  
0.5 - 1.5: 11147180  
1.5 - 2.5: 11147190

**Crimp Dies for Reel:**  
0.5 - 1.5: 11153700  
1.5 - 2.5: 11153800



# EPIC® Rectangular Connectors



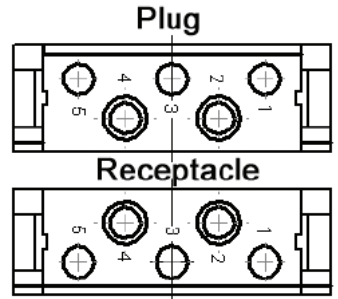
MC Series Plugs & Receptacles

## 5 CONTACT HIGH VOLTAGE MODULES



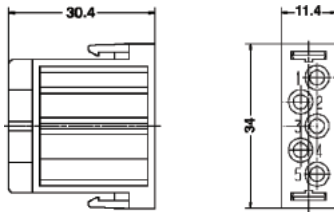
**Rated Voltage:**  
400V

**Rated Current:**  
20A

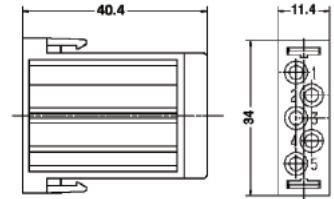


Plug

Receptacle

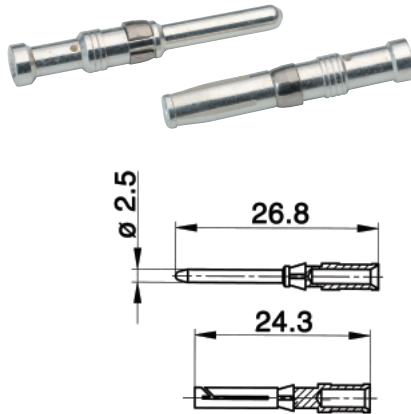


Plug	Receptacle
10382200	10382300



Contacts Sold Separately

## MACHINE CONTACTS: DIAMETER 2.5 MM



Bags of 100					
mm <sup>2</sup>	AWG	Silver		Stripping Length (mm)	# of Marking Tracks
		Pin	Socket		
0.5	20	1121300C	1121800C	7.8	-
0.75 - 1.0	18	1121310C	1121810C	7.8	1
1.5	16	1121320C	1121820C	7.8	2
2.5	14	1121330C	1121830C	7.8	3
4.0	12	1121340C	1121840C	7.8	-

Part number= 1 contact

## CRIMP TOOLS



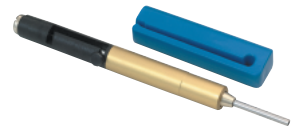
**Crimp Tool**  
11147000



**Crimp Dies**  
11147100



**Locator**  
11147200



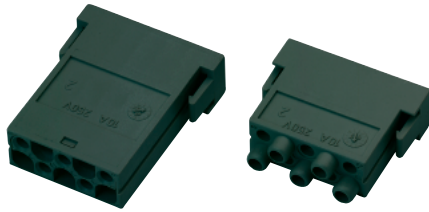
**Removal Tool**  
11171000

# EPIC® Rectangular Connectors



MC Series Plugs & Receptacles

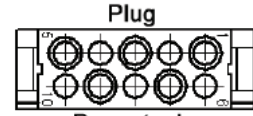
## 10 CONTACT MODULES: STAMPED & FORMED CONTACTS



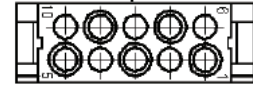
Plug

Rated Voltage:  
250V

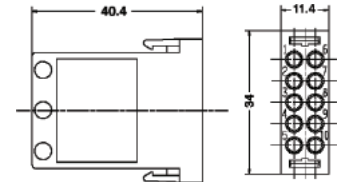
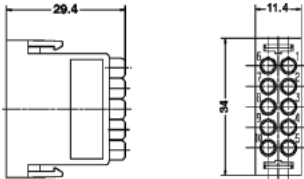
Rated Current:  
10A



Receptacle



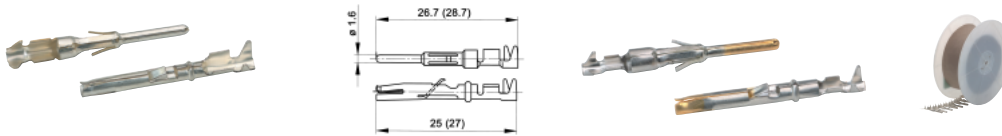
Receptacle



Plug	Receptacle
10383400	10383500

Contacts Sold Separately

## STAMPED & FORMED CONTACTS: DIAMETER 1.6 MM



mm <sup>2</sup>	Stripping Length (mm)
0.14 - 0.5	2.5 - 0.5
0.5 - 1.5	3.5 - 0.5
1.5 - 2.5	3.5 - 0.5

		Bags of 100: Silver		Bags of 100: Gold		Reel of 100: Silver Left Hand Feed		Reel of 200: Silver Left Hand Feed	
mm <sup>2</sup>	AWG	Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket
0.14 - 0.5	26 - 20	11241100	11231100	11243100	11233100	-	-	11240700	11230700
0.5 - 1.5	20 - 16	11221000	11236100	11221300	11238100	-	-	11220700	11235700
1.5 - 2.5	16 - 14	11223500	11228500	-	-	11223000	11228000	-	-

mm <sup>2</sup>	AWG	Reel of 2000: Right Hand Feed- Silver		Reel of 2000: Right Hand Feed- Gold		Reel of 2000: Left Hand Feed- Silver		Reel of 2000: Left Hand Feed- Silver	
		Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket
0.14 - 0.5	26 - 20	11240000	11230000	-	-	11240400	11230400	11230500	11240500
0.5 - 1.5	20 - 16	11220000	11235000	11220100	11235200	11226000	11226500	-	-
1.5 - 2.5	16 - 14	-	-	-	-	11222700	11227700	-	-

Part number= 1 contact (bags) or 1 reel.

