

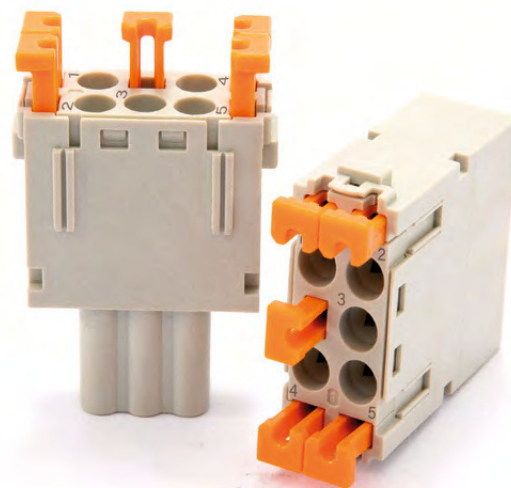
## CX 05 SHF/SHM

### MIXO - SQUICH®

**SQUICH®** technology has now been applied to the ILME MIXO series of modular connectors. Main aim is to make wiring an installation easier and safer on every possible connector.

On this purpose, the new MIXO SQUICH® 5 poles is the improved version of the CX 05 SF/SM spring clamp module:

- **consistently reduced wiring time**, as the actuator buttons are supplied lifted, in “open terminal” position, so that the stripped wires can be directly inserted;
- **operator skill independence**: thanks to the SQUICH® proprietary technology a simple pressure on the top of the actuator button triggers the locking of the conductor in the terminal, avoiding the need of a specific screwdriver and the relevant skill in its correct choice and application;
- **great resistance to strong vibrations** inherent to self-compensating spring-clamp technology;
- **no special wire preparation** (only stripping at the correct length);
- it allows the **use of both rigid and flexible** copper conductors, with a range of cross-sectional area between 0,14 mm<sup>2</sup> and 2,5 mm<sup>2</sup> (26 AWG to 14 AWG);
- for conductors prepared with **crimped ferrules**, the maximum cross-sectional area is 1,5 mm<sup>2</sup>;
- possibility to insert the **test probe** of a measurement instrument in the dedicated cavity on the actuator button (proprietary design);
- **silver plated** contacts;
- simple re-opening of a terminal (if needed) using a 0,5 x 3 mm flat blade screwdriver on the actuator button dedicated side window (on terminal #3 use the same screwdriver under any of the two lateral projections of the actuator button head; after removing the wire from the relevant terminal #1 or #4).



Watch  
our  
**SQUICH®**  
video

The modular inserts must be installed in suitable frames which are then mounted in traditional enclosures or in COB panel support.  
Single-sized modular units may be directly mounted inside MIXO ONE enclosures.

frames for modular units

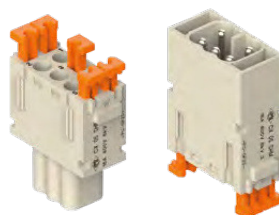
page:  
316

MIXO ONE enclosures

369

- ☑ Suitable for every conductor type  
(prepared with ferrule, unprepared and solid)  
up to cross-sectional area 2,5 mm<sup>2</sup>

modular units,  
SQUICH®-spring terminal connection



description

part No.

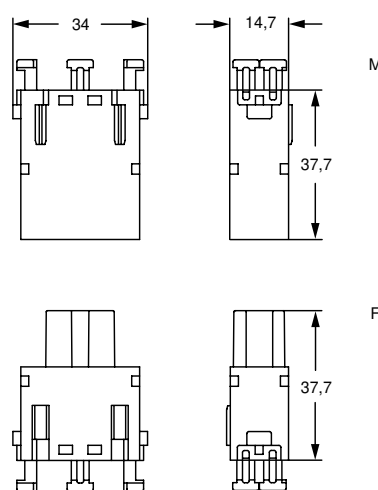
spring terminals with actuator button  
female inserts with female contacts  
male inserts with male contacts

**CX 05 SHF**  
**CX 05 SHM**

- characteristics according to EN 61984:

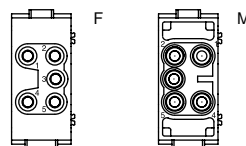
**16A 400V 6kV 3****16A 500V 6kV 2**

- cURus, CSA, CQC, DNV-GL, BV, EAC pending
- rated voltage according to UL/CSA: 600V
- insulation resistance:  $\geq 10 \text{ G}\Omega$
- ambient temperature limit: -40 °C ... +125 °C
- made of self-extinguishing thermoplastic resin UL 94V-0
- mechanical life:  $\geq 500$  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)

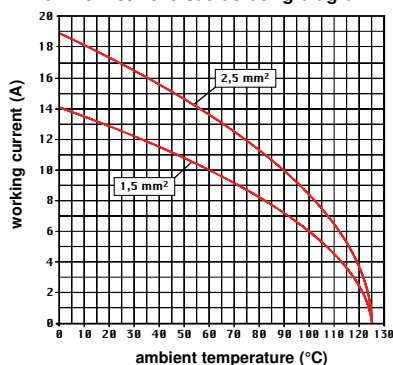
rear view, side with reference arrow ▲



- 1 frame slot

- inserts for cables with the following cross-sectional area: 0,14 - 2,5 mm<sup>2</sup> - AWG 26 - 14
- conductors stripping length: 9...11 mm

**CX 05 SH, 5 power poles connector inserts**  
**Maximum current load derating diagram**



### MIXO CX 05 SHF/M SQUICH®-spring connection technology

#### WIRING

- 1 Deeply insert a stripped conductor into a round seat.
- 2 Push the actuator button to close the terminal.

#### RE-OPENING

- 3 **SIDE (#1 - #2 - #4 - #5)**  
Insert a 0,5 x 3 mm flat blade screwdriver in the actuator button side window and pull it up by levering down.
- 4 **CENTRE (#3)**  
Free and re-close (per 3 above) terminal #1 or #4.
- 4 **B**  
Insert the screwdriver under the projection of actuator button head #3 and pull it up by levering down.

The modular inserts must be installed in suitable frames which are then mounted in traditional enclosures or in COB panel support.

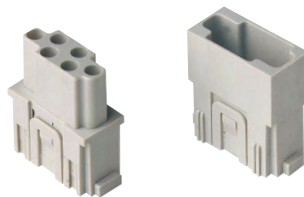
Single-sized modular units may be directly mounted inside MIXO ONE enclosures.

frames for modular units page: 316 - 317

MIXO ONE enclosures 369

- it is recommended to crimp the contacts with crimping tools homologated by ILME (please see the crimping tool section 16A contacts, CCF, CCM and CC...AN series) on pages 708 - 741

## modular units, crimp connections



## 16A crimp contacts standard or for advanced opening silver and gold plated



STANDARD

ADVANCED OPENING



| description                                        | part No.  | part No.                                                             |
|----------------------------------------------------|-----------|----------------------------------------------------------------------|
| without contacts (to be ordered separately)        |           |                                                                      |
| female inserts for female contacts                 | CX 06 CF  |                                                                      |
| male inserts for male contacts                     | CX 06 CM  |                                                                      |
| 16A female crimp contacts                          |           |                                                                      |
| 0,14-0,37 mm <sup>2</sup> AWG 26-22 one groove     | CCFA 0.3  | CCFD 0.3                                                             |
| 0,5 mm <sup>2</sup> AWG 20 with no grooves         | CCFA 0.5  | CCFD 0.5                                                             |
| 0,75 mm <sup>2</sup> AWG 18 one groove (back side) | CCFA 0.7  | CCFD 0.7                                                             |
| 1 mm <sup>2</sup> AWG 18 one groove                | CCFA 1.0  | CCFD 1.0                                                             |
| 1,5 mm <sup>2</sup> AWG 16 two grooves             | CCFA 1.5  | CCFD 1.5                                                             |
| 2,5 mm <sup>2</sup> AWG 14 three grooves           | CCFA 2.5  | CCFD 2.5                                                             |
| 3 mm <sup>2</sup> AWG 12 one wide groove           | CCFA 3.0  | CCFD 3.0                                                             |
| 4 mm <sup>2</sup> AWG 12 with no grooves           | CCFA 4.0  | CCFD 4.0                                                             |
| 16A male crimp contacts                            |           |                                                                      |
| 0,14-0,37 mm <sup>2</sup> AWG 26-22 one groove     | CCMA 0.3  | CCMD 0.3                                                             |
| 0,5 mm <sup>2</sup> AWG 20 with no grooves         | CCMA 0.5  | CCMD 0.5                                                             |
| 0,75 mm <sup>2</sup> AWG 18 one groove (back side) | CCMA 0.7  | CCMD 0.7                                                             |
| 1 mm <sup>2</sup> AWG 18 one groove                | CCMA 1.0  | CCMD 1.0                                                             |
| 1,5 mm <sup>2</sup> AWG 16 two grooves             | CCMA 1.5  | CCMD 1.5                                                             |
| 2,5 mm <sup>2</sup> AWG 14 three grooves           | CCMA 2.5  | CCMD 2.5                                                             |
| 3 mm <sup>2</sup> AWG 12 one wide groove           | CCMA 3.0  | CCMD 3.0                                                             |
| 4 mm <sup>2</sup> AWG 12 with no grooves           | CCMA 4.0  | CCMD 4.0                                                             |
| 16A male crimp contacts for advanced opening       |           |                                                                      |
| 0,5 mm <sup>2</sup> AWG 20 with no grooves         | CC 0.5 AN | + for basic or high thickness gold plating, please refer to page 675 |
| 0,75 mm <sup>2</sup> AWG 18 one groove (back side) | CC 0.7 AN |                                                                      |
| 1 mm <sup>2</sup> AWG 18 one groove                | CC 1.0 AN |                                                                      |
| 1,5 mm <sup>2</sup> AWG 16 two grooves             | CC 1.5 AN |                                                                      |
| 2,5 mm <sup>2</sup> AWG 14 three grooves           | CC 2.5 AN |                                                                      |

- characteristics according to EN 61984:

**16A 500V 6kV 3**

**16A 400/690V 6kV 2**

- certified

- rated voltage according to UL/CSA: 600V

- insulation resistance:  $\geq 10$  G $\Omega$

- ambient temperature limit: -40 °C ... +125 °C

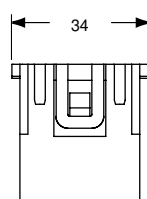
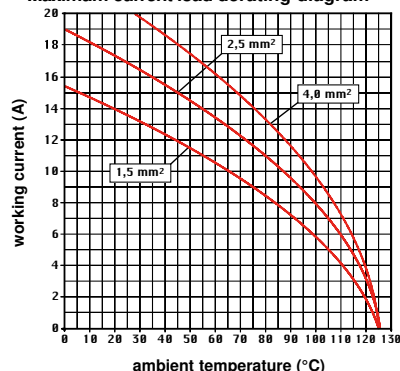
- made of self-extinguishing thermoplastic resin UL 94V-0

- mechanical life:  $\geq 500$  cycles

- contact resistance:  $\leq 1$  m $\Omega$

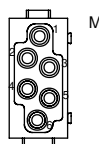
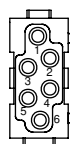
- for max. current load see the connector inserts derating diagram below; for more information see page 28

**CX 06 C, 6 poles connector inserts**  
**Maximum current load derating diagram**

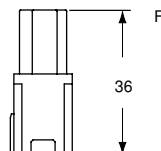
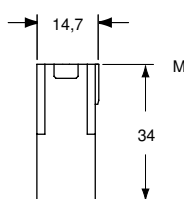


contacts side (front view)

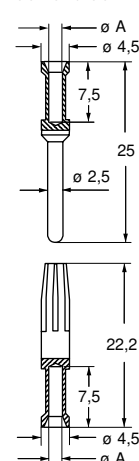
side with reference arrow ▲



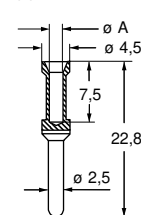
- 1 frame slot



## CCF and CCM



## CC...AN



## CCF, CCM and CC...AN contacts

| conductor section (mm <sup>2</sup> ) | conductor slot $\phi$ A (mm) | conductor stripping length (mm) |
|--------------------------------------|------------------------------|---------------------------------|
| 0,14-0,37                            | 0,9                          | 7,5                             |
| 0,5                                  | 1,1                          | 7,5                             |
| 0,75                                 | 1,3                          | 7,5                             |
| 1,0                                  | 1,45                         | 7,5                             |
| 1,5                                  | 1,8                          | 7,5                             |
| 2,5                                  | 2,2                          | 7,5                             |
| 3                                    | 2,55                         | 7,5                             |
| 4                                    | 2,85                         | 7,5                             |

**CX 06P CF/CM 6 poles protected 16A - 830V**

The modular inserts must be installed in suitable frames which are then mounted in traditional enclosures or in COB panel support.

