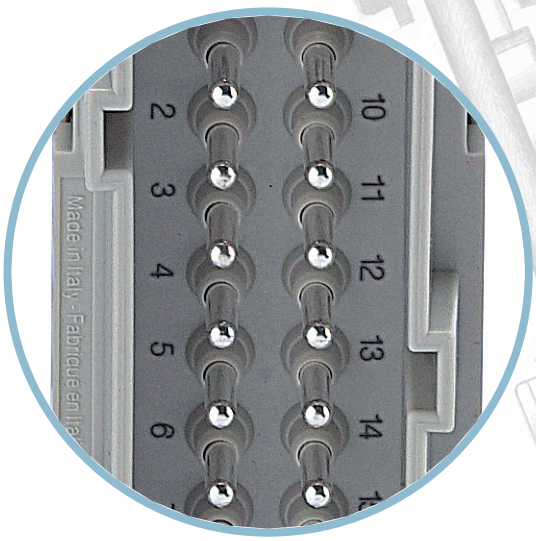
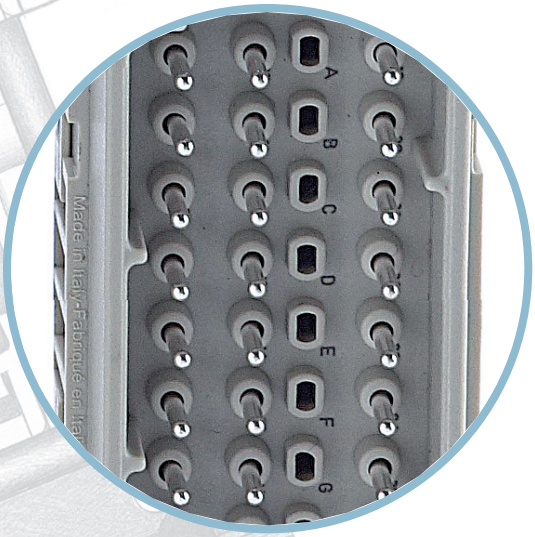
NEW

HIGH DENSITY
spring connection

STANDARD
16A



CDS
10A



STANDARD 16A	CDS - HIGH DENSITY 10A	
06 poles	09 poles	+50%
10 poles	18 poles	+80%
16 poles	27 poles	+70%
24 poles	42 poles	+75%
32 poles	54 poles	+70%
48 poles	84 poles	+75%

CDS series

High density spring connection

The originality of multipole connectors represents one of the core values of ILME, a leading company in this segment.

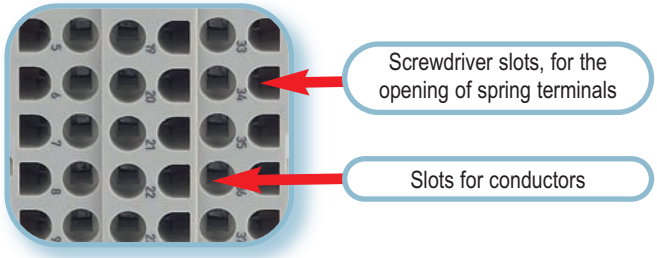
The continuous demand for a greater number of poles and of smaller dimensions has led to the design and manufacture of the new CDS series, which offers single connectors with a maximum number of 84 poles that occupy the same space of standard connectors with screw/spring connection.

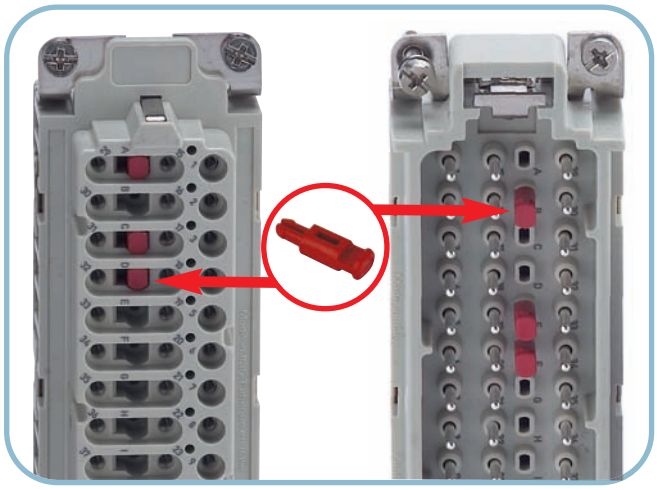
The compact spring connection enables the occupied space to be reduced and avoids using "CRIMP" solutions that require the use of special tools.

