

CDSH-SQUICH®

CDSH-SQUICH® series

High density without tools (spring connection contacts)

The CDSH-SQUICH® series (with spring and actuator button) are the logical **evolution of the CDS series**.

The continuous demand for a greater number of poles and 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.

Each of the spring terminals has an actuator button, suitably shaped and incorporated in the cavity. When this button is pushed, 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 raised, 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 this 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.

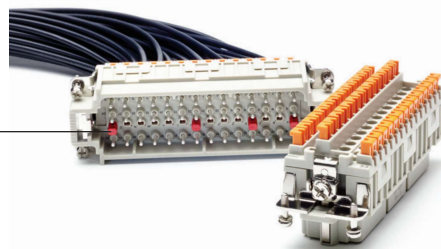
SQUICH® technology requires no tools **to activate the terminal and a simple operation is all you need to make the connection**. Refer to SQUICH® Connection operating principles on page 24.

It is possible to insert in the mating area the **CR CDS plastic 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 CR CDS coding pins **can also be used in combination with 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 table 1.



SUM UP

- ☑ **Greater pole density as compared to existing connector with screw terminals.**
SAVE SPACE +70%
- ☑ **Reduced wiring time.**
SAVE TIME -50%

| STANDARD | CDSH - HIGH DENSITY | |
|----------|---------------------|------|
| 16A | 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% |

- ☑ **Wiring 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**
- ☑ **Built-in silver plated contacts**
- ☑ **Excellent fastening solution**
- ☑ **Great resistance to strong vibration**

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

Table 1. 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-SQUICH® series

TECHNICAL FEATURES

CDSH-SQUICH®

| Insert series | | CDSH-SQUICH® |
|--------------------------------------|---|---|
| No. of poles ¹⁾ | Main contacts + ⊕ | 9, 18, 27, 42, {54}, {84} |
| | auxiliary contacts | — |
| Rated current ²⁾ | | 10A |
| EN IEC 61984 | rated voltage | 400V |
| | rated impulse voltage | 6kV |
| | pollution degree | 3 |
| EN IEC 61984 | rated voltage | 400V / 690V |
| | rated impulse voltage | 6kV |
| | pollution degree | 2 |
| Contact resistance | | ≤ 3 mΩ |
| Insulation resistance | | ≥ 10 GΩ |
| Ambient temperature limit (°C) | min | -40 |
| | max | +125 |
| Degree of protection | with enclosures (according to type) | IP65, IP66/IP69, IP66/IP67/IP69, IP66/IP68/IP69 |
| | without enclosures (in mated condition) | IP20 (IPXXB) |
| Conductor connections | | spring type with actuator button |
| Conductor cross-sectional area | 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) |
| | | 26 - 16 prepared with crimped ferrule |
| Mechanical endurance (mating cycles) | | ≥ 500 |

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

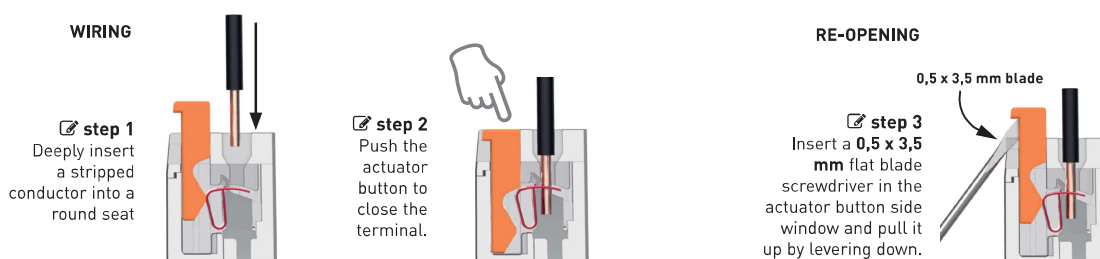
2) Please check the insert load curves to establish the actual maximum operating current according to the ambient temperature.

SQUICH® Connection technology

In the layout below 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:

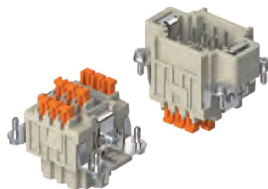
- no special wire preparation (other than stripping);
- it offers an excellent fastening solution and a great resistance to strong vibrations;
- it allows the use of solid and flexible wires with cross-sections between 0,14 and 2,5 mm² (AWG 26 - 14);
- for wires with crimped ferrule, usable section: 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 the section of a test probe.