Single-sized modular units may be directly mounted inside MIXO ONE enclosures.

frames for modular units page:  
316 - 317

MIXO ONE enclosures 369

- we recommend the use of CRF / CRM code pins together with relevant MIXO frame

- it is recommended to crimp the contacts with crimping tools homologated by ILME (please see the crimping tool section 16A contacts, CCF, CCM and CC...AN series) on pages 708 - 741

modular units, crimp connections



**RATING 830V**

16A crimp contacts  
standard or for advanced opening  
silver and gold plated



STANDARD



ADVANCED OPENING

description

part No.

part No.

without contacts (to be ordered separately)

female inserts for female contacts

male inserts for male contacts

**CX 06P CF**  
**CX 06P CM**

16A female contacts

|                           |           |                        |
|---------------------------|-----------|------------------------|
| 0,14-0,37 mm <sup>2</sup> | AWG 26-22 | one groove             |
| 0,5 mm <sup>2</sup>       | AWG 20    | with no grooves        |
| 0,75 mm <sup>2</sup>      | AWG 18    | one groove (back side) |
| 1 mm <sup>2</sup>         | AWG 18    | one groove             |
| 1,5 mm <sup>2</sup>       | AWG 16    | two grooves            |
| 2,5 mm <sup>2</sup>       | AWG 14    | three grooves          |
| 3 mm <sup>2</sup>         | AWG 12    | one wide groove        |
| 4 mm <sup>2</sup>         | AWG 12    | with no grooves        |

16A male contacts

|                           |           |                        |
|---------------------------|-----------|------------------------|
| 0,14-0,37 mm <sup>2</sup> | AWG 26-22 | one groove             |
| 0,5 mm <sup>2</sup>       | AWG 20    | with no grooves        |
| 0,75 mm <sup>2</sup>      | AWG 18    | one groove (back side) |
| 1 mm <sup>2</sup>         | AWG 18    | one groove             |
| 1,5 mm <sup>2</sup>       | AWG 16    | two grooves            |
| 2,5 mm <sup>2</sup>       | AWG 14    | three grooves          |
| 3 mm <sup>2</sup>         | AWG 12    | one wide groove        |
| 4 mm <sup>2</sup>         | AWG 12    | with no grooves        |

16A male crimp contacts for advanced opening

|                      |        |                        |
|----------------------|--------|------------------------|
| 0,5 mm <sup>2</sup>  | AWG 20 | with no grooves        |
| 0,75 mm <sup>2</sup> | AWG 18 | one groove (back side) |
| 1 mm <sup>2</sup>    | AWG 18 | one groove             |
| 1,5 mm <sup>2</sup>  | AWG 16 | two grooves            |
| 2,5 mm <sup>2</sup>  | AWG 14 | three grooves          |

CCFA 0.3  
CCFA 0.5  
CCFA 0.7  
CCFA 1.0  
CCFA 1.5  
CCFA 2.5  
CCFA 3.0  
CCFA 4.0

silver plated

CCFD 0.3  
CCFD 0.5  
CCFD 0.7  
CCFD 1.0  
CCFD 1.5  
CCFD 2.5  
CCFD 3.0  
CCFD 4.0

gold plated+

CCMA 0.3  
CCMA 0.5  
CCMA 0.7  
CCMA 1.0  
CCMA 1.5  
CCMA 2.5  
CCMA 3.0  
CCMA 4.0

CCMD 0.3  
CCMD 0.5  
CCMD 0.7  
CCMD 1.0  
CCMD 1.5  
CCMD 2.5  
CCMD 3.0  
CCMD 4.0

CC 0.5 AN  
CC 0.7 AN  
CC 1.0 AN  
CC 1.5 AN  
CC 2.5 AN

+ for basic or high thickness gold plating, please refer to page 675

- characteristics according to EN 61984:

**16A 830V 8kV 3**

- certified

- rated voltage according to UL/CSA: 600V

- insulation resistance:  $\geq 10 \text{ G}\Omega$

- ambient temperature limit: -40 °C ... +125 °C

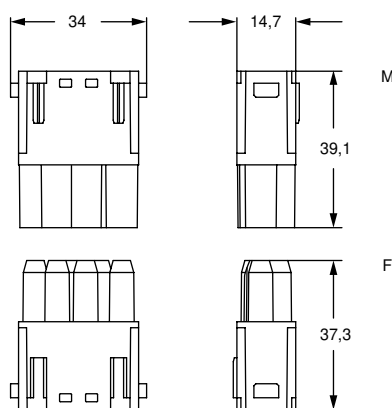
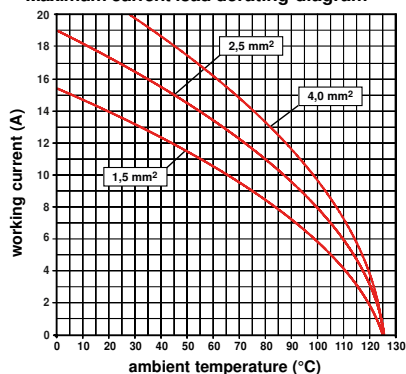
- made of self-extinguishing thermoplastic resin UL 94V-0

- mechanical life:  $\geq 500$  cycles

- contact resistance:  $\leq 1 \text{ m}\Omega$

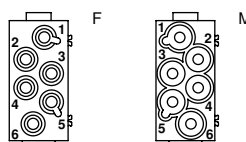
- for max. current load see the connector inserts derating diagram below; for more information see page 28

**CX 06P C, 6 poles connector inserts**  
**Maximum current load derating diagram**



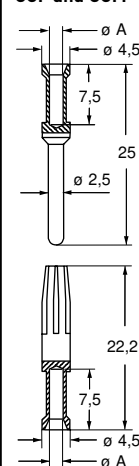
contacts side (front view)

side with reference arrow ▲

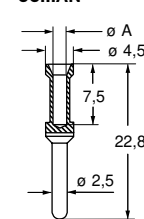


- 1 frame slot

CCF and CCM



CC...AN



**CCF, CCM and CC...AN contacts**

| conductor section (mm <sup>2</sup> ) | conductor slot ø A (mm) | conductors stripping length (mm) |
|--------------------------------------|-------------------------|----------------------------------|
| 0,14-0,37                            | 0,9                     | 7,5                              |
| 0,5                                  | 1,1                     | 7,5                              |
| 0,75                                 | 1,3                     | 7,5                              |
| 1,0                                  | 1,45                    | 7,5                              |
| 1,5                                  | 1,8                     | 7,5                              |
| 2,5                                  | 2,2                     | 7,5                              |
| 3                                    | 2,55                    | 7,5                              |
| 4                                    | 2,85                    | 7,5                              |

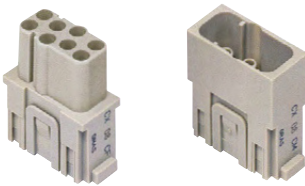
The modular inserts must be installed in suitable frames which are then mounted in traditional enclosures or in COB panel support.  
Single-sized modular units may be directly mounted inside MIXO ONE enclosures.

frames for modular units 316 - 317

MIXO ONE enclosures 369

- it is recommended to crimp the contacts with crimping tools homologated by ILME (please see the crimping tool section 16A contacts, CCF, CCM and CC...AN series) on pages 708 - 741

modular units, crimp connections



16A crimp contacts  
standard or for advanced opening  
silver and gold plated



STANDARD

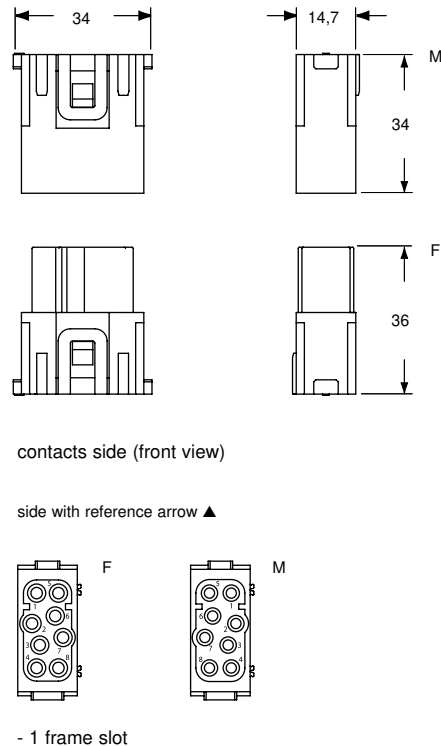
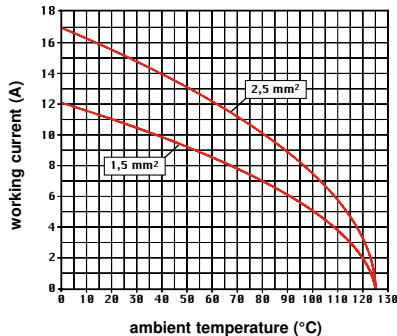


ADVANCED OPENING

| description                                        | part No.  | part No.                                                             |
|----------------------------------------------------|-----------|----------------------------------------------------------------------|
| without contacts (to be ordered separately)        |           |                                                                      |
| female inserts for female contacts                 | CX 08 CF  |                                                                      |
| male inserts for male contacts                     | CX 08 CM  |                                                                      |
| 16A female crimp contacts                          |           |                                                                      |
| 0,14-0,37 mm <sup>2</sup> AWG 26-22 one groove     | CCFA 0.3  | CCFD 0.3                                                             |
| 0,5 mm <sup>2</sup> AWG 20 with no grooves         | CCFA 0.5  | CCFD 0.5                                                             |
| 0,75 mm <sup>2</sup> AWG 18 one groove (back side) | CCFA 0.7  | CCFD 0.7                                                             |
| 1 mm <sup>2</sup> AWG 18 one groove                | CCFA 1.0  | CCFD 1.0                                                             |
| 1,5 mm <sup>2</sup> AWG 16 two grooves             | CCFA 1.5  | CCFD 1.5                                                             |
| 2,5 mm <sup>2</sup> AWG 14 three grooves           | CCFA 2.5  | CCFD 2.5                                                             |
| 3 mm <sup>2</sup> AWG 12 one wide groove           | CCFA 3.0  | CCFD 3.0                                                             |
| 4 mm <sup>2</sup> AWG 12 with no grooves           | CCFA 4.0  | CCFD 4.0                                                             |
| 16A male crimp contacts                            |           |                                                                      |
| 0,14-0,37 mm <sup>2</sup> AWG 26-22 one groove     | CCMA 0.3  | CCMD 0.3                                                             |
| 0,5 mm <sup>2</sup> AWG 20 with no grooves         | CCMA 0.5  | CCMD 0.5                                                             |
| 0,75 mm <sup>2</sup> AWG 18 one groove (back side) | CCMA 0.7  | CCMD 0.7                                                             |
| 1 mm <sup>2</sup> AWG 18 one groove                | CCMA 1.0  | CCMD 1.0                                                             |
| 1,5 mm <sup>2</sup> AWG 16 two grooves             | CCMA 1.5  | CCMD 1.5                                                             |
| 2,5 mm <sup>2</sup> AWG 14 three grooves           | CCMA 2.5  | CCMD 2.5                                                             |
| 3 mm <sup>2</sup> AWG 12 one wide groove           | CCMA 3.0  | CCMD 3.0                                                             |
| 4 mm <sup>2</sup> AWG 12 with no grooves           | CCMA 4.0  | CCMD 4.0                                                             |
| 16A male crimp contacts for advanced opening       |           |                                                                      |
| 0,5 mm <sup>2</sup> AWG 20 with no grooves         | CC 0.5 AN | + for basic or high thickness gold plating, please refer to page 675 |
| 0,75 mm <sup>2</sup> AWG 18 one groove (back side) | CC 0.7 AN |                                                                      |
| 1 mm <sup>2</sup> AWG 18 one groove                | CC 1.0 AN |                                                                      |
| 1,5 mm <sup>2</sup> AWG 16 two grooves             | CC 1.5 AN |                                                                      |
| 2,5 mm <sup>2</sup> AWG 14 three grooves           | CC 2.5 AN |                                                                      |

- characteristics according to EN 61984:  
16A 400V 6kV 3  
16A 400/690V 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: ≤ 1 mΩ
- for max. current load see the connector inserts derating diagram below; for more information see page 28