The new **CDS series**, which is an evolution as compared to the compact CKS series, offers the following advantages:

- **Greater pole density as compared to existing connectors with screw terminals for enclosures of the same size**
- **No special wire preparation other than stripping**
- **An excellent fastening solution and a great resistance to strong vibrations**

The insertion of the screwdriver is facilitated by the particular shape of the hole, which ensures that the operation is always performed correctly.





It is possible to insert in the front area the new CR CDS coding pin that enables the polarisation of inserts in a wide range of combinations.
This means that it is possible to install side by side identical connectors with different functions.
The new CR CDS coding pins can also be used in combination with oder CR 20 / CRM / CRF / CR 72 metal pins instead of insert fixing screws in order to increase the number of possible combinations.

Each position of the coding pin used on the female insert must correspond to an unused position on the male insert.
The required number of coding pins, depending on the size of connectors, and the maximum number of possible codings is shown in the following table.

CDS series - Coding with CR CDS pins

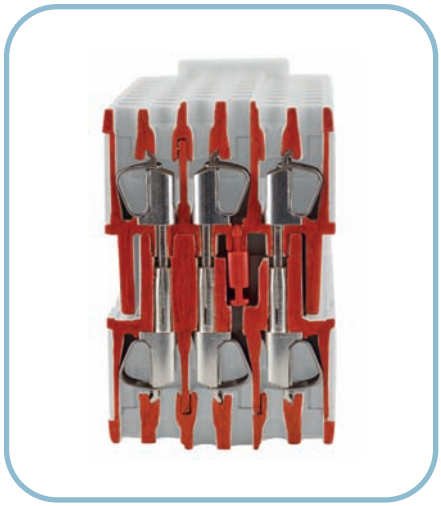
Size of connectors	Slots for coding pins (M) = male insert (F) = female insert	Required coding pins for each coupling	Possible codings
9P+⏚	3 (M) + 3 (F)	3	$2^3 - 2^{(*)} = 6$
18P+⏚	6 (M) + 3 (F)	6	$2^6 - 2 = 62$
27P+⏚	9 (M) + 9 (F)	9	$2^9 - 2 = 510$
42P+⏚	14 (M) + 14 (F)	14	$2^{14} - 2 = 16.382$

(*) This excludes the two codings where all the coding pins are on one side only (male or female insert) because they are ineffective.

CDS series

Contacts connected with spring terminal

Inserts series: CDS



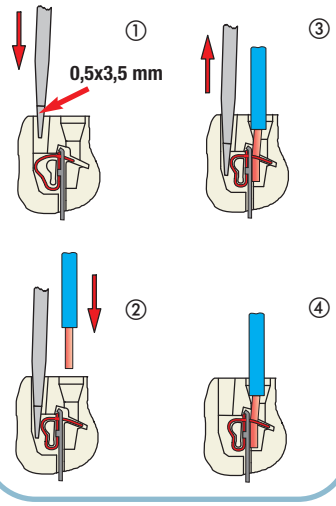
In this layout the wires are connected to the female and male insert contacts by means of a spring terminal.
This type of connection offers the following advantages:

- ❱ no special wire preparation;
- ❱ a screwdriver with a 0,5 x 3,5 mm blade is the only tool required to insert the wire in the contact;
- ❱ it offers an excellent fastening solution and a great resistance to strong vibrations;
- ❱ it allows the use of rigid and flexible wires with cross-sections between 0,14 and 2,5 mm² (26 - 14 AWG);
- ❱ for wires with crimped ferrule, useful cross-section: up to 1,5 mm² (AWG 16);
- ❱ allows conductivity tests under load to be carried out through the screwdriver insertion section, without splitting the insert;
- ❱ it greatly reduces insert preparation and cabling times.

