

# MIXO 300 A modules and crimp contacts

<u>Line modules</u>: **CX 01 30** (16..70 mm²) and **CX 01B 30** (95, 120 mm²)

<u>PE modules</u>: **CX 01 30PE** (16..70 mm²) and **CX 01B 30PE** (95, 120 mm²)

Crimp contacts: C30 series of sizes 16, 25, 35, 50, 70, 95 and 120



MIXO CX 01 30 and CX 01B 30, line modules

1 **P**: 300 A 1000 V 8 kV 3 - 1300  $V_{DC}$ 

MIXO CX 01 30PE and CX 01B 30PE, PE modules

1 P: 300 A





# **TECHNICAL FEATURES**

The requirements to increase **up to 300 A** the current loading of the available MIXO 200 A CX 01 Y connector modules, with the necessity to fit in the same size the required **larger wires** (95 mm² and 120 mm²), while at the same time keeping the possibility to use such module with the range of sizes of the MIXO 200 A modules, led to a <u>complete overhaul of the solution</u>.

This resulted in the necessity of splitting the wider wire range into two separate sizes of module, due to the need to differentiate the rear contact holding part to accommodate different wire sheathing diameters and to retain contacts with remarkably different barrel size, and required the **development of a new wider series of crimp contacts,** with the need for **more powerful crimp tools.** 

Given the different size of the dedicated new C30 series crimp contacts, which also include protected male contacts, i.e., male contacts with insulating tip that provide finger proof safety to said male connector modules, two sizes of module are foreseen for the line version and two sizes for the PE version. The new MIXO 2-slot-sized connector modules for the new C30 series crimp contacts are available in two sizes:

- Q 01 (regular), for use with new series C30 crimp contacts of sizes 16, 25, 35, 50 and 70;
- Q 01B (large), for use with new series C30 crimp contacts of larger sizes 95 and 120.

The two sizes thus cover different ranges of wiring, and <u>each one is</u> <u>available in **line version** (insulated) and in **PE version** (where a reliable bonding contact between the power PE crimp contact and the metal MIXO frame is made possible), for a total of 4 different male modules and 4 different female modules, for use with the **new series C30 crimp contacts**.</u>

Together, they widen the range of cross-sectional areas that the previously available MIXO 200 A (line modules CX 01 Y and PE modules CX 01 YPE) enabled, to include also the new sizes 95 mm² and 120 mm², AWG 3/0 and 4/0, thus allowing an increase of current-carrying capacity of these modules up to 300 A in the same size.

- The design of the modules allows use up to and including 1300 V<sub>DC</sub> according to the latest edition of EN IEC 60664-1:2020.
- Series C30 crimp contacts are designed to use the more popular hexagonal DIN 48084 press crimping (in use for DIN 46235 cable endsleeves). Two dedicated crimping tools (manual hydraulic and battery operated hydraulic) are provided and described on pages 54-55.

- Watch our technical clip
- Q Like the previously available MIXO 200 A ones, the new 300 A modules are made in two parts: a modular connector insulating body and a contact holder retained in the body by red-coloured locking tabs (proprietary technology); however, the new modules are provided fully assembled, as contact holding function is provided by elastic tongues in the contact holder that allow the insertion of the crimped connection without need for removing the contact holder.
- The contact holders of the "01" and the "01B" differ in that the shroud necessary for maintaining creepage distances, thus embracing the wire sheathing and the crimp barrel used by the crimped connection needs to be larger in the "01B" size (95 mm²..120 mm², AWG 3/0..4/0) than in the "01" size (16 mm²..70 mm², AWG 6..2/0) wire range. To avoid mistakes, the two module sizes are duly marked with the relevant size range of corresponding C30 crimp contacts.
- The CX 01 30M and CX 01B 30M male inserts' mating face is provided with suitable insulating prongs, so that, when used in combination with the finger proof crimp male contacts series C30 (C30MA 16 P through C30MA 120 P, see page 43), they result in finger proof male connectors. This feature is new compared to the previously available MIXO 200 A modules and crimp contacts series CY.
- NOTE This additional safety feature is particularly useful to avoid electric shock whenever hazardous voltage may be still present for a certain period (e.g., due to discharge of capacitors) on the male side of the connection after disconnection.
- Current-temperature derating diagrams (current-carrying capacity curves) for CX 01 30 module are like those of the equivalent CX 01 Y 200 A crimp versions (same wiring range). For CX 01B 30 module, covering the larger wire sizes 95 mm² and 120 mm², AWG 3/0 and 4/0, new diagrams are under development to cover the extended range up to 300 A.
- Conductors stripping length: see series C30 crimp contacts pages.
- Q Silver plated contacts.
- Q Max diameter of wire sheathings:
  - ø 18,5 mm for size **01** modules (wire size 70 mm<sup>2</sup> / AWG 2/0)
  - ø 22,4 mm for size 01B modules (wire size 120 mm<sup>2</sup> / AWG 4/0)

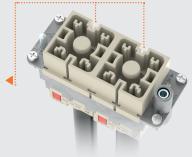
## **CERTIFICATIONS**

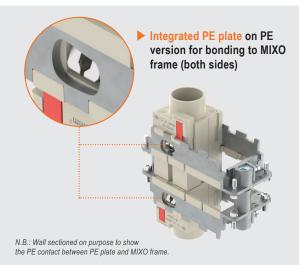
- cURus, CQC, DNV, BV, EAC pending.
- C € and CR markings.
- RoHS
- modular inserts: compliant;
- series C30 crimp contacts: compliant with exemption 6(c).



2 different contact holder sizes for 16..70 mm<sup>2</sup> and 95, 120 mm<sup>2</sup> cable range of sections

Male line version with internal prongs and finger proof male contact to guarantee maximum safety against accidental contacts







# CX 01 30F/30M - CX 01B 30F/30M 1 pole 300 A - 1000 V - 1300 V<sub>DC</sub>

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

page:

frames for modular units\*

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modular units, crimp connections 16...70 mm<sup>2</sup>



modular units, crimp connections 95, 120 mm<sup>2</sup>



\* enclosures: housings or high construction hoods

refer to CN.19 pages

**FROM JUNE 2023** 

**## FROM JUNE 2023** 

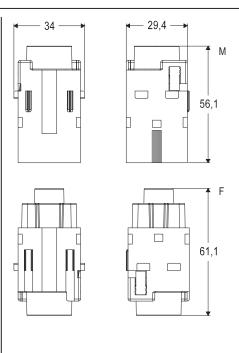
description part No. part No.

without contacts (to be ordered separately) female insert for female contacts (16...70 mm²) male insert for male contacts (16...70 mm²)

without contacts (to be ordered separately) female insert for female contacts (95, 120 mm²) CX 01 30F CX 01 30M

male insert for female contacts (95, 120 mm²) - characteristics according to EN 61984:

- 300 A 1000 V 8 kV 3 1300 V<sub>DC</sub> 300 A 920/1600 V 8 kV 2
- cURus (ECBT2/8 and PVVA2/8) pending
- CQC, DNV, BV, EAC pending
- rated voltage according to UL/CSA: 600 V
- 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: ≤ 0,2 mΩ
- Max diameter of wire sheathings:
- ø 18,5 mm for size 01 modules (wire size 70 mm<sup>2</sup> / AWG 2/0)
- ø 22,4 mm for size 01B modules (wire size 120 mm<sup>2</sup> / AWG 4/0)
- for max. current load see the connector inserts derating diagram under construction; for more information see page 28 of CN.19 catalogue.