CX 08 C, 8 poles connector inserts  
Maximum current load derating diagram



| CCF and CCM                          |                         | CC...AN                          |
|--------------------------------------|-------------------------|----------------------------------|
|                                      |                         |                                  |
| <b>CCF, CCM and CC...AN contacts</b> |                         |                                  |
| conductor section (mm <sup>2</sup> ) | conductor slot ø A (mm) | conductors stripping length (mm) |
| 0,14-0,37                            | 0,9                     | 7,5                              |
| 0,5                                  | 1,1                     | 7,5                              |
| 0,75                                 | 1,3                     | 7,5                              |
| 1,0                                  | 1,45                    | 7,5                              |
| 1,5                                  | 1,8                     | 7,5                              |
| 2,5                                  | 2,2                     | 7,5                              |
| 3                                    | 2,55                    | 7,5                              |
| 4                                    | 2,85                    | 7,5                              |

**CX 20 CF/CM 20 poles 16A - 500V**

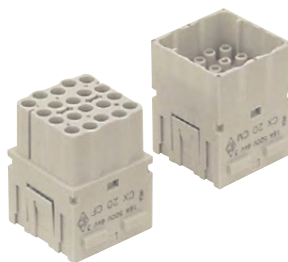
**The modular inserts must be installed in suitable frames, which are then mounted in traditional enclosures or in COB panel supports.**

frames for modular units

page:  
316 - 317

- **it is recommended to crimp the contacts with crimping tools homologated by ILME** (please see the crimping tool section 16A contacts, CCF, CCM and CC...AN series) on pages 708 - 741

**modular units, crimp connections**



**16A crimp contacts**  
**standard or for advanced opening**  
**silver and gold plated**



## STANDARD



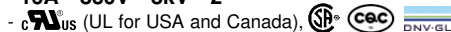
## ADVANCED OPENING

| description                                      |           |                        | part No.        | part No.         |                                                                            |
|--------------------------------------------------|-----------|------------------------|-----------------|------------------|----------------------------------------------------------------------------|
| without contacts (to be ordered separately)      |           |                        |                 |                  |                                                                            |
| female inserts for female contacts <sup>1)</sup> |           |                        | <b>CX 20 CF</b> |                  |                                                                            |
| male inserts for male contacts <sup>1)</sup>     |           |                        | <b>CX 20 CM</b> |                  |                                                                            |
| 16A female crimp contacts                        |           |                        |                 |                  |                                                                            |
| 0,14-0,37 mm²                                    | AWG 26-22 | one groove             |                 | <b>CCFA 0.3</b>  | <b>CCFD 0.3</b>                                                            |
| 0,5 mm²                                          | AWG 20    | with no grooves        |                 | <b>CCFA 0.5</b>  | <b>CCFD 0.5</b>                                                            |
| 0,75 mm²                                         | AWG 18    | one groove (back side) |                 | <b>CCFA 0.7</b>  | <b>CCFD 0.7</b>                                                            |
| 1 mm²                                            | AWG 18    | one groove             |                 | <b>CCFA 1.0</b>  | <b>CCFD 1.0</b>                                                            |
| 1,5 mm²                                          | AWG 16    | two grooves            |                 | <b>CCFA 1.5</b>  | <b>CCFD 1.5</b>                                                            |
| 2,5 mm²                                          | AWG 14    | three grooves          |                 | <b>CCFA 2.5</b>  | <b>CCFD 2.5</b>                                                            |
| 3 mm²                                            | AWG 12    | one wide groove        |                 | <b>CCFA 3.0</b>  | <b>CCFD 3.0</b>                                                            |
| 4 mm²                                            | AWG 12    | with no grooves        |                 | <b>CCFA 4.0</b>  | <b>CCFD 4.0</b>                                                            |
| 16A male crimp contacts                          |           |                        |                 |                  |                                                                            |
| 0,14-0,37 mm²                                    | AWG 26-22 | one groove             |                 | <b>CCMA 0.3</b>  | <b>CCMD 0.3</b>                                                            |
| 0,5 mm²                                          | AWG 20    | with no grooves        |                 | <b>CCMA 0.5</b>  | <b>CCMD 0.5</b>                                                            |
| 0,75 mm²                                         | AWG 18    | one groove (back side) |                 | <b>CCMA 0.7</b>  | <b>CCMD 0.7</b>                                                            |
| 1 mm²                                            | AWG 18    | one groove             |                 | <b>CCMA 1.0</b>  | <b>CCMD 1.0</b>                                                            |
| 1,5 mm²                                          | AWG 16    | two grooves            |                 | <b>CCMA 1.5</b>  | <b>CCMD 1.5</b>                                                            |
| 2,5 mm²                                          | AWG 14    | three grooves          |                 | <b>CCMA 2.5</b>  | <b>CCMD 2.5</b>                                                            |
| 3 mm²                                            | AWG 12    | one wide groove        |                 | <b>CCMA 3.0</b>  | <b>CCMD 3.0</b>                                                            |
| 4 mm²                                            | AWG 12    | with no grooves        |                 | <b>CCMA 4.0</b>  | <b>CCMD 4.0</b>                                                            |
| 16A male crimp contacts for advanced opening     |           |                        |                 |                  |                                                                            |
| 0,5 mm²                                          | AWG 20    | with no grooves        |                 | <b>CC 0.5 AN</b> | + for basic or high thickness<br>gold plating, please refer<br>to page 675 |
| 0,75 mm²                                         | AWG 18    | one groove (back side) |                 | <b>CC 0.7 AN</b> |                                                                            |
| 1 mm²                                            | AWG 18    | one groove             |                 | <b>CC 1.0 AN</b> |                                                                            |
| 1,5 mm²                                          | AWG 16    | two grooves            |                 | <b>CC 1.5 AN</b> |                                                                            |
| 2,5 mm²                                          | AWG 14    | three grooves          |                 | <b>CC 2.5 AN</b> |                                                                            |

1) on request, version with 3 fastened CX 20 CF/CM inserts with poles numbered from 1 – 60  
references: **CX 60 CF, CX 60 CM**

- characteristics according to EN 61984:

|     |      |     |   |
|-----|------|-----|---|
| 16A | 500V | 6kV | 3 |
| 16A | 830V | 8kV | 2 |



**BUREAU VERITAS** EAC certified

- rated voltage according to UL/CSA: 600V

- insulation resistance:  $\geq 10 \text{ G}\Omega$

- ambient temperature limit: -40 °C ... +125 °C

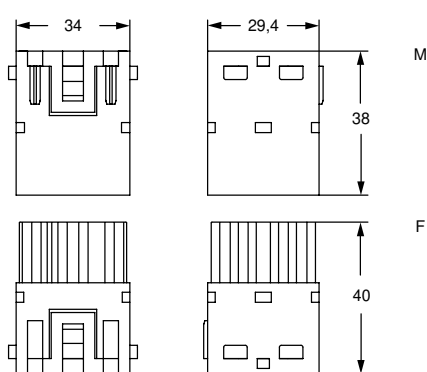
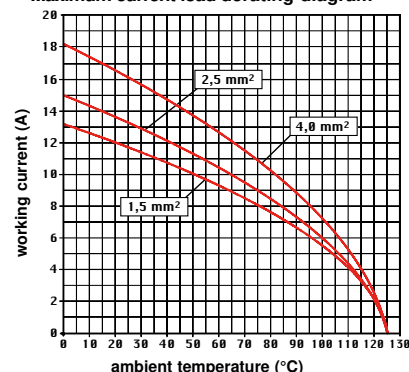
- made of self-extinguishing thermoplastic resin UL 94V-0
- mechanical life:  $\geq 500$  cycles

- mechanical life:  $\geq 500$  cycles

- contact resistance:  $\leq 1 \text{ m}\Omega$

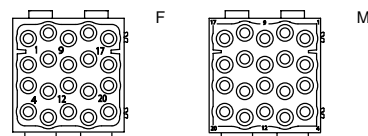
- for max. current load see the connector inserts derating diagram below; for more information see page 28

**CX 20 C, 20 poles connector inserts**  
**Maximum current load derating diagram**

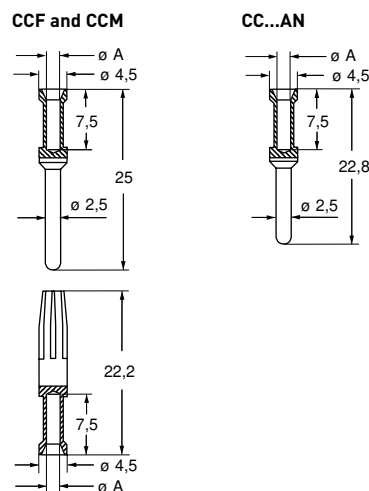


contacts side (front view)

side with reference arrow ▲



- 2 frame slots



### CCF, CCM and CC..AN contacts

| conductor<br>section<br>(mm <sup>2</sup> ) | conductor<br>slot<br>ø A (mm) | conductors<br>stripping length<br>(mm) |
|--------------------------------------------|-------------------------------|----------------------------------------|
| 0,14-0,37                                  | 0,9                           | 7,5                                    |
| 0,5                                        | 1,1                           | 7,5                                    |
| 0,75                                       | 1,3                           | 7,5                                    |
| 1,0                                        | 1,45                          | 7,5                                    |
| 1,5                                        | 1,8                           | 7,5                                    |
| 2,5                                        | 2,2                           | 7,5                                    |
| 3                                          | 2,55                          | 7,5                                    |
| 4                                          | 2,85                          | 7,5                                    |



CX 12 DF/DM 12 poles 10A - 250V

The modular inserts must be installed in suitable frames which are then mounted in traditional enclosures\* or in COB panel support.  
Single-sized modular units may be directly mounted inside MIXO ONE enclosures.

frames for modular units\* page: 316 - 317

MIXO ONE enclosures 369

\* enclosures: bulkhead mounting housings, high construction housings or high construction hoods

modular units,  
crimp connections



**RATING 250V**

10A crimp contacts,  
silver and gold plated



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

without contacts (to be ordered separately)  
female inserts for female contacts  
male inserts for male contacts

CX 12 DF  
CX 12 DM

|                           |           |                      |
|---------------------------|-----------|----------------------|
| 10A female crimp contacts |           |                      |
| 0,14-0,37 mm <sup>2</sup> | AWG 26-22 | identification No. 1 |
| 0,5 mm <sup>2</sup>       | AWG 20    | identification No. 2 |
| 0,75 mm <sup>2</sup>      | AWG 18    | identification No. ② |
| 1 mm <sup>2</sup>         | AWG 18    | identification No. 3 |
| 1,5 mm <sup>2</sup>       | AWG 16    | identification No. 4 |
| 2,5 mm <sup>2</sup>       | AWG 14    | identification No. 5 |

|          |          |
|----------|----------|
| CDFA 0.3 | CDFD 0.3 |
| CDFA 0.5 | CDFD 0.5 |
| CDFA 0.7 | CDFD 0.7 |
| CDFA 1.0 | CDFD 1.0 |
| CDFA 1.5 | CDFD 1.5 |
| CDFA 2.5 | CDFD 2.5 |

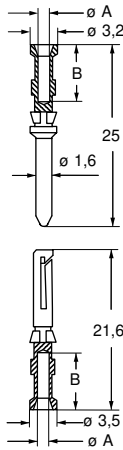
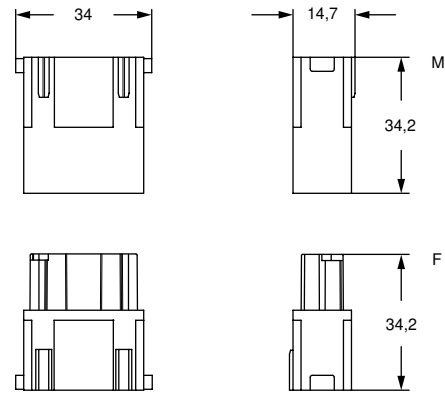
silver plated

gold plated+

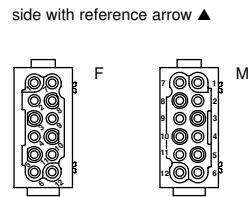
|                           |           |                      |
|---------------------------|-----------|----------------------|
| 10A male crimp contacts   |           |                      |
| 0,14-0,37 mm <sup>2</sup> | AWG 26-22 | identification No. 1 |
| 0,5 mm <sup>2</sup>       | AWG 20    | identification No. 2 |
| 0,75 mm <sup>2</sup>      | AWG 18    | identification No. ② |
| 1 mm <sup>2</sup>         | AWG 18    | identification No. 3 |
| 1,5 mm <sup>2</sup>       | AWG 16    | identification No. 4 |
| 2,5 mm <sup>2</sup>       | AWG 14    | identification No. 5 |

|          |          |
|----------|----------|
| CDMA 0.3 | CDMD 0.3 |
| CDMA 0.5 | CDMD 0.5 |
| CDMA 0.7 | CDMD 0.7 |
| CDMA 1.0 | CDMD 1.0 |
| CDMA 1.5 | CDMD 1.5 |
| CDMA 2.5 | CDMD 2.5 |