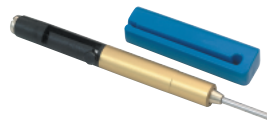
## CRIMP TOOLS



Crimp Tool  
11147000



Locator  
11147300



Removal Tool: 11161000



Crimp Tool for Reel:  
11153500



Crimp Dies

0.14-0.5:	11147170
0.5-1.5:	11147180
1.5-2.5:	11147190

Crimp Dies for Reel:

0.14-0.5:	11153600
0.5-1.5:	11153700
1.5-2.5:	11153800

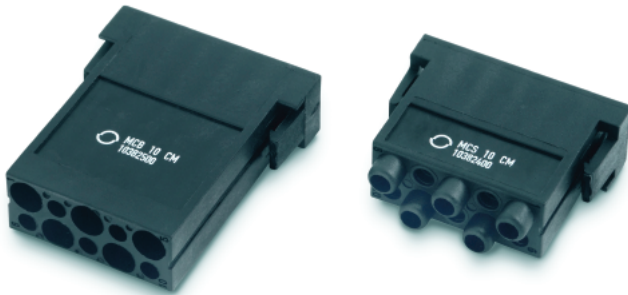


# EPIC® Rectangular Connectors



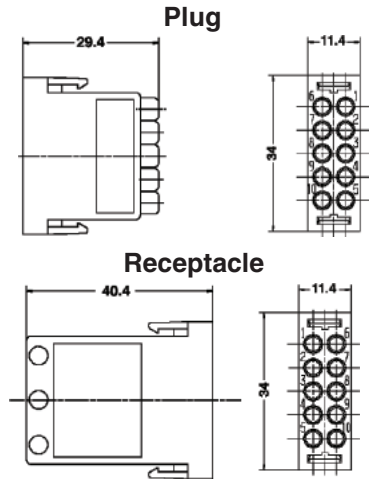
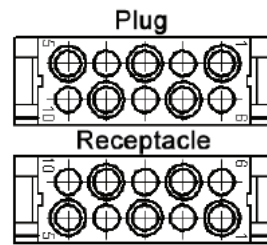
MC Series Plugs & Receptacles

## 10 CONTACT MODULES: MACHINE CRIMP CONTACTS



Contacts Sold Separately

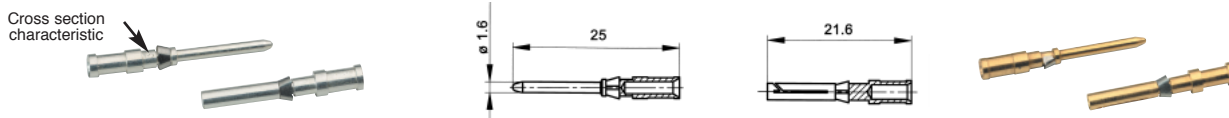
Plug	Receptacle
10382400	10382500



**Rated Voltage:**  
250V

**Rated Current:**  
10A

## MACHINE CONTACTS: DIAMETER 1.6 MM



Bags of 100

mm <sup>2</sup>	AWG	Silver		Gold		Stripping Length (mm)	# of Marking Tracks
		Pin	Socket	Pin	Socket		
0.14 - 0.37	26 - 22	13162000	13163000	13162500	13163500	8	1
0.5	20	13162100	13163100	13162600	13163600	8	2
0.75 - 1.0	18	13162200	13163200	13162700	13163700	8	3
1.5	16	13162300	13163300	13162800	13163800	8	4
2.5	14	13162400	13163400	13162900	13163900	5.8	5