CDSH-SQUICH® 9 poles + ⊕ 10A - 400V

| | |
|--|---------------------------|
| enclosures: size "44.27" | page: |
| C-TYPE IP65 or IP66/IP69 | 387 - 392 |
| C7 IP67, single lever | 436 - 437 |
| V-TYPE IP65 or IP66/IP69, single lever | 444 - 447 |
| BIG hoods | 466 - 467 |
| T-TYPE IP65 insulating | 480 - 481 |
| T-TYPE / W IP66/IP69 insulating | 489 |
| HYGIENIC T-TYPE / H IP66/IP69 | 501 |
| HYGIENIC T-TYPE / C IP66/IP69, -50 °C | 506 |
| W-TYPE for aggressive environments | 521 |
| E-Xtreme® corrosion proof | 530 - 531, 542, 550 - 551 |
| EMC | 578 |
| Central lever | 603 - 605 |
| LS-TYPE | 618 - 619 |
| IP68 | 632 - 635 |
| panel supports: | page: |
| COB | 652 - 653 |

inserts, spring terminal connections without tools



coding pins



| description | part No. | part No. |
|-------------|----------|----------|
|-------------|----------|----------|

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

CDSHF 09
CDSHM 09

plastic coding pins

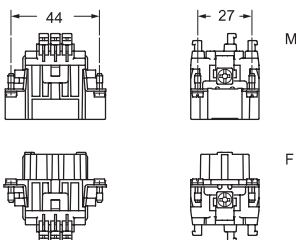
CR CDS

- characteristics according to EN 61984:

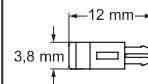
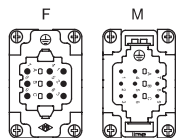
10A 400V 6kV 3
10A 400V/690V 6kV 2

- certified

- rated voltage according to UL/CSA: 600V
- insulation resistance: ≥ 10 GΩ
- ambient temperature limit: -40 °C ... +125 °C
- made of self-extinguishing thermoplastic resin UL 94V-0
- mechanical life: ≥ 500 cycles
- contact resistance: ≤ 3 mΩ
- for max. current load see the connector inserts derating diagram below; for more information see page 28



contacts side (front view)

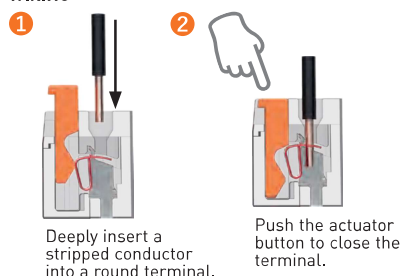


CDSH series - Coding with CR CDS pins

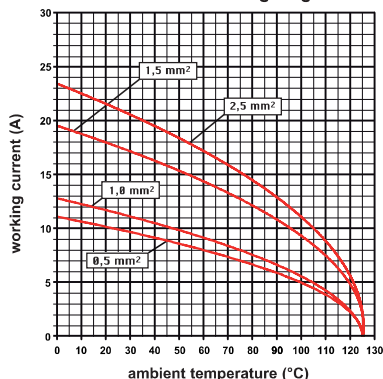
| Size of connectors | Slots for coding pins (M) = male insert (F) = female insert | Required coding pins for each coupling | Possible codings |
|--------------------|---|--|------------------|
| 9P + ⊕ | 3 (M) + 3 (F) | 3 2 (M) + 1 (F) | 3 |

- inserts for conductors cross-sectional areas: 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®-spring connection technology



CDSH 09 poles connector inserts
Maximum current load derating diagram

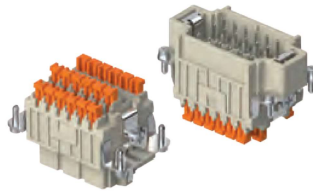


CDSH-SQUICH®

CDSH-SQUICH® 18 poles + ⊕ 10A - 400V

| | |
|--|---------------------------|
| enclosures: size "57.27" | page: |
| C-TYPE IP65 or IP66/IP69 | 393 - 401 |
| C7 IP67, two levers | 438 |
| V-TYPE IP65 or IP66/IP69, single lever | 448 - 453 |
| BIG hoods | 468 - 469 |
| T-TYPE IP65 insulating | 482 - 483 |
| T-TYPE / W IP66/IP69 insulating | 490 |
| HYGIENIC T-TYPE / H IP66/IP69 | 502 |
| HYGIENIC T-TYPE / C IP66/IP69, -50 °C | 507 |
| W-TYPE for aggressive environments | 522 |
| E-Xtreme® corrosion proof | 532 - 533, 543, 552 - 553 |
| EMC | 579 |
| Central lever | 606 - 608 |
| LS-TYPE | 620 - 621 |
| IP68 | 636 - 639 |
| panel supports: COB | page: 652 - 653 |

inserts, spring terminal connections without tools



coding pins



description

part No.

part No.

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

CDSHF 18
CDSHM 18

plastic coding pins

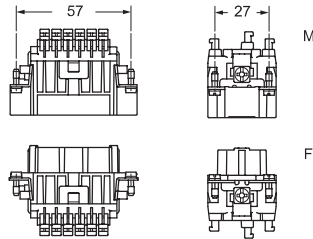
CR CDS

- characteristics according to EN 61984:

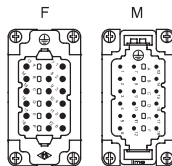
10A 400V 6kV 3
10A 400V/690V 6kV 2

certified

- rated voltage according to UL/CSA: 600V
- 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 94V-0
- mechanical life: ≥ 500 cycles
- contact resistance: $\leq 3 \text{ m}\Omega$
- for max. current load see the connector inserts derating diagram below; for more information see page 28