- characteristics according to EN 61984:  
**10A 250V 4kV 3**
- certified
- rated voltage according to UL/CSA: 600V
- insulation resistance:  $\geq 10 \text{ G}\Omega$
- ambient temperature limit: -40 °C ... +125 °C
- made of self-extinguishing thermoplastic resin UL 94V-0
- mechanical life:  $\geq 500$  cycles
- contact resistance:  $\leq 3 \text{ m}\Omega$
- PCBs interface, refer to article CIF 2.4 on page 670
- **it is recommended to crimp the contacts with crimping tools homologated by ILME** (please see the crimping tool section 10A contacts, CDF and CDM series) on pages 708 - 741
- for max. current load see the connector inserts derating diagram below; for more information see page 28



contacts side (front view)

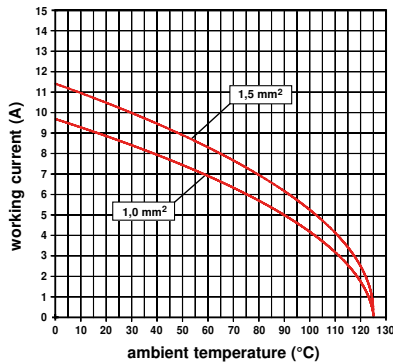


- 1 frame slot

| CDF and CDM contacts                 |                                     |                                    |
|--------------------------------------|-------------------------------------|------------------------------------|
| conductor section (mm <sup>2</sup> ) | conductor slot $\varnothing A$ (mm) | conductors stripping length B (mm) |
| 0,14-0,37                            | 0,9                                 | 8                                  |
| 0,5                                  | 1,1                                 | 8                                  |
| 0,75                                 | 1,3                                 | 8                                  |
| 1,0                                  | 1,45                                | 8                                  |
| 1,5                                  | 1,8                                 | 8                                  |
| 2,5                                  | 2,2                                 | 6                                  |

+ for basic or high thickness gold plating, please refer to page 674

CX 12 D, 12 poles connector inserts  
Maximum current load derating diagram



## CX 17 DF/DM 17 poles 10A - 160V

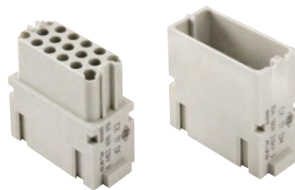
The modular inserts must be installed in suitable frames which are then mounted in traditional enclosures or in COB panel support.

Single-sized modular units may be directly mounted inside MIXO ONE enclosures.

frames for modular units page: 316 - 317

MIXO ONE enclosures 369

modular units,  
crimp connections



10A crimp contacts,  
silver and gold plated



description

part No.

part No

without contacts (to be ordered separately)

female inserts for female contacts

male inserts for male contacts

CX 17 DF  
CX 17 DM

10A female crimp contacts

|                           |           |                      |
|---------------------------|-----------|----------------------|
| 0,14-0,37 mm <sup>2</sup> | AWG 26-22 | identification No. 1 |
| 0,5 mm <sup>2</sup>       | AWG 20    | identification No. 2 |
| 0,75 mm <sup>2</sup>      | AWG 18    | identification No. ② |
| 1 mm <sup>2</sup>         | AWG 18    | identification No. 3 |
| 1,5 mm <sup>2</sup>       | AWG 16    | identification No. 4 |
| 2,5 mm <sup>2</sup>       | AWG 14    | identification No. 5 |

10A male crimp contacts

|                           |           |                      |
|---------------------------|-----------|----------------------|
| 0,14-0,37 mm <sup>2</sup> | AWG 26-22 | identification No. 1 |
| 0,5 mm <sup>2</sup>       | AWG 20    | identification No. 2 |
| 0,75 mm <sup>2</sup>      | AWG 18    | identification No. ② |
| 1 mm <sup>2</sup>         | AWG 18    | identification No. 3 |
| 1,5 mm <sup>2</sup>       | AWG 16    | identification No. 4 |
| 2,5 mm <sup>2</sup>       | AWG 14    | identification No. 5 |

CDFA 0.3  
CDFA 0.5  
CDFA 0.7  
CDFA 1.0  
CDFA 1.5  
CDFA 2.5

silver plated

CDFD 0.3  
CDFD 0.5  
CDFD 0.7  
CDFD 1.0  
CDFD 1.5  
CDFD 2.5

gold plated<sup>+</sup>

CDMA 0.3  
CDMA 0.5  
CDMA 0.7  
CDMA 1.0  
CDMA 1.5  
CDMA 2.5

CDMD 0.3  
CDMD 0.5  
CDMD 0.7  
CDMD 1.0  
CDMD 1.5  
CDMD 2.5

- characteristics according to EN 61984:

**10A 160V 2,5kV 3**

**10A 250V 4kV 2**

- (UL for USA and Canada),

ENEC certified

- rated voltage according to UL/CSA: 250V

- insulation resistance:  $\geq 10 \text{ G}\Omega$

- ambient temperature limit: -40 °C ... +125 °C

- made of self-extinguishing thermoplastic resin  
UL 94V-0

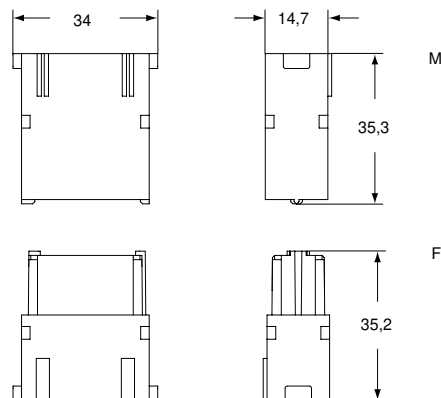
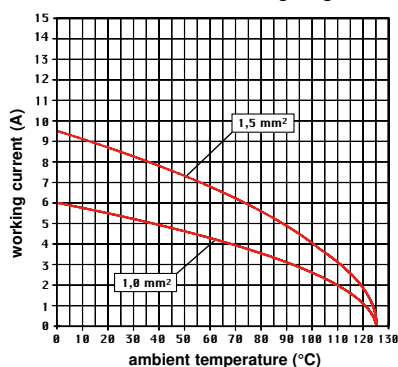
- mechanical life:  $\geq 500$  cycles

- contact resistance:  $\leq 3 \text{ m}\Omega$

- it is recommended to crimp the contacts with  
crimping tools homologated by ILME (please see  
the crimping tool section 10A contacts, CDF and CDM  
series) on pages 708 - 741

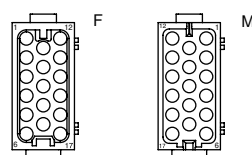
- for max. current load see the connector inserts derating  
diagram below; for more information see page 28

CX 17 D, 17 poles connector inserts  
Maximum current load derating diagram

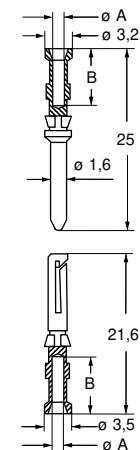


contacts side (front view)

side with reference arrow ▲



- 1 frame slot



CDF and CDM contacts

| conductor<br>section<br>(mm <sup>2</sup> ) | conductor<br>slot<br>ø A (mm) | conductors<br>stripping length<br>B (mm) |
|--------------------------------------------|-------------------------------|------------------------------------------|
| 0,14-0,37                                  | 0,9                           | 8                                        |
| 0,5                                        | 1,1                           | 8                                        |
| 0,75                                       | 1,3                           | 8                                        |
| 1,0                                        | 1,45                          | 8                                        |
| 1,5                                        | 1,8                           | 8                                        |
| 2,5                                        | 2,2                           | 6                                        |

<sup>+</sup> for basic or high thickness gold plating,  
please refer to page 674

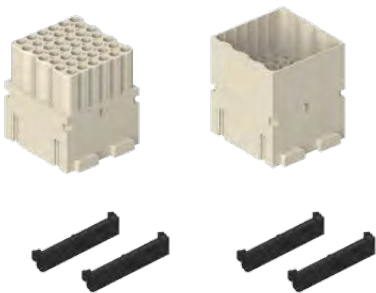
CX 42 DF/DM 42 poles 10A - 150V

The modular inserts must be installed in suitable frames, which are then mounted in traditional enclosures\* or in COB panel supports.

frames for modular units\*

page:  
316

modular units,  
crimp connections



10A crimp contacts,  
silver and gold plated



\* enclosures: bulkhead mounting housings, high construction housings or high construction hoods

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

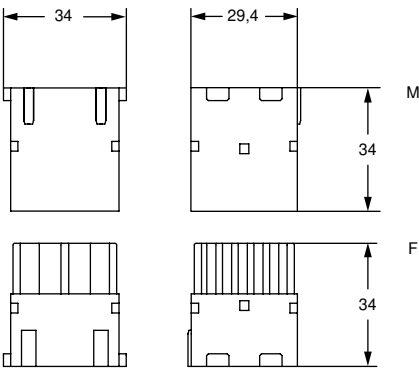
without contacts (to be ordered separately), supplied with 2 dedicated black coloured 2-slot sized lock-in tab female inserts for female contacts male inserts for male contacts

CX 42 DF  
CX 42 DM

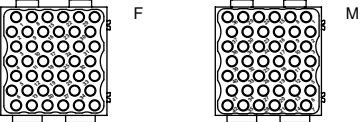
|                           |           |                      |
|---------------------------|-----------|----------------------|
| 10A female crimp contacts |           |                      |
| 0,14-0,37 mm <sup>2</sup> | AWG 26-22 | identification No. 1 |
| 0,5 mm <sup>2</sup>       | AWG 20    | identification No. 2 |
| 0,75 mm <sup>2</sup>      | AWG 18    | identification No. ② |
| 1 mm <sup>2</sup>         | AWG 18    | identification No. 3 |
| 1,5 mm <sup>2</sup>       | AWG 16    | identification No. 4 |
| 2,5 mm <sup>2</sup>       | AWG 14    | identification No. 5 |
| 10A male crimp contacts   |           |                      |
| 0,14-0,37 mm <sup>2</sup> | AWG 26-22 | identification No. 1 |
| 0,5 mm <sup>2</sup>       | AWG 20    | identification No. 2 |
| 0,75 mm <sup>2</sup>      | AWG 18    | identification No. ② |
| 1 mm <sup>2</sup>         | AWG 18    | identification No. 3 |
| 1,5 mm <sup>2</sup>       | AWG 16    | identification No. 4 |
| 2,5 mm <sup>2</sup>       | AWG 14    | identification No. 5 |

|          |               |          |              |
|----------|---------------|----------|--------------|
| CDFA 0.3 | silver plated | CDFD 0.3 | gold plated+ |
| CDFA 0.5 |               | CDFD 0.5 |              |
| CDFA 0.7 |               | CDFD 0.7 |              |
| CDFA 1.0 |               | CDFD 1.0 |              |
| CDFA 1.5 |               | CDFD 1.5 |              |
| CDFA 2.5 |               | CDFD 2.5 |              |
| CDMA 0.3 | silver plated | CDMD 0.3 | gold plated+ |
| CDMA 0.5 |               | CDMD 0.5 |              |
| CDMA 0.7 |               | CDMD 0.7 |              |
| CDMA 1.0 |               | CDMD 1.0 |              |
| CDMA 1.5 |               | CDMD 1.5 |              |
| CDMA 2.5 |               | CDMD 2.5 |              |