Inserts series		**CDS**
No. of poles [1]	main contacts + ⏚	**9, 18, 27, 42, (54), (84)**
	auxiliary contacts	--
rated current [2]		10A
EN 61984 pollution degree 3	rated voltage	400V
	rated impulse withstand voltage	6kV
	pollution degree	3
EN 61984 pollution degree 2	rated voltage	400V/690V
	rated impulse withstand voltage	6kV
	pollution degree	2
contact resistance		≤ 1 mΩ
insulation resistance		≥ 10 GΩ
ambient temperature limit (°C)	min	-40
	max	+125
degree of protection	with enclosures	IP65, IP66, IP67, IP68, IP69 (according to type)
	without enclosures	IP20
conductor connections		spring
conductor cross-section	mm²	0,14 - 2,5 (for wires with crimped ferrule, usable section: up to 1,5 mm²)
	AWG	26 - 14 (AWG 16 with crimped ferrule)
mechanical endurance (rating cycles)		≥ 500

1) Polarities shown in brackets may be achieved by using two inserts in their own double housings.
2) Please check the insert load curves to establish the actual maximum operating current according to the ambient temperature.

Connection with spring terminal

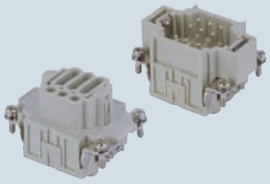


CDS 9 poles + ⏚ 10A - 400V

enclosures:
size “44.27” page:

panel supports: page:

inserts,
spring terminal connections



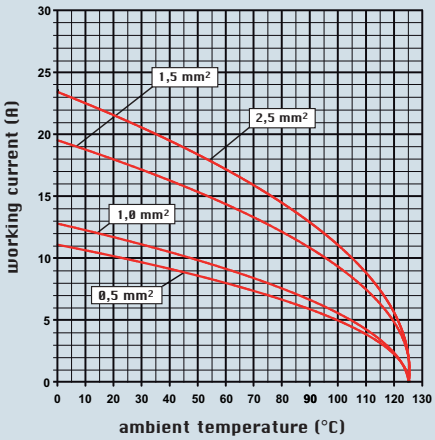
silver plated contacts

NEW

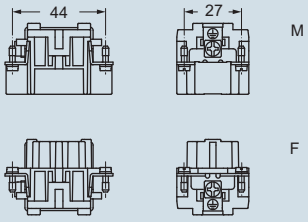
description	part No.
spring terminal female inserts with female contacts male inserts with male contacts	**CDSF 09** **CDSM 09**

- characteristics according to EN 61984:
  10A 400V 6kV 3
  10A 690V 6kV 2
- certifications: cUL - UL for USA and Canada, (CSA), (GL), (EAC); the certifications shown in brackets are being applied for.
- insulation resistance: ≥ 10 GΩ
- ambient temperature limit: -40 °C ... +125 °C
- made of self-extinguishing thermoplastic resin UL 94 V0
- mechanical life: ≥ 500 cycles
- contact resistance: ≤ 1 mΩ
- for maximum current load, see the following load curves inserts, for more information see page 558

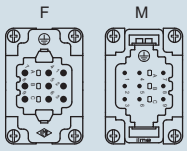
diagram CDS 09 poles



dimensions in mm

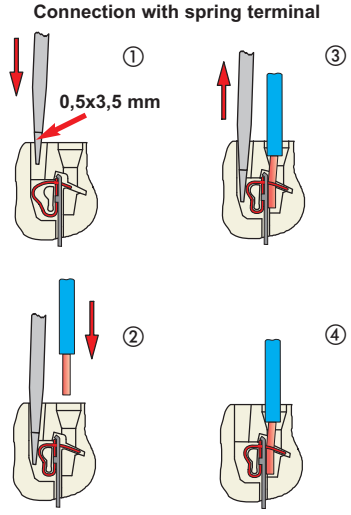


contacts side (front view)

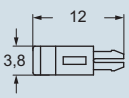


- inserts for conductors section:
  0,14 - 2,5 mm² - AWG 26 - 14
- for wires with crimped ferrule, usable section:
  up to 1,5 mm² (AWG 16)
- conductors stripping lenght: 9...11 mm