Part number= 1 contact

## CRIMP TOOLS



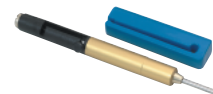
**Crimp Tool**  
11147000



**Crimp Dies**  
11147100



**Locator**  
11147200



**Removal Tool:**  
11161000

## FIBER OPTIC CONTACTS & TOOLS



Pin	Socket
11214100	11219100

**Fiber Optic Assembly Tool Set**  
11184700

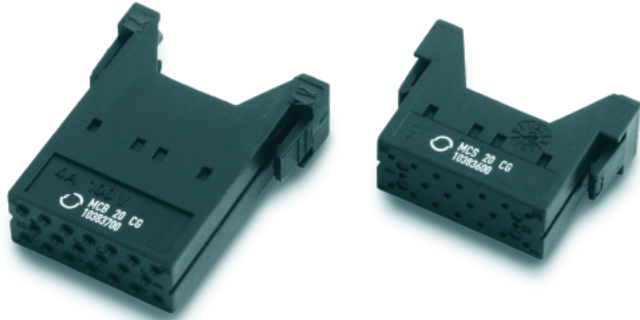


# EPIC® Rectangular Connectors



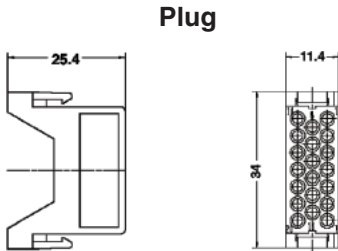
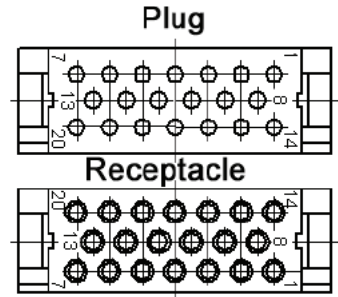
MC Series Plugs & Receptacles

## 20 CONTACT MODULES



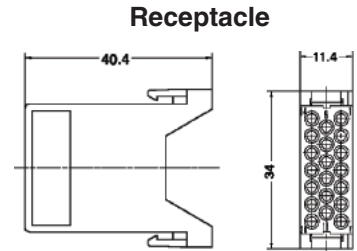
**Rated Voltage:**  
100V

**Rated Current:**  
4A



Plug	Receptacle
10383600	10383700

Contacts Sold Separately



## STAMPED & FORMED CONTACTS: DIAMETER 1.0 MM

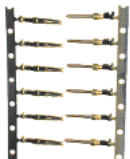


Reel of 500				
mm <sup>2</sup>	AWG	Gold		Stripping Length
		Pin	Socket	
.08 - 0.2	28 - 26	44429013	44429009	2.5 - 0.5
0.2 - .52	26 - 20	44429014	44429010	2.5 - 0.5

Reel feeds from the left

\* This conversion to AWG is approximate.

## THERMOCOUPLE CONTACTS



mm <sup>2</sup>	AWG	Strip of 25				Material	Polarity	Color Code	Stripping Length
		Type K		Type J					
		Pin	Socket	Pin	Socket				
0.25 - .52	24-20	TC-CH-P	TC-CH-S	-	-	Chromel	+	White	2.5 - 0.5
		-	-	TC-IR-P	TC-IR-S	Iron	+	Black	2.5 - 0.5
		TC-AL-P	TC-AL-S	-	-	Alumel	-	Green	2.5 - 0.5
		-	-	TC-CO-P	TC-CO-S	Constantan	-	Yellow	2.5 - 0.5

## TOOLS



**Crimp Tool**  
11158400



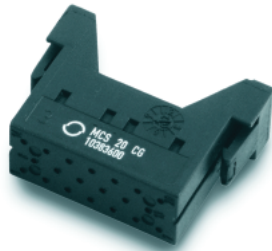
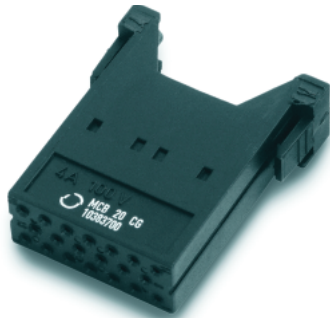
**Removal Tool**  
11132500

# EPIC® Rectangular Connectors



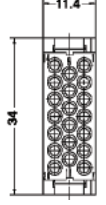
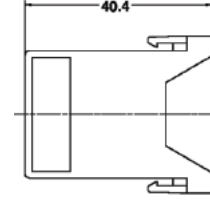
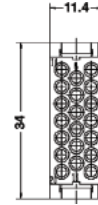
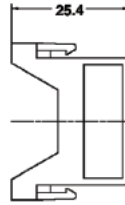
MC Series Plugs & Receptacles

## DUMMY MODULES: 0 CONTACTS



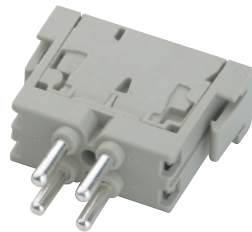
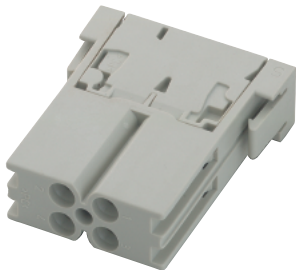
Plug

Receptacle



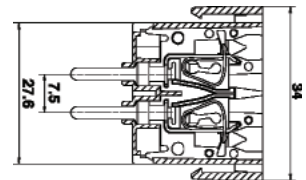
Plug	Receptacle
10399400	10399500

## CAGE CLAMP MODULES: 4 CONTACTS



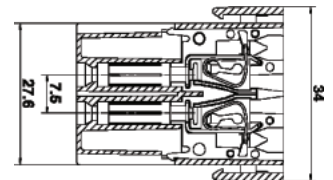
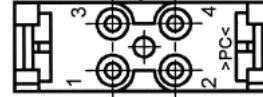
Plug