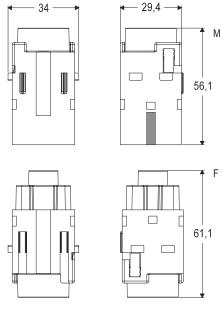
contacts side (front view) side with reference arrow A







CX 01B 30F



contacts side (front view) side with reference arrow A







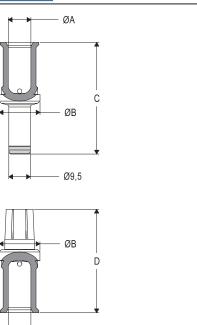
## 300 A silver plated crimp contacts



# **## FROM JUNE 2023**

description		part No.		
300 A female cri	mp contacts			
16 mm <sup>2</sup>	AWG 6	C30FA 16		
25 mm <sup>2</sup>	AWG 4	C30FA 25	Sil	
35 mm <sup>2</sup>	AWG 2	C30FA 35	ě	
50 mm <sup>2</sup>	AWG 1	C30FA 50	silver plated	
70 mm <sup>2</sup>	AWG 2/0	C30FA 70	ate	
95 mm <sup>2</sup>	AWG 3/0	C30FA 95	ä	
120 mm <sup>2</sup>	AWG 4/0	C30FA 120		
300 A male finge	er proof crimp contacts			
16 mm <sup>2</sup>	AWG 6	C30MA 16 P		
25 mm <sup>2</sup>	AWG 4	C30MA 25 P		
35 mm <sup>2</sup>	AWG 2	C30MA 35 P		
50 mm <sup>2</sup>	AWG 1	C30MA 50 P		
70 mm <sup>2</sup>	AWG 2/0	C30MA 70 P		
95 mm <sup>2</sup>	AWG 3/0	C30MA 95 P		
120 mm <sup>2</sup>	AWG 4/0	C30MA 120 P		

 it is recommended to crimp the contacts with crimping tools homologated by ILME (please see the crimping tool section for 300 A contacts, C30FA, C30MA series at pages 54-55).



conductor section	conductor slot ø A	øΒ	С	D	conductor stripping
(mm <sup>2</sup> )	(mm)	(mm)	(mm)	(mm)	length (mm)
16	5,5	18	42,7	39,1	19
25	7	18	42,7	39,1	19
35	8,2	18	43,7	40,1	20
50	10	18	49,2	45,6	22,5
70	11,5	18	49,2	45,6	22,5
95	13,5	21	49,2	45,6	22,5
120	15,5	21	49,2	45,6	22,5

– ØA

5

modular units, crimp connections

PE module for earth termination,

95, 120 mm<sup>2</sup>



#### CX 01 30PEF/30PEM - CX 01B 30PEF/30PEM 1 pole 300 A

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

page:

frames for modular units\*

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modular units, crimp connections PE module for earth termination, 16...70 mm<sup>2</sup>



**FROM JUNE 2023** 

part No.

**CX 01 30PEF** 

**FROM JUNE 2023** 

refer to CN.19 pages

description

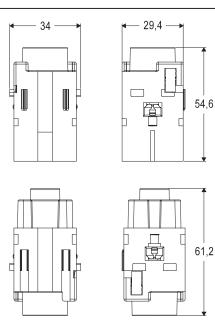
without contacts (to be ordered separately) PE female insert for female contacts (16...70 mm²)

\* enclosures: housings or high construction hoods

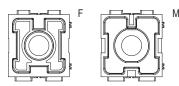
without contacts (to be ordered separately) PE female insert for female contacts (95, 120 mm²) PE male insert for male contacts (95, 120 mm<sup>2</sup>)

PE male insert for male contacts (16...70 mm²) **CX 01 30PEM** 

- cURus (ECBT2/8 and PVVA2/8) pending
- CQC, DNV, BV, EAC pending
- ambient temperature limit: -40 °C ... +125 °C
- made of self-extinguishing thermoplastic resin UL 94V-0
- mechanical life: ≥ 500 cycles
- contact resistance: ≤ 0,2 mΩ
- Max diameter of wire sheathings:
- ø 18,5 mm for size 01 modules (wire size 70 mm<sup>2</sup> / AWG 2/0)
- ø 22,4 mm for size 01B modules (wire size 120 mm<sup>2</sup> / AWG 4/0)



contacts side (front view) side with reference arrow A

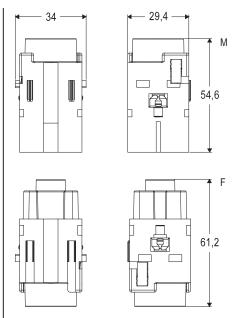




M

F

part No.



contacts side (front view) side with reference arrow A







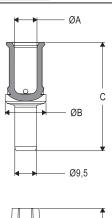
## 300 A silver plated crimp contacts

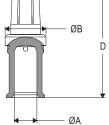


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300 A female crimp contacts   16 mm²   AWG 6   C30FA 16   C30FA 25   MWG 2   C30FA 35   C30FA 70   C30FA 70   C30FA 70   C30FA 95   C30FA 120   C30F			
16 mm² ÅWG 6 25 mm² AWG 4 35 mm² AWG 2 30 mm² AWG 1 70 mm² AWG 2/0 95 mm² AWG 3/0 120 mm² AWG 4/0 300 A male crimp contacts 16 mm² AWG 4 25 mm² AWG 4 25 mm² AWG 4 35 mm² AWG 5 25 mm² AWG 4 300 A male crimp contacts 16 mm² AWG 6 25 mm² AWG 4 25 mm² AWG 4 35 mm² AWG 2 50 mm² AWG 2 50 mm² AWG 1 70 mm² AWG 2/0 300 A male crimp contacts	description		part No.
16 mm² ÅWG 6 25 mm² AWG 4 35 mm² AWG 2 30 mm² AWG 1 70 mm² AWG 2/0 95 mm² AWG 3/0 120 mm² AWG 4/0 300 A male crimp contacts 16 mm² AWG 4 25 mm² AWG 4 25 mm² AWG 4 35 mm² AWG 5 25 mm² AWG 4 300 A male crimp contacts 16 mm² AWG 6 25 mm² AWG 4 25 mm² AWG 4 35 mm² AWG 2 50 mm² AWG 2 50 mm² AWG 1 70 mm² AWG 2/0 300 A male crimp contacts			
25 mm² AWG 4 35 mm² AWG 2 50 mm² AWG 1 70 mm² AWG 2/0 95 mm² AWG 3/0 120 mm² AWG 4/0 300 A male crimp contacts 16 mm² AWG 4 25 mm² AWG 2 50 mm² AWG 2 50 mm² AWG 2 50 mm² AWG 1 70 mm² AWG 1 6 C30MA 16 6 C30MA 25 6 C30MA 35 6 C30MA 50 70 mm² AWG 2 6 C30MA 50 70 mm² AWG 2/0 6 C30MA 70	300 A female	crimp contacts	
300 A male crimp contacts 16 mm² AWG 4/0  25 mm² AWG 4  25 mm² AWG 2  50 mm² AWG 1  70 mm² AWG 2/0  C30MA 50  C30MA 70	16 mm <sup>2</sup>	AWG 6	C30FA 16
300 A male crimp contacts 16 mm² AWG 4/0  25 mm² AWG 4  25 mm² AWG 2  50 mm² AWG 1  70 mm² AWG 2/0  C30MA 50  C30MA 70	25 mm <sup>2</sup>	AWG 4	C30FA 25 ≅
300 A male crimp contacts 16 mm² AWG 4/0  25 mm² AWG 4  25 mm² AWG 2  50 mm² AWG 1  70 mm² AWG 2/0  C30MA 50  C30MA 70	35 mm <sup>2</sup>	AWG 2	C30FA 35 <b>№</b>
300 A male crimp contacts 16 mm² AWG 4/0  25 mm² AWG 4  25 mm² AWG 2  50 mm² AWG 1  70 mm² AWG 2/0  C30MA 50  C30MA 70	50 mm <sup>2</sup>	AWG 1	C30FA 50
300 A male crimp contacts 16 mm² AWG 4/0  25 mm² AWG 4  25 mm² AWG 2  50 mm² AWG 1  70 mm² AWG 2/0  C30MA 50  C30MA 70	70 mm <sup>2</sup>	AWG 2/0	C30FA 70
300 A male crimp contacts 16 mm <sup>2</sup> AWG 6 25 mm <sup>2</sup> AWG 4 35 mm <sup>2</sup> AWG 2 50 mm <sup>2</sup> AWG 1 70 mm <sup>2</sup> AWG 2/0 C30MA 50 C30MA 70	95 mm <sup>2</sup>	AWG 3/0	C30FA 95
16 mm <sup>2</sup> AWG 6 C30MA 16 25 mm <sup>2</sup> AWG 4 C30MA 25 35 mm <sup>2</sup> AWG 2 C30MA 35 50 mm <sup>2</sup> AWG 1 C30MA 50 70 mm <sup>2</sup> AWG 2/0 C30MA 70	120 mm <sup>2</sup>	AWG 4/0	C30FA 120
16 mm <sup>2</sup> AWG 6 C30MA 16 25 mm <sup>2</sup> AWG 4 C30MA 25 35 mm <sup>2</sup> AWG 2 C30MA 35 50 mm <sup>2</sup> AWG 1 C30MA 50 70 mm <sup>2</sup> AWG 2/0 C30MA 70	300 A male c	rimp contacts	
25 mm <sup>2</sup> AWG 4 C30MA 25 35 mm <sup>2</sup> AWG 2 C30MA 35 50 mm <sup>2</sup> AWG 1 C30MA 50 70 mm <sup>2</sup> AWG 2/0 C30MA 70			C30MA 16
35 mm <sup>2</sup> AWG 2	25 mm <sup>2</sup>	AWG 4	
70 mm <sup>2</sup> AWG 2/0 C30MA 70	35 mm <sup>2</sup>	AWG 2	
	50 mm <sup>2</sup>	AWG 1	C30MA 50
05	70 mm <sup>2</sup>	AWG 2/0	C30MA 70
95 mm <sup>2</sup> AWG 3/0 C3UMA 95	95 mm <sup>2</sup>	AWG 3/0	C30MA 95
120 mm <sup>2</sup> AWG 4/0 C30MA 120	120 mm <sup>2</sup>	AWG 4/0	C30MA 120

