

# Modular units for multipole connectors

# **Application**

The MIXO series is a system of modular units for special applications that uses the traditional ILME enclosures.

Each enclosure can house different types of connections such as, for example: electric signals and contacts for the conduction of compressed air with pressure values of up to 8 bars.

The inserts are arranged side by side to form a single compact block which is inserted into metallic frames with mandatory housings. Once the modules have been inserted and locked with the special tabs, the connector can then be inserted into the enclosure.

The modular structure system makes it easy to access a series of contacts inserted in the frame (e.g., for substitution, checks or the addition of signals with new inserts for needs not foreseen during the initial installation) without having to disassemble the entire connector.

The use of enclosures provides the possibility of innumerable applications.

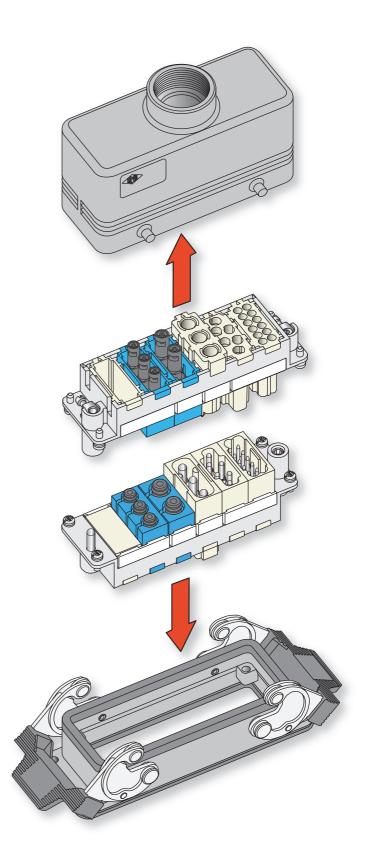
The MIXO series may be used with 5 different frame sizes. The following table lists the frames and the metallic enclosures that may be used.

one or two-lever metallic enclosures
size "49.16"
size "44.27"
size "57.27"
size "77.27"
size "104.27"
size "77.62"
size "104.62"

In addition, the MIXO series can be used with the COB series panel supports

frames	panel su part No.	pports
OV 00 TM/TF	fixed:	COB 06 BC and COB TCQ
CX 02 TM/TF	mobile:	COB TSF, COB TSFS and COB 06 CMS
OV OO TIME	fixed:	COB 10 BC and COB TCQ
CX 03 TM/TF	mobile:	COB TSF, COB TSFS and COB 10 CMS
CX 04 TM/TF	fixed:	COB 16 BC and COB TCQ
	mobile:	COB TSF, COB TSFS and COB 16 CMS
OV OC TRAITE	fixed:	COB 24 BC and COB TCQ
CX 06 TM/TF	mobile:	COB TSF, COB TSFS and COB 24 CMS

The MIXO series currently includes 6 different types of inserts. The field of application is provided in the table at the bottom of the next page.

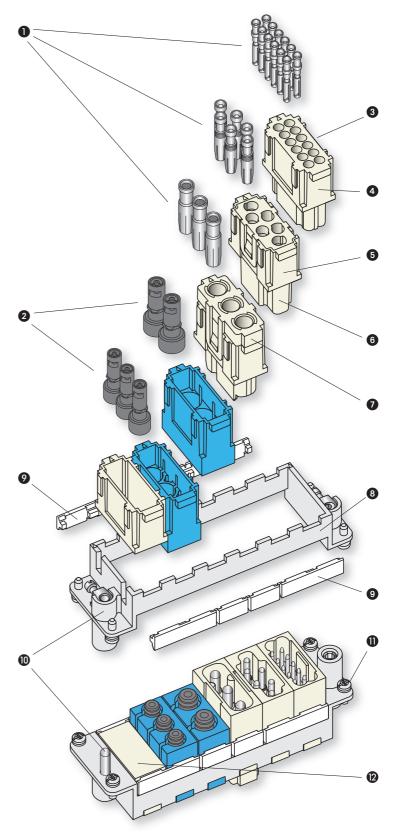




# Modular units for multipole connectors

# **Characteristics**

- Electric contacts in silver-plated or gold-plated brass with connections to the conductors via crimping, spring clamp or axial screw.
- 2 Pneumatic contacts in plastic with insertion tube connection.
- 3 Mdular inserts of identical size with insertion system for forming the complete module and frame lock tab.
- 4 Inserts in self-extinguishing thermoplastic material, reinforced with glass fibre, UL 94-V0 approved, with a working temperature range of -40 °C to +125 °C.
- Inserts in conformance with the requirements of the EN 61984 standard and certified and marked with the UL, CSA, CCC, GL, EAC marks.
- 6 Inserts with asymmetric guide rails to prevent incorrect coupling.
- Position of contacts identified with numbers or codes on both sides of every insert.
- (8) Male/female module carrier frames with mandatory housings and polarity, in die-cast zinc alloy.
- Module lock tab, may be divided according to the number of modules used; guarantees a perfect stability of the modules during wiring and coupling/uncoupling of the connectors.
- Asymmetric earth contacts (two for frame) with wide contact surface to prevent incorrect coupling; when two or more identical connectors of the MIXO series are used, coded pins prevent incorrect coupling (see pages 486, 487 and 491).
- Captive frame fastening screws, with flexible spring washer.
- Dummy module for unused frame slots.





# Modular units for multipole connectors

Inserts	Contact type	Signal type	Connectors and tubes connections	Rated current (A)	Rated voltage (V)	No. of frame slots
CX 01 YF/M	main	electric	crimp	200	1000	2
CX 01 YPEF/M	PE		crimp	200		2
CX 02 GF/M	main	electric	crimp	100	1000	2
CX 02 7F/M	main	electric	crimp	70	1000	1
CX 02 4AF/M	main	electric	axial screw	40	1000	1
CX 02 4BF/M	main	electric	axial screw	40	1000	1
CX 03 4F/M	main	electric	crimp	40	400/690	1
CX 03 4BF/BM	main	electric	crimp	40	500	1
CX 3/4 XDF/M	main	electric	crimp	40/10	830	1
CX 04 XF/M	main	electric	crimp	40	830	1
CX 05 SF/M	main	electric	spring	16	400	1
CX 06 CF/M	main	electric	crimp	16	500	1
CX 08 CF/M	main	electric	crimp	16	400	1
CX 20 CF/M	main	electric	crimp	16	500	2
CX 12 DF/M	main / auxiliary	electric	crimp	10	250	1
CX 17 DF/M	main / auxiliary	electric	crimp	10	160	1
CX 25 IF/M	main / auxiliary	elettrico	crimp	4	50	1
CX 02 HF/M	main	electric	crimp	16	2900/5000	2
CX 02 BF/M	seat for two shielded connectors (se	ee CX 04 B, CX 01 B, CX 01 BC, CX 08 B)			2	
CX 01 BCF/M	main / auxiliary + shield	electric	crimp	16	50	
CX 01 BF/M	main / auxiliary + shield	electric	crimp	10	50	
CX 04 BF/M	main / auxiliary + shield	electric	crimp	10	50	
CX 08 BF/M	main / auxiliary + shield	electric	crimp	5	50	
CX 03 P	pneumatic Ø 1.6 - 3.0 - 4.0 mm	gas **	push-in			1
CX 02 P	pneumatic Ø 6.0 mm	gas **	push-in			1
CX FM	none (dummy module)					1
CX 01 J8F/M/IM	RJ45	electric	crimp/IDC			1
CX 01 JF/M	RJ45 + auxiliary	electric	crimp	10	250	2
CX 02 JF/M	RJ45 + auxiliary	electric	crimp	10	250	3
CX 01 UF/M	USB	electric				1
CX 01 9VF/M	D-SUB	electric	crimp	5	50	1
CX 04 LF/M	POF / MOST / coaxial	optic / electric	crimp / solder			1

# \*\* Warning:

The use of pneumatic contacts requires an appropriate filtering and dehydration system to prevent dangerous condensation. Contacts may be used for pressure values of up to a maximum of 8 bars/116 psi.



# **MIXO** series (100A - 200A)

# **Main features**

# MIXO CX..G 100A and CX..Y 200A version modular inserts

The MIXO series has been enhanced with a **new insert, suitable for currents up to 200A** and with **new**, series crimp contacts featuring several benefits over conventional screw or axial screw contacts:

- More **resistant to mechanical stresses** such as vibrations, shock and cable loads.
- · More corrosion resistant (gas tight).
- Quicker to connect and ensuring more consistent results (regardless of the operators "force").
- The connector is **electrically more efficient** (reduced voltage drop). This innovative insert design, **patented by ILME**, ensures a quicker fitting and removal of crimped contacts.

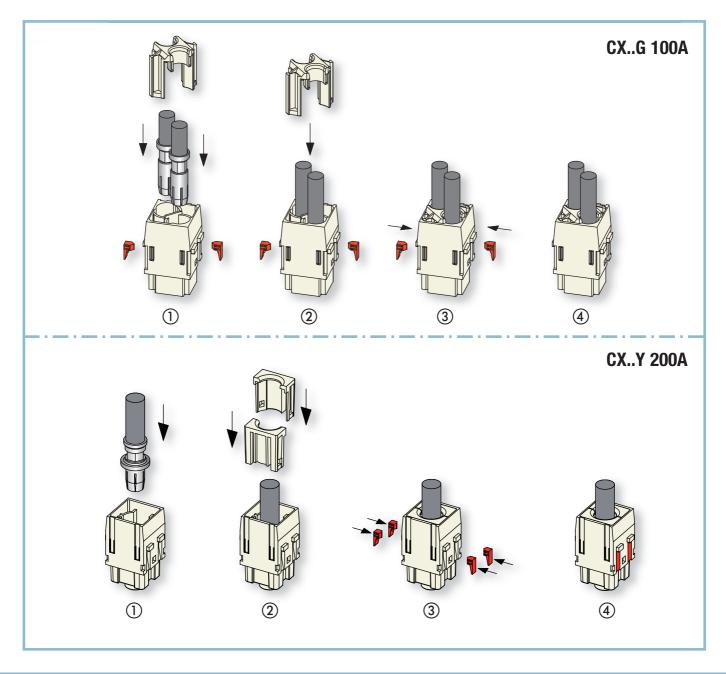
The four provided keys firmly fasten the contact holder and; once

the insert is joined to other inserts (and it is installed in the corresponding MIXO frame) the connection is totally secure and **extremely resistant, even under the most severe stresses** such as vibration and shock.

The contacts can be removed **without any special tool**, using a simple screwdriver.