Connection with spring terminal

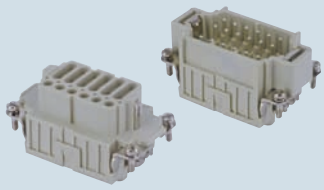


CR CDS coding pin



dimensions shown are not binding
and may be changed without notice

inserts,
spring terminal connections



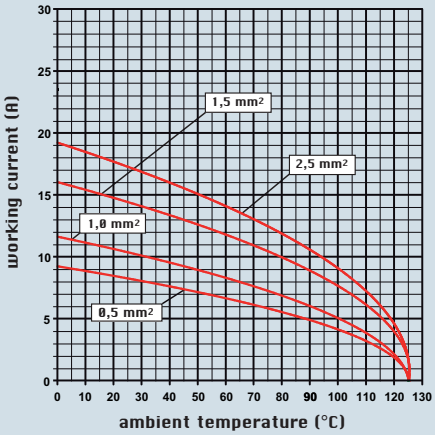
silver plated contacts

NEW

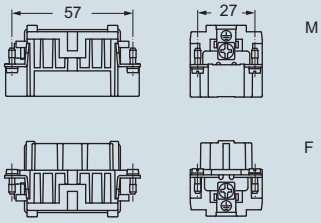
description	part No.
spring terminal female inserts with female contacts male inserts with male contacts	**CDSF 18** **CDSM 18**

- characteristics according to EN 61984:
  10A 400V 6kV 3
  10A 690V 6kV 2
- certifications: cUL - UL for USA and Canada, (CSA), (GL), (EAC); the certifications shown in brackets are being applied for.
- insulation resistance: ≥ 10 GΩ
- ambient temperature limit: -40 °C ... +125 °C
- made of self-extinguishing thermoplastic resin UL 94 V0
- mechanical life: ≥ 500 cycles
- contact resistance: ≤ 1 mΩ
- for maximum current load, see the following load curves inserts, for more information see page 558

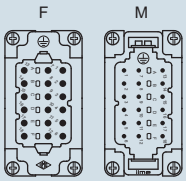
diagram CDS 18 poles



dimensions in mm

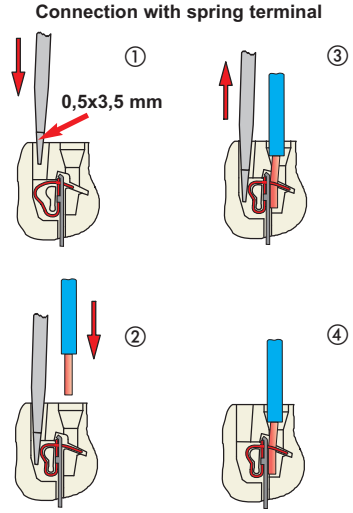


contacts side (front view)

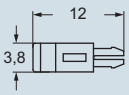


- inserts for conductors section:
  0,14 - 2,5 mm² - AWG 26 - 14
- for wires with crimped ferrule, usable section:
  up to 1,5 mm² (AWG 16)
- conductors stripping lenght: 9...11 mm

Connection with spring terminal



CR CDS coding pin



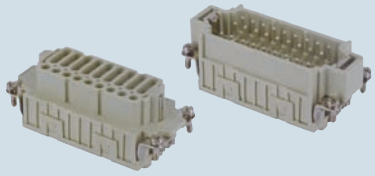
dimensions shown are not binding
and may be changed without notice

CDS 27 poles + ⏚ 10A - 400V

enclosures:
size "77.27" page:

panel supports: page:

inserts,
spring terminal connections



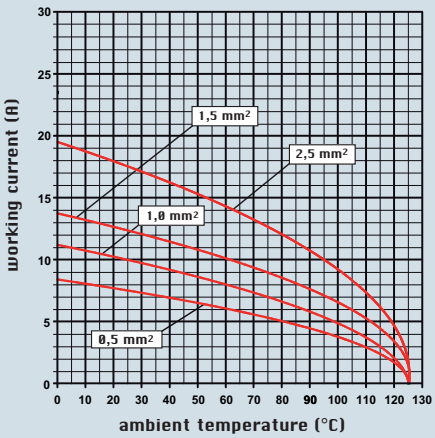
silver plated contacts

NEW

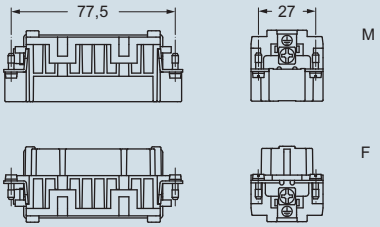
description	part No.
spring terminal female inserts with female contacts male inserts with male contacts	**CDSF 27** **CDSM 27**