Plug



Receptacle

Receptacle



**Rated Voltage:**  
400V

**Rated Current:**  
14A

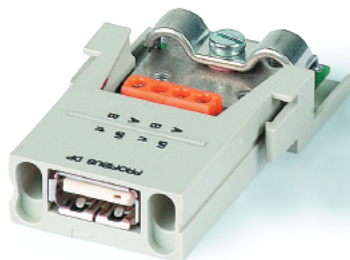
Plug	Receptacle
10399600	10399700

**Wire Gauge**

Single Wire: 4.0 mm<sup>2</sup>  
Fine Wire: 2.5 mm<sup>2</sup>



## PROFIBUS DP MODULES: 2 CONTACTS & SHIELD

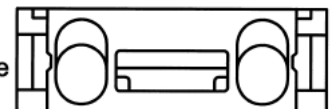
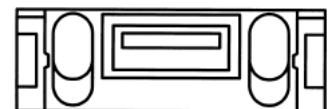


**Rated Voltage:**  
30V

**Rated Current:**  
1A

Plug

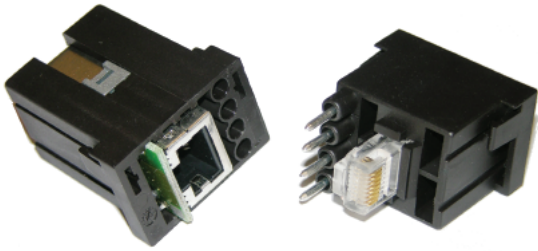
Receptacle



Mount in High Profile Housings only.

Plug	Receptacle
10390400	10390500

### ETHERNET MODULE- RJ 45 Connectors + 4 Power Contacts



**Power Contacts:**

**Rated Voltage:**  
600V

**Rated Current:**  
10A

Occupies two module positions in frame. Uses standard HD Series Machined Crimp Contacts for Power. RJ 45 plug not included.

RJ 45 connector part number- CE6326

Plug	Receptacle
10344300	10345300

### EPIC® Universal Bus Modules



Technical Data:

- Screw Terminated
- Transfer rate max. 1.5 MB/s for bus feed through
- Rated Voltage: 30V
- Rated Current: 1A

Plug: 4+Shield	Receptacle: 4+Shield
10390600	10390700

### EPIC® Pneumatic Modules

These modules are used for easy and fast connection of compressed air hoses. Applications include machine building, mini pneumatics, measurement and control technology.

Technical Data:

- Available with 1 or 2 Connector Pins
- For compressed air hoses with inner diameter of 2.5 mm or 4 mm. Outer diameter max. 8.0 mm
- Female Version has built in blocking valve
- Air pressure: Max. 10 bar (145 psi)
- Temperature Range: -20°C to 100°C



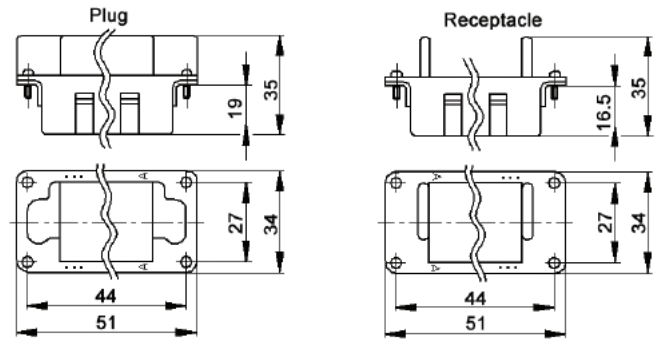
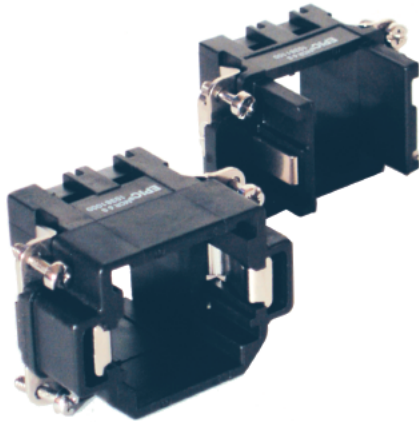
Part Number	Description	Contacts	Hose Diameter
44424004	Male	1	2.5 mm
44424005	Female with built in valve	1	2.5 mm
44424006	Male	1	4.0 mm
44424007	Female with built in valve	1	4.0 mm
44424008	Male	2	2.5 mm
44424009	Female with built in valve	2	2.5 mm
44424010	Male	2	4.0 mm
44424011	Female with built in valve	2	4.0 mm

# EPIC® Rectangular Connectors



MC Series Frames

## 2 MODULE FRAME: HOLDS 2 MODULES

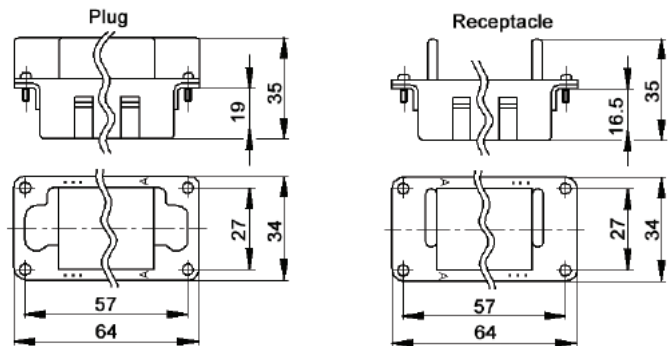
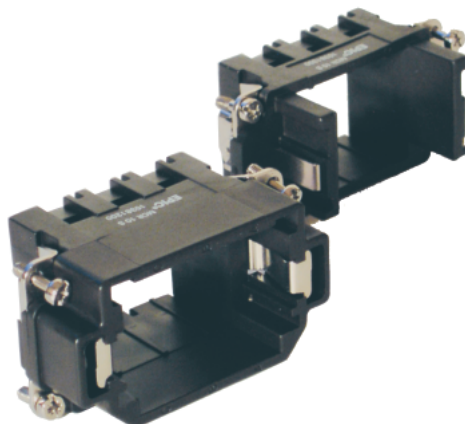


All dimensions are in mm.