 it is recommended to crimp the contacts with crimping tools homologated by ILME (please see the crimping tool section for 300 A contacts, C30FA, C30MA series at pages 54-55).

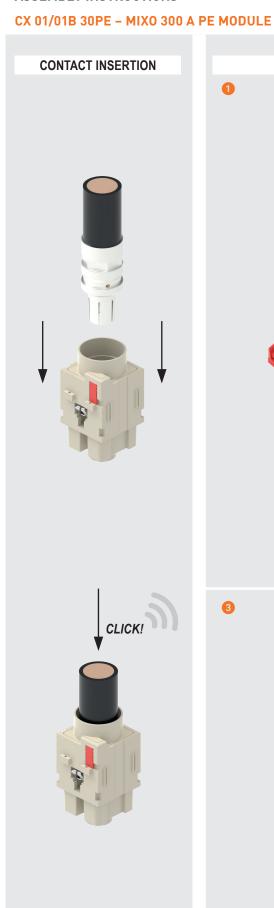


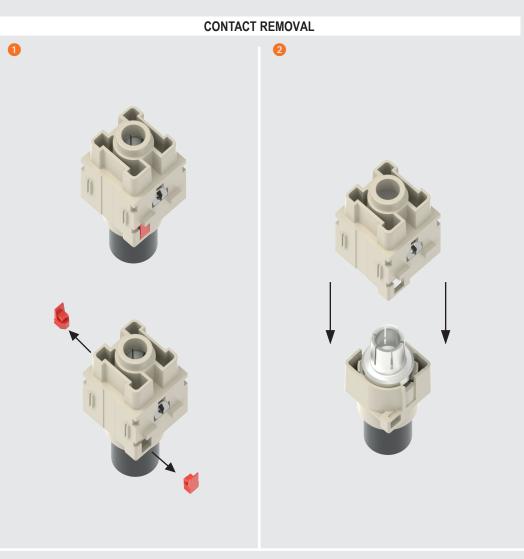


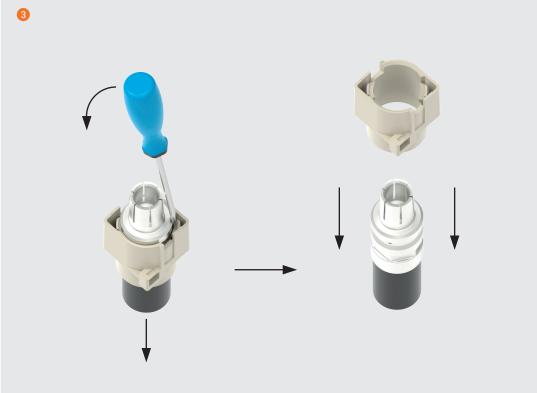
C30FA and C30MA contacts					
conductor section	conductor slot ø A	ø B	С	D	conductor stripping
(mm <sup>2</sup> )	(mm)	(mm)	(mm)	(mm)	length (mm)
16	5,5	18	41,2	39,1	19
25	7	18	41,2	39,1	19
35	8,2	18	42,2	40,1	20
50	10	18	47,7	45,6	22,5
70	11,5	18	47,7	45,6	22,5
95	13,5	21	47,7	45,6	22,5
120	15,5	21	47,7	45,6	22,5



## **ASSEMBLY INSTRUCTIONS**







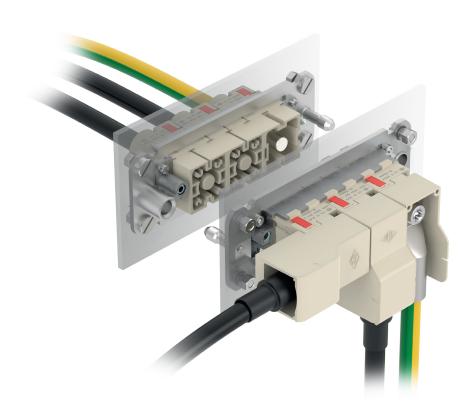


# MIXO 300 A modules

For 90°-angled screw terminal connection

<u>Line modules:</u> **CX 01 30A** (16..120 mm<sup>2</sup>)

PE modules: **CX 01 30PEA** (16..120 mm<sup>2</sup>)



# MIXO CX 01 30 A line modules

1 P: 300 A 1000 V 8 kV 3 - 1300 V<sub>DC</sub>

MIXO CX 01 30PEA, PE modules

1 P: 300 A





# **TECHNICAL FEATURES**

High-power modules in the 70 A - 300 A current range relate to conductors with large wire-cross-section, even up to 120 mm<sup>2</sup>. Such wires are often difficult to handle, having reduced bending radius and requiring an adequate installation room, often not available.

The new MIXO CX 01 30A line module and CX 01 30PEA PE module are the solution introduced by ILME to widen the potential of the MIXO high-current series, modules with the same compatible electrical rating and mating interface of the 300 A crimp version described in the previous pages but designed to minimize its space installation requirements.

