

inserts	No. of poles ¹⁾	auxiliary contacts	rated current ³⁾	EN 61984 (2008-10) pollution degree 3			EN 61984 (2008-10) pollution degree 2			UL/CSA certification	certifications
				rated voltage	rated impulse withstand voltage	pollution degree	rated voltage	rated impulse withstand voltage	pollution degree		
series	main contacts + ⊕									rated voltage or =	
CK	3, 4	—	10A	230/400V	4kV	3	400/690V	4kV	2	600V	UL, CSA, CCC, DNV-GL, EAC
CKS	3, 4	—	10A	400V	4kV	3	690V	4kV	2	600V	cUL ^{A)} , CSA, CCC, EAC
CD	8 (without ⊕)	—	10A	50V	0,8kV	3				50V	UL, CSA, CCC, DNV-GL, EAC
CD	7, 15, 25, 40, (50), 64, (80), (128)	—	10A	250V ²⁾	4kV	3	230/400V ²⁾	4kV	2	600V	UL, CSA, CCC, DNV-GL, EAC
CT, CTS	40, 64	—	10A	250V	4kV	3	230/400V	4kV	2	600V	UL, CSA, CCC, DNV-GL, EAC
CDD	24, 38, 42, 72, (76), 108, (144), (216)	—	10A				250V	4kV	2	600V	UL, CSA, CCC, DNV-GL, EAC
CDS	9, 18, 27, 42, (54), (84)	—	10A	400V	6kV	3	400/690V	6kV	2	600V	cUL ^{A)}
CSAH	10, 16, (32)	—	16A	250V	4kV	3	400V	4kV	2	600V	CCC
CDA, CDC	10, 16, (32)	—	16A	250V	4kV	3	230/400V	4kV	2	600V	cUL ^{A)} , CSA, CCC, DNV-GL, EAC
CQE	10, 18, (20), 32, 46, (64), (92)	—	16A	500V ²⁾	6kV	3	830V ²⁾	8kV	2	600V	cUL ^{A)} , CSA, DNV-GL, EAC
CQEE	40, 64	—	16A	500V	6kV	3				600V	cUL ^{A)}
CCE	6, 10, 16, 24, (32), (48)	—	16A	500V	6kV	3	400/690V	6kV	2	600V	UL, CSA, DNV-GL, EAC
CNE	6, 10, 16, 24, (32), (48)	—	16A	500V	6kV	3	400/690V	6kV	2	600V	cUL ^{A)} , CSA, CCC, DNV-GL, EAC
CSE	6, 10, 16, 24, (32), (48)	—	16A	500V	6kV	3	400/690V	6kV	2	600V	UL, CSA, CCC, DNV-GL, EAC
CSH	6, 10, 16, 24, (32), (48)	—	16A	500V	6kV	3	400/690V	6kV	2	600V	cUL ^{A)} , CSA, CCC, EAC
CSS	6, 10, 16, 24, (32), (48)	—	16A	500V	6kV	3	400/690V	6kV	2	600V	UL, CSA, CCC, EAC
CT	6, 10, 16, 24	—	16A				400V	4kV	2	600V	UL, CSA, CCC, DNV-GL, EAC
CTSE	6, 10, 16, 24	—	16A	500V	6kV	3	400/690V	6kV	2	600V	UL, CSA, CCC, DNV-GL, EAC
CME	3, 6, 10, (12), (20), (32)	—	16A	830V	8kV	3	1000V	8kV	2	600V	UL, CSA, CCC, EAC
	16	—		400/690V	6kV	3	720/1250V	8kV	2		
CMSH	3, 6, 10, (12), (20)	—	16A	830V	8kV	3	1000V	8kV	2	600V	
		2, (4)		500V	6kV	3	720/1250V	8kV	2		
CMCE	3, 6, 10, (12), (20), (32)	—	16A	830V	8kV	3	1000V	8kV	2	600V	UL, CSA, CCC, EAC
	16	—		400/690V	6kV	3	720/1250V	8kV	2		
CP	6, (12)	—	35A	400/690V	6kV	3				600V	UL, CSA, CCC, EAC
CQ 12	12	—	10A	400V	6kV	3	400/690V	6kV	2	600V	cUL ^{A)} , CCC, DNV-GL, EAC
CQ 05	5	—	16A	230/400V	4kV	3	320/500V	4kV	2	600V	cUL ^{A)} , CSA, CCC, DNV-GL, EAC
CQ 04/2	4	—	40A	400/690V	6kV	3				600V	cUL ^{A)} , CSA, EAC
		2	10A	250V	4kV	3					
CQ 08	8	—	16A	500V	6kV	3	400/690V	6kV	2	600V	cUL ^{A)} , CSA, CCC, EAC
CX 8/24	8	—	16A	230/400V	4kV	3	400V	4kV	2	600V	UL, CSA, CCC, DNV-GL, EAC
		24	10A	160V	2,5kV	3	250V	4kV	2		
CX 6/36	6	—	40A	690V	8kV	3				600V	UL, CSA, CCC, DNV-GL, EAC
		36	10A	160V	2,5kV	3	250V	4kV	2		
CX 12/2	12	—	40A	690V	8kV	3				600V	UL, CSA, CCC, DNV-GL, EAC
		2	10A	250V	4kV	3					
CX 6/6	6	—	100A	690V	8kV	3				600V	cUL ^{A)}
		6	16A	400V	6kV	3					
CX 4/0	4	0	80A	690V	8kV	3				600V	UL, CSA, CCC, DNV-GL, EAC
CX 4/2	4	—	80A	690V	8kV	3				600V	UL, CSA, CCC, DNV-GL, EAC
		2	16A	400V	6kV	3	400/690V	6kV	2		
CX 4/8	4	—	80A	400V	6kV	3	400/690V	6kV	2	600V	UL, CSA, CCC, DNV-GL, EAC
		8	16A	230/400V	4kV	3	400V	4kV	2		
CXL 2/4	2	4	10A	25V	0,8kV	3				600V	cUL ^{A)} , UL, EAC

