

CDSH - SQUICH® series

Spring connection contacts with actuator button



STANDARD 16A

CDSH - 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%

CDSH - SQUICH® series

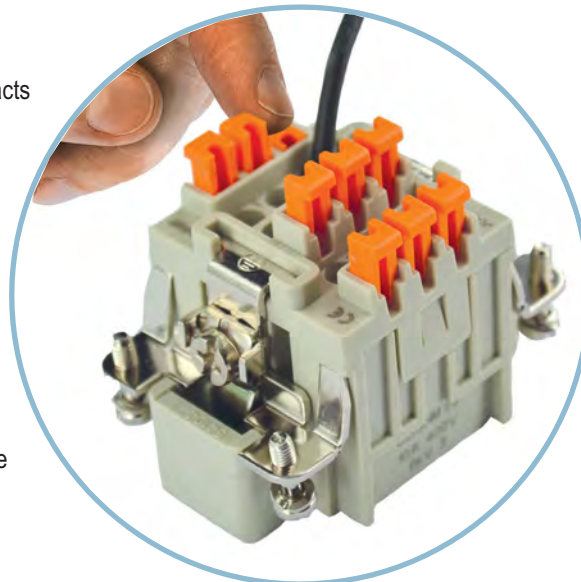
Spring connection contacts with actuator button

Inserts series: CDSH

In this layout the wires are connected to the socket and plug insert contacts by means of a **spring terminal with actuator button**.

This type of connection offers the following advantages:

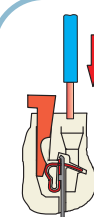
- › **no special wire preparation** (other than stripping);
- › it offers an excellent fastening solution and a **great resistance to strong vibrations**;
- › it allows the use of rigid and flexible wires with cross-sections between 0,14 and 2,5 mm² (AWG 26 - 14);
- › for wires with crimped ferrule, usable section: up to 1,5 mm² (AWG 16);
- › a screwdriver with a 0,5 x 3,5 mm blade is the only tool required to remove the wire from the contact;
- › the profile of the actuator button allows them section of a test probe.



Inserts series		CDSH
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, IP69K (according to type)
	without enclosures	IP20
conductor connections		spring
conductor cross-section	mm ²	0,14 - 2,5 (for wires with crimped ferrule, usable section: up to 1,5 mm ²)
	AWG	26 - 14 (AWG 16 with crimped ferrule)
mechanical endurance (rating cycles)		≥ 500

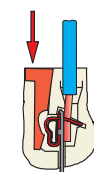
1) Polarities shown in brackets may be achieved by using two inserts in their own double sized housings.

2) Please check the insert load curves to establish the actual maximum operating current according to the ambient temperature.



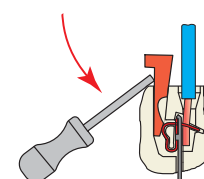
Step 1

deep insertion of the conductor (with its insulation removed) in its own round seat



Step 2

press the actuator button to close the terminal



Reopening

0,5x3,5 mm

CDSH - SQUICH® series

Spring connection contacts with actuator button

The new **CDSH series “SQUICH®” (with spring and actuator button)**, the logical evolution of the CDS series, is characterized by the following advantages:

- ◆ Greater pole density as compared to existing connector with screw terminals.
- ◆ Reduced inserts preparation and cabling times.
- ◆ Cabling tool is not necessary.
- ◆ Quick identification of wired and non-wired terminals.
- ◆ Terminals already open and ready for conductor clamping.
- ◆ Option to use wires up to 2,5 mm².

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

CDSH - 9 poles



CDSH - 18 poles



CDSH - 27 poles



CDSH - 42 poles



Each of the spring terminals has an actuator button, suitably shaped and incorporated in the cavity. When this button is pressed, it triggers the closure of the spring device of the corresponding terminal, safely and reliably connecting the conductor to its respective electric contact in the connector.