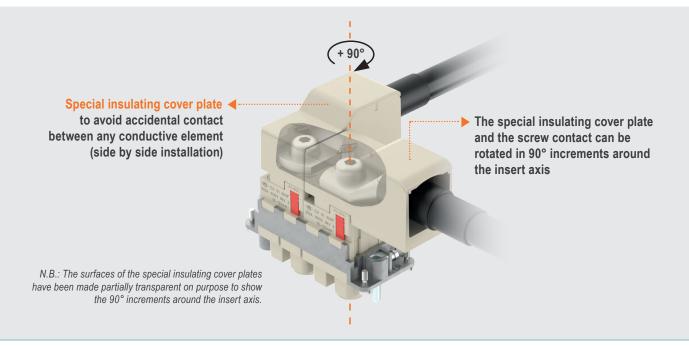
- The male and female contacts for the angled 300 A module allow the connection of DIN 46235 pre-insulated crimp cable lugs (using M8 TORX® T45 screw), available on the market in the dimension for wire cross-sectional areas of 10, 16, 25, 35, 50, 70, 95 and 120 mm².
- ∇ To keep the proper electrical insulation, ILME designed a special insulating cover plate, avoiding accidental contact between cable lugs of adjacent modules and saving the nominal voltage rating of 1000 V and 1300 V<sub>DC</sub> planned for the 300 A modules.

   This cover plate has been furtherly improved compared with the previously available 200 A 90°-angled module CX 01 YAF/ M, in that it now includes a further snap-in closing cap, that prevent touch with live parts inside a cabinet previously demanded to the assembler of the distribution panel.

- The 300 A angled module can be used inside the ILME bulkhead mounting housings as a natural extension of a busbar connection or for powering control cabinets, HVAC systems and batteries for energy storage backup applications.
- Q Line male modules CX 01 30AM and CX 01B 30AM come by default with finger proof contact (PE modules do not require any finger proof safety).
- Current-temperature derating diagrams (current-carrying capacity curves) for size CX 01 30A line module and CX 01 30PEA PE module are like those of the equivalent CX 01 YA and CX 01 YPEA 200 A versions (same wiring range). For size CX 01B 30A and CX 01B PEA modules, covering the larger wire sizes 95 mm² and 120 mm² (AWG 3/0 and 4/0), new diagrams are under development to cover the extended range up to 300 A.
- Q Conductors stripping length: 9..11 mm.
- Silver plated contacts.
- Q Tightening torque for TORX® T45 socket bolt for fixing the cable lug: 10 Nm.

## **CERTIFICATIONS**

- cURus, CQC, DNV, BV, EAC pending.
- · ( € and UK markings.
- RoHS: compliant with exemption 6(c).



#### 300 A - 1000 V - 1300 V<sub>DC</sub> CX 01 30AF/30AM 1 pole

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

page:

frames for modular units\*

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- \* enclosures: bulkhead mounting housigns only
- 1) supplied with heat-shrinking insulating tubes, to be used with tubular cable lug (not supplied)

## refer to CN.19 pages

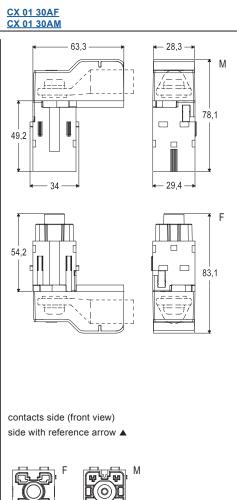
modular units, screw terminal connection **₱ FROM JUNE 2023** 

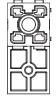
#### description

part No.

screw terminal connection - 90° angled female insert with female contacts male insert with male contacts

- characteristics according to EN 61984: 300 A 1000 V 8 kV 3 - 1300 V<sub>DC</sub>
- cURus (ECBT2/8 and PVVA2/8) pending
- CQC, DNV, BV, EAC pending
- rated voltage according to UL/CSA: 600 V
- 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 under construction; for more information see page 28 of CN.19 catalogue.







#### **CX 01 30PEAF/30PEAM** 1 pole 300 A

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

page:

frames for modular units\*

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- \* enclosures: bulkhead mounting housigns only
- refer to CN.19 pages

part No.

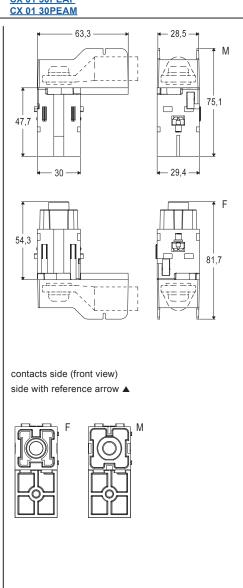
#### description

screw terminal connection - 90° angled PE female insert with female contacts PE male insert with male contacts

- cURus (ECBT2/8 and PVVA2/8) pending
- CQC, DNV, BV, EAC pending
- ambient temperature limit: -40 °C ... +125 °C
- made of self-extinguishing thermoplastic resin UL 94V-0
- mechanical life: ≥ 500 cycles
- contact resistance: ≤ 3 mΩ

# **CX 01 30PEAF**

**∰ FROM JUNE 2023** 

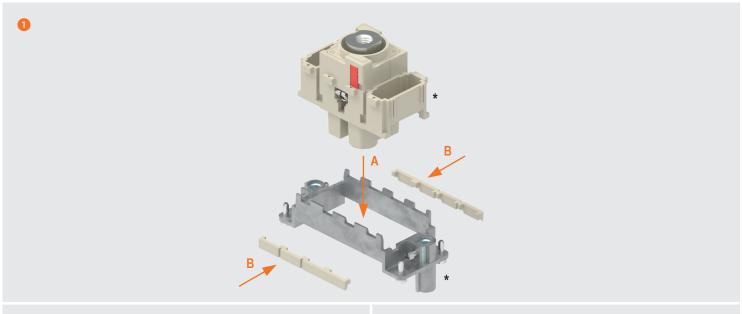


modular units, screw PE terminal connection

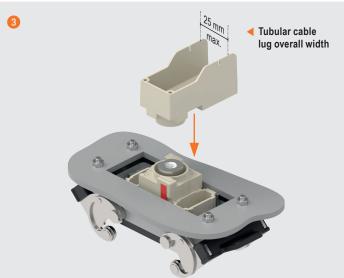


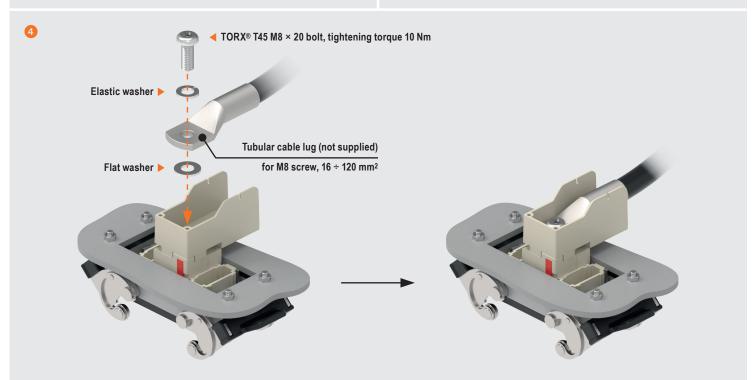
## **ASSEMBLY INSTRUCTIONS**

## CX 01 30PEA - MIXO 300 A 90° ANGLED PE MODULE









#### CX 01 YF/YM 1 pole 200A - 1000V

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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\*

modular units, crimp connections



200A silver plated crimp contacts heat shrink tube



\* enclosures: housings or high construction hoods

description part No. part No without contacts (to be ordered separately) female inserts for female contacts CX 01 YF male inserts for male contacts CX 01 YM 200A female crimp contacts 16 mm<sup>2</sup> AWG 6 one groove (back side) CYFA 16 CYFA 25 25 mm<sup>2</sup> AWG 4 with no grooves ver plated 35 mm<sup>2</sup> AWG 2 one groove CYFA 35 50 mm<sup>2</sup> AWG 1 two grooves CYFA 50 70 mm<sup>2</sup> AWG 2/0 with no grooves CYFA 70 200A male crimp contacts

16 mm<sup>2</sup> AWG 6 one groove (back side) 25 mm<sup>2</sup> AWG 4 with no grooves 35 mm<sup>2</sup> AWG 2 one groove 50 mm<sup>2</sup> AWG 1 two grooves 70 mm<sup>2</sup> AWG 2/0 with no grooves

heat shrink tube for CYFA/CYMA 16 contacts or for conductor with total external  $\emptyset$  < 10 mm