N.B. All inserts have a mechanical life equal to or higher than 500 mating cycles.

1) Polarities shown in brackets may be achieved by using two inserts.

2) Contacts partially fitted inside an insert allow inserts to be used for applications requiring rated voltages higher than those shown. See tables on page 52 (CD inserts), page 66 (CDD inserts) and page 137 (CQE inserts).

3) Please check the insert load curves to establish the actual maximum operating current according to the ambient temperature. See diagrams on pages 556 to 566.

A) UL for USA and Canada.

- UL - with protocol E115072
- CSA - with protocol LR 82270
- CCC - China Compulsory Certification mark (the CQC voluntary certification mark has been applied for, and it will replace the CCC mark in upon expiration)
- DNV-GL - Det Norske Veritas - Germanischer Lloyd - TAE 0000197
- EAC - Eur Asian Certification

inserts	contact resistance	insulation resistance	ambient temperature limit ⁴⁾ (°C)		protection rating	conductor connection					from page
			min	max		axial screw	screw	spring	connection block at 45°	crimp	
CK	≤ 1 mΩ	≥ 10 GΩ	-40	+100	IP20/IP68		✓				48
CKS	≤ 3 mΩ	≥ 10 GΩ	-40	+125	IP20/IP68			✓			49
CD	≤ 3 mΩ	≥ 10 GΩ	-40	+125	IP20/IP68					✓	54
CD ⁵⁾	≤ 3 mΩ	≥ 10 GΩ	-40	+125	IP20/IP68					✓	53
CT, CTS	≤ 4 mΩ	≥ 10 GΩ	-40	+125	IP20/IP67		✓		✓		64
CDD	≤ 3 mΩ	≥ 10 GΩ	-40	+125	IP20/IP68					✓	67
CDS	≤ 3 mΩ	≥ 10 GΩ	-40	+125	IP20/IP68			✓			78
CSAH	≤ 3 mΩ	≥ 10 GΩ	-40	+125	IP20/IP66			✓		✓	87
CDA, CDC	≤ 1 mΩ	≥ 10 GΩ	-40	+125	IP20/IP66		✓				98, 99
CQE	≤ 1 mΩ	≥ 10 GΩ	-40	+125	IP20/IP68					✓	138