The crimping operation can be carried out quickly and efficiently with the **hand operated hydraulic pliers**, which is pre-fitted with the suitable locator.

Suitable crimp dies available on request.



The modular inserts must be installed in suitable frames which are then mounted in traditional housings  $\mbox{\ensuremath{^{\star}}}$  or COB panel support.

frames for modular units \* ...... page: 215

\* enclosures: housings or high construction hoods

modular units, crimp connections





200A silver plated crimp contacts heat shrink tube



description

without contacts (to be ordered separately)

- female inserts for female contacts
- male inserts for female 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

AWG 6 one groove (back side) 16 mm<sup>2</sup> AWG 4 25 mm<sup>2</sup> 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 Ø < 10 mm

part No.

**CX 01 YF CX 01 YM**  part No.

CYFA 16 CYFA 25 CYFA 35 CYFA 50 CYFA 70

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

CR TT

М

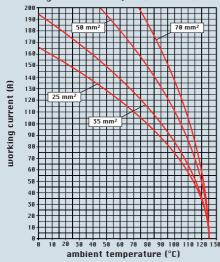
F

- characteristics according to EN 61984:

# 200A 1000V 8kV 3 200A 920/1600V 8kV 2

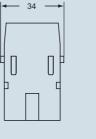
- cUL (UL for USA and Canada), CCC \*, EAC certified
- \* CQC certification being applied for
- rated voltage according to UL/CSA: 600V insulation resistance:  $\geq$  10 G $\Omega$
- ambient temperature limit: -40 °C ... +125 °C
- are made of self-extinguishing thermoplastic resin UL 94 V0
- mechanical life: ≥ 500 cycles
- contact resistance: ≤ 0.2 mΩ
- for maximum current load, see the following load curves inserts, for more information see page 565

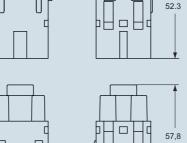
# diagram CX 01 Y - 1 pole (MIXO 200A)



dimensions shown are not binding and may be changed without notice

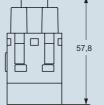
# dimensions in mm





**─** 29,4 **−** 





contacts side (front view)

side with reference arrow A

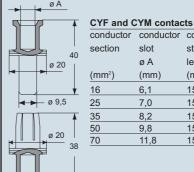




- 2 frame slots

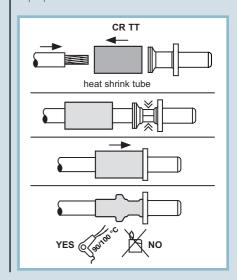
# dimensions in mm

# CYF and CYM



øΑ

conductor	conductor	conductor
section	slot	stripping
	øΑ	lenght
(mm²)	(mm)	(mm)
16	6,1	15
25	7,0	15
35	8,2	15
50	9,8	15
70	11,8	15





frames for modular units \* ...... page: 215

\* enclosures: housings or high construction hoods

modular units, crimp connections PE module for earth termination



200A silver plated crimp contacts



description

without contacts (to be ordered separately)

- PE female inserts for female contacts

- PE male inserts for female contacts

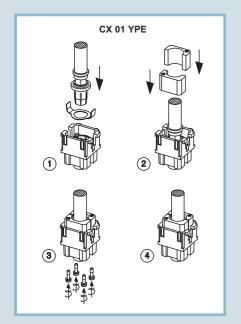
200A female crimp contacts

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>	V/V/C 3/0	with no grooves

200A male crimp contacts

16 mm <sup>2</sup>	AWG 6	one groove (back sid
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

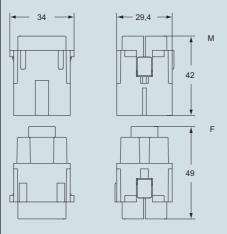
- cUL (UL for USA and Canada), CCC \*, EAC certified
   \* CQC certification being applied for
- ambient temperature limit: -40 °C ... +125 °C
- are made of self-extinguishing thermoplastic resin UL 94 V0  $\,$



part No.

CX 01 YPEF CX 01 YPEM

dimensions in mm



contacts side (front view)

side with reference arrow ▲





- 2 frame slots

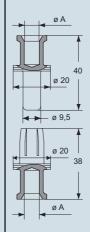
part No.

CYFA 16 CYFA 25 CYFA 35 CYFA 50 CYFA 70 CYMA 16 CYMA 25

CYMA 16 CYMA 25 CYMA 35 CYMA 50 CYMA 70

dimensions in mm

CYF and CYM



CYF and CYM contacts

conductor	conductor slot	conductor
section	ø A	stripping lenght
(mm²)	(mm)	(mm)
16	6,1	15
25	7,0	15
35	8,2	15
50	9,8	15
70	11,8	15

frames for modular units \* ...... page: 215

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

# modular units, crimp connections



100A silver plated crimp contacts, PE adapter



**CGT 16** 

15

description

without contacts (to be ordered separately)

- female inserts for female contacts \*
- male inserts for female contacts \*\*

# 100A female crimp contacts

8 - 10 mm<sup>2</sup> AWG 8 - 7 AWG 6 - 5 16 mm<sup>2</sup> 25 mm<sup>2</sup> AWG 4 - 3 35 mm<sup>2</sup> AWG 2

100A male crimp contacts

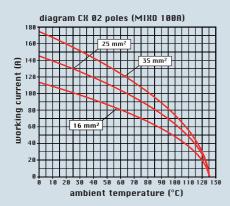
8 - 10 mm<sup>2</sup> AWG 8 - 7 16 mm<sup>2</sup> AWG 6 - 5 AWG 4 - 3 25 mm<sup>2</sup> 35 mm<sup>2</sup> AWG 2

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

- \*\* 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

- cUL (UL for USA and Canada), CCC \*, GL, EAC certified; \* CQC certification being applied for
- rated voltage according to UL/CSA: 600V
- insulation resistance: ≥ 10 GΩ
- ambient temperature limit: -40 °C ... +125 °C
- are made of self-extinguishing thermoplastic resin UL 94 V0
- mechanical life: ≥ 500 cycles
- contact resistance: ≤ 0.3 mΩ
- for contact crimping instructions, please see the crimping tool section (100A contacts, CGF and CGM series) on page 542
- for maximum current load, see the following load curves inserts, for more information see page 565



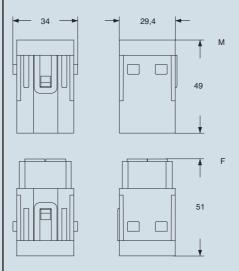
dimensions shown are not binding and may be changed without notice

# dimensions in mm

part No.

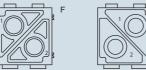
**CX 02 GF** 

**CX 02 GM** 



contacts side (front view)

side with reference arrow A



- 2 frame slots

# CGFA 10 CGFA 16

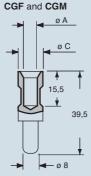
CGFA 25 CGFA 35

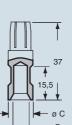
part No.

CGMA 10 CGMA 16 CGMA 25 CGMA 35

# **CGT 16**

dimensions in mm





CGF and CGM contacts				
conductor	condu	ctor slo	ot	conductor
section	øΑ	øΒ	øС	stripping lenght
(mm²)	(mm)	(mm)	(mm)	(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

frames for modular units \* ... page: 214 - 215

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

modular units, crimp connections





70A silver plated crimp contacts



description

without contacts (to be ordered separately)

- female inserts for female contacts
- male inserts for female contacts

70A female crimp contacts AWG 8 - 7 10 mm<sup>2</sup>

AWG 6 - 5 16 mm<sup>2</sup> AWG 4 - 3 25 mm<sup>2</sup>

70A male crimp contacts AWG 8 - 7 10 mm<sup>2</sup>

AWG 6 - 5 16 mm<sup>2</sup> AWG 4 - 3 25 mm<sup>2</sup>

- characteristics according to EN 61984:

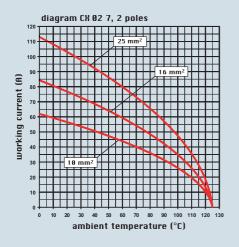
# 70A 1000V 8kV 3 70A 1600V 12kV 2

- cUL (UL for USA and Canada), EAC certified
- insulation resistance: ≥ 10 GΩ
- ambient temperature limit: -40 °C ... +125 °C
- are made of self-extinguishing thermoplastic resin UL 94 V0
- mechanical life: ≥ 500 cycles
- for crimp contacts CX7 series use:

CX7PZ crimping tool

CGD 10 C, CGD 16 C, CGD 25 C crimp matrixes C7ES removal tool

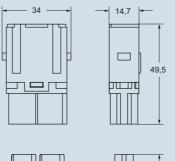
- for maximum current load, see the following load curves inserts, for more information see page 565

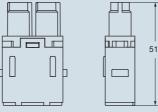


part No.

CX 02 7F CX 02 7M

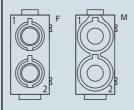
dimensions in mm





contacts side (front view)

side with reference arrow A



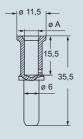
- 1 frame slot

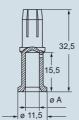
part No.

CX7FA 10 CX7FA 16 CX7FA 25

**CX7MA 10 CX7MA 16 CX7MA 25** 

dimensions in mm





# contacts CX7F and CX7M

conductor	conductor slot	conductor
section	ø A	stripping lenght
(mm²)	(mm)	(mm)
10	4,3	15
16	5,5	15
25	7,0	15

frames for modular units ...... page: 214 - 215

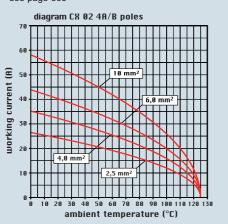
- characteristics according to EN 61984:

40A 1000V 8kV 3 40A 1600V 12kV 2

- UL, CSA, EAC certified
- rated voltage according to UL/CSA: 600V
- insulation resistance: ≥ 10 GΩ
- ambient temperature limit: -40 °C ... +125 °C
- are made of self-extinguishing thermoplastic resin UL 94 V0
- mechanical life: ≥ 500 cycles
- contact resistance: ≤ 0.5 mΩ

# description

- female inserts with female contacts
- male inserts with female contacts
- female inserts with female contacts
- male inserts with female contacts
- -for maximum current load, see the following load curves inserts, for more information see page 565



- 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 mm<sup>2</sup>
- do not twist the cables
- fully insert the braids in the rear section of the contact

conductor	tightening
stripping lenght	torque
(mm)	(Nm)
5 <sup>+1</sup>	1,5 1,5
5+ <sup>1</sup>	1,5
8+1	2
8+1	2
	stripping lenght (mm) 5+1 5+1 8+1

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



dimensions shown are not binding and may be changed without notice

modular units, screw terminal connection 2.5 - 8 mm<sup>2</sup>





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

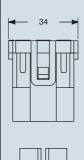


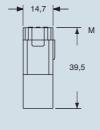


part No.