Plug	Receptacle
10381000	10381100



## 3 MODULE FRAME: HOLDS 3 MODULES



All dimensions are in mm.

Plug	Receptacle
10381200	10381300

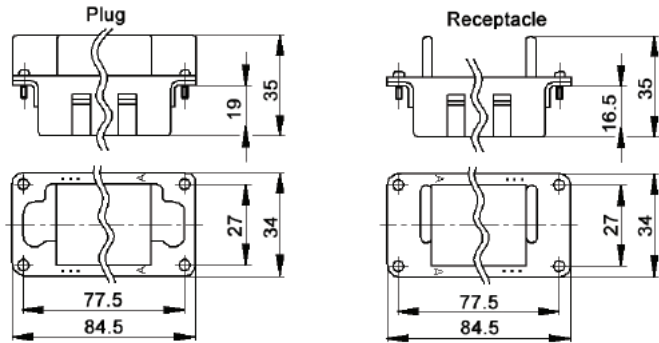
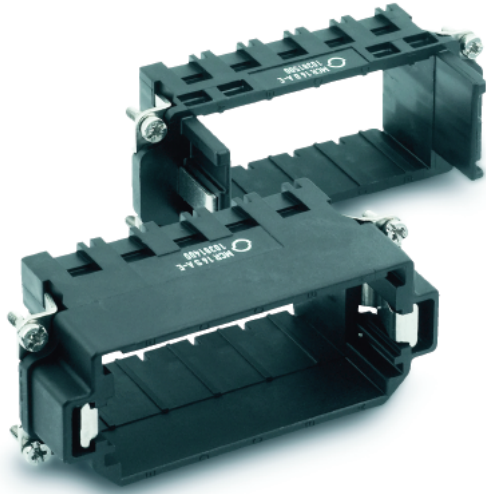


## MODULE REMOVAL TOOL



Removal Tool
11171200

### 5 MODULE FRAME: HOLDS 5 MODULES

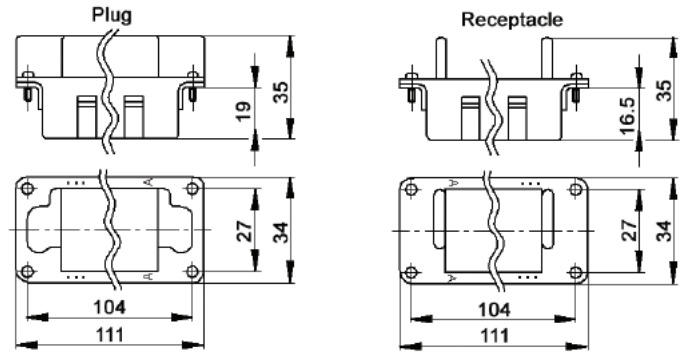


All dimensions are in mm.

Plug	Receptacle
10381400	10381500



### 7 MODULE FRAME: HOLDS 7 MODULES



All dimensions are in mm.

Plug	Receptacle
10381600	10381700



### MODULE REMOVAL TOOL



Removal Tool
11171200

# EPIC® Rectangular Connectors

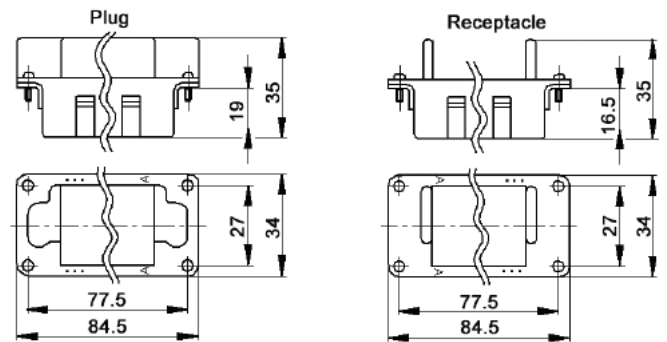
MC Series Frames



## 10 MODULE FRAME



By using two sets of 5 module frames, 10 modules can be accommodated.



All dimensions are in mm.

Plug	Receptacle
10381400 (2X)	10381500 (2X)

## MODULE REMOVAL TOOL

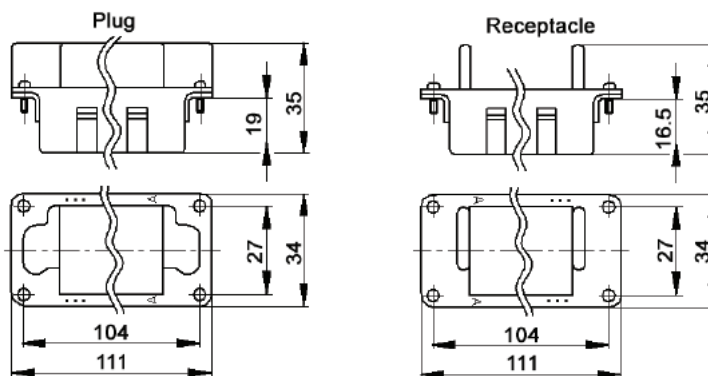


Removal Tool
11171200

### 14 MODULE FRAME



By using two sets of 7 module frames, 14 modules can be accommodated.