CYMA 16 CYMA 25 **CYMA 35** CYMA 50 CYMA 70

CR TT

characteristics according to EN 61984:

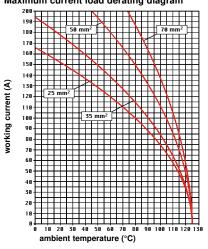
200A 1000V 8kV 3

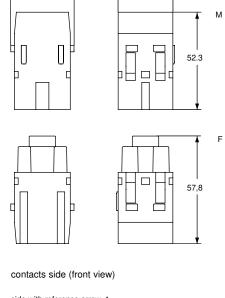
200A 920/1600V 8kV 2

c Nus (UL for USA and Canada), 😘 🗪

- VERITAS [H] 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: ≤ 0,2 mΩ
- it is recommended to crimp the contacts with crimping tools homologated by ILME (please see the crimping tool section 200A contacts, CYF and CYM series) on pages 708 - 741
- for max. current load see the connector inserts derating diagram below; for more information see page 28

CX 01 Y, 1 pole connector inserts (MIXO 200A) Maximum current load derating diagram

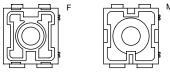




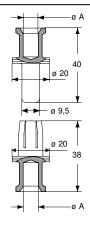
- 29,4 -

side with reference arrow A

34



- 2 frame slots



CYF and CY	YM contacts	
conductor	conductor	conductor
section	slot	stripping
øΑ		length
(mm²)	(mm)	(mm)
16	6,1	15
25	7,0	15
35	8,2	15
50	9,8	15
70	11,8	15

#### 1 PE pole CX 01 YPEF/YPEM 200A



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: 317 modular units, crimp connections PE module for earth termination



200A silver plated crimp contacts



\* enclosures: housings or high construction hoods

part No. part No description

without contacts (to be ordered separately)

PE female inserts for female contacts

CX 01 YPEF CX 01 YPEM

PE male inserts for male contacts

200A female crimp contacts 16 mm<sup>2</sup> AWG 6 one groove (back side) 25 mm<sup>2</sup> AWG 4 with no grooves 35 mm<sup>2</sup> AWG 2 one groove 50 mm<sup>2</sup> AWG 1 two grooves 70 mm<sup>2</sup> AWG 2/0 with no grooves 200A male crimp contacts

16 mm<sup>2</sup> AWG 6 25 mm<sup>2</sup> AWG 4

one groove (back side) with no grooves 35 mm<sup>2</sup> AWG 2 one groove 50 mm<sup>2</sup> AWG 1 two grooves 70 mm<sup>2</sup> AWG 2/0 with no grooves

CYFA 16 CYFA 25 CYFA 35 CYFA 50 CYFA 70

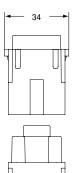
> CYMA 16 CYMA 25 **CYMA 35** CYMA 50 CYMA 70

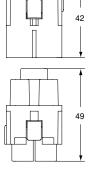
silver plated





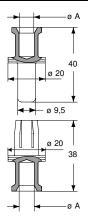
- ambient temperature limit: -40 °C ... +125 °C
- made of self-extinguishing thermoplastic resin UL 94V-0
- mechanical life: ≥ 500 cycles
- contact resistance: ≤ 0,2 mΩ
- it is recommended to crimp the contacts with crimping tools homologated by ILME (please see the crimping tool section 200A contacts, CYF and CYM series) on pages 708 - 741





F

29 4



contacts side (front view)

side with reference arrow A





- 2 frame slots

#### CYF and CYM contacts conductor conductor conductor section stripping slot øΑ length (mm<sup>2</sup> (mm) (mm) 16 6.1 15 25 15 7,0 35 8,2 15 9,8 15 11,8 15

# MIXO CX 01 YAF /YAM 1 pole 200 A - 1000 V

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

page:

frames for modular units\*

317

\* enclosures: bulkhead mounting housings only

screw terminal connection - 90° angled **## FROM APRIL 2022** 

refer to CN.19 pages

description

part No.

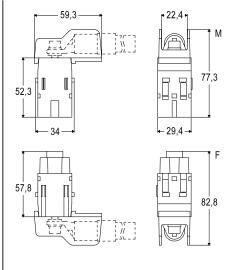
modular units.

screw terminal connection - 90° angled female insert with female contact male insert with male contact

CX 01 YAF CX 01 YAM

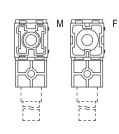
- characteristics according to EN 61984:

- 200 A 1000 V 8 kV 3
- cURus (ECBT2/8 and PVVA2/8) pending
- CSA, CQC, EAC, DNV-GL, BV pending
- rated voltage according to UL/CSA: 600 V
- 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 under construction; for more information see page 28 of CN.19 catalogue

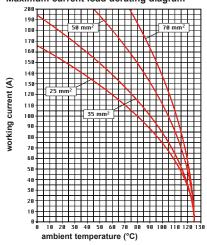


contacts side (front view)

side with reference arrow A

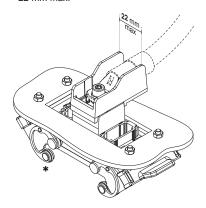


CX 01 YA, 1 pole connector inserts (MIXO 200A) Maximum current load derating diagram



2 frame slots

- Pre-insulated tubular cable lug overall width: 22 mm max.



\* Frame size, additional MIXO modules and housing levers may vary from those depicted.

#### CX 01 GF/GM 1 pole 100A - 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.

page:

frames for modular units\* 316 - 317

MIXO ONE enclosures 369

\* enclosures: bulkhead mounting housings, high construction housings or high construction hoods modular units. crimp connections



100A silver plated crimp contacts, PE adapter



		I	
description		part No.	part No.
	ets (to be ordered separately)		
	for female contacts	CX 01 GF	
male inserts to	or male contacts	CX 01 GM	
100A female of	crimp contacts		
8-10 mm <sup>2</sup>	AWG 8-7		CGFA 10
16 mm <sup>2</sup>	AWG 6-5		CGFA 16
25 mm <sup>2</sup>	AWG 4-3		CGFA 16 gg CGFA 25 gg
35 mm <sup>2</sup>	AWG 2		CGFA 35
			<u> </u>
100A male cri	mp contacts		Ž
8-10 mm <sup>2</sup>	AWG 8-7		CGMA 10 0
16 mm <sup>2</sup>	AWG 6-5		CGMA 16
25 mm <sup>2</sup>	AWG 4-3		CGMA 25
35 mm <sup>2</sup>	AWG 2		CGMA 35
cable earthing	adapter 16 mm <sup>2</sup> (AWG 6-5)		CGT 16

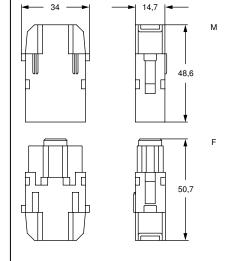
- characteristics according to EN 61984:

## 100A 830V 8kV 3

- BUREAU EHL 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: ≤ 0,3 mΩ
- it is recommended to crimp the contacts with crimping tools homologated by ILME (please see the crimping tool section 100A contacts, CGF and CGM series) on pages 708 - 741
- contact removal only using a screwdriver

CX 01 G, 1 pole connector inserts Maximum current load derating diagram

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



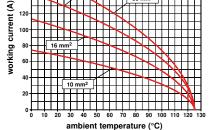
contacts side (front view)

side with reference arrow A





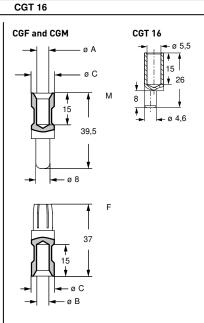
- 1 frame slot







Watch online tutorial



CGF and CGM contacts						
conductor section (mm²)	condu ø A (mm)	ctor slot ø B (mm)	ø C (mm)	conductor stripping length (mm)		
8-10	4,3	4,3	13	15		
16	5,5	5,5	13	15		
25	7,0	7,0	13	15		
35	7,9	8,2	12,5	15		