CX 02 4AF CX 02 4AM

dimensions in mm









contacts side (front view)

side with reference arrow A





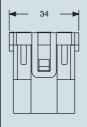


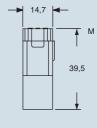
- 1 frame slot



part No.

dimensions in mm









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

# 3 poles (40A - 830V) + 4 poles (10A - 830V)



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

frames for modular units ..... page: 214 - 215

- male and female contacts to test of contact with fingers
- their key characteristic lies in the fact that they guarantee maximum safety even in case of accidental contact with fingers (IPXXB or IP2X).

Safety is quaranteed 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.

In the case of plugs or similar devices, the with drawal 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. part No.

- without contacts (to be ordered separately)
- 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
4 mm <sup>2</sup>	AWG 12
6 mm <sup>2</sup>	AWG 10

40A male crimp contacts AWG 16 1.5 mm<sup>2</sup> AWG 14 2,5 mm<sup>2</sup>

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

10A female contacts

0,14-0.37 mm <sup>2</sup>	AVVG 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
404	-4-	

10A male 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	

CX 3/4 XDF **CX 3/4 XDM** 

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

**CXFA 1.5 CXFA 2.5 CXFA 4.0** 

**CXFA 6.0** 

**CDFA 1.0 CDFA 1.5 CDFA 2.5 CDMA 0.3** CDMA 0.5 **CDMA 0.7 CDMA 1.0** 

**CDFA 0.3** 

CDFA 0.5 **CDFA 0.7**  **CDFD 0.5 CDFD 0.7 CDFD 1.0 CDFD 2.5** 

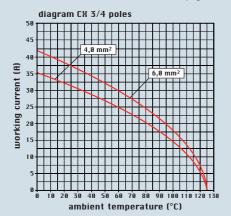
CDMD 0.7 **CDMA 1.5 CDMA 2.5** 

**CDFD 1.5 CDMD 0.3** CDMD 0.5 **CDMD 1.0 CDMD 1.5 CDMD 2.5** 

CDFD 0.3

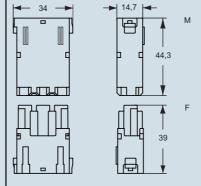
# - characteristics according to EN 61984: 3 poles 40A 830V 8kV 3 4 poles 10A 830V 8kV 3

- cUL (UL for USA and Canada), CCC \*, EAC certified \* CQC certification being applied for
- rated voltage according to UL/CSA: 600V insulation resistance: ≥ 10 GΩ
- ambient temperature limit: -40 °C ... +125 °C
- are made of self-extinguishing thermoplastic resin UL 94 V0 mechanical life: ≥ 500 cycles contact resistance: ≤ 0.3 m $\Omega$  (3 poles)
- - $\leq 3 \text{ m}\Omega \text{ (4 poles)}$
- for maximum current load, see the following load curves inserts, for more information see page 565



dimensions shown are not binding and may be changed without notice

# dimensions in mm



contacts side (front view) side with reference arrow A

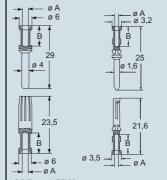




1 frame slot

# dimensions in mm

## CDF and CDM **CXF and CXM**



**CDF and CDM contacts** 

conductor section (mm²)	conductor slot Ø A (mm)	conductors stripping len	gth 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	

1) basic or high thickness gold plating page 480

C	ΚF	and	СХМ	contacts

CXF and	CXIVI contacts		
1,5	1,8	9	
2,5	2,2	9	
4	2.85	9.6	
6	2'5	0'6	

 for contact crimping, see the crimp tool section (40A contacts CXF, CXM series and 10A contacts CDF, CDM series) on pages 534, 536, 538, 544, 546, 548

frames for modular units ...... page: 214 - 215

modular units, crimp connections





40A crimp contacts silver plated



description

without contacts (to be ordered separately)

- female inserts for female contacts
- male inserts for male contacts

40/ Cicinaic	crimp conta
1,5 mm <sup>2</sup>	AWG 16
2,5 mm <sup>2</sup>	AWG 14
4 mm <sup>2</sup>	AWG 12
C2	111/0 40

40A male 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 part No.

CX 03 4F \* CX 03 4M \*

> **CXFA 1.5 CXFA 2.5 CXFA 4.0 CXFA 6.0**

part No.

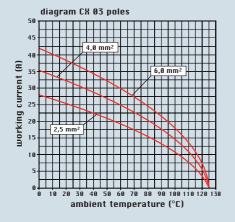
**CXMA 1.5 CXMA 2.5 CXMA 4.0 CXMA 6.0** 



- characteristics according to EN 61984:

# 40A 400/690V 6kV 3

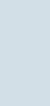
- UL, CSA, EAC certified
- rated voltage according to UL/CSA: 600V
- insulation resistance: ≥ 10 GΩ
- ambient temperature limit: -40 °C ... +125 °C
- are made of self-extinguishing thermoplastic resin UL 94 V0
- mechanical life: ≥ 500 cycles
- contact resistance: ≤  $0.3 \text{ m}\Omega$
- for contact crimping instructions, please see the crimping tool section (40A contacts, CXF and CXM series) on pages 536 and 538
- for maximum current load, see the following load curves inserts, for more information see page 565



dimensions shown are not binding and may be changed without notice \* cable diameter up to 5 mm

dimensions in mm



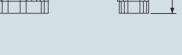






39.5

14,7



contacts side (front view)

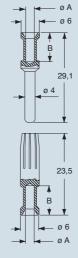
side with reference arrow A





- 1 frame slot

dimensions in mm



CAF allu C		
conductor	conductor	conductors
section	slot	stripping ler
mm <sup>2</sup>	ø A (mm)	B (mm)

oing length m) 1,8 2,2 2,5 9 2,85 9.6 6 3.5 9.6

frames for modular units \* .... page: 214 - 215

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

# modular units, crimp connections

3 poles





# 40A crimp contacts silver plated



description

without contacts (to be ordered separately)

- female inserts for female contacts
- male inserts for male contacts

40A female	crimp	contacts
------------	-------	----------

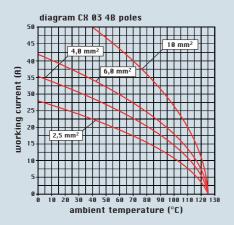
1,5 mm <sup>2</sup>	AWG 16
2,5 mm <sup>2</sup>	AWG 14
4 mm <sup>2</sup>	AWG 12
6 mm <sup>2</sup>	AWG 10
10 mm <sup>2</sup>	AWG 8

40A male c	ninp contac
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
10 mm <sup>2</sup>	AWG 8

- characteristics according to EN 61984:

# 40A 500V 6kV 3

- cUL (UL for USA and Canada), EAC certified
- insulation resistance: ≥ 10 GΩ
- ambient temperature limit: -40 °C ... +125 °C
- are made of self-extinguishing thermoplastic resin UL 94 V0  $\,$
- mechanical life: ≥ 500 cycles
- contact resistance: ≤ 0.3 mΩ
- for contact crimping instructions (1.5 ÷ 10 mm²), please see the crimping tool section (40A contacts, CXF and CXM series) on pages 536 and 538
- for maximum current load, see the following load curves inserts, for more information see page 565



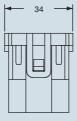
part No.

CX 03 4BF \*

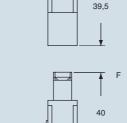
CX 03 4BM \*

\* cable diameter up to 7.5 mm contact section up to 10 mm<sup>2</sup>

dimensions in mm







14,7

contacts side (front view)

side with reference arrow A





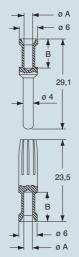
- 1 frame slot

dimensions in mm

part No.

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

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



CXF	and	CXM	contact

conductor	conductor	conductors
section	slot	stripping length
mm <sup>2</sup>	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

frames for modular units \* .... page: 214 - 215

- enclosures: bulkhead mounting housings, high construction housings or high construction hoods
- male and female contacts to test of contact with fingers - their key characteristic lies in the fact that they
- guarantee maximum safety even in case of accidental contact with fingers (IPXXB or IP2X). 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. In the case of plugs or similar devices, the with drawal

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 crimp contacts silver plated



description

without contacts (to be ordered separately)

- female inserts for female contacts
- male inserts for male contacts

40A lemale	crimp contac
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

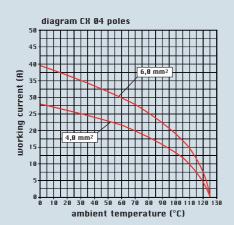
40A male crimp contacts 1,5 mm<sup>2</sup> AWG 16 2,5 mm<sup>2</sup> AWG 14 AWG 12 4 mm<sup>2</sup> AWG 10

6 mm<sup>2</sup>

- characteristics according to EN 61984:

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

- certifications: cUL (UL for USA and Canada), (CSA), (GL), EAC; the certifications shown in brackets are being applied for
- rated voltage according to UL/CSA: 600V
- insulation resistance: ≥ 10 GΩ
- ambient temperature limit: -40 °C ... +125 °C
- are made of self-extinguishing thermoplastic resin UL 94 V0
- mechanical life: ≥ 500 cycles
- contact resistance: ≤ 0.3 mΩ
- for contact crimping instructions, please see the crimping tool section (40A contacts, CXF and CXM series) on pages 536 and 538
- for maximum current load, see the following load curves inserts, for more information see page 565

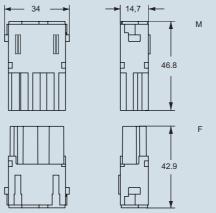


dimensions shown are not binding and may be changed without notice

# part No.

**CX 04 XF CX 04 XM** 





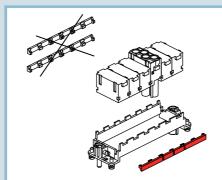
contacts side (front view)



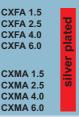


side with reference arrow A

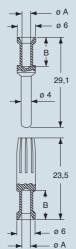
- 1 frame slot



Female inserts are supplied with two red lock tabs that must be used instead of those supplied with part No.