CQEE	≤ 1 mΩ	≥ 10 GΩ	-40	+125	IP20/IP68					✓	146
CCE	≤ 1 mΩ	≥ 10 GΩ	-40	+125	IP20/IP68					✓	110
CNE	≤ 1 mΩ	≥ 10 GΩ	-40	+125	IP20/IP68		✓				104
CSE	≤ 3 mΩ	≥ 10 GΩ	-40	+125	IP20/IP68		✓				104
CSH	≤ 3 mΩ	≥ 10 GΩ	-40	+125	IP20/IP68			✓			91
CSS	≤ 3 mΩ	≥ 10 GΩ	-40	+125	IP20/IP68			✓			122
CT	≤ 4 mΩ	≥ 10 GΩ	-40	+125	IP20/IP67		✓		✓		130
CTSE	≤ 4 mΩ	≥ 10 GΩ	-40	+125	IP20/IP67			✓	✓		130
CME	≤ 1 mΩ	≥ 10 GΩ	-40	+125	IP20/IP66		✓				149
CMSH	≤ 3 mΩ	≥ 10 GΩ	-40	+125	IP20/IP68			✓			149
CMCE	≤ 1 mΩ	≥ 10 GΩ	-40	+125	IP20/IP68					✓	148
CP	≤ 0,5 mΩ	≥ 10 GΩ	-40	+125	IP20/IP68		✓				162
CQ 12	≤ 3 mΩ	≥ 10 GΩ	-40	+125	IP20/IP68					✓	165
CQ 05	≤ 1 mΩ	≥ 10 GΩ	-40	+125	IP20/IP68					✓	166
CQ 04/2	≤ 0,3 mΩ ≤ 3 mΩ	≥ 10 GΩ	-40	+125	IP20/IP67					✓	168
CQ 08	≤ 1 mΩ	≥ 10 GΩ	-40	+125	IP20/IP67					✓	167
CX 8/24	≤ 1 mΩ ≤ 3 mΩ	≥ 10 GΩ	-40	+125	IP20/IP68					✓	169
CX 6/36	≤ 0,3 mΩ ≤ 3 mΩ	≥ 10 GΩ	-40	+125	IP20/IP68					✓	170
CX 12/2	≤ 0,3 mΩ ≤ 3 mΩ	≥ 10 GΩ	-40	+125	IP20/IP68		✓			✓	171
CX 6/6	≤ 0,3 mΩ ≤ 1 mΩ	≥ 10 GΩ	-40	+125	IP20/IP68					✓	175
CX 4/0	≤ 0,3 mΩ	≥ 10 GΩ	-40	+125	IP20/IP68		✓				172
CX 4/2	≤ 0,3 mΩ ≤ 1 mΩ	≥ 10 GΩ	-40	+125	IP20/IP68		✓				172
CX 4/8	≤ 0,3 mΩ ≤ 1 mΩ	≥ 10 GΩ	-40	+125	IP20/IP68			✓			173
CXL 2/4	≤ 0,3 mΩ	≥ 10 GΩ	-40	+125	IP20/IP67			✓			524

4) It may be used with ambient temperatures up to 180 °C by using the insert special version made of PPS (polyphenylene sulfide).

5) CD 07: IP67 with thermoplastic enclosures (cannot be used with metal enclosures).

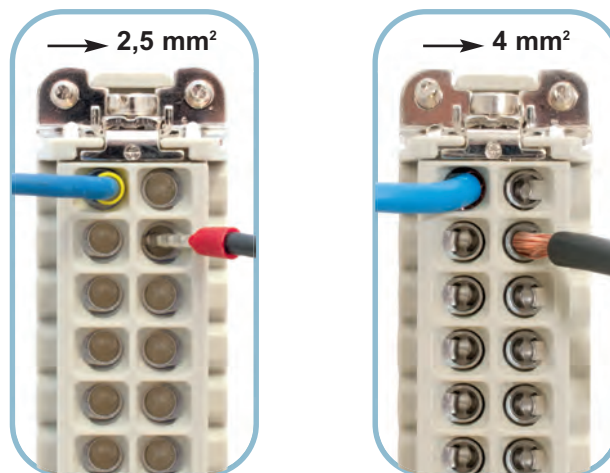
CDA - CDC series

Renewal of the compact inserts

The new CDA inserts with screw-type termination.