All dimensions are in mm.



Plug	Receptacle
10381600 (2X)	10381700 (2X)

### MODULE REMOVAL TOOL



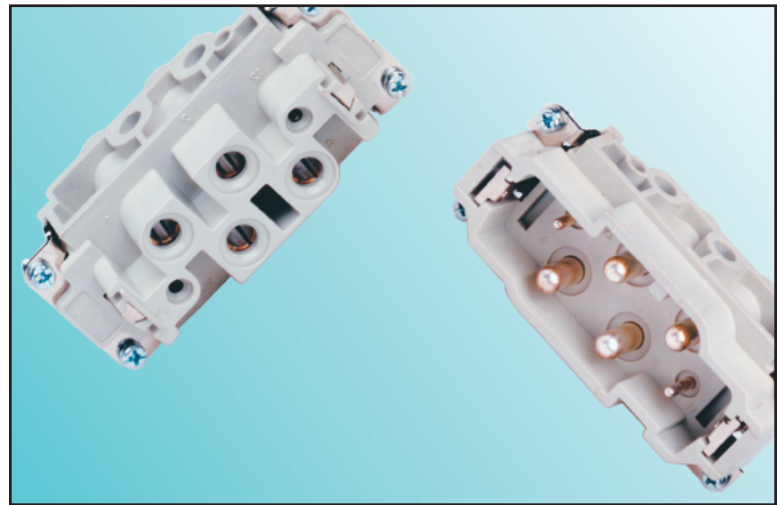
Removal Tool
11171200

# EPIC® Rectangular Connectors

## Mixed Power Series

The Mixed Power series inserts provide contacts for power or a combination of power and signal in one connector.

These inserts fit into the HBE series housings.



### TECHNICAL DATA

**Number of Contacts:** 4 Power/ X Signal contacts  
**Pollution Level:** 3  
**Rated Voltage:** 600V UL/CSA  
**Test Voltage:** 6 kV(4x0); 6kV/4kV (4X2); 4kV (4X8)  
**Temperature Range:** -40°C to +125°C  
**Contact Material:** Copper alloy, hard silver plated  
**Molding Material:** Thermoplastic resin, fiberglass reinforced  
**Contact Resistance:** < 0.3 mOhm (Principle); < 1 mOhm (Auxiliary)  
**Termination Type:** Screw  
**Insulation Group:** C  
**Wire Size:** Screw termination: up to 6 AWG, 16 mm<sup>2</sup> for power contacts  
 Screw termination: up to 14 AWG, 2.5 mm<sup>2</sup> for signal contacts

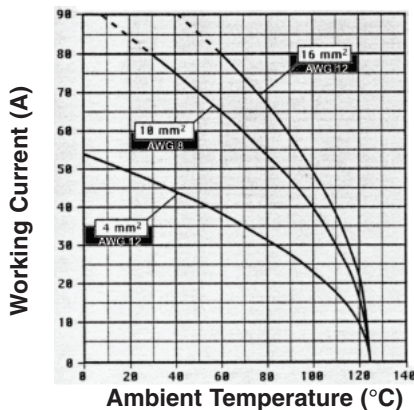
**DIN VDE 0110/02.79** 4X8 Principal Poles: 80A, 400V - 475V  
 4X0 and 4/2 Principal Poles: 80A, 690V - 830V  
 4X8 and 4X2 Auxiliary Poles: 16A, 400V - 475V  
**DIN VDE 0110/01.89** 4X8 Principal Poles: 80A, 400V  
 4X0 and 4/2 Principal Poles: 80A, 690V  
 4X8 and 4X2 Auxiliary Poles: 16A, 400V