# dimensions in mm



# **CXF and CXM contacts**

conductor	conductor	conductor
section	slot	stripping lenght
mm²	ø A (mm)	B (mm)
1,5	1,8	9
2,5 4	2,2	9
4	2,85	9,6
6	3,5	9,6

frames for modular units ...... page: 214 - 215

modular units, crimp connections



16A crimp contacts normal or for advanced opening 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 female contacts	CX 06 CF CX 06 CM		
16A female contacts 0,14-0,37 mm² AWG 26-22 three grooves 0,5 mm² AWG 20 with no grooves 0,75 mm² AWG 18 one groove (back side) 1 mm² AWG 18 two grooves 1,5 mm² AWG 16 two grooves 2,5 mm² AWG 14 three grooves 3 mm² AWG 12 one wide groove 4 mm² AWG 12 with no 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	CCFD 0.3 CCFD 0.5 CCFD 0.7 CCFD 1.0 CCFD 1.5 CCFD 2.5 CCFD 2.5 CCFD 3.0 CCFD 4.0
0,14-0,37 mm² AWG 26-22 three grooves 0,5 mm² AWG 20 with no grooves 0,75 mm² AWG 18 one groove (back side) 1 mm² AWG 18 one groove 1,5 mm² AWG 16 two grooves 2,5 mm² AWG 14 three grooves 3 mm² AWG 12 one wide groove 4 mm² AWG 12 with no grooves		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
16A male crimp contacts for advanced opening 0,5 mm² AWG 20 with no grooves 0,75 mm² AWG 18 one groove (back side)		CC 0.5 AN CC 0.7 AN	

AWG 18

AWG 16

AWG 14

1 mm<sup>2</sup> 1,5 mm<sup>2</sup>

2,5 mm<sup>2</sup>

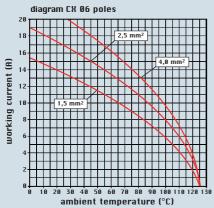
- characteristics according to EN 61984:
  16A 500V 6kV 3
  16A 400/690V 6kV 2
   UL, CSA, CCC\*, GL, EAC certified
  \* CQC certification being applied for
   rated voltage according to UL/CSA: 600V
- insulation resistance: ≥ 10 GΩ
- ambient temperature limit: -40 °C ... +125 °C
- arre made of self-extinguishing thermoplastic resin UL 94 V0 mechanical life: ≥ 500 cycles

one groove

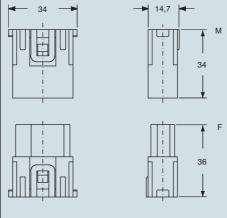
two grooves

three grooves

- contact resistance: ≤ 1 mΩ
- for contact crimping instructions, please see the crimping tool section (16A contacts, CCF, CCM and CC...AN series) on pages 534, 538, 544, 546, 548 - for maximum current load, see the following load
- curves inserts, for more information see page 565



# dimensions in mm



contacts side (front view)

side with reference arrow A





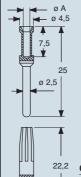
- 1 frame slot

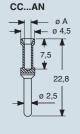
dimensions in mm **CCF and CCM** 

CC 1.0 AN

**CC 1.5 AN** 

CC 2.5 AN





22,2
7,5 <b>¥ ¥</b>

CCF, CCM and CCAN contacts		
conductor	conductor	conductors
section	slot	stripping
		length
mm²	ø A (mm)	(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

1) basic or high thickness gold plating page 481

frames for modular units ...... page: 214 - 215

modular units, crimp connections





16A crimp contacts normal or for advanced opening 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 female contacts	CX 08 CF CX 08 CM	
16A female contacts 0,14-0,37 mm² AWG 26-22 three grooves 0,5 mm² AWG 18 one groove (back side) 1 mm² AWG 16 two grooves 2,5 mm² AWG 14 three grooves 3 mm² AWG 12 one wide groove 4 mm² AWG 12 with no grooves 16A male contacts 0,14-0,37 mm² AWG 26-22 three grooves 0,5 mm² AWG 10 one groove 0,5 mm² AWG 20 one groove 0,5 mm² AWG 20 one groove (back side) 1 mm² AWG 18 one groove 15 mm² AWG 18 one groove		CCFA 0.3 CCFA 0.5 CCFA 0.7 CCFA 1.5 CCFA 1.5 CCFA 2.5 CCFA 2.5 CCFA 3.0 CCFA 4.0  CCMA 0.3 CCMA 0.3 CCMA 0.7 CCMA 1.6 CC
1,5 mm² AWG 16 two grooves 2,5 mm² AWG 14 three grooves 3 mm² AWG 12 one wide groove 4 mm² AWG 12 with no grooves		CCMA 1.5 CCMA 2.5 CCMA 3.0 CCMA 4.0 CCMD 4.0
16A male crimp contacts for advanced opening 0,5 mm² AWG 20 with no grooves 0,75 mm² AWG 18 one groove (back side) 1 mm² AWG 18 one groove 1,5 mm² AWG 16 two grooves		CC 0.5 AN CC 0.7 AN CC 1.0 AN CC 1.5 AN

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

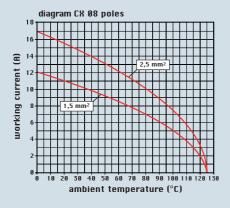
AWG 14

2,5 mm<sup>2</sup>

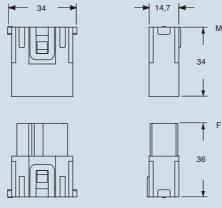
- 16A 400/690V 6kV 2 UL, CSA, CCC \*, EAC certified
- \* CQC certification being applied for
- rated voltage according to UL/CSA: 600V
- insulation resistance: ≥ 10 GΩ
- ambient temperature limit: -40 °C ... +125 °C
- are made of self-extinguishing thermoplastic resin UL 94 V0

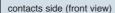
three grooves

- mechanical life: ≥ 500 cycles
- contact resistance: ≤ 1 mΩ
- for contact crimping instructions, please see the crimping tool section (16A contacts, CCF, CCM and CC...AN series) on pages 534, 538, 544, 546, 548
- for maximum current load, see the following load curves inserts, for more information see page 565



dimensions in mm





side with reference arrow A

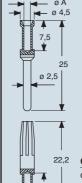


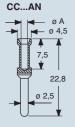


1 frame slot

dimensions in mm **CCF and CCM** 

CC 2.5 AN





CCF, CCM and CCAN contacts		
conductor	conductor	conductors
section	slot	stripping
		length
mm <sup>2</sup>	ø A (mm)	(mm)
0,14-0,37	0,9	7,5
0,5	1,1	7,5
0,75	1,3	7,5

		length
mm <sup>2</sup>	ø A (mm)	(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

1) basic or high thickness gold plating page 481

frames for modular units ...... page: 215

modular units, crimp connections



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

CCMD 0.3

CCMD 0.5

**CCMD 0.7** 

**CCMD 1.0** 

**CCMD 1.5** 

**CCMD 2.5** 

**CCMD 3.0** 

**CCMD 4.0** 

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

description

- without contacts (to be ordered separately)
- female inserts for female contacts '
- male inserts for female contacts \*

partivo	

**CX 20 CF CX 20 CM**  part No. part No.

CCFA 0.3

CCFA 0.5 CCFA 0.7

CCFA 1.0 CCFA 1.5

CCFA 2.5

**CCFA 3.0** 

CCFA 4.0

CCMA 0.3

CCMA 0.5

**CCMA 0.7** 

**CCMA 1.0** 

**CCMA 1.5** 

**CCMA 2.5** 

**CCMA 3.0** 

**CCMA 4.0** 

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

16A female cor	itacis	
0,14-0,37 mm <sup>2</sup>	AWG 26-22	three grooves
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
164 male conta	octo	

0,14-0,37 mm <sup>2</sup>	AWG 26-22	three grooves
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

- characteristics according to EN 61984:

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

- insulation resistance: ≥ 10 GΩ

- mechanical life: ≥ 500 cycles

diagram CX 20 poles

current (A)

- contact resistance: ≤ 1 mΩ

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

- cUL (UL for USA and Canada), CSA, EAC certified - rated voltage according to UL/CSA: 600V

- are made of self-extinguishing thermoplastic resin UL 94 V0

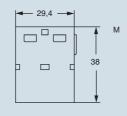
- for contact crimping instructions, please see the crimping tool section (16A contacts, CCF, CCM and CC...AN series) on pages 534, 538, 544, 546, 548

- for maximum current load, see the following load curves inserts, for more information see page 565

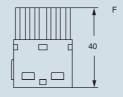
- ambient temperature limit: -40 °C ... +125 °C

dimensions in mm









contacts side (front view)

side with reference arrow





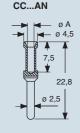
ı	١.	2	frame	slote
ш		_	Hallie	2101

dimensions shown are not binding and may be changed without notice

ambient temperature (°C)

**CCF and CCM** ø 4.5 ø 2.5

dimensions in mm



2	CCF, CCM	and CCAN
	conductor	conductor
	section	slot
5	mm²	ø A (mm)
	0.44.0.07	0.0

section	slot	stripping length
mm²	ø A (mm)	(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

contacts conductors

1) basic or high thickness gold plating page 481

frames for modular units ...... page: 214 - 215

modular units, spring connection



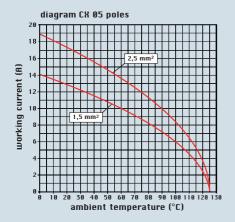


# description

- female inserts with female contacts
- male inserts with male contacts
- characteristics according to EN 61984:

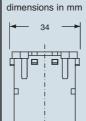
# 16A 400V 6kV 3 16A 500V 6kV 2

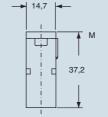
- UL, CSA, CCC\*, GL, EAC certified
  \* CQC certification being applied for
- rated voltage according to UL/CSA: 600V insulation resistance: ≥ 10 GΩ
- ambient temperature limit: -40 °C ... +125 °C
- are made of self-extinguishing thermoplastic resin UL 94 V0
- mechanical life: ≥ 500 cycles
- contact resistance: ≤ 3 mΩ
- for maximum current load, see the following load curves inserts, for more information see page 566



# part No.

CX 05 SF CX 05 SM









# contacts side (front view)

side with reference arrow A

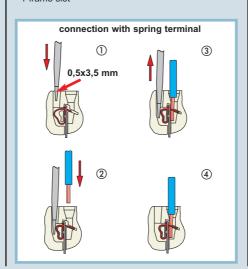






- conductors stripping lenght: 9...11 mm

- 1 frame slot



# 2 poles 16A - 2900/5000V



The modular inserts must be installed in suitable frames which in turn are installed in traditional housings \* or COB panel support.

frames for modular units \* ...... page: 215

- \* enclosures: bulkhead mounting housings, high construction housings or high construction hoods
- characteristics according to EN 61984 \*\*:

# 16A 2900/5000V 15kV 3

- \*\* used for guidance as applicable
- insulation resistance: ≥ 10 GΩ
- ambient temperature limit: -40 °C ... +125 °C
- are made of self-extinguishing thermoplastic resin UL 94 V0
- mechanical life: ≥ 500 cycles
- contact resistance: ≤ 1 mΩ

contact holder removal tool

- for contact crimping, see the crimp tool section (16A CCF and CCM series contacts) on pages 534, 538, 544, 546, 548

high voltage modular units, crimp connections contact holder removal tool



16A crimp contacts silver and gold plated



part No. part No. part No. description

without contacts (to be ordered separately)

- male inserts high voltage for male contacts

AWG 12

AWG 12

- female inserts high voltage for female contacts

16A female cont	acts	
0,14-0,37 mm <sup>2</sup>	AWG 26-22	three grooves
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>

4 mm<sup>2</sup>

16A male contacts				
0,14-0,37 mm <sup>2</sup>	AWG 26-22	three grooves		
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		

one wide groove

with no grooves

**CX 02 HF CX 02 HM** 

**CHES** 

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 1)	
CCMA 0.3 CCMA 0.5 CCMA 0.7 CCMA 1.0 CCMA 1.5 CCMA 2.5 CCMA 3.0		CCMD 0.3 CCMD 0.5 CCMD 0.7 CCMD 1.0 CCMD 1.5 CCMD 2.5 CCMD 3.0		

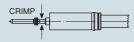
# How to use the MIXO HT module

# Wiring and assembly:

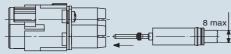
1) Strip the wire by 9.5 mm length and insert it into the contact holder



2) Crimp series CC contact (16A max) on the stripped

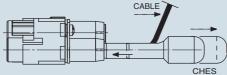


3) Insert the contact holder into the module



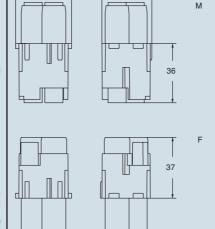
Heat shrinking tubes to be applied on the rear side of the module and over the contact holder are furnished together with the product

1) Remove the contact holder by means of the proper tool CHES



dimensions shown are not binding and may be changed without notice





29,4

contacts side (front view)

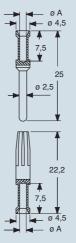
side with reference arrow A





- 2 frame slots

# dimensions in mm



# CCF, CCM contacts

conductor	conductor	conductors
section	slot	stripping
		length
mm²	ø A (mm)	(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

1) basic or high thickness gold plating page 481

frames for modular units ...... page: 214 - 215

modular units, crimp connections





10A crimp contacts silver and gold plated



part No.

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

part No. part No. description

**CX 12 DF** 

**CX 12 DM** 

without contacts (to be ordered separately)

- female inserts for female contacts
- male inserts for female contacts

10A female con	tacts
0,14-0,37 mm <sup>2</sup>	AWG 26-22
0,5 mm <sup>2</sup>	AWG 20

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

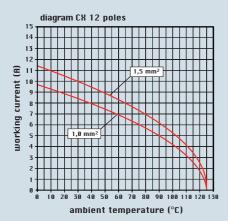
identification No. 1

10A male conta	cts	
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

- characteristics according to EN 61984:

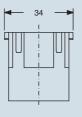
# 10A 160V 2,5kV 3 10A 250V 4kV 2

- UL, CSA, CCC \*, GL, EAC certified
- \* CQC certification being applied for - rated voltage according to UL/CSA: 600V
- insulation resistance: ≥ 10 GΩ
- ambient temperature limit: -40 °C ... +125 °C
- are made of self-extinguishing thermoplastic resin UL 94 V0
- mechanical life: ≥ 500 cycles
- contact resistance: ≤ 3 mΩ
- PCBs interface, see article CIF 2.4
- for contact crimping, see the crimp tool section (10A contacts, CDF and CDM series) on pages 534, 538, 544, 546, 548
- for maximum current load, see the following curves inserts, for more information see page 566

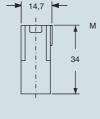


dimensions shown are not binding and may be changed without notice

# dimensions in mm









contacts side (front view)

side with reference arrow A





- 1 frame slot

CDMA 2.5	
dimensions in i	nm

CDFA 0.3

CDFA 0.5

CDFA 0.7

**CDFA 1.0** 

CDFA 1.5

CDFA 2.5

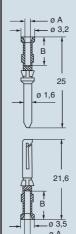
**CDMA 0.3** 

CDMA 0.5

**CDMA 0.7** 

**CDMA 1.0** 

CDMA 15



CDF and CDM contact	5
---------------------	---

conductor	conductor	conductors
section	slot	stripping length
mm²	ø A (mm)	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

1) basic or high thickness gold plating page 480

frames for modular units ...... page: 214 - 215

modular units, crimp connections



14,7

Μ

35,3

35,2

10A crimp contacts silver and gold plated



part No. part No. part No. description

without contacts (to be ordered separately)

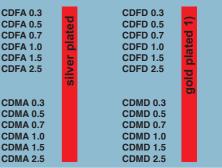
- female inserts for female contacts
- male inserts for male contacts

10/110maio comacio			
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 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	

**CX 17 DF CX 17 DM** 

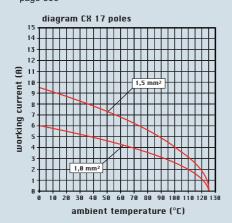
dimensions in mm



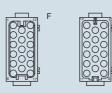
- characteristics according to EN 61984:

# 10A 160V 2,5kV 3 10A 250V 4kV 2

- cUL (UL for USA and Canada), CCC \*, EAC certified \* CQC certification being applied for
- rated voltage according to UL/CSA: 600V
- insulation resistance: ≥ 10 GΩ
- ambient temperature limit: -40 °C ... +125 °C
- are made of self-extinguishing thermoplastic resin
- mechanical life: ≥ 500 cycles
- contact resistance: ≤ 3 mΩ
- for contact crimping, see the crimp tool section (10A contacts, CDF and CDM series) on pages 534, 538, 544, 546, 548
- for maximum current load, see the following load curves inserts, for more information see page 566

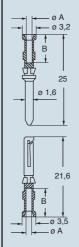


contacts side (front view) side with reference arrow A



- 1 frame slot

dimensions in mm



conductor	conductor	conductors
section	slot	stripping length
mm²	ø A (mm)	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

1) basic or high thickness gold plating page 480

frames for modular units ...... page: 214 - 215

modular units, crimp connections





crimp contacts gold plated



- we recommend the use of CRF / CRM code pins

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

4A female crimp contacts

description

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

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

- characteristics according to EN 61984:

# 4A 50V 0.8kV 3 4A 160V 2.5kV 2

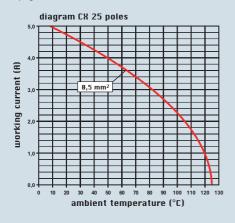
- cUL (UL for USA and Canada), EAC certified
- insulation resistance: ≥ 10 GΩ
- ambient temperature limit: -40 °C ... +125 °C
- made of self-extinguishing thermoplastic resin UL 94 V0  $\,$
- mechanical life: ≥ 500 cycles
- for crimp contacts CI series use, on page 540

CIPZ D crimping tool

CITP D turret head

CIES insertion / removal tool

-for maximum current load, see the following load curves inserts, for more information see page 566

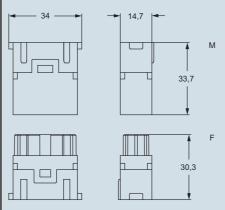


part No.

**CX 25 IF** 

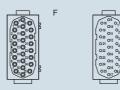
**CX 25 IM** 

dimensions in mm



contacts side (front view)

side with reference arrow A

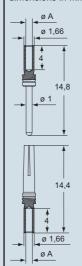


- 1 frame slot

part No.

CIFD 0.2 CIFD 0.3 CIFD 0.5 CIMD 0.2 CIMD 0.3 CIMD 0.5

dimensions in mm



# CIF, CIM contacts

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

# 1 or 4 poles + shield (each connector) 10A - 50V



The modular inserts must be installed in suitable frames which in turn are installed in traditional housings or COB panel support.

frames for modular units \* ...... page: 215

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

- characteristics according to EN 61984: 
  10A 50V 0,8kV 3

   UL, CSA, CCC \*, EAC certified

  \* CQC certification being applied for
   rated voltage according to UL/CSA: 50V
   insulation resistance: ≥ 10 GΩ
   ambient temperature limit:
  -40 °C ... +70 °C (CX 01 B and CX 04 B)
   are made of self-extinguishing thermoplastic resin UL 94 V0
   mechanical life: ≥ 500 cycles
   contact resistance: ≤ 3 mΩ (no CX 02 B)
   coaxial connector CX 01 B cables with a typical impedance of 75 Ω (atténuation see page 567)
   CX 04 B multiaxial connector for STP cables with 2 pairs and terminations compliant with EN 50173-1 Cat. 5 (100 MHz), terminations compliant with EN 50173-1 Cat. 5 (100 MHz), compatible with 4-wire field bus protocols extraction tool for BUS shielded connectors from MIXO BUS insert part No. CX BES see page 502

seat for shielded connectors metal adaptor



shielded connectors 10A crimp contacts, silver or gold plated



**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** 

part No. part No.

# description

seat for two shielded connectors

- female insert, two seats for BUS connectors
- male insert, two seats for BUS connectors

# shielded BUS multi axial connectors, 4 poles + shield

- female insert, four contact seats + shield
- male insert, four contact seats + shield

shielded BUS coaxial connectors, 1 pole + shield

- female insert, one contact seats + shield
- male insert, one contact seats + shield

# CX 02 BF **CX 02 BM**

part No.

**CX 04 BM** 

# CX 01 BF **CX 01 BM**

**CDMA 2.5** 

CX 04 BF, CX 04 BM

CX 04 BF

# metal adaptor (optional)

# 10A female contacts

0,14-0,37 111111	AVVG 20-22	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 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	

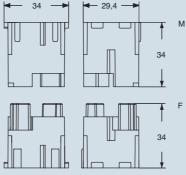
**CR GND** 

CDFA 0.3		
CDFA 0.5	lated	
CDFA 0.7	at	
CDFA 1.0	d	
CDFA 1.5	Ver	
CDFA 2.5	<u>&gt;</u>	
	S	
CDMA 0.3		
CDMA 0.5		
CDMA 0.7		
CDMA 1.0		
CDMA 1.5		

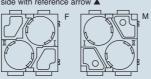
Note: The shielded connectors have their shield insulated from the enclosure's earthing point.