- characteristics according to EN 61984:
  10A 400V 6kV 3
  10A 690V 6kV 2
- certifications: cUL - UL for USA and Canada, (CSA), (GL), (EAC); the certifications shown in brackets are being applied for.
- insulation resistance: ≥ 10 GΩ
- ambient temperature limit: -40 °C ... +125 °C
- made of self-extinguishing thermoplastic resin UL 94 V0
- mechanical life: ≥ 500 cycles
- contact resistance: ≤ 1 mΩ
- for maximum current load, see the following load curves inserts, for more information see page 558

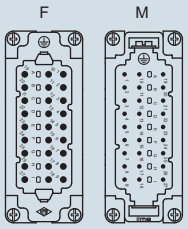
diagram CDS 27 poles



dimensions in mm

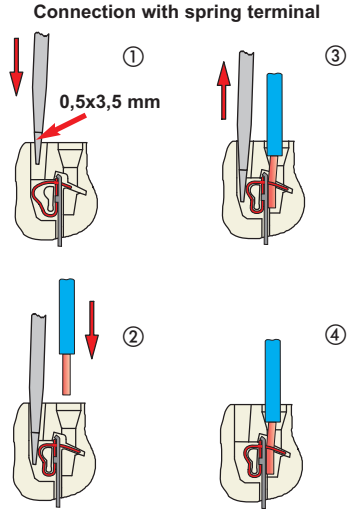


contacts side (front view)

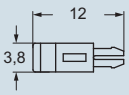


- inserts for conductors section:
  0,14 - 2,5 mm² - AWG 26 - 14
- for wires with crimped ferrule, usable section:
  up to 1,5 mm² (AWG 16)
- conductors stripping lenght: 9...11 mm

Connection with spring terminal



CR CDS coding pin

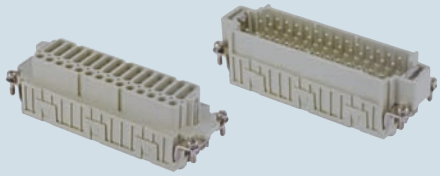


dimensions shown are not binding
and may be changed without notice

enclosures:
size "104.27" page:

panel supports: page:

inserts,
spring terminal connections



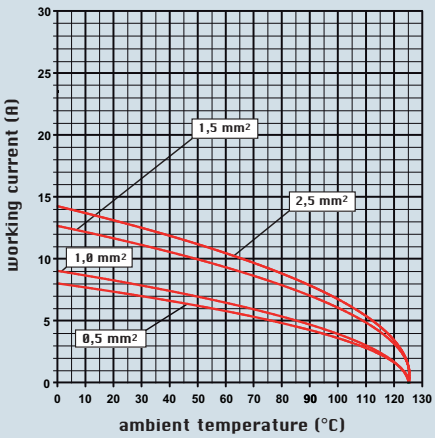
silver plated contacts

NEW

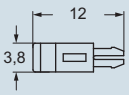
description	part No.
spring terminal female inserts with female contacts male inserts with male contacts	**CDSF 42** **CDSM 42**

- characteristics according to EN 61984:
  10A 400V 6kV 3
  10A 690V 6kV 2
- certifications: cUL - UL for USA and Canada, (CSA), (GL), (EAC); the certifications shown in brackets are being applied for.
- insulation resistance: ≥ 10 GΩ
- ambient temperature limit: -40 °C ... +125 °C
- made of self-extinguishing thermoplastic resin UL 94 V0
- mechanical life: ≥ 500 cycles
- contact resistance: ≤ 1 mΩ
- for maximum current load, see the following load curves inserts, for more information see page 558