The renewed screw-type connector inserts (**CDA** series) with 10 and 16 poles + $\oplus$ are now made using screw-type terminals (CNE series) with a built-in wire protection pressure plate of proven reliability and practicality.

The wire protection pressure plate preserves the conductors in case of wiring with unprepared conductors (i.e. without wire end ferrules) up to a maximum wire cross-section of 4 mm² (12 AWG). The variant without a wire protection pressure plate (code with suffix X) is also available, for use with prepared conductors featuring a wire end ferrule with a maximum usable wire cross-section of 2,5 mm² (14 AWG).



The new CDC inserts with crimp termination.

The renewed crimp termination **CDC** series of inserts with 10 and 16 poles + $\oplus$ now adopt the tried and tested contact retention technique of connector series CCE and CQE for removable crimp contacts (series CC, max 16A).

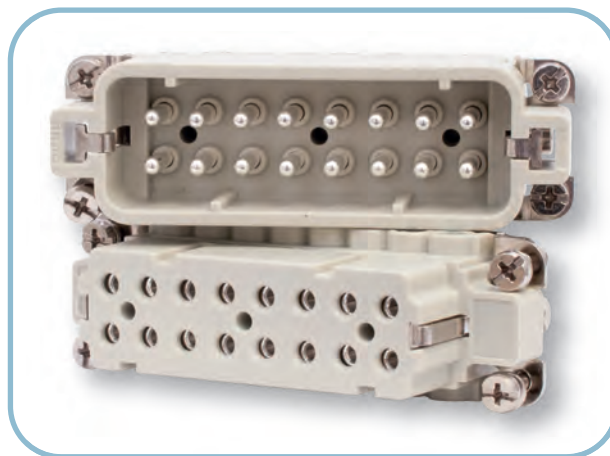
The characteristics of **CDA/CDC** inserts are:

- according to standard EN 61984:

16A 250V 4kV 3

16A 230/400V 4kV 2

- insulation resistance: $\geq 10 \text{ G}\Omega$
- ambient temperature limit: $-40^\circ\text{C} \dots +125^\circ\text{C}$
- construction material: UL 94 V-0 self-extinguishing thermoplastic resin
- mechanical life: ≥ 500 cycles.

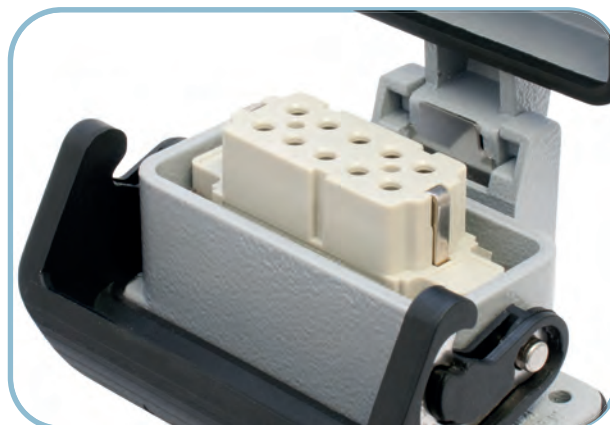


The applications.

Like those of the previous series, the new CDA and CDC inserts and their enclosures are used in accordance with the recommendations EUROMAP 12, EUROMAP 13, EUROMAP 14-1, EUROMAP 16 and EUROMAP 62 (European industry consortium for moulding machines and plastic processing).

The CDC inserts can also be used with CC series crimp contacts made of iron/constantan (Fe-CuNi) for the cabling of J type thermocouples in accordance with IEC/EN 60584-1 (Recommendation EUROMAP 14-1).

The CDA/CDC series inserts can also be coupled with previous insert versions.