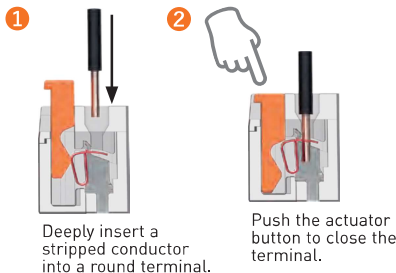


contacts side (front view)

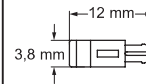
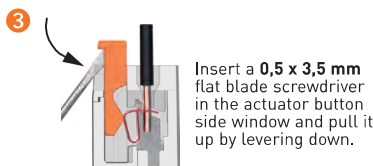


- inserts for conductors cross-sectional areas:
0,14 - 2,5 mm² - AWG 26 - 14
- for wires with crimped ferrule, usable section:
up to 1,5 mm² (AWG 16)
- conductors stripping length: 9...11 mm

SQUICH®-spring connection technology WIRING



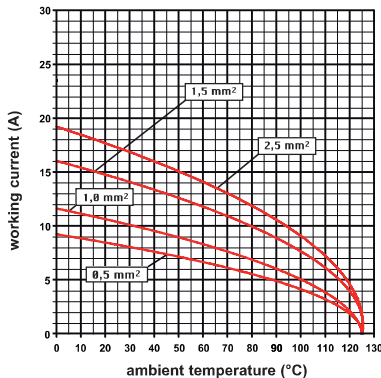
RE-OPENING



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 |
|--------------------|---|--|------------------|
| 18P + ⊕ | 6 (M) + 6 (F) | 6 3 (M) + 3 (F) | 20 |

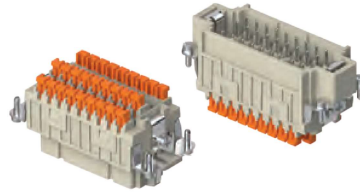
CDSH 18 poles connector inserts
Maximum current load derating diagram



CDSH-SQUICH® 27 poles + ⊕ 10A - 400V

| | |
|--|---------------------------|
| enclosures: size "77.27" | page: |
| C-TYPE IP65 or IP66/IP69 | 402 - 411 |
| C7 IP67, two levers | 439 - 440 |
| V-TYPE IP65 or IP66/IP69, single lever | 454 - 458 |
| BIG hoods | 470 - 471 |
| T-TYPE IP65 insulating | 484 - 485 |
| T-TYPE / W IP66/IP69 insulating | 491 |
| HYGIENIC T-TYPE / H IP66/IP69 | 503 |
| HYGIENIC T-TYPE / C IP66/IP69, -50 °C | 508 |
| W-TYPE for aggressive environments | 523 |
| E-Xtreme® corrosion proof | 534 - 535, 544, 554 - 555 |
| EMC | 580 |
| Central lever | 609 - 611 |
| LS-TYPE | 622 - 623 |
| IP68 | 640 - 643 |
| panel supports: | page: |
| COB | 652 - 653 |

inserts, spring terminal connections without tools



coding pins



CDSH-SQUICH®

| description | part No. | part No. |
|-------------|----------|----------|
|-------------|----------|----------|

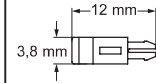
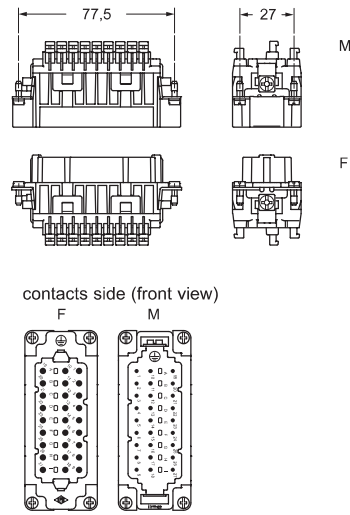
spring terminals with actuator button
female inserts with female contacts
male inserts with male contacts

CDSHF 27
CDSHM 27

plastic coding pins

CR CDS

- characteristics according to EN 61984:
10A 400V 6kV 3
10A 400V/690V 6kV 2
- certified
- rated voltage according to UL/CSA: 600V
- 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 94V-0
- mechanical life: ≥ 500 cycles
- contact resistance: $\leq 3 \text{ m}\Omega$
- for max. current load see the connector inserts derating diagram below; for more information see page 28

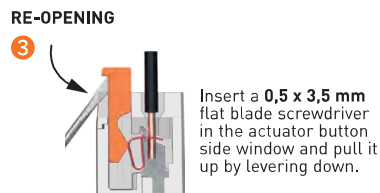
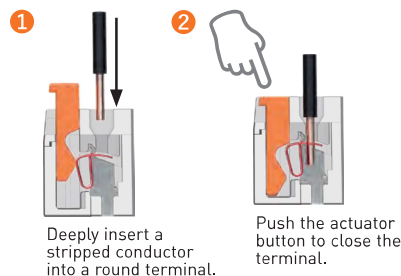