diagram CDS 42 poles

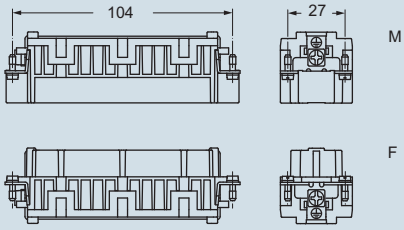


CR CDS coding pin

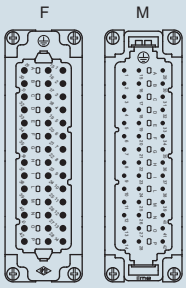


dimensions shown are not binding
and may be changed without notice

dimensions in mm

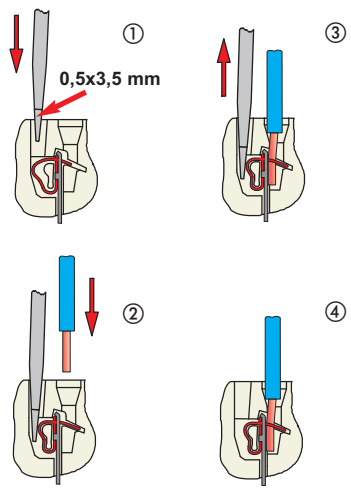


contacts side (front view)



- inserts for conductors section:
  0,14 - 2,5 mm² - AWG 26 - 14
- for wires with crimped ferrule, usable section:
  up to 1,5 mm² (AWG 16)
- conductors stripping lenght: 9...11 mm

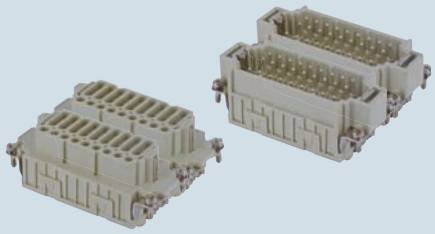
Connection with spring terminal



CDS 54 poles + ⏚ 10A - 400V

enclosures:
size "77.62" page:

inserts,
spring terminal connections



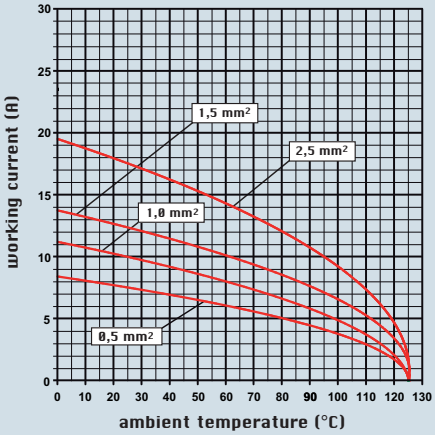
silver plated contacts

NEW

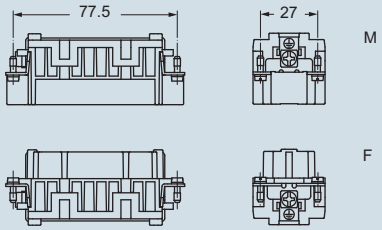
description	part No.	part No.
spring terminal female inserts with female contacts, No. (1-27) and (28-54) male inserts with male contacts, No. (1÷27) and (28-54)	**CDSF 27** **CDSM 27**	**CDSF 27 N** **CDSM 27 N**

- characteristics according to EN 61984:
  10A 400V 6kV 3
  10A 690V 6kV 2
- certifications: cUL - UL for USA and Canada, (CSA), (GL), (EAC); the certifications shown in brackets are being applied for.
- insulation resistance: ≥ 10 GΩ
- ambient temperature limit: -40 °C ... +125 °C
- made of self-extinguishing thermoplastic resin UL 94 V0
- mechanical life: ≥ 500 cycles
- contact resistance: ≤ 1 mΩ
- for maximum current load, see the following load curves inserts, for more information see page 558

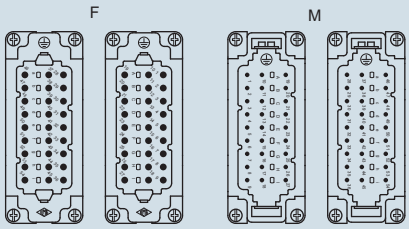
diagram CDS 54 poles



dimensions in mm

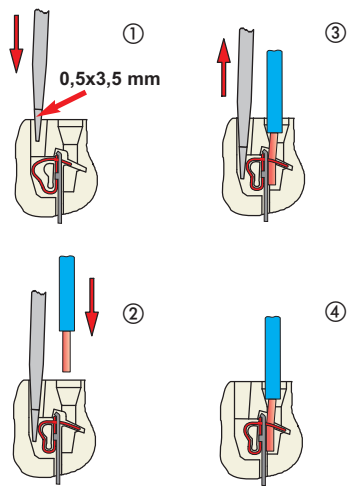


contacts side (front view)