If you wish to earth-connect the shield, install on the panel an anchorage for shielded cables CR..ST (see page 482) or the CR GND metal adaptor.

# dimensions in mm CX 02 BF, CX 02 BM

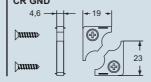


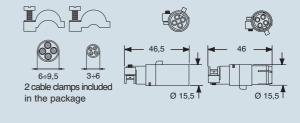
contacts side (front view) side with reference arrow



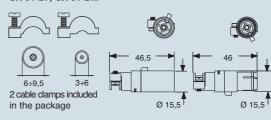
2 frame slots

CR GND

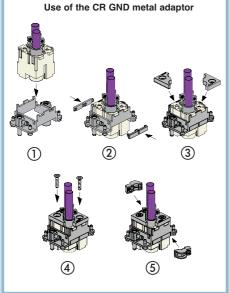




# CX 01 BF, CX 01 BM



- conductors stripping length see page 195
- crimp contacts dimensions (CDF and CDM) see page 195
- for contact crimping, see the crimp tool section (10A contacts, CDF and CDM series) on pages 534, 538, 544, 546, 548



# 8 poles + shield (each connector) 5A - 50V



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

frames for modular units \* ...... page: 215

- \* enclosures: bulkhead mounting housings, high construction housings or high construction hoods
- characteristics according to EN 61984: **5A 50V 0,8kV 3** UL, CSA, CCC \*, EAC certified

  \* CQC certification being applied for
   rated voltage according to UL/CSA: 50V
   insulation resistance: ≥ 10 GΩ
   ambient temperature limit: -40 °C ... +70 °C (CX 08 B)

- are made of self-extinguishing thermoplastic resin UL 94 V0
- mechanical life: ≥ 500 cycles maximum Ø of the insulator: 2.4 mm
- for crimp 5A contacts CI series using: CIPZ D crimping tool

CITP D turret head

CIES insertion / removal tool

extraction tool for BUS shielded connectors from MIXO BUS insert part No. CX BES see page 502

seat for shielded connectors metal adaptor



shielded connectors 5A crimp contacts, gold plated





seat for two shielded connectors

- female insert, two seats for BUS connectors
- male insert, two seats for BUS connectors

shielded BUS multi axial connectors, 8 poles + shield

- female insert, eight contact seats + shield
- male insert, eight contact seats + shield

metal adaptor (optional)

5A female crimp contacts

0.08-0.21 mm<sup>2</sup> AWG 24-28 0.13-0.33 mm<sup>2</sup> AWG 26÷20

0.33-0.52 mm<sup>2</sup> AWG 20-22

5A male crimp contacts

0.08-0.21 mm<sup>2</sup> AWG 24-28

0.13-0.33 mm<sup>2</sup> AWG 26÷20 0.33-0.52 mm<sup>2</sup> AWG 20-22

Note: The shielded connectors have their shield insulated from the enclosure's earthing point.

If you wish to earth-connect the shield, install on the panel an anchorage for shielded cables CR..ST (see page 482) or the CR GND metal adaptor.

Use of the CR GND metal adaptor

(2)

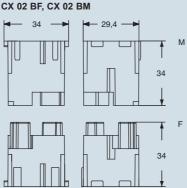


**CX 02 BF** 

**CX 02 BM** 

CR GND

dimensions in mm

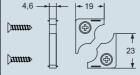


contacts side (front view)



2 frame slots

**CR GND** 



CX 08 BF, CX 08 BM

part No.

CX 08 BF

**CX 08 BM** 

CIFD 0.2

CIFD 0.3

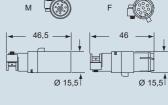
**CIFD 0.5** 

CIMD 0.2

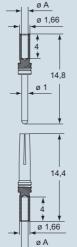
CIMD 0.3

CIMD 0.5

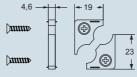


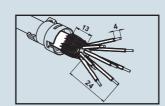






conductor	conductor	conductors
section	slot	stripping
		length
mm <sup>2</sup>	ø A (mm)	(mm)
0,08-0,21	0,64	4
0,13-0,33	0,90	4
0,33-0,52	1,12	4





# 1 pole + shield (each connector) 16A - 50V



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

frames for modular units \* ...... page: 215

- \* enclosures: bulkhead mounting housings, high construction housings or high construction hoods
- characteristics according to EN 61984:
   16A 50V 0,8kV 3
   UL, CSA, CCC \*, EAC certified
   \* CQC certification being applied for
- rated voltage according to UL/CSA: 50V insulation resistance: ≥ 10 GΩ
- ambient temperature limit: -40 °C ... +70 °C (CX 01 BC)
- are made of self-extinguishing thermoplastic resin UL 94 V0 mechanical life: ≥ 500 cycles

- contact resistance: ≤ 1 mΩ (no CX 02 B)
   CX 01 BC shielded connector for cable with a typical impedance of 50 Ω (atténuation see page 567)
- for contact crimping instructions, please see the crimping tool section (16A contacts, CCF and CCM series) on pages 534, 538, 544, 546, 548 extraction tool for BUS shielded connectors from
- MIXO BUS insert part No. CX BES see page 502

seat for shielded connectors metal adaptor



shielded connectors 16A crimp contacts, silver or gold 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** 

**CCMD 0.3** 

CCMD 0.5

CCMD 0.7

**CCMD 1.0** 

CCMD 1.5 **CCMD 2.5** 

CCMD 3.0

**CCMD 4.0** 

part No. part No. part No.

seat for two shielded connectors

description

- female insert, two seats for BUS connectors
- male insert, two seats for BUS connectors

shielded BUS coaxial connectors, 1 pole + shield

- female insert, one contact seats + shield

- male insert, one contact seats + shield

CR GND

**CX 02 BF** 

**CX 02 BM** 

CX 01 BCF **CX 01 BCM** 

**CCFA 0.3** 

CCFA 0.5

CCFA 0.7

CCFA 1.0

**CCFA 1.5** 

CCFA 2.5 **CCFA 3.0** 

**CCFA 4.0** 

**CCMA 0.3** 

CCMA 0.5

**CCMA 0.7** 

CCMA 1.0

**CCMA 1.5** 

**CCMA 2.5** 

**CCMA 3.0 CCMA 4.0** 

metar adaptor (optiona	· · · /
16A female contacts	

0,14-0,37 mm <sup>2</sup>	AWG 26-22	three grooves
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 contact	ets	
0,14-0,37 mm <sup>2</sup>	AWG 26-22	three grooves
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

Note: The shielded connectors have their shield insulated from the enclosure's earthing point. If you wish to earth-connect the shield, install on the panel an anchorage for shielded cables CR..ST (see page 482) or the CR GND metal adaptor.

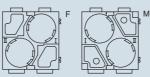
Use of the CR GND metal adaptor

# dimensions in mm CX 02 BF. CX 02 BM 34



29,4 ---

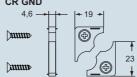
contacts side (front view)



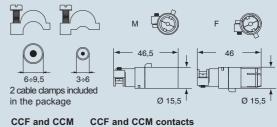
2 frame slots

CR GND

(3)



# CX 01 BCF, CX 01 BCM



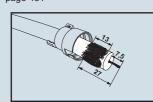


	<b>→</b> ⊌∧
<b>→</b>	<b>◄</b> — Ø 4,5
	<b>A A</b>
	7.5
	7,5 <b>\\</b>
772	
П	25
	ø 2,5
→	<b>←</b>
U.	
////	\ ₱
// //	
701	22,2
7720	
10	<b>A</b>
	<b>A</b> 7,5
	<b>*</b> *
	Ø 4,5
	<b>⊸</b> ØΑ

conductor	conductor	conductors
section	slot	stripping lengt
mm²	ø A (mm)	(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
0.5	0.0	7 -

1) basic or high thickness gold plating page 481

2.85



frames for modular units ..... page: 214 - 215

- characteristics according to EN 61984:

# 1A 50V 0,8kV 3

- insulation resistance: ≥ 10 GΩ
- are made of self-extinguishing thermoplastic resin UI 94 V0
- mechanical life: ≥ 500 cycles
- temperature range: from -40 °C to +70 °C
- we recommend to fix the cable with cable tie
- for contact crimping instructions see the crimping tool on page 554 and 555

## WARNING:

inserts can be used on high enclosures or bulkhead housings only.

# description

- socket insert with 1 RJ45 female connector, - plug inserts for 1 RJ45 male crimp connector,
- 8 data contacts (without RJ45 connector, to be ordered separately)
- plug insert for 1 RJ45 male IDC connector, 8 data contacts (without RJ45 connector, to be ordered separately)
- RJ45 male crimp connector, 8 data contacts
- RJ45 male IDC connector, 8 data contacts

# CX 01 J8F technical data:

- RJ45 female insert, Cat. 6 Class E<sub>A</sub> (Telegärtner)
- shielding housing: zinc diecast
- housing finish: nickel-plated
   current carrying capacity at 50 °C: 1A
   adequate for Power over Ethernet:
- PoE according to IEEE 802.3af connectors: IEC 60603-7-5
- adequate for 10 Gigabit Ethernet: 10 Gigabit Ethernet acc. to IEEE 802.3an custom-designed cabling systems: PROFINET Installation Guideline

- generic cabling systems: ANSI/TIA/EIA-568-C.2 ISO/IEC 11801
- EN50173-1 ISO/IEC 24702 EN 61918
- class EA (channel): ISO/IEC 11801, EN 50173-1

# CX 8 J6M technical data:

- RJ45 male crimp connectors Cat. 6<sub>A</sub>(Telegärtner)
- crimp pliers: CJPZ T
- screened cable stripper: CJSTCu-conductor diameter
- Cut-conductor diameter solid: 0,40 0,51 mm (AWG 26/1 24/1) stranded: 0,46 0,61 mm (AWG 27/7 24/7) insulation diameter: 0,85 1,05 mm cable diameter: 5,0 7,0 mm connectors: IEC 60603-7-5 10 Gigabit Ethernet acc. to IEEE 802.3an:

- adequate for 10 Gigabit Ethernet
   category 6A: ISO/IEC 11801; EN 50173-1
   class EA: ISO/IEC 11801; EN 50173-1
- category 6<sub>A</sub>: ANSI/TIA/EIA-568-C.2

- CX 8 J6IM technical data:
   RJ45 male IDC connectors Cat. 6 Class E<sub>A</sub>(Telegärtner)
- Cu-conductor diameter solid: 0,41 0,64 mm (AWG 26/1 22/1) solid: 0,41 - 0,64 mm (AWG 26/1 - 22/1) stranded: 0,48 - 0,76 mm (AWG 26/7 - 22/7) - insulation diameter: 0,85 - 1,6 mm - cable diameter: 5,5 - 8,5 mm - connectors: IEC 60603-7-5 - category 6A: ISO/IEC 11801; DIN EN 50173-1 - wrenches pilers for CX 8 J6IM: CJPW K

- 10 Gigabit Ethernet acc. to IEEE 802.3an: adequate for 10 Gigabit Ethernet
   category 6A: ISO/IEC 11801; EN 50173-1

- class Ea: ISO/IEC 11801; EN 50173-1
  category 6a: ANSI/TIA/EIA-568-C.2
  custom-designed cabling systems: according to PROFINET Installation Guideline

dimensions shown are not binding and may be changed without notice

# housing for RJ45 male connectors, **RJ45** female connectors



crimp and IDC termination, **RJ45** male connectors



part No.