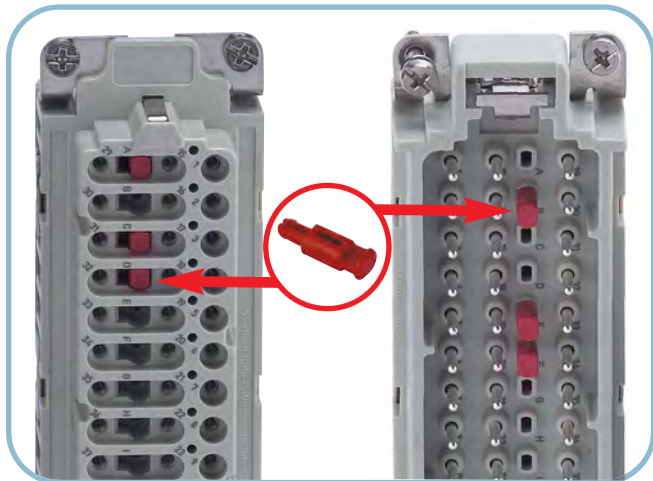
The actuator buttons are supplied lifted, in the “open terminal” position and are easily distinguishable by the **orange colour which makes them stand out from the insulating body of the connector**.

The advantage of such an **exclusive solution** is that the **actuators disappear completely within the body of the connector**, making it easy to identify terminals not yet closed and eliminating possible obstacles to the movement of the conductors during installation and maintenance.

In this manner during the cabling phase the **need for a tool to activate the terminal is completely eliminated** and **a simple operation is all you need to make the connection**.

CDSH - SQUICH® series

Spring connection contacts with actuator button



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 other 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.

CDSH 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 (M) + 1 (F)	3
18P+⊕	6 (M) + 6 (F)	6 3 (M) + 3 (F)	20
27P+⊕	9 (M) + 9 (F)	9 5 (M) + 4 (F)	126
42P+⊕	14 (M) + 14 (F)	14 7 (M) + 7 (F)	3.432

CDSH series can be used with the whole range of ILME enclosures



CLASS
Standard



BIG
Large and modular



EMC



V-TYPE
IP67



W-TYPE
Aggressive environments



CENTRAL LEVER



T-TYPE
Insulating



HYGIENIC
T-TYPE/H
T-TYPE/C



IP68

enclosures:
size "44.27"

page:

C-TYPE IP65/IP66	240 - 243
C7 IP67, single lever	274
V-TYPE IP65/IP66, single lever	280/284 - 286
BIG hoods	304 - 306
T-TYPE IP65 insulating	326 - 327
T-TYPE / W IP66 insulating	336 - 337
HYGIENIC T-TYPE / H IP66/IP69	350 - 351
HYGIENIC T-TYPE / C IP66/IP69, -50 °C	358 - 359
W-TYPE for aggressive environments	373
EMC	392
central lever	404 - 405
IP68	420 - 423
LS-TYPE	450 - 451

panel supports:

page:

COB

refer to catalogue page CN.16

description

spring terminals with actuator button
female inserts with female contacts
male inserts with male contacts

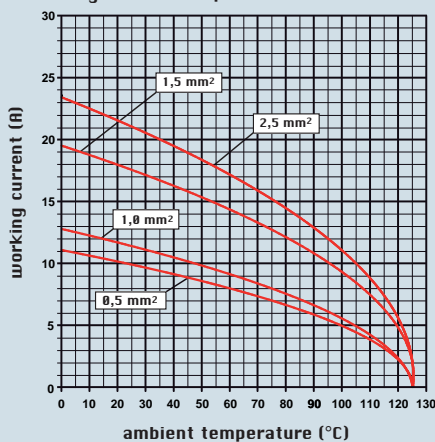
- characteristics according to EN 61984:

10A 400V 6kV 3

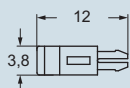
10A 400V/690V 6kV 2

- insulation resistance: $\geq 10 \text{ G}\Omega$
- ambient temperature limit: $-40 \text{ }^{\circ}\text{C} \dots +125 \text{ }^{\circ}\text{C}$
- made of self-extinguishing thermoplastic resin UL 94 V0
- mechanical life: ≥ 500 cycles
- contact resistance: $\leq 1 \text{ m}\Omega$
- for maximum current load, see the following load curves inserts

diagram CDSH 09 poles



CR CDS coding pin



dimensions shown are not binding
and may be changed without notice

inserts,
spring terminal connections

silver
plated
contacts

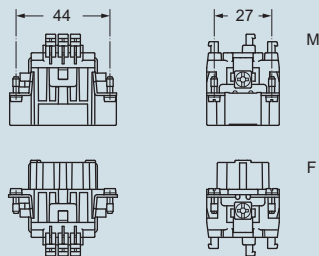


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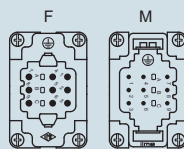
part No.

CDSHF 09
CDSHM 09

dimensions in mm

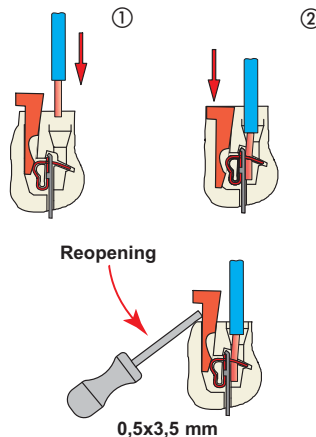


contacts side (front view)



- 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 length: 9...11 mm

SQUICH® connections



enclosures:
size "57.27"

page:

C-TYPE IP65/IP66	244 - 249
C7 IP67, two levers	275
V-TYPE IP65/IP66, single lever	281/288 - 291
BIG hoods	308 - 311
T-TYPE IP65 insulating	328 - 329
T-TYPE / W IP66 insulating	338 - 339
HYGIENIC T-TYPE / H IP66/IP69	352 - 353
HYGIENIC T-TYPE / C IP66/IP69, -50 °C	360 - 361
W-TYPE for aggressive environments	374
EMC	393
central lever	406 - 407
IP68	424 - 427
LS-TYPE	452 - 453

panel supports:

page:

COB	462 - 463
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refer to catalogue page CN.16

description

inserts,
spring terminal connections

silver
plated
contacts



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part No.

spring terminals with actuator button
female inserts with female contacts
male inserts with male contacts

CDSHF 18
CDSHM 18

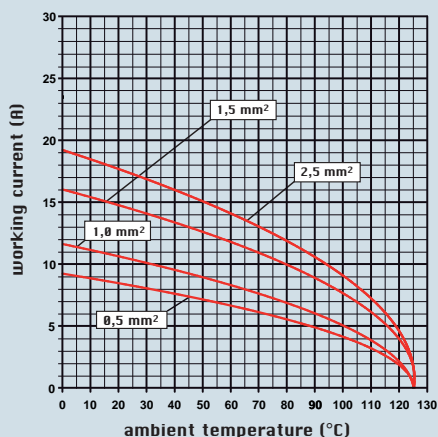
- characteristics according to EN 61984:

10A 400V 6kV 3

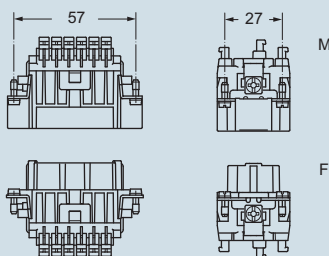
10A 400V/690V 6kV 2

- insulation resistance: $\geq 10 \text{ G}\Omega$
- ambient temperature limit: $-40 \text{ }^{\circ}\text{C} \dots +125 \text{ }^{\circ}\text{C}$
- made of self-extinguishing thermoplastic resin UL 94 V0
- mechanical life: ≥ 500 cycles
- contact resistance: $\leq 1 \text{ m}\Omega$
- for maximum current load, see the following load curves inserts

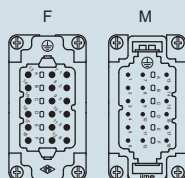
diagram CDSH 18 poles



dimensions in mm

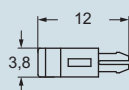


contacts side (front view)