UL File #E115072

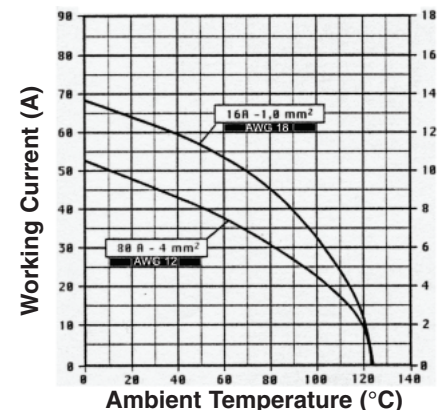
CSA#LR82270

### TECHNICAL DATA: DERATING CURVES

#### 4 POWER/ 0 SIGNAL



#### 4 POWER/ 2 SIGNAL

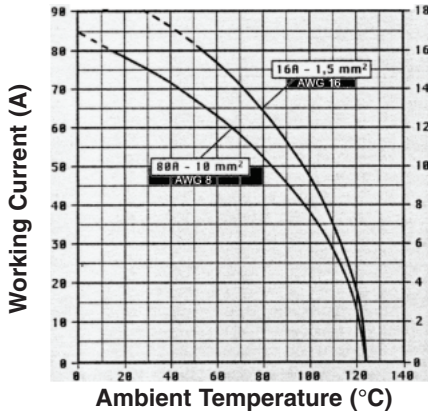


# EPIC<sup>®</sup> Rectangular Connectors

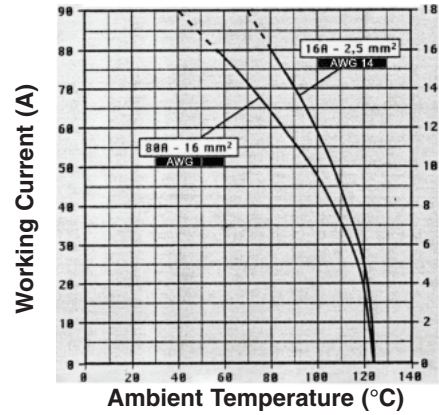
Mixed Power Series

## TECHNICAL DATA: DERATING CURVES

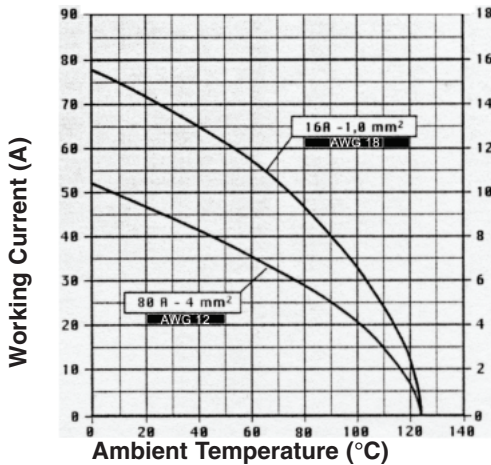
### 4 POWER/ 2 SIGNAL



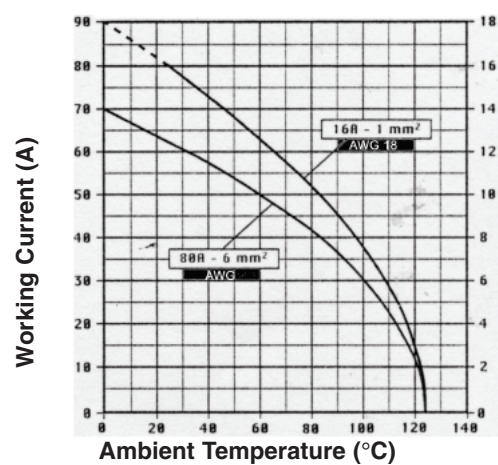
### 4 POWER/ 2 SIGNAL



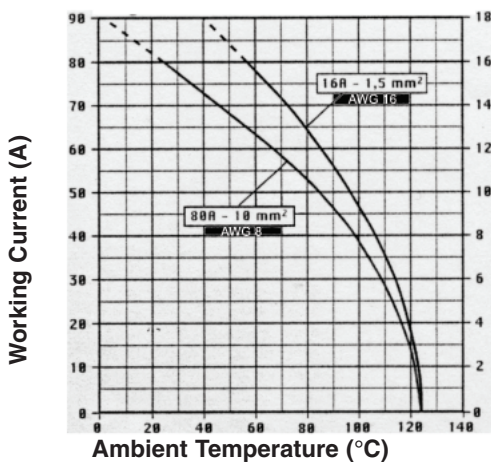
### 4 POWER/ 8 SIGNAL



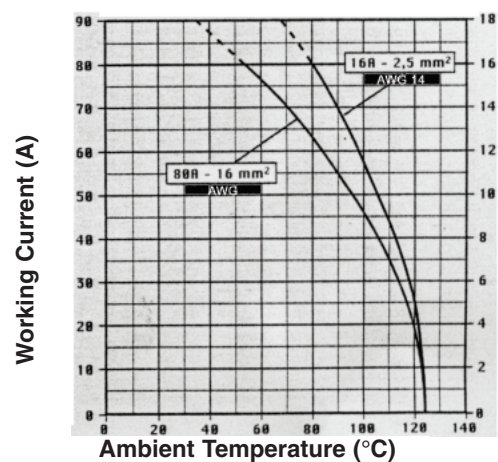
### 4 POWER/ 8 SIGNAL



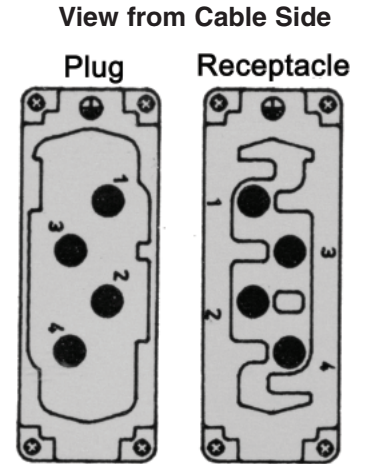
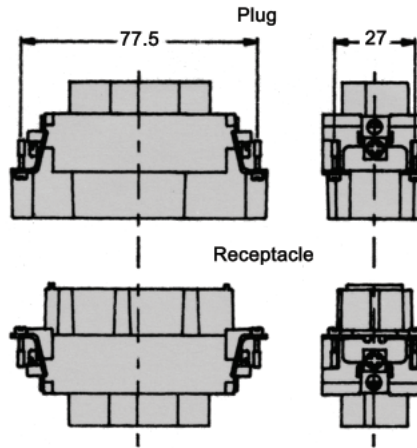
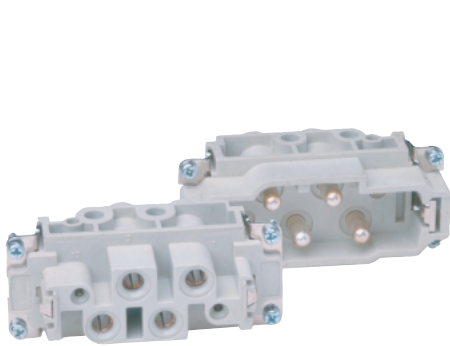
### 4 POWER/ 8 SIGNAL