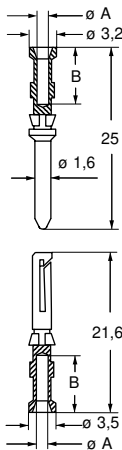
- characteristics according to EN 61984:  
**10A 150V 2,5kV 3**
- cURus, CSA, CQC, DNV-GL, BV, EAC pending
- rated voltage according to UL/CSA: 250V
- insulation resistance: ≥ 10 GΩ
- ambient temperature limit: -40 °C ... +125 °C
- made of self-extinguishing thermoplastic resin UL 94V-0
- mechanical life: ≥ 500 cycles
- contact resistance: ≤ 3 mΩ
- **it is recommended to crimp the contacts with crimping tools homologated by ILME** (please see the crimping tool section 10A contacts, CDF and CDM series) on pages 708 - 741
- supplied with dedicated black coloured 2-slot sized lock-in tab (2, one per each side).
- for spare lock-in tab **CX CFMD** see SPARE SPARTS catalogue



contacts side (front view)  
rear view, side with reference arrow ▲



- 2 frame slots



| CDF and CDM contacts                 |                         |                                    |
|--------------------------------------|-------------------------|------------------------------------|
| conductor section (mm <sup>2</sup> ) | conductor slot ø A (mm) | conductors stripping length B (mm) |
| 0,14-0,37                            | 0,9                     | 8                                  |
| 0,5                                  | 1,1                     | 8                                  |
| 0,75                                 | 1,3                     | 8                                  |
| 1,0                                  | 1,45                    | 8                                  |
| 1,5                                  | 1,8                     | 8                                  |
| 2,5                                  | 2,2                     | 6                                  |

+ for basic or high thickness gold plating, please refer to page 674

## CX 25 IBF/IBM 25 poles 4A - 50V

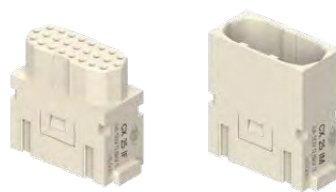
The modular inserts must be installed in suitable frames which are then mounted in traditional enclosures or in COB panel support.  
Single-sized modular units may be directly mounted inside MIXO ONE enclosures.

frames for modular units page:  
316 - 317

MIXO ONE enclosures 369

- max insulating diameter 2,1 mm
- we recommend the use of CRF / CRM code pins

modular units,  
crimp connections



CI (4A) crimp contacts,  
silver and gold plated



description

part No.

part No

without contacts (to be ordered separately)  
female inserts for female contacts  
male inserts for male contacts

CX 25 IBF  
CX 25 IBM

CI (4A) female crimp contacts

0,08-0,21 mm<sup>2</sup> AWG 28-24

0,13-0,33 mm<sup>2</sup> AWG 26-22

0,33-0,52 mm<sup>2</sup> AWG 22-20

0,52-0,75 mm<sup>2</sup> AWG 20-18

CI (4A) male crimp contacts

0,08-0,21 mm<sup>2</sup> AWG 28-24

0,13-0,33 mm<sup>2</sup> AWG 26-22

0,33-0,52 mm<sup>2</sup> AWG 22-20

0,52-0,75 mm<sup>2</sup> AWG 20-18

CIFA 0.2

CIFA 0.3

CIFA 0.5

CIFA 0.7

CIMA 0.2

CIMA 0.3

CIMA 0.5

CIMA 0.7

CIFD 0.2

CIFD 0.3

CIFD 0.5

CIFD 0.7

CIMD 0.2

CIMD 0.3

CIMD 0.5

CIMD 0.7

silver plated

gold plated

- characteristics according to EN 61984:

**4A 50V 0,8kV 3**

**4A 160V 2,5kV 2**

- DNV-GL BUREAU VERITAS certified

- rated voltage according to UL/CSA: 600V

- insulation resistance:  $\geq 10$  G $\Omega$

- ambient temperature limit: -40 °C ... +125 °C

- made of self-extinguishing thermoplastic resin  
UL 94V-0

- mechanical life:  $\geq 500$  cycles

- contact resistance:  $\leq 4$  m $\Omega$

- for crimp contacts CI series use, on page 716 - 719

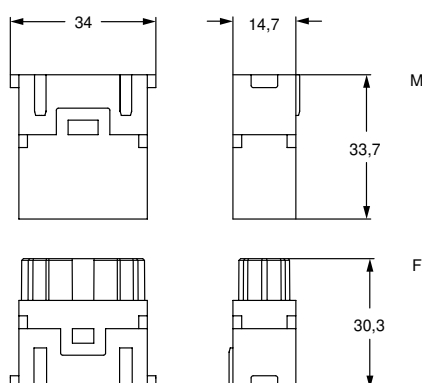
**CIPZ D** crimping tool

**CITP D** turret head

**CIES** insertion / removal tool for contacts 0,2 - 0,5 mm<sup>2</sup>

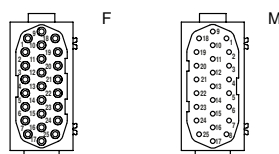
**CIES B** insertion / removal tool for contacts 0,75 mm<sup>2</sup>

- for max. current load see the connector inserts derating diagram below; for more information see page 28

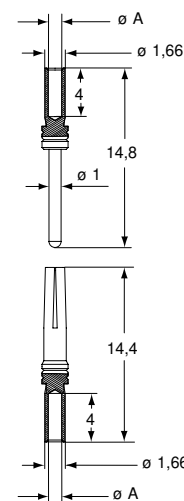


contacts side (front view)

side with reference arrow ▲



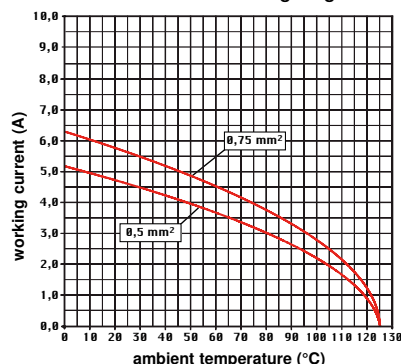
- 1 frame slot



**CIF and CIM contacts**

| conductor section (mm <sup>2</sup> ) | conductor slot $\varnothing A$ (mm) | conductors stripping length (mm) |
|--------------------------------------|-------------------------------------|----------------------------------|
| 0,08-0,21                            | 0,64                                | 4                                |
| 0,13-0,33                            | 0,90                                | 4                                |
| 0,33-0,52                            | 1,12                                | 4                                |
| 0,52-0,75                            | 1,12                                | 4                                |

**CX 25 IB, 25 poles connector inserts**  
**Maximum current load derating diagram**

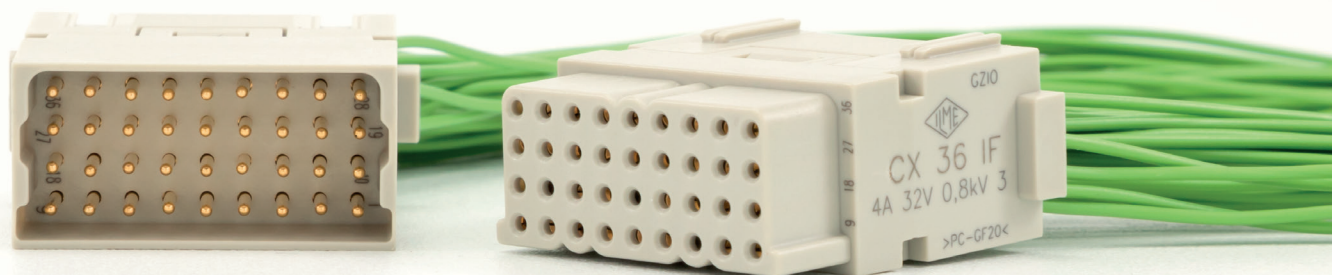


---

## MIXO

### CX 36 IF /IM

---



Very high density

MIXO 4 A 36-pole ELV (extra-low voltage) 32 V  
connector module for signal transmission,  
EN/IEC 61984 ratings: 36 P 4 A 32 V 0,8 kV 3



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information on  
our products at  
[www.ilme.com](http://www.ilme.com)

## TECHNICAL FEATURES

### CX 36 IF /IM

- **Very high density** 36-pole ELV (extra-low voltage) 32 V connector module for signal transmission.
- 40% higher density than previously available CX 25 IF/IM or the improved CX 25 IBF /IBM for use of size 0.7 wires up to 18 AWG 0,75 mm<sup>2</sup>.
- **EN/IEC 61984 ratings:** **36 P 4 A 32 V 0,8 kV 3**  
NOTE – As a connector with extra-low voltage rating, it is out of the scope of the EU Low Voltage Directive 2014/35/EU and of the Russian equivalent Technical Regulation TR CU 004/2011, hence neither the C€ marking nor the EAC mark are applicable.
- **UL/CSA voltage rating:** 30 V<sub>AC</sub>/DC.
- **Lower and Upper Limiting Temperatures (LLT ... ULT):** -40 °C ... +125 °C.
- Suitable either for **series CI turned crimp contacts** sizes **0.2 - 0.3 - 0.5** (size 0.7 not suitable), available with standard gold plating (D), basic gold plating (JD - see page 72), silver plating (A), tin plating (S), or for **new series SI stamped crimp contacts** sizes **0.2 or 0.5** (gold plated, 3 performance levels: 1D - 2D - 3D).
- Covers up to three 3Φ AC motors (3 axes with high-power motion control system) and 24 + 18 = 42 poles in peripheral mid-power/auxiliaries sections, to cover e.g. 4 additional motion control axes with 12 of the 18-pole portion, and the remaining 30 contacts serving auxiliary and signal contacts (I/O, solenoids, etc.).
- **Max individual wire sheathing diameter: 1,7 mm**
- **HNM variant** is created using **HNM turned crimp contacts series RI**, for up to 10.000 mating cycles when mounted in HNM MIXO frames **RX 02 /03 /04 /06 TF /TM** (in turn mounted inside HNM connector enclosures), thanks to special lubrication on the shield contact spring.
- Suitable also for MIXO ONE enclosures.

40% higher  
density than  
previously available  
CX 25 IF/IM or  
CX 25 IBF /IBM



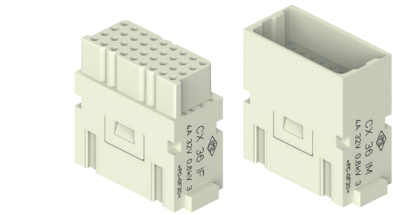
CX 36 IF/IM 36 poles 4 A - 32 V

The modular inserts must be installed in suitable frames which are then mounted in traditional housings or in COB panel support. Single-sized modular units may be directly mounted inside MIXO ONE enclosures.

|                          |       |
|--------------------------|-------|
|                          | page: |
| frames for modular units | 33 *  |
| MIXO ONE enclosures      | 369   |

refer to CN.19 pages  
\* refer to NEWS 2020 pages

modular units,  
crimp connections



FROM FEBRUARY 2020

CI (4 A) crimp contacts,  
silver and gold plated



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

without contacts (to be ordered separately)  
female inserts for female contacts  
male inserts for male contacts

CX 36 IF  
CX 36 IM

CI (4 A) female crimp contacts  
0,08-0,21 mm<sup>2</sup> AWG 28-24  
0,13-0,33 mm<sup>2</sup> AWG 26-22  
0,33-0,52 mm<sup>2</sup> AWG 22-20

CIFA 0.2  
CIFA 0.3  
CIFA 0.5

silver plated

CIFD 0.2  
CIFD 0.3  
CIFD 0.5

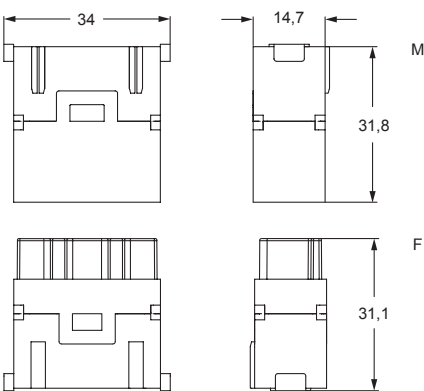
gold plated

CI (4 A) male crimp contacts  
0,08-0,21 mm<sup>2</sup> AWG 28-24  
0,13-0,33 mm<sup>2</sup> AWG 26-22  
0,33-0,52 mm<sup>2</sup> AWG 22-20

CIMA 0.2  
CIMA 0.3  
CIMA 0.5

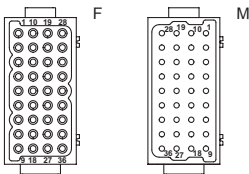
CIMD 0.2  
CIMD 0.3  
CIMD 0.5

- characteristics according to EN/IEC 61984 ratings:  
**4 A 32 V 0,8 kV 3**
- cUL (UL for USA and Canada), CSA, DNV-GL, BV pending
- rated voltage according to UL/CSA: 30 V
- insulation resistance:  $\geq 10 \text{ G}\Omega$
- Lower and Upper Limiting Temperatures (LLT ... ULT):  
-40 °C ... +125 °C
- made of self-extinguishing thermoplastic resin  
UL 94V-0
- mechanical life:  $\geq 500$  cycles
- contact resistance:  $\leq 4 \text{ m}\Omega$
- for crimp contacts CI series use:  
**CIPZ D** crimping tool  
**CIPZP D** pneumatic crimping tool (see page 144)  
**CITP D** turret head  
**CIES** insertion / removal tool for contacts 0,2 - 0,5 mm<sup>2</sup> (see pages 716 - 719 of CN.19 catalogue)
- for max. current load see the connector inserts derating diagrams **under construction**.