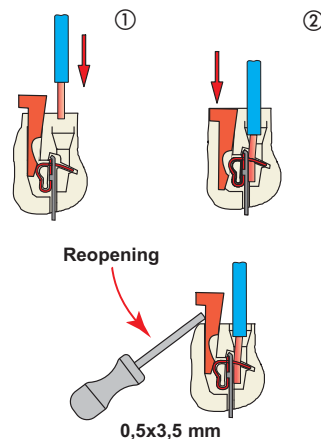
- inserts for conductors section:
0,14 - 2,5 mm² - AWG 26 - 14
- for wires with crimped ferrule, usable section:
up to 1,5 mm² (AWG 16)
- conductors stripping length: 9...11 mm

CR CDS coding pin



dimensions shown are not binding
and may be changed without notice

SQUICH® connections



enclosures:
size "77.27"

page:

C-TYPE IP65/IP66	250 - 256
C7 IP67, two levers	276
V-TYPE IP65/IP66, single lever	282/292 - 295
BIG hoods	312 - 315
T-TYPE IP65 insulating	330 - 331
T-TYPE / W IP66 insulating	340 - 341
HYGIENIC T-TYPE / H IP66/IP69	354 - 355
HYGIENIC T-TYPE / C IP66/IP69, -50 °C	362 - 363
W-TYPE for aggressive environments	375
EMC	394
central lever	408 - 409
IP68	428 - 431
LS-TYPE	454 - 455

panel supports:

page:

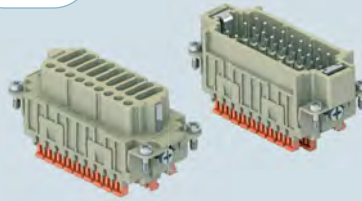
COB	462 - 463
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refer to catalogue page CN.16

description

inserts,
spring terminal connections

silver
plated
contacts



**AVAILABLE
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part No.

spring terminals with actuator button
female inserts with female contacts
male inserts with male contacts

CDSHF 27
CDSHM 27

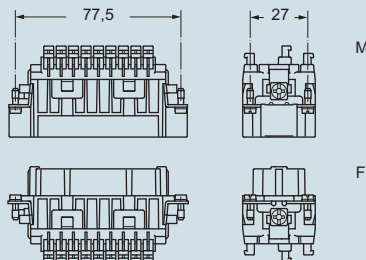
- characteristics according to EN 61984:

10A 400V 6kV 3

10A 400V/690V 6kV 2

- insulation resistance: $\geq 10 \text{ G}\Omega$
- ambient temperature limit: $-40 \text{ }^{\circ}\text{C} \dots +125 \text{ }^{\circ}\text{C}$
- made of self-extinguishing thermoplastic resin UL 94 V0
- mechanical life: ≥ 500 cycles
- contact resistance: $\leq 1 \text{ m}\Omega$
- for maximum current load, see the following load curves inserts

dimensions in mm



contacts side (front view)

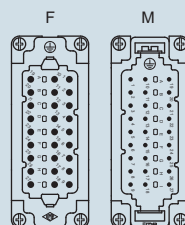
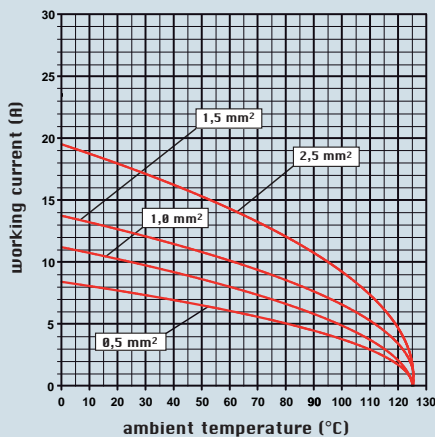
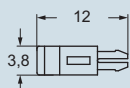


diagram CDSH 27 poles



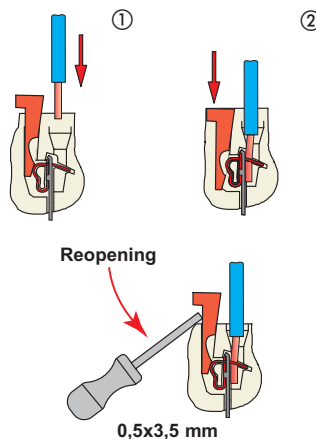
CR CDS coding pin



dimensions shown are not binding
and may be changed without notice

- 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 length: 9...11 mm

SQUICH® connections



enclosures:
size "104.27"

page:

C-TYPE IP65/IP66	258 - 266
C7 IP67, two levers	277
V-TYPE IP65/IP66, single lever	283/296 - 299
BIG hoods	316 - 319
T-TYPE IP65 insulating	332 - 333
T-TYPE / W IP66 insulating	342 - 343
HYGIENIC T-TYPE / H IP66/IP69	356 - 357
HYGIENIC T-TYPE / C IP66/IP69, -50 °C	364 - 365
W-TYPE for aggressive environments	376
EMC	395
central lever	410 - 412
IP68	432 - 435
LS-TYPE	456 - 457

panel supports:

page:

COB 462 - 463

refer to catalogue page CN.16

description

spring terminals with actuator button
female inserts with female contacts
male inserts with male contacts

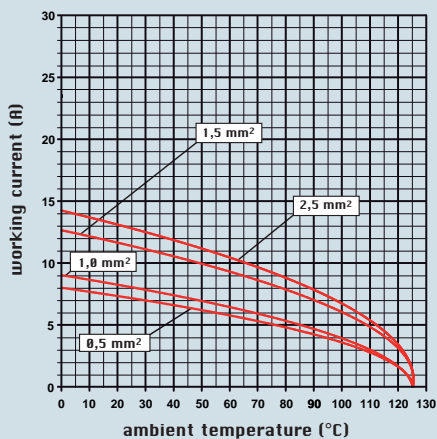
- characteristics according to EN 61984:

10A 400V 6kV 3

10A 400V/690V 6kV 2

- insulation resistance: $\geq 10 \text{ G}\Omega$
- ambient temperature limit: $-40 \text{ }^{\circ}\text{C} \dots +125 \text{ }^{\circ}\text{C}$
- made of self-extinguishing thermoplastic resin UL 94 V0
- mechanical life: ≥ 500 cycles
- contact resistance: $\leq 1 \text{ m}\Omega$
- for maximum current load, see the following load curves inserts

diagram CDSH 42 poles



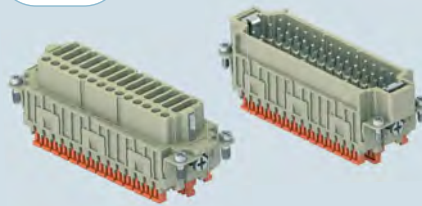
CR CDS coding pin



dimensions shown are not binding
and may be changed without notice

inserts,
spring terminal connections

silver
plated
contacts

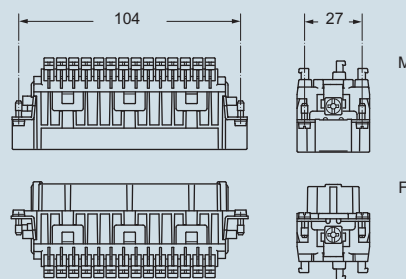


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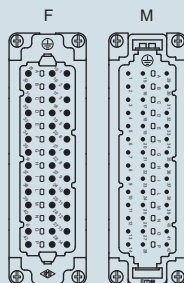
part No.