## How to use the PE adapter (CGT 16):

- 1) Strip 15 mm of flexible PE protective cable
- 2) Crimp the cable on the CGT 16 adapter by using the CGPZ pliers with the CGD 16 C matrix
- 3) Fix the adapter tip in the larger earth terminal (6 mm²) of frames CX...TM/TF
- 4) To be used with bulkhead mounting housings or high construction hoods
- 5) Cannot be used with T-TYPE series

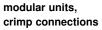
#### CX 02 GF/GM 2 poles 100A - 1000V

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\*

317

page:







100A silver plated crimp contacts, PE adapter



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

description part No. part No

without contacts (to be ordered separately) female inserts for female contacts 1) male inserts for male contacts 1)

CX 02 GF CX 02 GM

100A female crimp contacts 8-10 mm<sup>2</sup> AWG 8-7 16 mm<sup>2</sup> AWG 6-5 25 mm<sup>2</sup>

AWG 4-3 AWG 2

100A male crimp contacts 8-10 mm<sup>2</sup> AWG 8-7 16 mm<sup>2</sup> AWG 6-5 25 mm<sup>2</sup> AWG 4-3 35 mm<sup>2</sup> AWG 2

35 mm<sup>2</sup>

cable earthing adapter 16 mm<sup>2</sup> (AWG 6-5)

CGFA 10 CGFA 16 CGFA 25 **CGFA 35** 

CGMA 10 CGMA 16 **CGMA 25** CGMA 35

**CGT 16** 

1) on request, version with pole 3/4 numbering, references: CX 02 GFN, CX 02 GMN

- characteristics according to EN 61984:

100A 1000V 8kV 3 100A 920/1600V 8kV 2

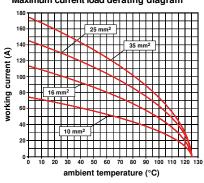
c Tus (UL for USA and Canada), ( COC)

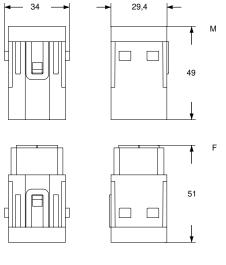




- ERE certified rated voltage according to UL/CSA: 600V
- insulation resistance: ≥ 10 GO
- ambient temperature limit: -40 °C ... +125 °C
- made of self-extinguishing thermoplastic resin UL 94V-0
- mechanical life: ≥ 500 cycles
- contact resistance: ≤ 0,3 mΩ
- it is recommended to crimp the contacts with crimping tools homologated by ILME (please see the crimping tool section 100A contacts, CGF and CGM series) on pages 708 - 741
- for max. current load see the connector inserts derating diagram below; for more information see page 28

## CX 02 G, 2 poles connector inserts Maximum current load derating diagram





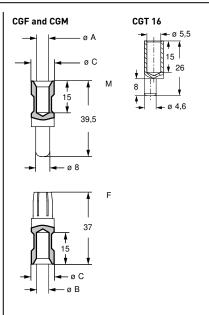
contacts side (front view)

side with reference arrow A





- 2 frame slots



CGF and CGM contacts						
conductor section (mm²)	condu ø A (mm)	ctor slo ø B (mm)	t ø C (mm)	conductor stripping length (mm)		
8-10	4,3	4,3	13	15		
16	5,5	5,5	13	15		
25	7,0	7,0	13	15		
35	79	8.2	12.5	15		

## How to use the PE adapter (CGT 16):

- 1) Strip 15 mm of flexible PE protective cable
- 2) Crimp the cable on the CGT 16 adapter by using the CGPZ pliers with the CGD 16 C matrix
- 3) Fix the adapter tip in the larger earth terminal (6 mm²) of frames CX...TM/TF
- 4) To be used with bulkhead mounting housings or high construction hoods
- 5) Cannot be used with T-TYPE series

# CX 02 7F/7M 2 poles 70A - 1000V

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\* 317

MIXO ONE enclosures 369

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

modular units, crimp connections





70A silver plated crimp contacts



description		part No.	part No
	acts (to be ordered separately)		
female inser	ts for female contacts	CX 02 7F	
male inserts	for male contacts	CX 02 7M	
70A female	crimp contacts		
10 mm <sup>2</sup>	AWG 8 - 7		CX7FA 10
16 mm <sup>2</sup>	AWG 6 - 5		CX7FA 16
25 mm <sup>2</sup>	AWG 4 - 3		CX7FA 25 to
			<u> </u>
70A male cri	imp contacts		<u>_</u>
10 mm <sup>2</sup>	. AWG 8 - 7		CX7MA 10 <u>≥</u>
16 mm <sup>2</sup>	AWG 6 - 5		CX7MA 16
25 mm <sup>2</sup>	AWG 4 - 3		CX7MA 25

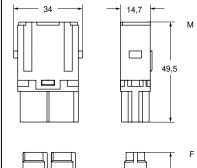
- characteristics according to EN 61984:

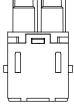
70A 1000V 8kV 3 70A 1600V 12kV 2

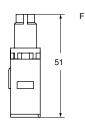
- c 🗫 us (UL for USA and Canada), 💽 🗪

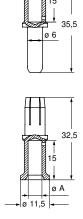
CTAUS (UL for USA and VERITAS) [III certified

- 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: ≤ 0,5 mΩ
- it is recommended to crimp the contacts with crimping tools homologated by ILME (please see the crimping tool section 70A contacts, CX7F and CX7M series) on pages 708 - 741
- C7ES removal tool
- for max. current load see the connector inserts derating diagram below; for more information see page 28



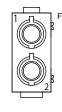


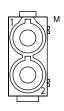




contacts side (front view)

side with reference arrow A

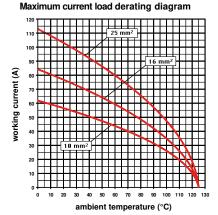




- 1 frame slot

# (front view) CX7F and CX7M contacts

conductor	conductor slot	conductor
section	øΑ	stripping length
(mm²)	(mm)	(mm)
10	4,3	15
16	5,5	15
25	7,0	15



CX 02 7, 2 poles connector inserts

#### 2 poles CX 02 4F/4M 40A - 1000V

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

\* enclosures: bulkhead mounting housings, high construction housings or high construction hoods modular units, crimp connections



40A silver plated crimp contacts



description		part No.	part No
without conta	acts (to be ordered separately)		
female insert	ts for female contacts 1)	CX 02 4F	
male inserts	for male contacts 1)	CX 02 4M	
40A female	crimp contacts		
1,5 mm <sup>2</sup>	AWG 16		CXFA 1.5
2,5 mm <sup>2</sup>	AWG 14		CXFA 2.5 <u>♥</u> .
4 mm <sup>2</sup>	AWG 12		CXFA 2.5 CXFA 4.0 CXFA 6.0
6 mm <sup>2</sup>	AWG 10		CXFA 6.0
10 mm <sup>2</sup>	AWG 8		CXFA 10
			CXFA 10
40A male cri	imp contacts		e <b>d</b>
1,5 mm <sup>2</sup>	AWG 16		CXMA 1.5
2,5 mm <sup>2</sup>	AWG 14		CXMA 2.5
4 mm <sup>2</sup>	AWG 12		CXMA 4.0
6 mm <sup>2</sup>	AWG 10		CXMA 6.0
10 mm <sup>2</sup>	AWG 8		CXMA 10

## 1) cable diameter up to 7,5 mm contact size up to 10 mm<sup>2</sup>

- characteristics according to EN 61984:

# 40A 1000V 8kV 3

- 🗫 😭 ÇÇÇ DNY-GL BUREAU [H] 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: ≤ 0,3 mΩ
- can be mated with CX 02 4A/4B modules
- it is recommended to crimp the contacts (1,5 - 10 mm<sup>2</sup>), with crimping tools homologated by ILME (please see the crimping tool section 40A contacts, CXF and CXM series) on pages 708 - 741
- for max. current load see the connector inserts derating diagram below; for more information see page 28

# 14.7 43,1 41,5

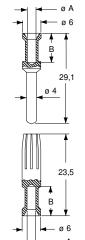
contacts side (front view)

side with reference arrow A





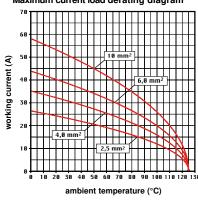
- 1 frame slot



CXF and CXM contacts

OAI UIIU OAII	Contacts	
conductor	conductor	conductor
section	slot	stripping length
(mm²)	ø A (mm)	B (mm)
1,5	1,8	9
2,5	2,2	9
4	2,85	9,6
6	3,5	9,6
10	4,3	15

#### CX 02 4, 2 poles connector inserts Maximum current load derating diagram



#### CX 02 4AF/4AM - CX 02 4BF/4BM 2 poles 40A - 1000V

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 modular units. screw terminal connection 2,5 - 8 mm<sup>2</sup>





modular units. screw terminal connection 6 - 10 mm<sup>2</sup>





description	part No.	part No	
female inserts with female contacts	CX 02 4AF		

male inserts with male contacts

female inserts with female contacts male inserts with male contacts

• use flexible cables with sections from 2,5 to 10 mm<sup>2</sup> or extra flexible cables with sections from 2,5 to 6 mm²

- do not twist the cables
- fully insert the braids in the rear section of the contact

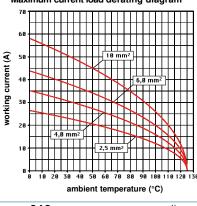
conductor	conductor	tightening
section	stripping length	torque
(mm²)	(mm)	(Nm)
2,5	5+1	1,5
4	5+ <sup>1</sup>	1,5
6	8+1	2
10	8+1	2

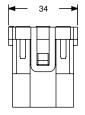
- insert a 2 mm hexagonal key in the front section of the contact and tighten by keeping the cable held down
- a 2 mm hexagonal key can be supplied on request, reference CX AS



- characteristics according to EN 61984: 40A 1000V 8kV 3 40A 1600V 12kV 2
- TI COC DNV-GL VERITAS [III 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: ≤ 0,5 mΩ
- for max. current load see the connector inserts derating diagram below; for more information see page 28

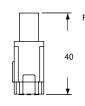
#### CX 02 4A/B, 2 poles connector inserts Maximum current load derating diagram





CX 02 4AM





39,5



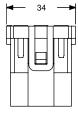
side with reference arrow A



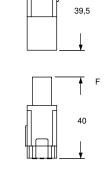


- inserts for Ø 4mm cables, section:
- 2.5-8 mm<sup>2</sup> AWG 14-8
- 1 frame slot

CX 02 4BF CX 02 4BM







14,7

contacts side (front view)

side with reference arrow A





- inserts for Ø 4,8 mm cables, section: 6-10 mm<sup>2</sup> - AWG 10-8
- 1 frame slot

# CX 03 4F/4M 3 poles 40A - 400/690V



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

modular units, crimp connections





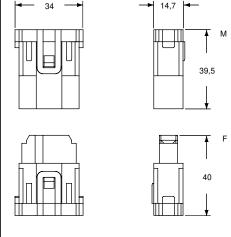
40A silver plated crimp contacts



description		part No.	part No
female inser	acts (to be ordered separately) ts for female contacts <sup>1)</sup> for male contacts <sup>1)</sup>	CX 03 4F CX 03 4M	
40A female	crimp contacts		
1,5 mm <sup>2</sup>	AWG 16		CXFA 1.5
2,5 mm <sup>2</sup>	AWG 14		CXFA 2.5 S.CXFA 4.0
4 mm <sup>2</sup>	AWG 12		CXFA 4.0
6 mm <sup>2</sup>	AWG 10		CXFA 6.0
			<u> </u>
40A male cri	imp contacts		à
1,5 mm <sup>2</sup>	AWG 16		CXMA 1.5
2,5 mm <sup>2</sup>	AWG 14		CXMA 2.5
4 mm²	AWG 12		CXMA 4.0
6 mm²	AWG 10		CXMA 6.0

## 1) cable diameter up to 5 mm

- characteristics according to EN 61984:
- 40A 400/690V 6kV 3
- 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: ≤ 0,3 mΩ
- it is recommended to crimp the contacts with crimping tools homologated by ILME (please see the crimping tool section 40A contacts, CXF and CXM series) on pages 708 - 741
- for max. current load see the connector inserts derating diagram below; for more information see page 28



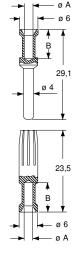
contacts side (front view)

side with reference arrow A



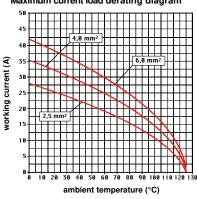


- 1 frame slot



CXF and CXM contacts			
conductor	conductor	conductor	
section	slot	stripping length	
(mm²)	ø A (mm)	B (mm)	
1,5	1,8	9	
2,5	2,2	9	
4	2,85	9,6	
6	3,5	9,6	

#### CX 03 4, 3 poles connector inserts Maximum current load derating diagram



#### CX 03 4BF/4BM 3 poles 40A - 500V

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

\* enclosures: bulkhead mounting housings, high construction housings or high construction hoods modular units, crimp connections





40A silver plated crimp contacts



description part No. part No

without contacts (to be ordered separately) female inserts for female contacts 1) male inserts for male contacts 1)

CX 03 4BF CX 03 4BM

40A female crimp contacts AWG 16 1,5 mm<sup>2</sup> 2,5 mm<sup>2</sup> AWG 14 AWG 12 4 mm<sup>2</sup> AWG 10 6 mm<sup>2</sup> AWG 8 10 mm<sup>2</sup>

40A male crimp contacts AWG 16 1,5 mm<sup>2</sup> 2,5 mm<sup>2</sup> AWG 14 4 mm<sup>2</sup> AWG 12 6 mm<sup>2</sup> AWG 10 10 mm<sup>2</sup> AWG 8

**CXFA 1.5** CXFA 2.5 CXFA 4.0 CXFA 6.0 CXFA 10

М

39,5

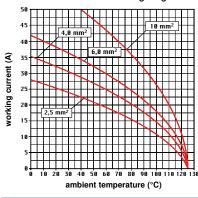
**CXMA 1.5 CXMA 2.5 CXMA 4.0 CXMA 6.0** CXMA 10

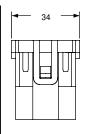
silver plated

#### 1) cable diameter up to 7,5 mm contact size up to 10 mm<sup>2</sup>

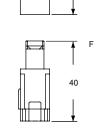
- characteristics according to EN 61984:
- 40A 500V 6kV 3
- c Sus (UL for USA and Canada), (P. COC)
- VERITAS [M] certified
- rated voltage according to UL/CSA: 600V
- insulation resistance: ≥ 10 GΩ
- ambient temperature limit: -40 °C ... +125 °C
- made of self-extinguishing thermoplastic resin UL 94V-0
- mechanical life: ≥ 500 cycles
- contact resistance: ≤ 0,3 mΩ
- it is recommended to crimp the contacts (1,5 - 10 mm<sup>2</sup>), with crimping tools homologated by ILME (please see the crimping tool section 40A contacts, CXF and CXM series) on pages 708 - 741
- for max, current load see the connector inserts derating diagram below; for more information see page 28