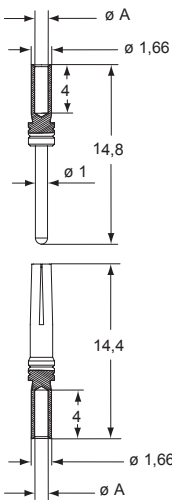


contacts side (front view)

side with reference arrow ▲



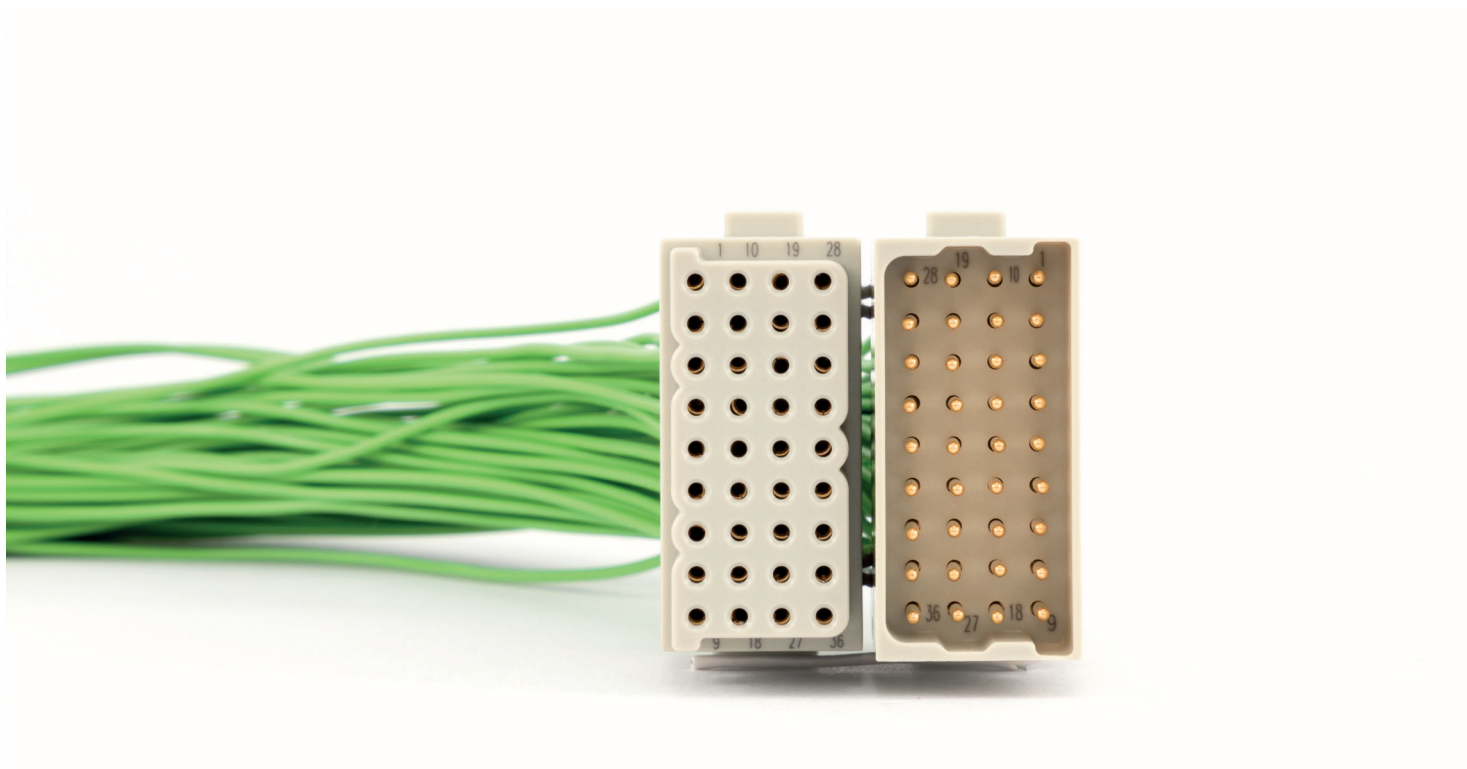
- 1 frame slot



CIF and CIM contacts

| conductor section (mm <sup>2</sup> ) | conductor slot $\phi A$ (mm) | conductors stripping length (mm) |
|--------------------------------------|------------------------------|----------------------------------|
| 0,08-0,21                            | 0,64                         | 4                                |
| 0,13-0,33                            | 0,90                         | 4                                |
| 0,33-0,52                            | 1,12                         | 4                                |

\* for basic or high thickness gold plating, please refer to page 74

**MIXO CX 36 IF/IM**

---

## MIXO SHIELDED CX 20S IF /IM

---



MIXO Shielded  
20 poles + shield 4 A module,  
EN/IEC 61984 ratings: 4 A 32 V 0,8 kV 3



Find more  
information on  
our products at  
[www.ilme.com](http://www.ilme.com)

## TECHNICAL FEATURES

### CX 20S IF /IM

- **Shielded** module for up to 20 turned crimp contacts series **CI** (5A) sizes 0.2 to 0.5, covering e.g. up to 10 signals.

- **EN/IEC 61984 ratings:** **4 A 32 V 0,8 kV 3**

NOTE – As a connector with extra-low voltage rating, it is out of the scope of the EU Low Voltage Directive 2014/35/EU and of the Russian equivalent Technical Regulation TR CU 004/2011, hence neither the **CE** marking nor the EAC mark are applicable.

- **Lower and Upper Limiting Temperatures** (LLT ... ULT):

-40 °C ... +85 °C.

- **Max individual wire sheathing diameter:** **1,9 mm**

- Protects sensitive signals against possible interference generated by adjacent power contacts, when used in combination with MIXO power modules (10A, 16A, 40A or more) whose wires belong to the same power/signal combined cable (fulfilling the robotics trend in reducing the number of cables).

- **Supplied already complete of module and shielded connector**, turned crimp contacts CI Series separately available for due choice of size **0.2, 0.3 or 0.5** (not suitable for size 0.7).

- Screw fixing **cable clamp** (single cable entry) required for cable screen connection to the module shield, is separately available in 4 different sizes according to the range of cable Ø in mm: 5/7 – 7/10 – 10/12 and 11/14 (new).

NOTE – Available upon request, as alternative to the screw fixing cable clamps, crimp flange and crimp sleeve cable clamps (same as applicable for the MIXO Gigabit module) to be chosen according to the specific dimension of the cable screen diameter and its insulation diameter (contact ILME Commercial Offices).

- HNM variant part nos. **RX 20S IF /IM** for use with HNM turned crimp contacts series **RI**, for up to 10.000 mating cycles when mounted in HNM MIXO frames **RX 02 /03 /04 /06 TF /TM** (in turn mounted inside HNM connector enclosures), thanks to special lubrication of the contact spring on the shield.

- **Shield separated from the PE circuit** (MIXO frame).

NOTE – For versions with additional shielding connection to the MIXO frame (single earth/ground reference, preferred in railway rolling stock applications), part nos. **CX 20S IGF /IGM** contact ILME Commercial Offices.

- Suitable also for MIXO ONE enclosures.

all-around  
shielding separate  
from protective  
earth (grounding)  
potential



CX 20S IF/IM 20 poles + shield 4 A module - 32 V

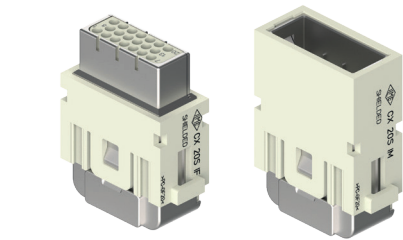
The modular inserts must be installed in suitable frames which are then mounted in traditional housings or in COB panel support. Single-sized modular units may be directly mounted inside MIXO ONE enclosures.

|                          |            |
|--------------------------|------------|
| frames for modular units | page: 39 * |
| MIXO ONE enclosures      | 369        |

- we recommend the use of CRF / CRM code pins together with relevant MIXO frame

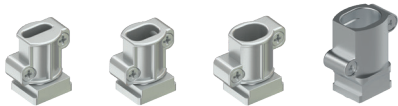
refer to CN.19 pages  
\* refer to NEWS 2020 pages

modular units,  
crimp connection



FROM FEBRUARY 2020

cable clamp



description

part No.

part No.

without contacts (to be ordered separately)  
female inserts for female contacts  
male inserts for male contacts

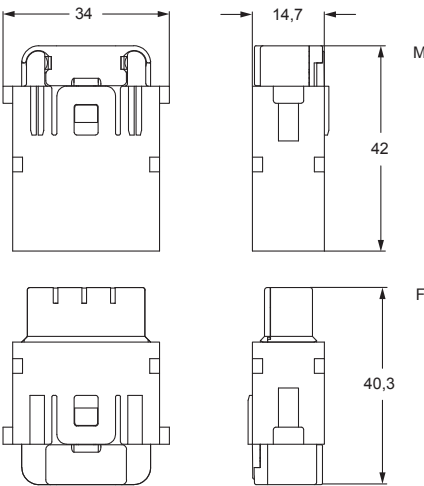
CX 20S IF  
CX 20S IM

cable clamp for 5-7 mm cable diameter  
cable clamp for 7-10 mm cable diameter  
cable clamp for 10-12 mm cable diameter  
cable clamp for 11-14 mm cable diameter

CX 5/7 CA  
CX 7/10 CA  
CX 10/12 CA  
CX 11/14 CA

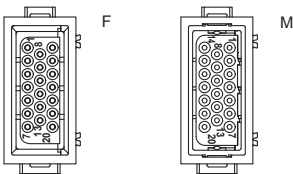
- characteristics according to EN/IEC 61984 ratings:  
**4 A 32 V 0,8 kV 3**
- cULus (UL for USA and Canada) certified  
CSA, DNV-GL, BV pending
- rated voltage according to UL/CSA: 32 V
- insulation resistance:  $\geq 10\text{ G}\Omega$
- Lower and Upper Limiting Temperatures (LLT ... ULT):  
-40 °C ... +85 °C
- shield electrically separated from the PE of the housings
- made of self-extinguishing thermoplastic resin  
UL 94V-0
- mechanical life:  $\geq 500$  cycles
- contact resistance:  $\leq 4\text{ m}\Omega$
- for crimp contacts CI series use:  
**CIPZ D** crimping tool  
**CIPZP D** pneumatic crimping tool (see page 144)  
**CITP D** turret head  
(see pages 716 - 719 of CN.19 catalogue)
- for max. current load see the connector inserts derating  
diagrams **under construction**.

CX 20S IF, CX 20S IM



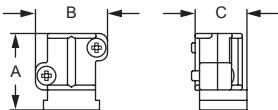
contacts side (front view)

side with reference arrow ▲



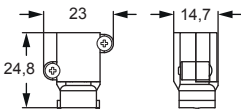
- 1 frame slot

CX 5/7 CA, CX 7/10 CA, CX 10/12 CA



| part No.    | A    | B    | C     |
|-------------|------|------|-------|
| CX 5/7 CA   | 19,1 | 18   | 12,95 |
| CX 7/10 CA  | 19,1 | 18   | 12,95 |
| CX 10/12 CA | 19,1 | 20,8 | 12,95 |

CX 11/14 CA



## CI (4 A) crimp contacts gold plated



description

part No.