**CDSHF 42
CDSHM 42**

dimensions in mm



contacts side (front view)



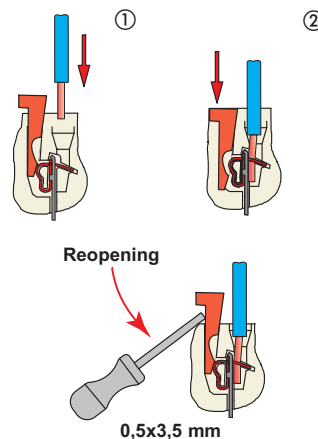
- inserts for conductors section:

0,14 - 2,5 mm² - AWG 26 - 14

- for wires with crimped ferrule, usable section:
up to 1,5 mm² (AWG 16)

- conductors stripping length: 9...11 mm

SQUICH® connections



enclosures:
size "77.62"

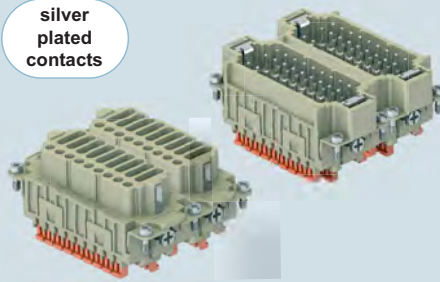
page:

C-TYPE IP65/IP66 267 - 270
W-TYPE for aggressive environments 377

refer to catalogue page CN.16

inserts,
spring terminal connections

silver
plated
contacts



**AVAILABLE
3rd QUARTER 2016**

description

part No.

part No.

spring terminals with actuator button
female inserts with female contacts, No. (1-27) and (28-54)
male inserts with male contacts, No. (1÷27) and (28-54)

**CDSHF 27
CDSHM 27**

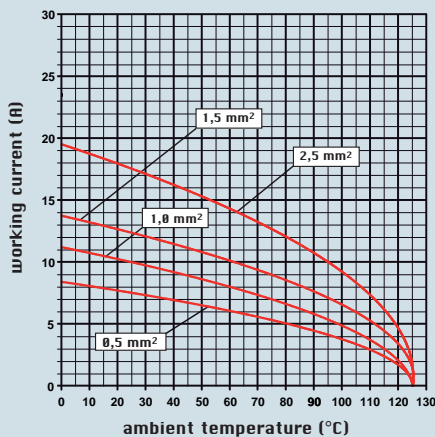
**CDSHF 27 N
CDSHM 27 N**

- characteristics according to EN 61984:

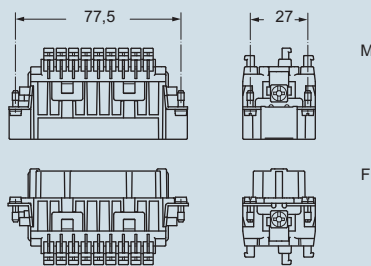
**10A 400V 6kV 3
10A 400V/690V 6kV 2**

- insulation resistance: $\geq 10 \text{ G}\Omega$
- ambient temperature limit: $-40^\circ\text{C} \dots +125^\circ\text{C}$
- made of self-extinguishing thermoplastic resin UL 94 V0
- mechanical life: ≥ 500 cycles
- contact resistance: $\leq 1 \text{ m}\Omega$
- for maximum current load, see the following load curves inserts

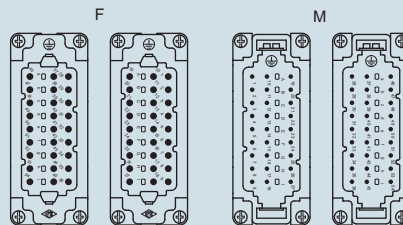
diagram CDSH 54 poles



dimensions in mm

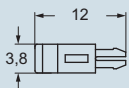


contacts side (front view)

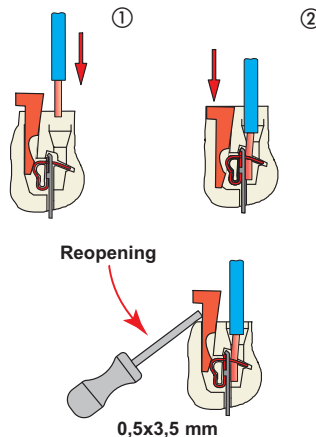


- inserts for conductors section:
0,14 - 2,5 mm² - AWG 26 - 14
- for wires with crimped ferrule, usable section:
up to 1,5 mm² (AWG 16)
- conductors stripping length: 9...11 mm