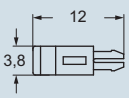


- inserts for conductors section:
  0,14 - 2,5 mm² - AWG 26 - 14
- for wires with crimped ferrule, usable section:
  up to 1,5 mm² (AWG 16)
- conductors stripping lenght: 9...11 mm

Connection with spring terminal



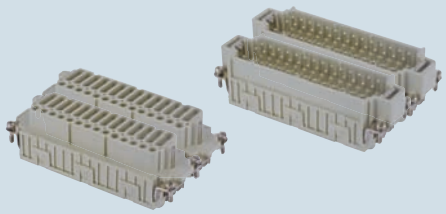
CR CDS coding pin



dimensions shown are not binding
and may be changed without notice

enclosures:
size "104.62" page:

inserts,
spring terminal connections



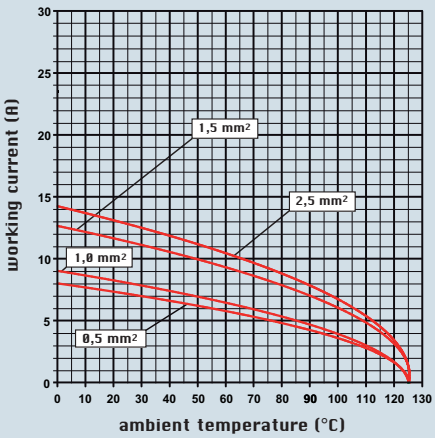
silver plated contacts

NEW

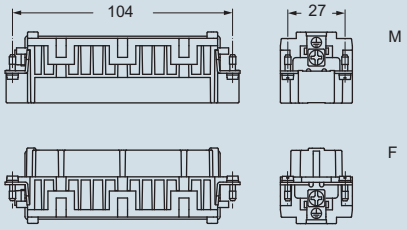
description	part No.	part No.
spring terminal female inserts with female contacts, No. (1-42) and (43-84) male inserts with male contacts, No.(1-42) and (43-84)	**CDSF 42** **CDSM 42**	**CDSF 42 N** **CDSM 42 N**

- characteristics according to EN 61984:
  10A 400V 6kV 3
  10A 690V 6kV 2
- certifications: cUL - UL for USA and Canada, (CSA), (GL), (EAC); the certifications shown in brackets are being applied for.
- insulation resistance: ≥ 10 GΩ
- ambient temperature limit: -40 °C ... +125 °C
- made of self-extinguishing thermoplastic resin UL 94 V0
- mechanical life: ≥ 500 cycles
- contact resistance: ≤ 1 mΩ
- for maximum current load, see the following load curves inserts, for more information see page 558

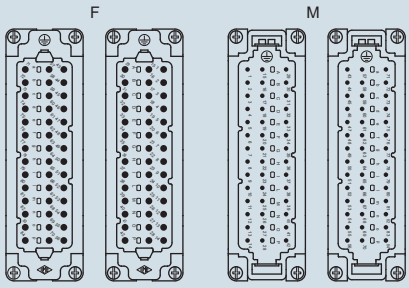
diagram CDS 84 poles



dimensions in mm

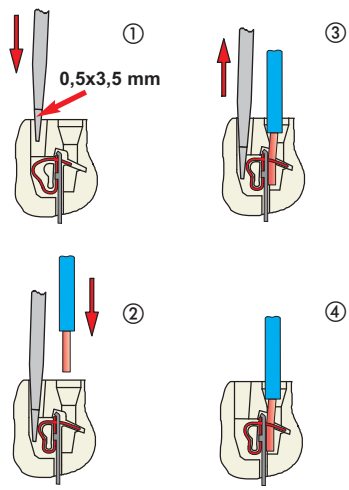


contacts side (front view)

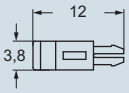


- inserts for conductors section:
  0,14 - 2,5 mm² - AWG 26 - 14
- for wires with crimped ferrule, usable section:
  up to 1,5 mm² (AWG 16)
- conductors stripping lenght: 9...11 mm

Connection with spring terminal



CR CDS coding pin



dimensions shown are not binding
and may be changed without notice