CDSH series - Coding with CR CDS pins

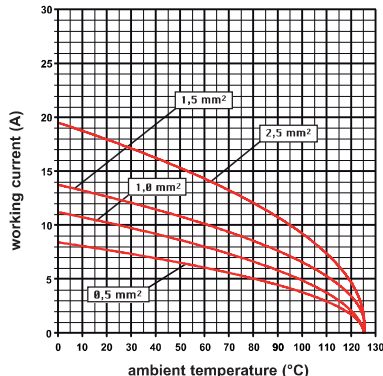
| Size of connectors | Slots for coding pins (M) = male insert (F) = female insert | Required coding pins for each coupling | Possible codings |
|--------------------|---|--|------------------|
| 27P + ⊕ | 9 (M) + 9 (F) | 9 5 (M) + 4 (F) | 126 |

- inserts for conductors cross-sectional areas: 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®-spring connection technology



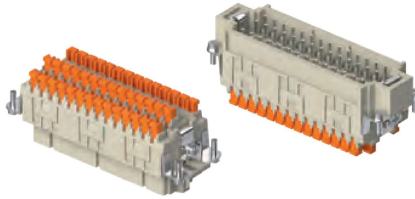
CDSH 27 poles connector inserts
Maximum current load derating diagram



CDSH-SQUICH® 42 poles + ⊕ 10A - 400V

| | |
|--|---------------------------|
| enclosures: size "104.27" | page: |
| C-TYPE IP65 or IP66/IP69 | 412 - 423 |
| C7 IP67, two levers | 441 - 442 |
| V-TYPE IP65 or IP66/IP69, single lever | 459 - 463 |
| BIG hoods | 472 - 473 |
| T-TYPE IP65 insulating | 486 - 487 |
| T-TYPE / W IP66/IP69 insulating | 492 |
| HYGIENIC T-TYPE / H IP66/IP69 | 504 |
| HYGIENIC T-TYPE / C IP66/IP69, -50 °C | 509 |
| W-TYPE for aggressive environments | 524 |
| E-Xtreme® corrosion proof | 536 - 537, 545, 556 - 557 |
| EMC | 581 |
| Central lever | 612 - 614 |
| LS-TYPE | 624 - 625 |
| IP68 | 644 - 647 |
| panel supports: COB | page: 652 - 653 |

inserts, spring terminal connections without tools



coding pins



description

part No.

part No.

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

CDSHF 42
CDSHM 42

plastic coding pins

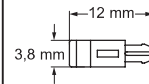
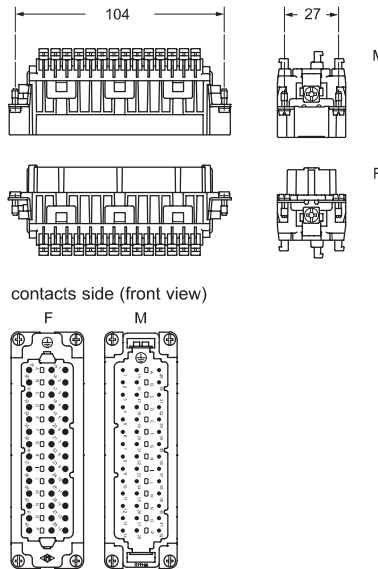
CR CDS

- characteristics according to EN 61984:

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

certified

- rated voltage according to UL/CSA: 600V
- 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 94V-0
- mechanical life: ≥ 500 cycles
- contact resistance: $\leq 3 \text{ m}\Omega$
- for max. current load see the connector inserts derating diagram below; for more information see page 28

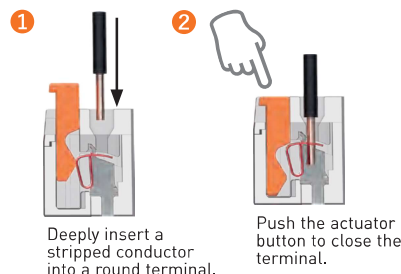


CDSH series - Coding with CR CDS pins

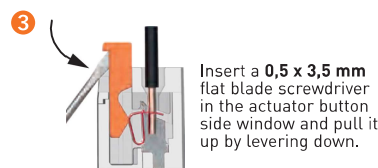
| Size of connectors | Slots for coding pins (M) = male insert (F) = female insert | Required coding pins for each coupling | Possible codings |
|--------------------|---|--|------------------|
| 42P + ⊕ | 14 (M) + 14 (F) | 14 7 (M) + 7 (F) | 3.432 |

- inserts for conductors cross-sectional areas: 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

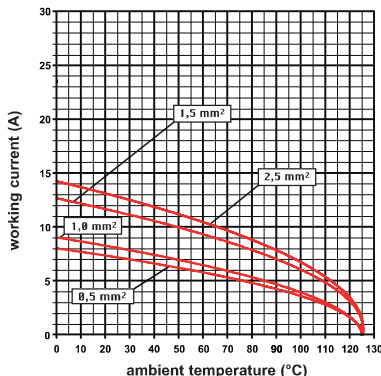
SQUICH®-spring connection technology WIRING