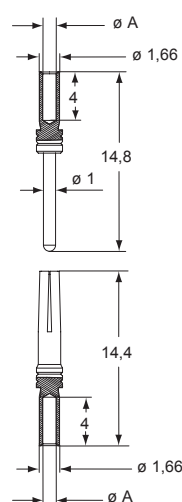
CI (4A) female crimp contacts  
0,08-0,21 mm<sup>2</sup> AWG 28-24  
0,13-0,33 mm<sup>2</sup> AWG 26-22  
0,33-0,52 mm<sup>2</sup> AWG 22-20

CIFD 0.2  
CIFD 0.3  
CIFD 0.5

gold plated<sup>+</sup>

CI (4A) male crimp contacts  
0,08-0,21 mm<sup>2</sup> AWG 28-24  
0,13-0,33 mm<sup>2</sup> AWG 26-22  
0,33-0,52 mm<sup>2</sup> AWG 22-20

CIMD 0.2  
CIMD 0.3  
CIMD 0.5



### CIF and CIM contacts

| conductor<br>section<br>(mm <sup>2</sup> ) | conductor<br>slot<br>Ø A (mm) | conductors<br>stripping length<br>(mm) |
|--------------------------------------------|-------------------------------|----------------------------------------|
| 0,08-0,21                                  | 0,64                          | 4                                      |
| 0,13-0,33                                  | 0,90                          | 4                                      |
| 0,33-0,52                                  | 1,12                          | 4                                      |

<sup>+</sup> for basic or high thickness gold plating, please refer to page 74

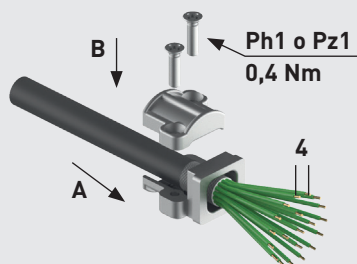
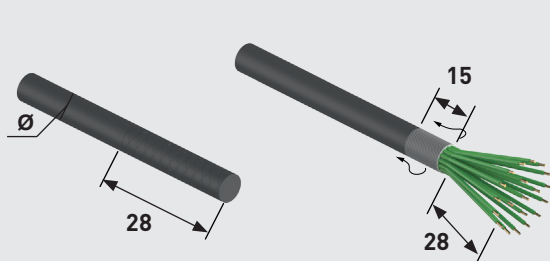
## CX 20S IF/IM 20 poles + shield 4 A module - 32 V

## ASSEMBLY INSTRUCTIONS

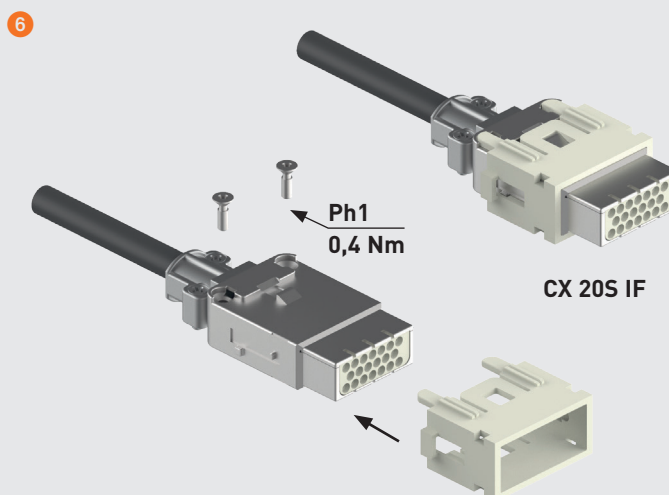
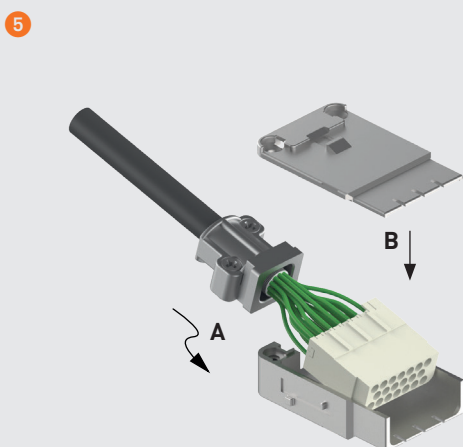
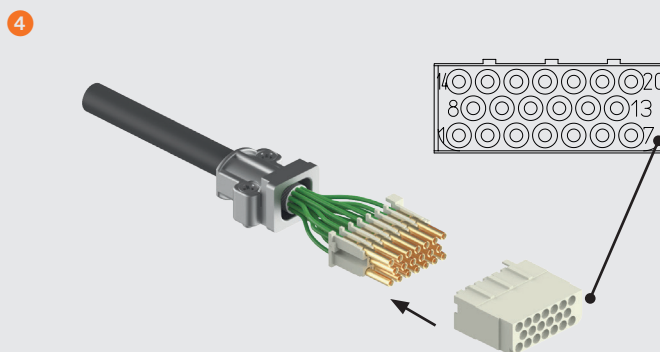
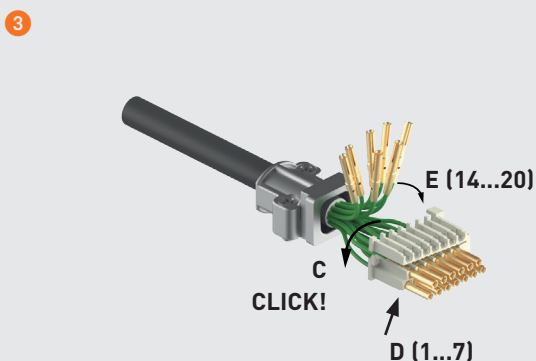
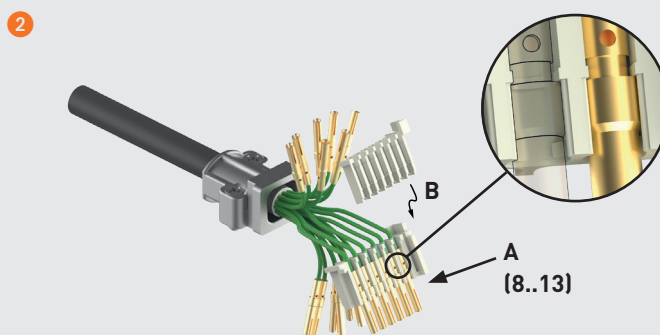
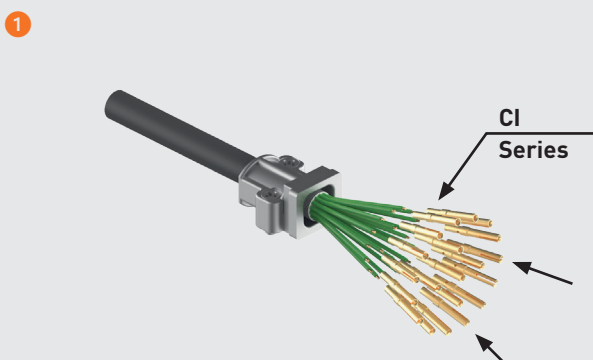
## MIXO SHIELDED CX 20S IF



Watch  
our online  
tutorial

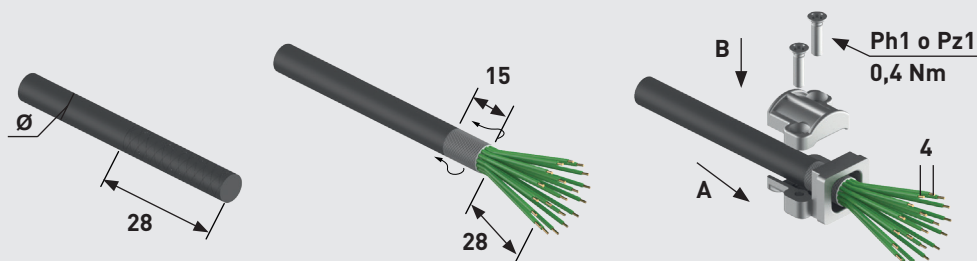


| Cable clamp<br>part No. | mm    | Screw<br>size | Tightening torque<br>(Nm) | Recommended<br>size of screwdriver |
|-------------------------|-------|---------------|---------------------------|------------------------------------|
| CX 5/7 CA               | 5-7   | M 2,5         | 0,4                       | Ph1                                |
| CX 7/10 CA              | 7-10  | M 2,5         | 0,4                       | Ph1                                |
| CX 10/12 CA             | 10-12 | M 2,5         | 0,4                       | Ph1                                |
| CX 11/14 CA             | 11-14 | M 2,5         | 0,4                       | Pz1                                |

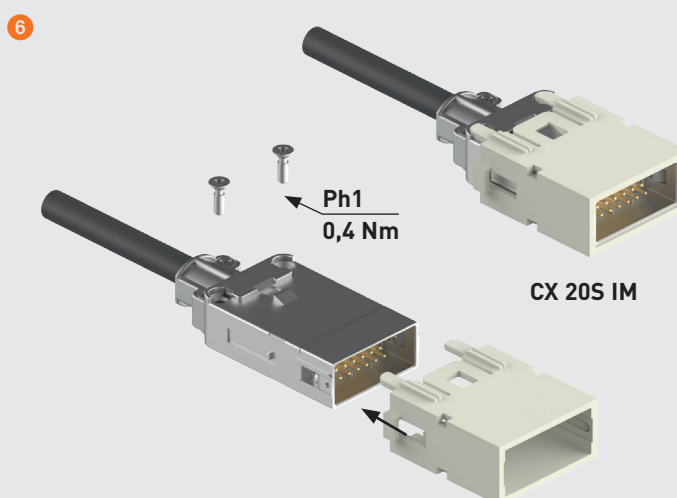
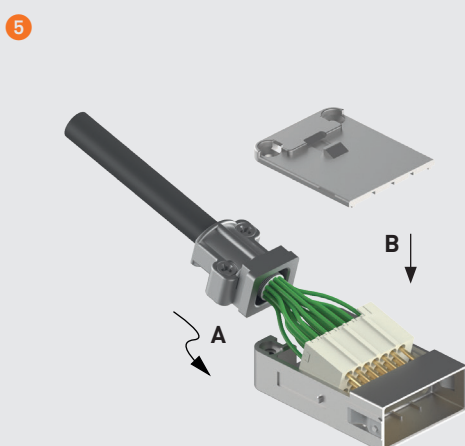
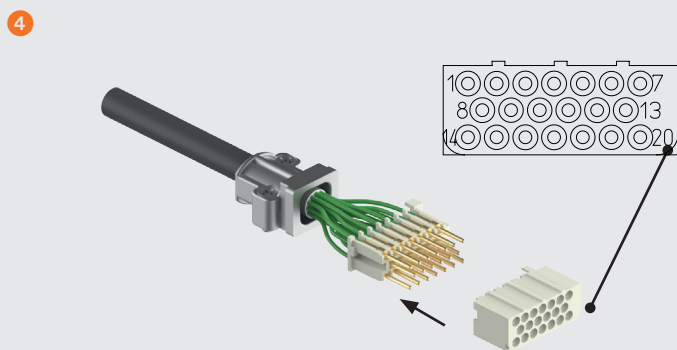
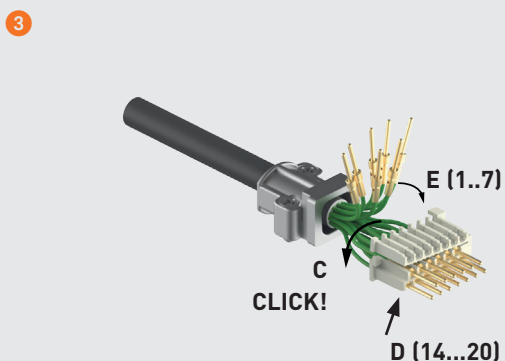
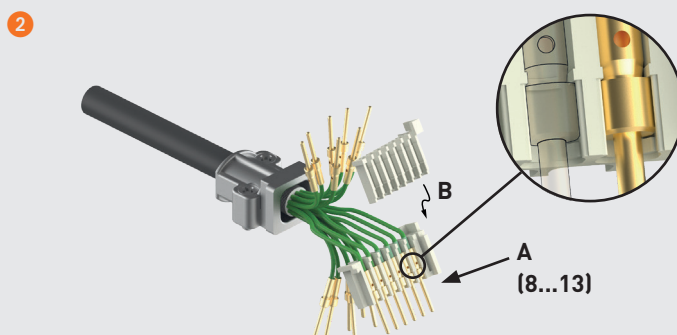
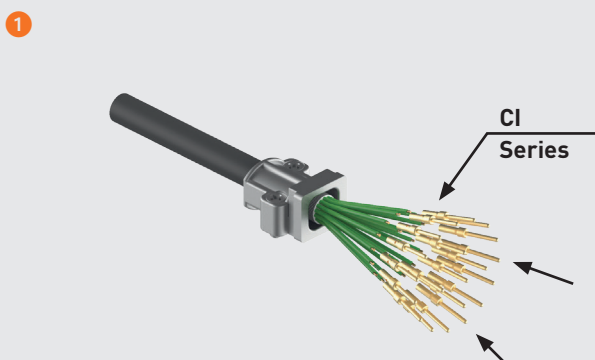