#### CX 03 4B, 3 poles connector inserts Maximum current load derating diagram









14,7

contacts side (front view)

side with reference arrow A





- 1 frame slot

Ø 6	
23,5 B W W W W W W W	

CXF and CXM contacts			
conductor	conductor	conductor	
section	slot	stripping length	
(mm²)	ø A (mm)	B (mm)	
1,5	1,8	9	
2,5	2,2	9	
4	2,85	9,6	
6	3,5	9,6	
10	4,3	15	

#### 3 poles (40A - 830V) + 4 poles (10A - 830V) CX 3/4 XDF/XDM



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 MIXO ONE enclosures

316 - 317 369

- male and female contacts finger proof
   their key characteristic lies in the fact that they
  guarantee maximum safety even in case of
  accidental contact with fingers (IP2X or IPXXB).
  Safety is guaranteed as standard on female contacts,
  but also on male contacts. This feature is important
  as it ensures full compliance with the recent safety
  standard EN 60204-1, concerning electric equipment
  fitted on machines and in particular with the requirements
  of Article 6.2.4 concerning protection against residual voltage titted on machines and in particular with the requirements of Article 6.2.4 concerning protection against residual voltage. In the case of plugs or similar devices, the withdrawal of which results in the exposure of conductors (for example pins), the discharge time shall not exceed 1 s, otherwise such conductors shall be protected against direct contact to at least an IP2X or IPXXB.

modular units, crimp connections



40A and 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 3/4 XDF** CX 3/4 XDM 40A female crimp contacts

1,5 mm <sup>2</sup>	AWG 16		
2,5 mm <sup>2</sup>	AWG 14		
4 mm <sup>2</sup>	AWG 12		
6 mm <sup>2</sup>	AWG 10		
40A male crimp contacts			
1,5 mm <sup>2</sup>	AWG 16		
2,5 mm₂	AWG 14		
4 mm <sup>2</sup>	AWG 12		
6 mm <sup>2</sup>	AWG 10		

10A female crimp contacts

0,14-0,37 mm<sup>2</sup> AWG 26-22 identification No. 1 AWG 20 identification No. 2 0,5 mm<sup>2</sup> 0,75 mm<sup>2</sup> AWG 18 identification No. @ 1 mm² AWG 18 identification No. 3 identification No. 4 1,5 mm<sup>2</sup> **AWG 16** 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 AWG 18 identification No. 2 0.75 mm<sup>2</sup> AWG 18 identification No. 3 1 mm<sup>2</sup> 1,5 mm<sup>2</sup> **AWG 16** identification No. 4 identification No. 5 2,5 mm2 **AWG 14** 

CXFA 1.5 CXFA 2.5 CXFA 4.0 CXFA 6.0

> **CXMA 1.5** CXMA 2.5 CXMA 4.0 CXMA 6.0

**CDFA 0.3** CDFA 0.5 CDFA 0.7 **CDFA 1.0 CDFA 1.5** 

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

1.0

CDFA 2.5

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

gold

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

CDMD 0.5 CDMD 0.7 CDMD 1.0 CDMD 1.5 CDMD 2.5

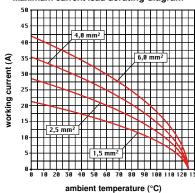
- characteristics according to EN 61984:

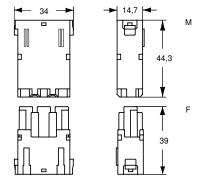
3 poles 40A 830V 8kV 3 4 poles 10A 830V 8kV



- VERITAS [A] 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: ≤ 0,3 m $\Omega$  (3 poles), ≤ 3 m $\Omega$  (4 poles)
- for max. current load see the connector inserts derating diagram below; for more information see page 28

#### CX 3/4 XD, 3/4 poles connector inserts Maximum current load derating diagram





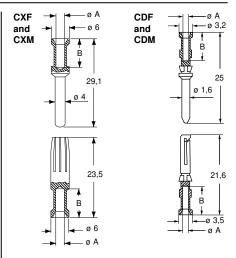
contacts side (front view)

side with reference arrow A





- 1 frame slot
- it is recommended to crimp the contacts with crimping tools homologated by ILME (please see the crimping tool section 40A contacts, CXF, CXM series and 10A contacts CDF, CDM series) on pages 708 - 741



CXF and CXM contacts			
conductor	conductor	conductor	
section	slot	stripping length	
(mm²)	ø A (mm)	B (mm)	
1,5	1,8	9	
2,5	2,2	9	
4	2,85	9,6	
6	3,5	9,6	
CDF and CDM	contacts		
0,14-0,37	0,9	8	
0,5	1,1	8	
0,75	1,3	8	
1,0	1,45	8	
1,5 2,5	1,8 2,2	8 6	
2,5	2,2	6	

#### CX 04 XF/XM 40A - 830V 4 poles

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

\* enclosures: bulkhead mounting housings, high construction housings or high construction hoods modular units, crimp connections with red lock-in tab (included)



40A silver plated crimp contacts



description part No. part No

without contacts (to be ordered separately) (module red lock-in tab included) female inserts for female contacts male inserts for male contacts

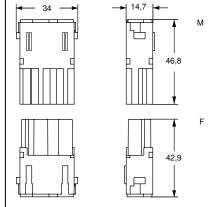
40A female crimp contacts 1,5 mm<sup>2</sup> AWG 16 2,5 mm<sup>2</sup> AWG 14 AWG 12 4 mm<sup>2</sup> AWG 10 6 mm<sup>2</sup> 40A male crimp contacts AWG 16 1,5 mm<sup>2</sup> 2,5 mm<sup>2</sup> AWG 14 **CX 04 XF CX 04 XM** 

4 mm<sup>2</sup> AWG 12 AWG 10 6 mm<sup>2</sup>

characteristics according to EN 61984:

40A 830V 8kV 3 40A 1000V 8kV 2

- c 📆 us (UL for USA and Canada), 👀 🗪 VERITAS [ 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: ≤ 0,3 mΩ
- for spare lock-in tab CX CFMX see SPARE SPARTS catalogue
- it is recommended to crimp the contacts with crimping tools homologated by ILME (please see the crimping tool section 40A contacts, CXF and CXM series) on pages 708 - 741
- for max. current load see the connector inserts derating diagram below; for more information see page 28



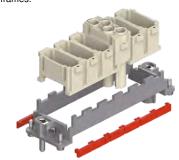
contacts side (front view)

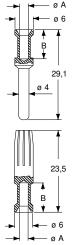




1 frame slot

Female inserts are supplied with two red lock tab that must be used instead of those supplied with the frames.





**CXFA 1.5** 

CXFA 2.5

CXFA 4.0

**CXFA 6.0** 

**CXMA 1.5** 

**CXMA 2.5** 

**CXMA 4.0** 

**CXMA 6.0** 

## CXF and CXM contacts

OXI and OXIII COMacts		
conductor	conductor	conductor
section	slot	stripping length
(mm²)	ø A (mm)	B (mm)
1,5	1,8	9
2,5	2,2	9
4	2,85	9,6
6	3,5	9,6

- male and female contacts finger proof
- their key characteristic lies in the fact that they guarantee maximum safety even in case of accidental contact with fingers (IP2X or IPXXB). Safety is guaranteed as standard on female contacts, <u>but also on male contacts</u>. This feature is important as it ensures full compliance with the recent safety standard EN 60204-1, concerning electric equipment fitted on machines and in particular with the requirements of Article 6.2.4 concerning protection against residual voltage. In the case of plugs or similar devices, the withdrawal of which results in the exposure of conductors (for example pins), the discharge time shall not exceed 1 s, otherwise such conductors shall be protected against direct contact to at least an IP2X or IPXXB.

#### CX 04 X, 4 poles connector inserts Maximum current load derating diagram