RE-OPENING



CDSH 42 poles connector inserts
Maximum current load derating diagram



CDSH-SQUICH® 54 poles + ⊕ 10A - 400V

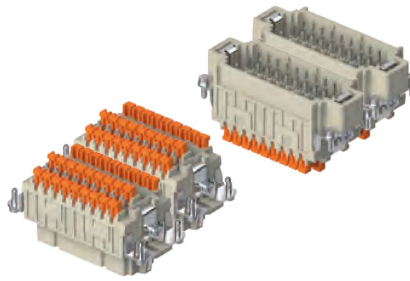
enclosures:
size "77.62"

page:

C-TYPE IP65 or IP66/IP69
W-TYPE for aggressive environments
E-Xtreme® corrosion proof

424 - 429
525
546

inserts,
spring terminal connections without tools



coding pins



CDSH-SQUICH®

| description | part No. | 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

plastic coding pins

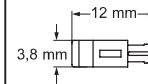
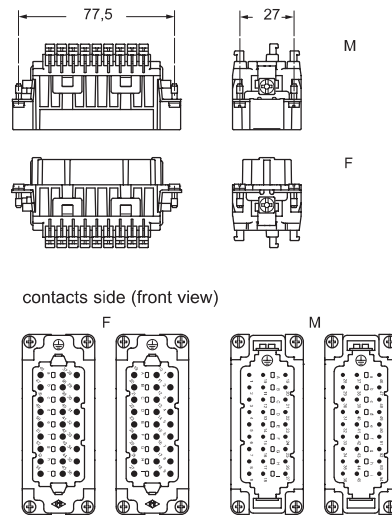
CR CDS

- characteristics according to EN 61984:

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

- certified

- rated voltage according to UL/CSA: 600V
- 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 94V-0
- mechanical life: ≥ 500 cycles
- contact resistance: $\leq 1 \text{ m}\Omega$
- for max. current load see the connector inserts derating diagram below; for more information see page 28

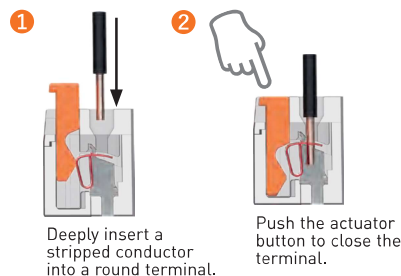


CDSH series - Coding with CR CDS pins

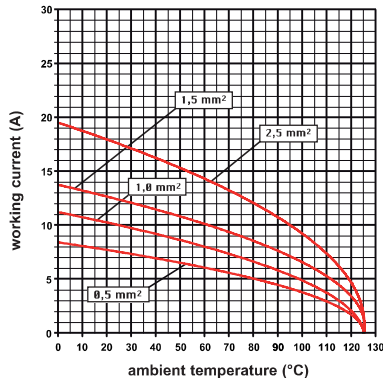
| Size of connectors | Slots for coding pins (M) = male insert (F) = female insert | Required coding pins for each coupling | Possible codings |
|--------------------|---|--|------------------|
| 54P + ⊕ | | | |
| 27P + ⊕ | 9 (M) + 9 (F) | 9 5 (M) + 4 (F) | 126 x |
| 27P + ⊖ | 9 (M) + 9 (F) | 9 5 (M) + 4 (F) | 126 |

- inserts for conductors cross-sectional areas: 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®-spring connection technology
WIRING



CDSH 54 poles connector inserts
Maximum current load derating diagram



CDSH-SQUICH® 84 poles + ⊕ 10A - 400V

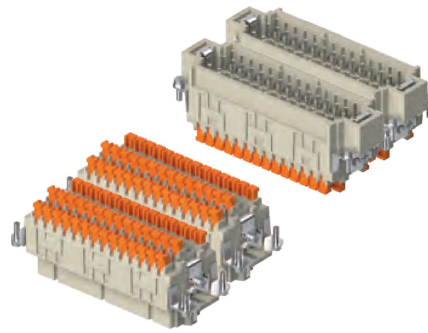
enclosures:
size "104.62"

page:

C-TYPE IP65 or IP66/IP69
W-TYPE for aggressive environments
E-Xtreme® corrosion proof

430
526
547

inserts, spring terminal connections without tools



coding pins



description

part No.

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

plastic coding pins

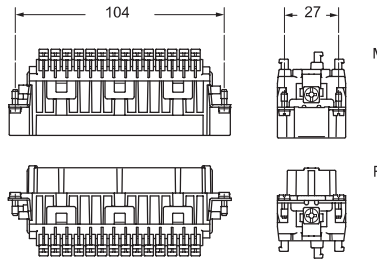
CR CDS

- characteristics according to EN 61984:

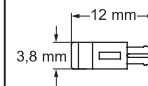
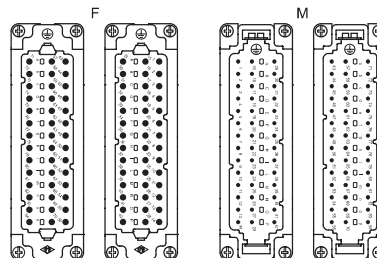
10A 400V 6kV 3
10A 400V/690V 6kV 2