### 4 POWER/ 8 SIGNAL



## 4 POWER/ 0 SIGNAL MIXED POWER INSERTS

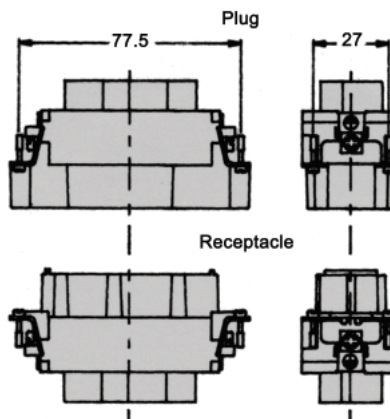
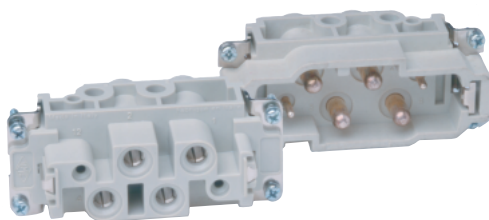


All dimensions are in mm.

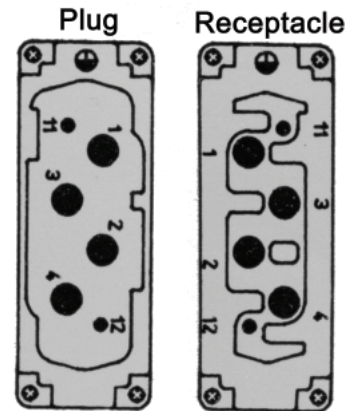


Plug	Receptacle
MP/M400	MP/F400

## 4 POWER/ 2 SIGNAL MIXED POWER INSERTS

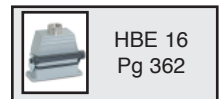


View from Cable Side

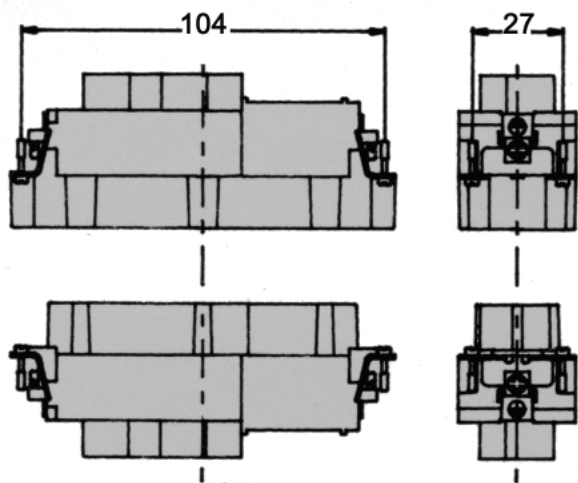
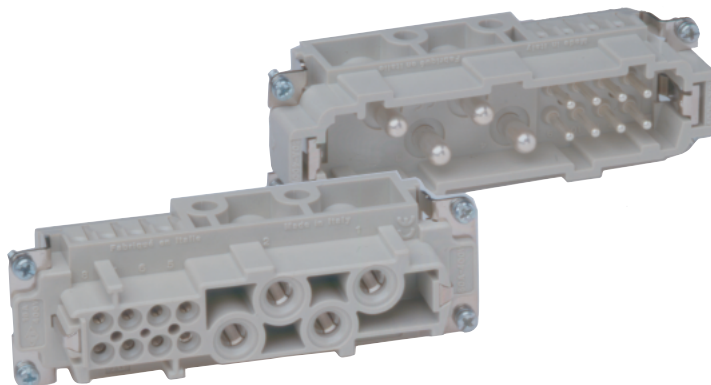


All dimensions are in mm.

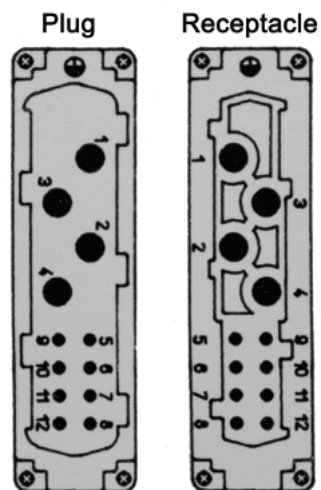
Plug	Receptacle
MP/M402	MP/F402



## 4 POWER/ 8 SIGNAL MIXED POWER INSERTS



View from Cable Side



All dimensions are in mm.

Plug	Receptacle
11/2408	11/1408