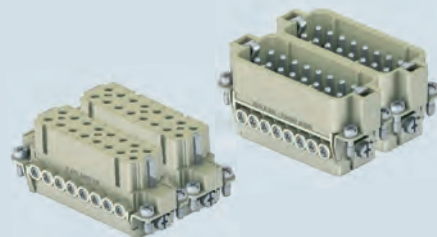
enclosures:
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C-TYPE IP65/IP66..... 237 - 239

W-TYPE for aggressive environments 372

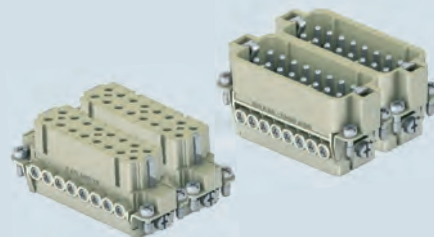
inserts,
screw terminal connection



silver
plated
contacts

NEW

inserts,
screw terminal connection



silver
plated
contacts

NEW

description

part No.

part No.

part No.

part No.

indirect, with pressure plate ¹⁾
female inserts, No. (1-16) and (17-32)
male inserts, No. (1-16) and (17-32)

CDAF 16
CDAM 16

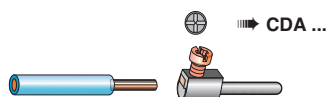
CDAF 16 N
CDAM 16 N

direct, without pressure plate ²⁾
female inserts, No. (1-16) and (17-32)
male inserts, No. (1-16) and (17-32)

CDAF 16 X
CDAM 16 X

CDAF 16 XN
CDAM 16 XN

¹⁾ for unprepared conductors



²⁾ for conductors with end sleeve ferrule



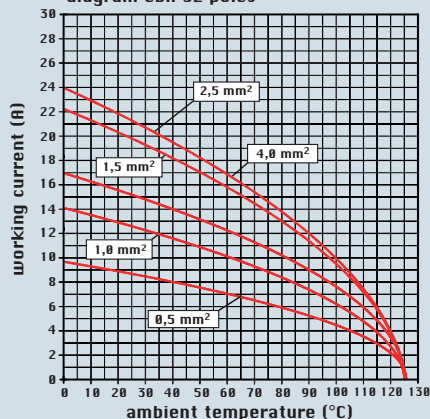
- characteristics according to EN 61984:

16A 250V 4kV 3

16A 230/400V 4kV 2

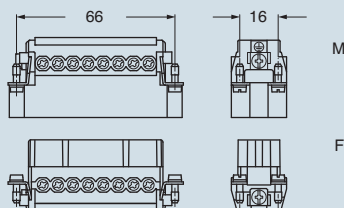
- cUL (UL for USA and Canada), CSA, CCC *, DNV-GL, EAC certified; * CQC certification being applied for
- rated voltage according to UL/CSA: 600V
- insulation resistance: $\geq 10 \text{ G}\Omega$
- ambient temperature limit: $-40^\circ\text{C} \dots +125^\circ\text{C}$
- are made of self-extinguishing thermoplastic resin UL 94V-0
- mechanical life: ≥ 500 cycles
- contact resistance: $\leq 1 \text{ m}\Omega$
- according to recommendations EUROMAP N° 12/N° 62
- for maximum current load, see the following inserts load curves, for more information see page 559

diagram CDA 32 poles

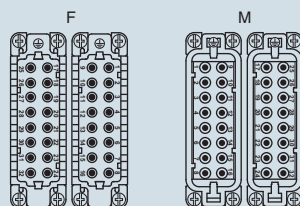


dimensions shown are not binding
and may be changed without notice

dimensions in mm

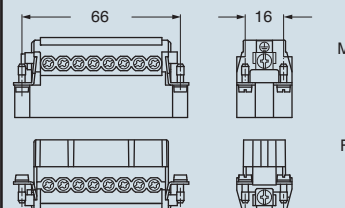


contacts side (front view)

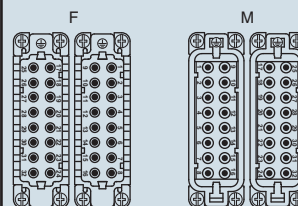


- inserts with pressure plate for conductors cross-sections: 0,5 - 4 mm² - AWG 20 - 12
- conductors stripping length: 7 mm
- terminal screw torque: 0,5 Nm (4.4 lb.in), for more information see page 34 and 35

dimensions in mm



contacts side (front view)



- inserts without pressure plate for prepared conductors with cross-sections: 0,25 - 2,5 mm² - AWG 24 - 14
- the stripping length for prepared wires with bush crimped depends on that of the bush itself
- terminal screw torque: 0,5 Nm (4.4 lb.in), for more information see page 34 and 35