# CX 01 J8F

part No.

**CX 01 J8M** 

CX 01 J8IM \*\*

dimensions in mm

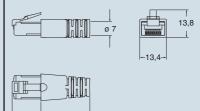
CX 01 J8F

CX 01 J8M

# **CX 8 J6M** CX 8 J6IM \*

dimensions in mm

can be used with CX 01 J8M

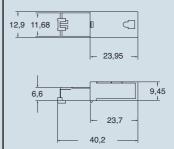


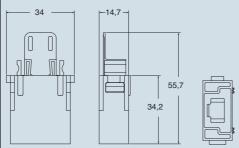
715

\* can be used with CX 01 J8IM

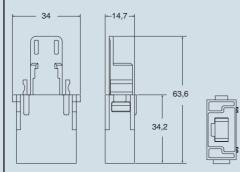
CX 8 J6IM

24.5





# CX 01 J8IM \*\*



\*\* CX 01 J8IM: to be used with high enclosures (T-Type hood M32/M40 only and CZAV/MZAV top entry hood only), bulkhead housings or COB ... BC/TCQ/TSF/ TSFS only.

# with 2 RJ45 male connectors



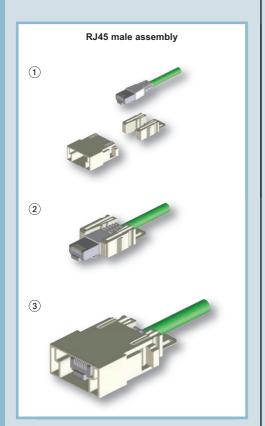
NEW

RJ45 male connector with 8 data contacts  CW 1 J2M87 1 CW 2 J2M87 2 CW 3 J2M87 3 CW 5 J2M87 5 CW 7.5 J2M87 7,5 CW 10 J2M87 10 CW 15 J2M87 15	description	part No.	(L) meter
	RJ45 male connector with 8 data contacts	CW 2 J2M87 CW 3 J2M87 CW 5 J2M87 CW 7.5 J2M87 CW 10 J2M87	7,5 10

# RJ45 patch cord technical data (Telegärtner): - S/FTP Cat. 7, 4x2x AWG 27/7, PUR jacket - temperature range: from -40 °C + +75 °C

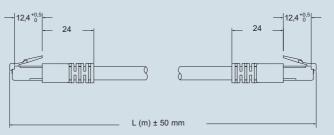
- nickel plated brass screeninggreen RAL 6018 colour

Can be used with:
- MIXO RJ45 CX 01 J8M male inserts



dimensions shown are not binding and may be changed without notice dimensions in mm

# CW...J2M87





# Wiring Diagram 1:1

W-O 1	1 W-O
02	 20
W-G 3	 3 W-G
BL 4	 4 BL
W-BL 5	 5 W-BL
G 6	 6 G
W-BR 7	 7 W-BR
BR 8	 8 BR
S	 S

# Legend

**BR** = brown **BL** = blue G = greyO = orange W = white = screen

# for 1 RJ45 + 4 poles connector

# 10A - 250V



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

frames for modular units ...... page: 215

- characteristics according to EN 61984:

# 10A 250V 4kV 3

- insulation resistance: ≥ 10 GΩ
- are made of self-extinguishing thermoplastic resin UL 94 V0
- mechanical life: ≥ 500 cycles
- contact resistance: ≤ 3 mΩ
- for contact crimping, see the crimp tool section (10A contacts, CDF and CDM series) on pages 534, 538, 544, 546, 548

# WARNING:

description

the female inserts can only be used on high or flush mounting enclosures

10A crimp contacts silver and gold plated



without RJ45 connector and without contacts (to be ordered separately)

- socket inserts for 1 RJ45 female connector and for 4 10A (CDF) female contacts
- plug inserts for 1 RJ45 male connector and for 4 10A (CDM) male contacts
- RJ45 female connector, 8 data contacts
- RJ45 female connector, 8 data contacts / 2 power contacts
- RJ45 male connector, 4 data contacts
- RJ45 male connector, 4 data contacts / 2 power contacts
- RJ45 male connector, 6 data contacts / 2 power contacts
- RJ45 male connector, 8 data contacts

housing for RJ45 connectors,

**RJ45** connectors



part No.

part No.

- RJ45 male connector, 4 data contacts cat. 5e profiNET®

CX 01 JF

part No.

CX 01 JM

CX 8 JF \* CX 8/2 JF \*

CX 4 JM CX 4/2 JM CX 6/2 JM CX 8 JM

CX 4E JM

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	
CDMA 0.3 CDMA 0.5 CDMA 0.7 CDMA 1.0 CDMA 1.5		CDMD 0.3 CDMD 0.5 CDMD 0.7 CDMD 1.0 CDMD 1.5		

crimp contacts dimensions (CDF and CDM) see page 195

# 10A female contacts

0,14-0,37 111111	AVVG 20-22	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 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 mm²	AWG 16	identification No. 4			
2,5 mm <sup>2</sup>	AWG 14	identification No. 5			

# RJ45 connector features:

- RJ45 insert, Class 5 Ethernet
- rated current: 2.1A at 70 °C - rated voltage: 50VDC / 35VAC
- IDC terminals:

for 0,22 mm<sup>2</sup> (AWG 24/7) data contacts CX 4 JM for 0,14 mm2 (AWG 26/7) or 0,22 mm2 (AWG 24/7) data contacts CX 4/2 JM

for 0,34 mm<sup>2</sup> (AWG 22/7) or 0,38 mm<sup>2</sup> (AWG 22/19) power contacts

for 0,14 mm<sup>2</sup> (AWG 26/7) data contacts CX 6/2 JM for 0,25 mm² (AWG 23/19) power contacts

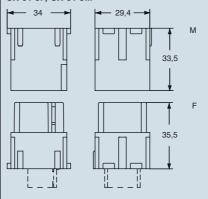
for 0,14 mm<sup>2</sup> (AWG 26/7) data contacts CX 8 JM for 0,34 mm<sup>2</sup> (AWG 22/7) data contacts CX 4E JM

- /7 = 7-strands wire
- /19 = 19-strands wire
- Ømax insulating conductors 1 mm (data), 1,4 mm (power and CX 4E JM)
- Ø<sub>max</sub> complete cable 7 mm (CX 8 JM: 6,9 mm)
- temperature range: from -40°C to 120 °C
- nickel plated brass screening - crimp pliers: CJPZY
- screened cable stripper: CJST

\* 4 pole version on request, part No. CX 4 JF and CX 4/2 JF with "crossover" link

dimensions in mm

# CX 01 JF, CX 01 JM



contacts side (front view) side with reference arrow A

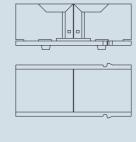
000





dimensions in mm

# CX 4 JF, CX 4/2 JF, CX 8 JF, CX 8/2 JF





CX 4 JM, CX 4/2 JM, CX 6/2 JM, CX 8 JM, CX 4E JM







for 2 RJ45 + 8 poles connector 10A - 250V

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

frames for modular units ...... page: 215

- characteristics according to EN 61984:

# 10A 250V 4kV 3

- insulation resistance: ≥ 10 GΩ
- are made of self-extinguishing thermoplastic resin UL 94 V0
- mechanical life: ≥ 500 cycles
- contact resistance: ≤ 3 mΩ
- for contact crimping, see the crimp tool section (10A contacts, CDF and CDM series) on pages 534, 538, 544, 546, 548

# WARNING:

the female inserts can only be used on high or flush

mounting enclosures description

without RJ45 connector and without contacts (to be ordered separately)

- socket inserts for 2 RJ45 female connectors and for 8 10A (CDF) female contacts
- plug inserts for 2 RJ45 male connectors and for 8 10A (CDM) male contacts
- RJ45 female connector, 8 data contacts / 2 power contacts
- RJ45 male connector, 4 data contacts
- RJ45 male connector, 6 data contacts / 2 power contacts
- RJ45 male connector, 4 data contacts cat. 5e profiNET®

identification No. 1

identification No. 2

identification No. 2

identification No. 3

identification No. 4

identification No. 5

AWG 26-22

AWG 20

**AWG 18** 

**AWG 18** 

**AWG 16** 

**AWG 14** 

housing for RJ45 connectors, **RJ45** connectors



10A crimp contacts silver and gold plated



part No. part No.

- RJ45 female connector, 8 data contacts

- RJ45 male connector, 4 data contacts / 2 power contacts
- RJ45 male connector, 8 data contacts

10A female contacts

10A male contacts

0.14-0.37 mm<sup>2</sup>

0.5 mm<sup>2</sup>

1 mm<sup>2</sup>

1.5 mm<sup>2</sup>

2.5 mm<sup>2</sup>

0.75 mm<sup>2</sup>

CX 02 JF

part No.