- certified

- rated voltage according to UL/CSA: 600V
- 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 94V-0
- mechanical life: ≥ 500 cycles
- contact resistance: $\leq 1 \text{ m}\Omega$
- for max. current load see the connector inserts derating diagram below; for more information see page 28



contacts side (front view)

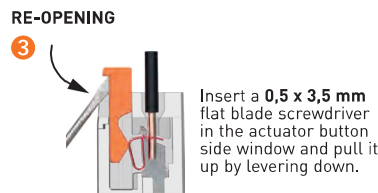
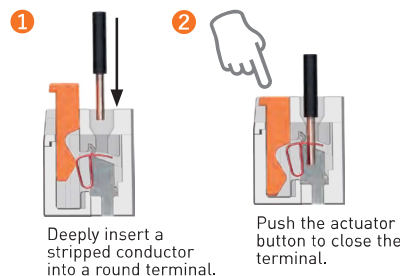


CDSH series - Coding with CR CDS pins

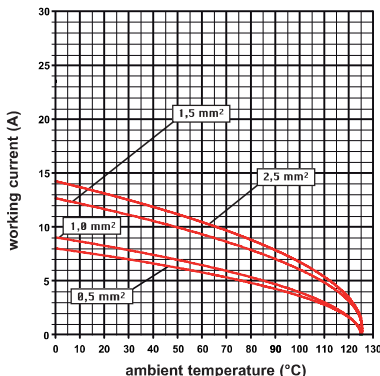
| Size of connectors | Slots for coding pins (M) = male insert (F) = female insert | Required coding pins for each coupling | Possible codings |
|--------------------|---|--|------------------|
| 84P + ⊕ | | | |
| 42P + ⊕ | 14 (M) + 14 (F) | 14 7 (M) + 7 (F) | 3,432 x |
| 42P + ⊕ | 14 (M) + 14 (F) | 14 7 (M) + 7 (F) | 3,432 |

- inserts for conductors cross-sectional areas: 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®-spring connection technology



CDSH 84 poles connector inserts
Maximum current load derating diagram



CDSH NC - SQUICH®

CDSH NC-SQUICH® series

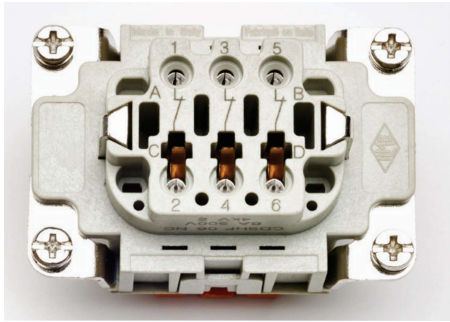
3 contact pairs with an AutoShort NC contact element

ILME developed an **innovative connector suitable for interfacing measuring current transformers (CTs)** with the dedicated electronic measurement processing equipment. Use of such systems is increasing in transformer substations with the diffusion of smart grid concepts due to the growth of self-standing power generation plants (photovoltaic, wind).

The CDSH...NC connector has the **same dimensions of a 6 poles size "44.27" CSH connector**, and it is **easy to wire** thanks to ILME proprietary SQUICH® tool-less quick connection technology.

Inside the female insert, for each of the three contact pairs 1-2, 3-4 and 5-6, a **suitable spring element is foreseen**, providing a NC (normally closed) contact between the female contact pair. The said short-circuit element automatically establishes a short-circuit between the female contact pair while the connector is being unmated, before the complete withdrawal of the corresponding male connector.

This protects the measuring current transformer's secondary windings to which this connector is deemed to be wired, against the high voltage that would arise if the ends of each winding were left open while the primary winding (the power line busbars) are still under load.

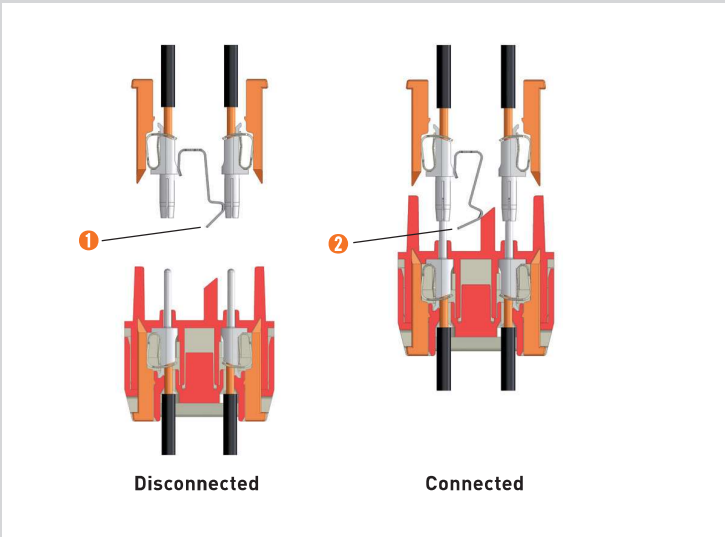


During the mating of these specially designed connector inserts, three corresponding actuator buttons realized on the mating face of the male connector, once the male contacts are already engaged with the corresponding female contacts, push aside the facing end of the AutoShort NC contact element, in order to release the short-circuit previously provided. In mated condition the proper termination of the secondary windings of the CT must be provided by the customer's downstream circuit, e.g. by suitable resistors.