CR CDS coding pin



SQUICH® connections



dimensions shown are not binding
and may be changed without notice

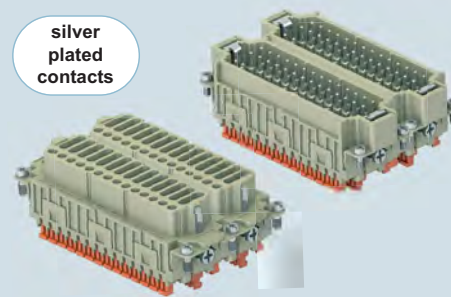
enclosures:
size "104.62"

page:

C-TYPE IP65/IP66..... 271
W-TYPE for aggressive environments 378

refer to catalogue page CN.16

inserts,
spring terminal connections



**AVAILABLE
3rd QUARTER 2016**

description

part No.

part No.

spring terminals with actuator button
female inserts with female contacts, No. (1-42) and (43-84)
male inserts with male contacts, No. (1-42) and (43-84)

**CDSHF 42
CDSHM 42**

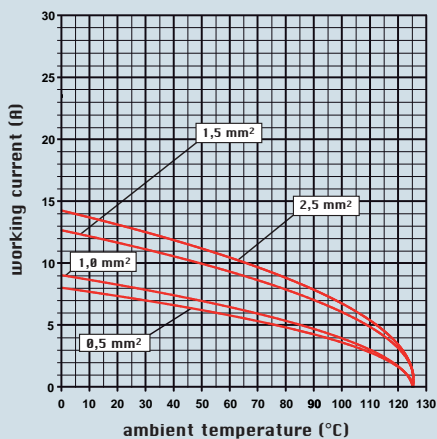
**CDSHF 42 N
CDSHM 42 N**

- characteristics according to EN 61984:

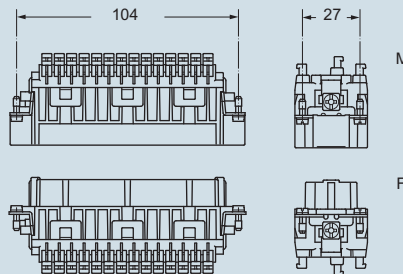
10A 400V 6kV 3
10A 400V/690V 6kV 2

- insulation resistance: $\geq 10 \text{ G}\Omega$
- ambient temperature limit: $-40^\circ\text{C} \dots +125^\circ\text{C}$
- made of self-extinguishing thermoplastic resin UL 94 V0
- mechanical life: ≥ 500 cycles
- contact resistance: $\leq 1 \text{ m}\Omega$
- for maximum current load, see the following load curves inserts

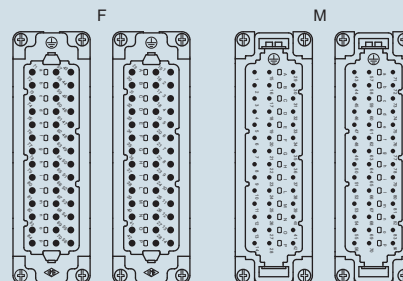
diagram CDSH 84 poles



dimensions in mm

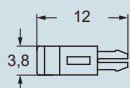


contacts side (front view)

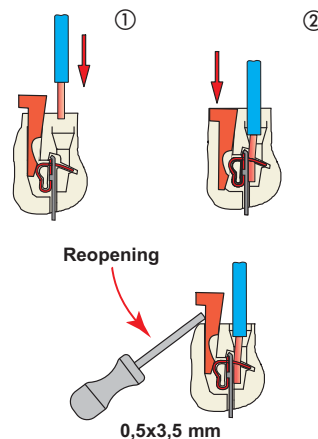


- inserts for conductors section:
0,14 - 2,5 mm² - AWG 26 - 14
- for wires with crimped ferrule, usable section:
up to 1,5 mm² (AWG 16)
- conductors stripping length: 9...11 mm

CR CDS coding pin



SQUICH® connections



dimensions shown are not binding
and may be changed without notice