**CX 20S IF/IM 20 poles + shield 4 A module - 32 V****ASSEMBLY INSTRUCTIONS****MIXO SHIELDED CX 20S IM**

Watch  
our online  
tutorial

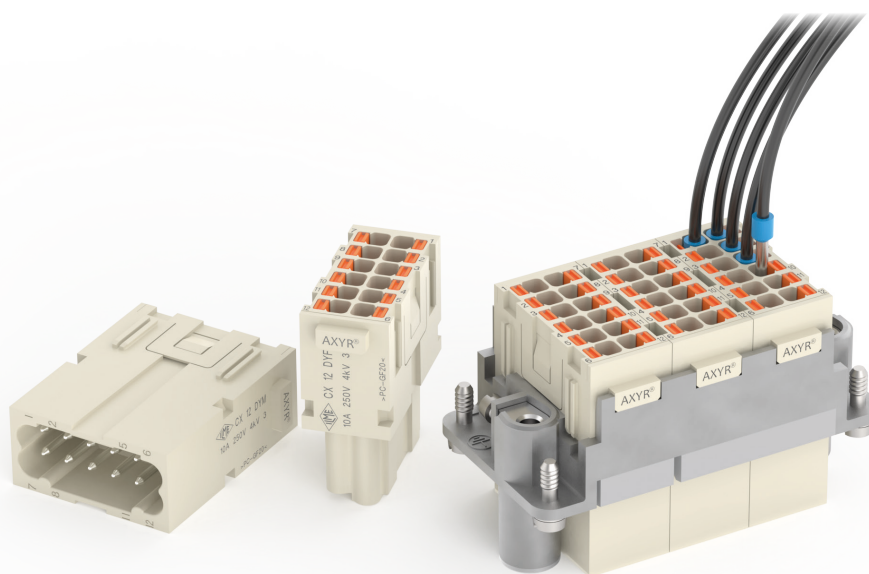


| Cable clamp<br>part No. | Ø mm  | Screw<br>size | Tightening torque<br>(Nm) | Recommended<br>size of screwdriver |
|-------------------------|-------|---------------|---------------------------|------------------------------------|
| CX 5/7 CA               | 5-7   | M 2,5         | 0,4                       | Ph1                                |
| CX 7/10 CA              | 7-10  | M 2,5         | 0,4                       | Ph1                                |
| CX 10/12 CA             | 10-12 | M 2,5         | 0,4                       | Ph1                                |
| CX 11/14 CA             | 11-14 | M 2,5         | 0,4                       | Pz1                                |



## MIXO CX 12 DYF /M

New 10 A MIXO modules  
with **AXYR®** connection technology



### The tool-less variant of the popular crimp version CX 12 DF /M

**12 P: 10 A 250 V 4 kV 3**

The new 12-pole **AXYR® CX 12 DYF / M** MIXO modules are the tool-less variant of the popular crimp version CX 12 DF /M.

Implementing in the 10 A range the **AXYR®** technology (spring push-in, the actuator button being required only for release purposes or for wiring with stranded copper wires or ferruled or solid wires with CSA < 0,75 mm² / 18 AWG), these inserts cover with one size the whole wire ranges:

Q **0,14 mm² to 1,5 mm² (AWG 26-16)** for ferruled (prepared) flexible copper wires;

Q **0,14 mm² to 2,5 mm² (AWG 24-14)** for unferruled (unprepared) solid or flexible copper wires;

without need for additional crimping tools.

While crimping is a special process requiring skill, the **AXYR®** technology, being so simple, is virtually skill-independent and provides tool-less connection for contact densities that the SQUICH® technology cannot achieve even in its most compact version.

Q Current-temperature derating diagrams (current-carrying capacity curves) for the **CX 12 DYF / M AXYR®** module are like those of the equivalent CX 12 DF /M crimp version for the same wiring.

Q Conductors stripping length: 9..11 mm.

Q Silver plated contacts.

Q Max diameter of wire sheathing or ferrule funnel:  
ø 3,8 mm (unprepared wire size 2,5 mm² / AWG 14 or  
ferruled wire size 1,5 mm² / AWG 16)

#### ✓ CERTIFICATIONS

- cURus, CQC, DNV, BV, EAC pending.
- **CE** and **UKCA** markings.
- **RoHS:** compliant with exemption **6(c)**.

# CX 12 DY 12 poles 10 A – 250 V

The modular inserts must be installed in suitable frames, which are then mounted in traditional enclosures\* or in COB panel supports

Single-sized modular units may be directly mounted inside MIXO ONE and MIXO TWO enclosures

page:

frames for modular units  
MIXO ONE enclosures

316 - 317  
369

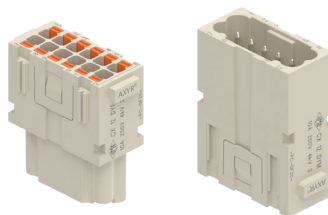
page:

MIXO TWO enclosures

76, 77

refer to CN.19 pages

modular units,  
AXYR® terminal connections



**Q SILVER PLATED CONTACTS**

**FROM NOVEMBER 2023**

description

part No.

spring/AXYR® push-in connection  
female insert with female contacts  
male insert with male contacts

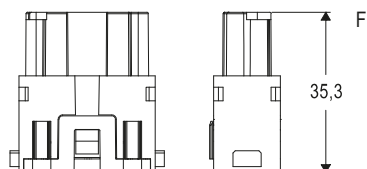
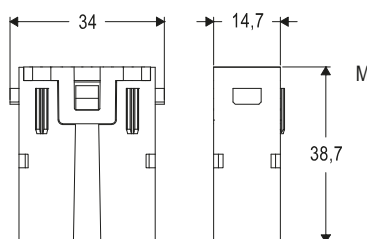
[CX 12 DYF](#)  
[CX 12 DYM](#)

- characteristics according to EN 61984:  
**10 A 250 V 4 kV 3**

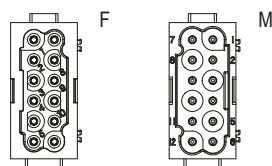
- cURus (ECBT2/8 and PVVA2/8) pending  
- CQC, DNV, BV, EAC pending

- rated voltage according to UL/CSA: 600 V  
- 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 94V-0  
- mechanical life:  $\geq 500$  cycles  
- contact resistance:  $\leq 3 \text{ m}\Omega$   
- max diameter of wire sheathing or ferrule funnel:  
 $\varnothing 3,8 \text{ mm}$  (unprepared wire size  $2,5 \text{ mm}^2$  / AWG 14  
or ferruled wire size  $1,5 \text{ mm}^2$  / AWG 16)

- for max. current load see the connector inserts  
derating diagram below; for more information  
see page 28 of CN.19 catalogue.

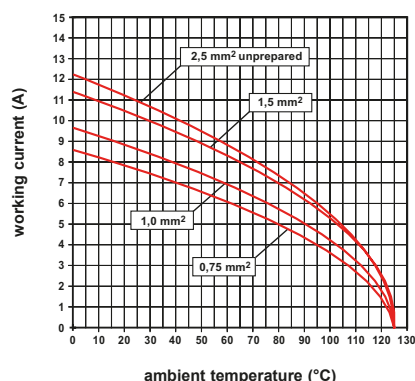


contacts side (front view)  
side with reference arrow ▲



**Q Please refer to page 21  
for the AXYR® range**

**CX 12 DY, 12 poles connector inserts**  
**Maximum current load derating diagram**



inserts for conductors with the following  
cross-sectional areas:

- unprepared conductor  
 $0,14 \text{ mm}^2 - 2,5 \text{ mm}^2$  (AWG 26-14)
- prepared conductor with crimped end-sleeve  
 $0,14 \text{ mm}^2 - 1,5 \text{ mm}^2$  (AWG 26-16)
- conductors stripping length: 9..11 mm

# MIXO CX 06 CYF /CYM 6 poles 16 A - 500 V

The modular inserts must be installed in suitable frames which are then mounted in traditional enclosures or in COB panel support.

Single-sized modular units may be directly mounted inside MIXO ONE enclosures.

page:

frames for modular units

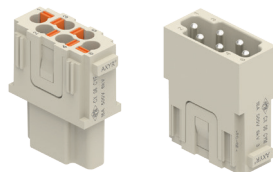
316 - 317

MIXO ONE enclosures

369

refer to CN.19 pages

modular units,  
AXYR® terminal connections



**FROM NOVEMBER 2022**

description

part No.

spring/AXYR® push-in connection  
female inserts with female contacts  
male inserts with male contacts

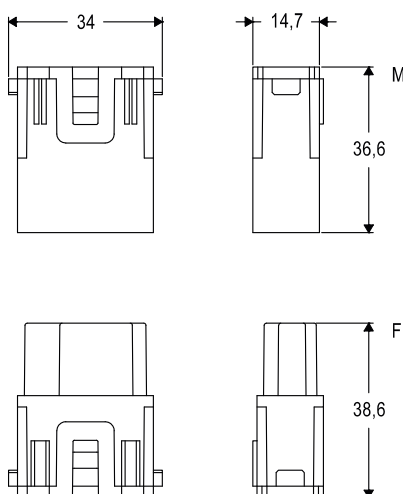
**CX 06 CYF**  
**CX 06 CYM**

- characteristics according to EN 61984:  
**16 A 500 V 6 kV 3**

- cURus (ECBT2/8 and PVVA2/8) pending  
- CQC, EAC, DNV-GL, BV pending

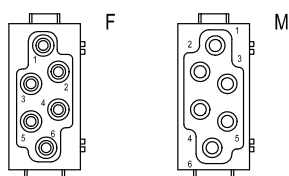
- rated voltage according to UL/CSA: 600 V  
- insulation resistance:  $\geq 10 \text{ G}\Omega$   
- ambient temperature limit:  $-40^\circ\text{C} \dots +125^\circ\text{C}$   
- made by UL 94V-0 glass reinforced polycarbonate, EN 45545-2:2015 compliant  
- mechanical life:  $\geq 500$  cycles  
- contact resistance:  $\leq 3 \text{ m}\Omega$

- for max. current load see the connector inserts derating diagram under construction; for more information see page 28 of CN.19 catalogue



contacts side (front view)

side with reference arrow ▲



- inserts for conductors with the following cross-sectional areas, either ferruled or unferruled:  
0,25 mm<sup>2</sup> - 2,5 mm<sup>2</sup> (AWG 24-14)

- conductors stripping length: 9...11 mm

**1 frame slot**

The modular inserts must be installed in suitable frames which are then mounted in traditional enclosures or in COB panel support.

Single-sized modular units may be directly mounted inside MIXO ONE enclosures.

page:

frames for modular units

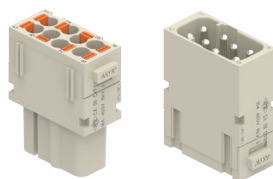
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MIXO ONE enclosures

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refer to CN.19 pages

modular units,  
AXYR® terminal connections



FROM NOVEMBER 2022

description

part No.

spring/AXYR® push-in connection  
female inserts with female contacts  
male inserts with male contacts

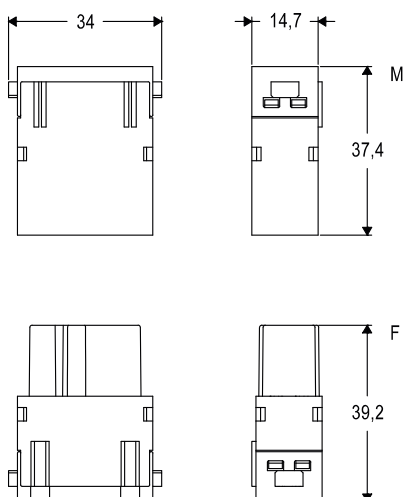
CX 08 CYF  
CX 08 CYM

- characteristics according to EN 61984:  
**16 A 400 V 6 kV 3**

- cURus (ECBT2/8 and PVVA2/8) pending  
- CQC, EAC, DNV-GL, BV pending

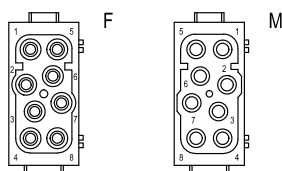
- rated voltage according to UL/CSA: 600 V  
- insulation resistance:  $\geq 10 \text{ G}\Omega$   
- ambient temperature limit:  $-40^\circ\text{C} \dots +125^\circ\text{C}$   
- made by UL 94V-0 glass reinforced polycarbonate, EN 45545-2:2015 compliant  
- mechanical life:  $\geq 500$  cycles  
- contact resistance:  $\leq 3 \text{ m}\Omega$

- for max. current load see the connector inserts derating diagram under construction; for more information see page 28 of CN.19 catalogue



contacts side (front view)

side with reference arrow ▲



- inserts for conductors with the following cross-sectional areas, either ferruled or unferruled:  
0,25 mm<sup>2</sup> - 2,5 mm<sup>2</sup> (AWG 24-14)

- conductors stripping length: 9...11 mm

1 frame slot