AUTOSHORT NC Operating principles

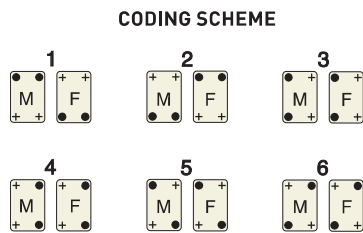
CDSH...NC connector can be used only for connecting up to three secondary (output) windings of measuring current transformers to specific measuring circuits; on the female side each contact pair is provided with said AutoShort NC contact element **1** to keep the secondary winding ends shorted while the female connector is not engaged with the male connector, thus avoiding damages to the insulation of the current transformer and consequent hazardous condition for the personnel operating the unmating of the connector while the power busbars are energized. When the female and male connectors are being mated **2**, the short-circuit is released after proper electrical engagement of the two connector halves, thus allowing again current measurement by the dedicated electronic measurement processing equipment wired on the male connector side.

This connector inserts can be used in size "44.27" connector enclosures, either metal (conductive) or thermoplastics (insulating), with up to IP68 degree of protection (IP66/IP68 with series CG/MG), within enclosures for aggressive environments (series "W") or with up to IP66/IP69 within series T-TYPE HYGIENIC enclosures for hygienic applications.



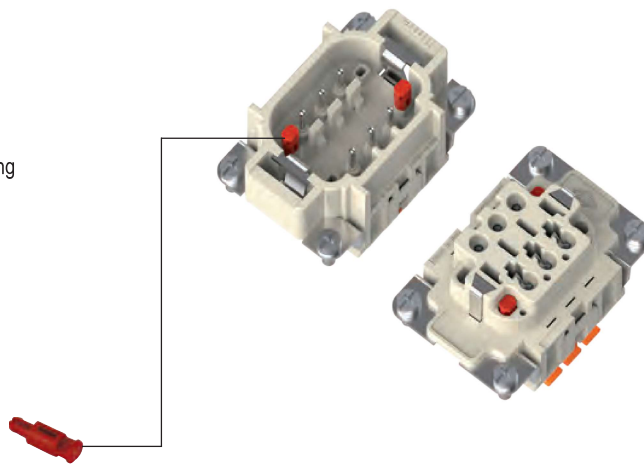
AUTOSHORT NC Coding pins

Optionally, it is possible to add **four special coding pins CR CDS** that allow up to 6 different codings, by installing 2 coding pins on the male connector half and correspondingly 2 on the female connector half, according to the coding scheme provided in the following:



Legend

- = coding pin installed
- + = no coding pin



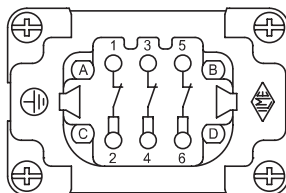
The **CR CDS** coding pins can also be used in combination with other **CR 20 / CRM / CRF / CR 72 metal pins** instead of insert fixing screws in order to increase the number of possible combinations.

AUTOSHORT NC PIN Assignment

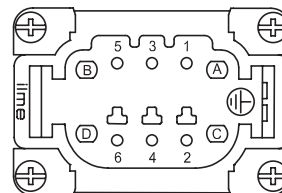
Female inserts with NC shorting contacts between contacts of pairs 1-2, 3-4, 5-6, opening upon with male inserts.
Pin assignment of contacts for the connector is the following:

| Pin | Assignment |
|-----|--------------------|
| 1 | Winding 1 start |
| 2 | Winding 1 end |
| 3 | Winding 2 start |
| 4 | Winding 2 end |
| 5 | Winding 3 start |
| 6 | Winding 3 end |
| PE | ⊕ Protective Earth |

View from the contact side



Female



Male

CDSH NC-SQUICH® series

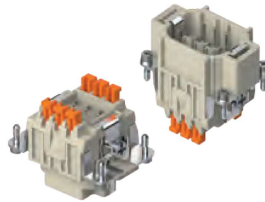
TECHNICAL FEATURES

| Insert series | CDSH NC-SQUICH® |
|--------------------------------------|--|
| Electrical contacts | 6 spring clamp type built-in contacts with actuator (SQUICH®) made by copper alloy, silver plated |
| Rated current | 6A 250V 4kV 3; 6A 500V 4kV 2 according to EN 61984 Fault condition (rated short time thermal current): 50A for 1 s |
| Contact resistance (connector mated) | ≤ 3 mΩ |
| Insulation resistance | ≥ 10 GΩ |
| Ambient temperature limit (°C) | min. -40 max. +125 |
| Degree of protection | IP20 (IPXXB) (connector without housing, in mated condition), IP65 or IP66 (connectors in T-TYPE housings), IP66 or more (connectors in ILME metal housings) |
| Conductor connections | 3 pairs of contacts (with autoshunt on each pair of female connector), plus protective earth, size 44.27 housings |
| Conductor cross-sectional area | 0,14 - 2,5 mm ² (AWG 26 - 14) for solid or unprepared stranded copperwires 0,14 - 1,5 mm ² (AWG 26 - 16) for stranded copper wires prepared with ferrules |
| Flammability | 94V-0 according to UL 94 |
| Mechanical endurance (mating cycles) | ≥ 50 |

CDSH NC-SQUICH® 6 poles + ⊕ 6A - 250V

| | |
|--|---------------------------|
| enclosures: size "44.27" | page: |
| C-TYPE IP65 or IP66/IP69 | 387 - 392 |
| C7 IP67, single lever | 436 - 437 |
| V-TYPE IP65 or IP66/IP69, single lever | 444 - 447 |
| BIG hoods | 466 - 467 |
| T-TYPE IP65 insulating | 480 - 481 |
| T-TYPE / W IP66/IP69 insulating | 489 |
| HYGIENIC T-TYPE / H IP66/IP69 | 501 |
| HYGIENIC T-TYPE / C IP66/IP69, -50 °C | 506 |
| W-TYPE for aggressive environments | 521 |
| E-Xtreme® corrosion proof | 530 - 531, 542, 550 - 551 |
| EMC | 578 |
| Central lever | 603 - 605 |
| LS-TYPE | 618 - 619 |
| IP68 | 632 - 635 |
| panel supports: COB | page: 652 - 653 |

inserts,
spring clamp connections with actuator
button, female inserts with NC shorting
contacts



coding pins



Q SILVER PLATED CONTACTS

| description | part No. | part No |
|-------------|----------|---------|
|-------------|----------|---------|

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

CDSHF 06 NC
CDSHM 06 NC

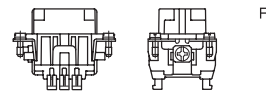
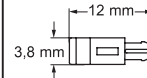
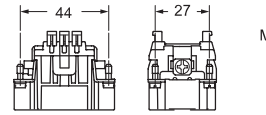
plastic coding pins

CR CDS

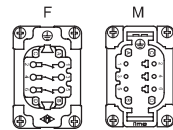
- characteristics according to EN 61984:

6A 250V 4kV 3
6A 500V 4kV 2
10A with connector mated

- certified
- rated voltage according to UL/CSA: 600V
- insulation resistance: ≥ 10 G Ω
- ambient temperature limit: -40 °C ... +125 °C
- made of self-extinguishing thermoplastic resin 94V-0 according to UL 94
- mechanical life: ≥ 50 cycles
- contact resistance: ≤ 3 m Ω
- NC = Normally Closed
- the diagrams (1) and (2) below show respectively the maximum current-carrying capacity:
- (1) of the AutoShort female connector uncoupled, with the three NC contacts that short circuit the individual circuits upstream wired in series on each contact pair. In this condition the AutoShort connector can be loaded up to 6 A. For this maximum current it can be wired from 0,75 mm² / 18 AWG through 2,5 mm² / 14 AWG with no significant performance differences;
- (2) of the AutoShort female connector coupled to the corresponding male AutoShort connector (NC contacts open) (for further information see page 28).

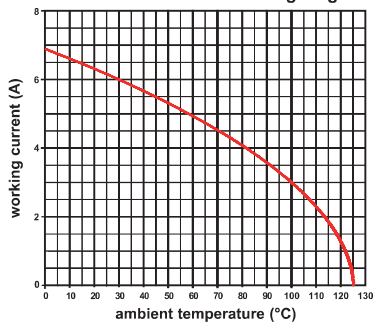


contacts side (front view)

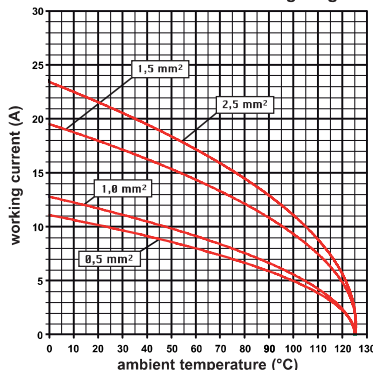


- inserts for conductors section:
0,14 - 2,5 mm² - AWG 26 - 14
- for wires with crimped ferrule, useful cross-section:
up to 1,5 mm² (AWG 16)
- conductors stripping length: 9...11 mm

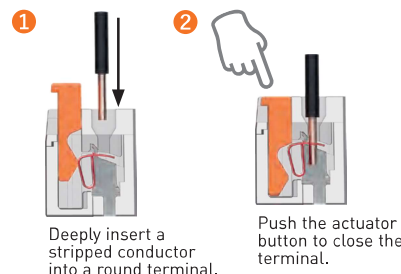
(1) CDSHF NC 06 poles connector inserts
Maximum current load derating diagram



(2) CDSHF NC 06 poles connector inserts
Maximum current load derating diagram



SQUICH®-spring connection technology
WIRING



RE-OPENING