CX 02 JM

**CX 8 JF** \* CX 8/2 JF \*

CX 4 JM CX 4/2 JM

CX 6/2 JM CX 8 JM

CX 4E JM

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	
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		

crimp contacts dimensions (CDF and CDM) see page 195

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

# RJ45 connector features:

- RJ45 insert, Class 5 Ethernet
- rated current: 2,1A at 70 °C - rated voltage: 50VDC / 35VAC
- IDC terminals:

for 0,22 mm² (AWG 24/7) data contacts CX 4 JM for 0,14 mm2 (AWG 26/7) or 0,22 mm2 (AWG 24/7) data contacts CX 4/2 JM

for 0,34 mm² (AWG 22/7) or 0,38 mm² (AWG 22/19) power contacts **CX 4/2 JM** for 0,14 mm² (AWG 26/7) data contacts **CX 6/2 JM** 

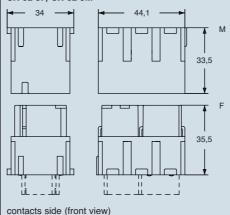
for 0,25 mm<sup>2</sup> (AWG 23/19) power contacts CX 6/2 JM for 0,14 mm<sup>2</sup> (AWG 26/7) data contacts CX 8 JM for 0,34 mm² (AWG 22/7) data contacts CX 4E JM

- /7 = 7-strands wire
- /19 = 19-strands wire
- Ømax insulating conductors 1 mm (data), 1,4 mm (power and CX 4E JM)
- Ømax complete cable 7 mm (CX 8 JM: 6.9 mm)
- temperature range: from -40°C to 120 °C
- nickel plated brass screening
- crimp pliers: CJPZY
- screened cable stripper: CJST

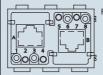
\* 4 pole version on request, part No. CX 4 JF and CX 4/2 JF with "crossover" link

dimensions in mm

# CX 02 JF, CX 02 JM



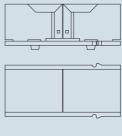
side with reference arrow A



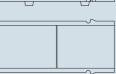
- 3 frame slots

dimensions in mm

CX 4 JF, CX 4/2 JF, CX 8 JF, CX 8/2 JF







CX 4 JM, CX 4/2 JM, CX 6/2 JM, CX 8 JM, CX 4E JM

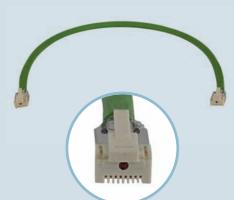






# with 1 RJ45 male connector





with 2 RJ45 male connectors

description	part No.	(L) metre	part No.	(L) metre
RJ45 male connector with 4 data contacts / 2 power contacts	CW 0.5 JM4/2 CW 2 JM4/2 CW 5 JM4/2 CW 10 JM4/2	0.5 2 5 10		
RJ45 male connector with 8 data contacts	CW 0.5 JM8	0.5	CW 0.5 J2M8	0.5
	CW 2 JM8	2	CW 2 J2M8	2
	CW 5 JM8	5	CW 5 J2M8	5
	CW 10 JM8	10	CW 10 J2M8	10
RJ45 male connector with 4 data contacts, Class 5e	CW 0.5 JM4E	0.5	CW 0.5 J2M4E	0.5
	CW 2 JM4E	2	CW 2 J2M4E	2
	CW 5 JM4E	5	CW 5 J2M4E	5
	CW 10 JM4E	10	CW 10 J2M4E	10

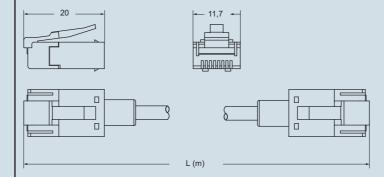
# RJ45 connector features:

- insert RJ45, Class 5 Ethernet
- nominal current: 2.1A at 70 °C - nominal voltage: 50V DC / 35V AC
- temperature range: from -40 °C to +120 °C
- nickel plated brass screening

Can be used with:
- MIXO RJ45: CX 01 JM and CX 02 JM male inserts see pages 202 and 203

dimensions in mm

# CW JM 4/2, 8, 4E and CW J2M 4/2, 8, 4E



# Wiring Diagram

	J2IVI4/2	
1		1
2		2
3		3
4		4
5		5
6		6
7		7
8		8
Α		Α
В		В
VS		VS

J2M8			
1		1	
2		2	
3		3	
4		4	
5		5	
6		6	
7		7	
8		8	
Α		Α	
В		В	
VS		VS	

J2M4E				
1 ———	1			
2 ———	2			
3 ———	3			
4	4			
5	5			
6 ———	6			
7	7			
8	8			
A	Α			
В	В			
VS	VS			

frames for modular units ...... page: 214 - 215

housing for USB male connectors, **USB** female - female connectors



patch cable USB



# WARNING

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

- female insert with USB female female connector
- male insert without USB male connector (patch cable to be ordered separately)

# part No.

CX 01 UF 1) CX 01 UM 1)

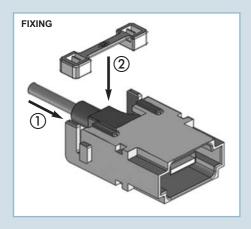
# part No.

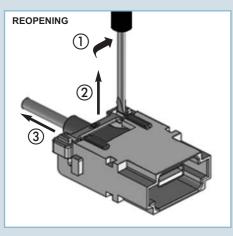
# patch cable USB-A / USB-A, 2 m \*\*

\*\* 5 m on request

# **USB** connector features:

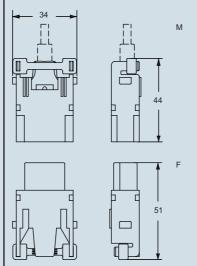
- USB-A / USB-A Hi-Speed 2.0 insert
- temperature range: from -25  $^{\circ}\text{C}$  to +80  $^{\circ}\text{C}$



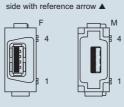


1) cUL (UL for USA and Canada), EAC certified

dimensions in mm



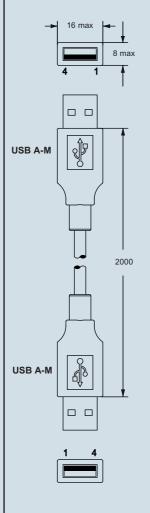
contacts side (front view)



- 1 frame slot

# CW 2 UAM

dimensions in mm





# for 9-pole crimp D-SUB connector



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

frames for modular units \* ..... page: 214 - 215

\* enclosures: housings or high construction hoods

- characteristics according to EN 61984: 5A 50V 0,8kV 3
- for crimp 5A contacts CI series using: CIPZ D crimping tool CIVTP D turret head CIVES insertion / removal tool

# module adapter for 1 D-SUB connector





5A crimp contacts for D-SUB, gold plated



# description

seat for 1 D-SUB crimp contacts connector and shield (included)

- female insert with connector
- male insert with connector

5A female crimp contacts 0.08-0.13 mm<sup>2</sup> AWG 28-26 0.20-0.52 mm<sup>2</sup> AWG 24-20

5A male crimp contacts 0.08-0.13 mm<sup>2</sup> AWG 28-26 0.20-0.52 mm<sup>2</sup> AWG 24-20

we recommend the use of CRF CX / CRM CX code pins

# Alternatively:

- Seat for 1 D-SUB connector (without connector and shield):

> CX 01 VM (for male connector) CX 01 VF (for female connector)

Can also be used with 15-pole D-SUB Hi-Density

For further information, please contact I.L.M.E. SpA.



- CR CX VS shield for CX 01 VM/VF inserts



- Special version with cable contacts section 0.32-0.82 mm<sup>2</sup> AWG 22-18

> CIVFD 0.8 female CIVMD 0.8 male



- Seats for 1 D-SUB screw connectors (without shield):

CX 01 9VFS (with female connectors) CX 01 9VMS (with male connectors)

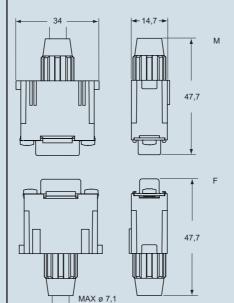
dimensions shown are not binding and may be changed without notice

# part No.

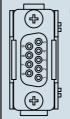
**CX 01 9VF** 

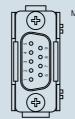
# dimensions in mm

# CX 01 9VF, CX 01 9VM



contacts side (front view)





- 1 frame slot

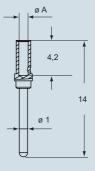
# CIVFD 0.1 CIVFD 0.5

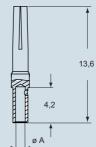
part No.

CIVMD 0.1 CIVMD 0.5

# dimensions in mm

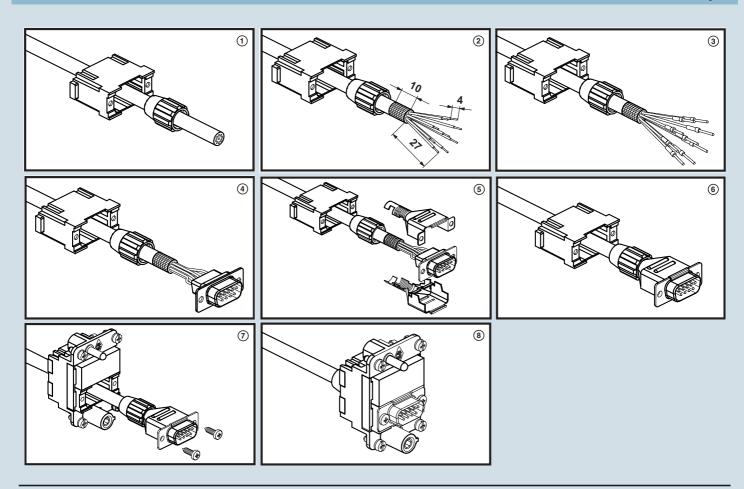
# **CIVF and CIVM**



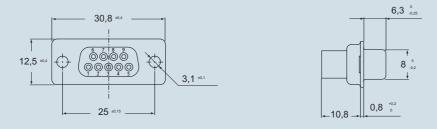


# **CIVF and CIVM contacts**

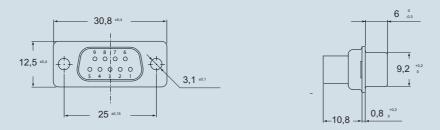
conductor	conductor	conductors
section	slot	stripping length
mm <sup>2</sup>	ø A (mm)	(mm)
0,08÷0,13	0,63	4
0,20÷0,52	1,14	4



9-pole female CRIMP D-SUB connector (can be used with CX 01 VF)



9-pole male CRIMP D-SUB connector (can be used with CX 01 VM)





# Modular inserts for multipole connectors

MIXO inserts for multipole connectors for fibre optic and coaxial contacts.

LWL contacts according to CECC 78 001-801 (former DIN 41 626 part 3) for 1 / 2.2 mm POF (Polymer Optical Fibre) and 1.5 / 2.3 MOST (Media Oriented System Transport) optical fibre.

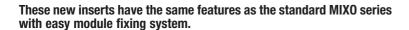
Coaxial contacts (DIN 41 626) 50 ohm and 75 ohm.

The new MIXO insert allows the use of contacts for fibre optic and contacts for coaxial cables.

To protect against EMC-problems (electromagnetic interference) and for the realization of galvanic separations on BUS applications of PROFINET/Ethernet fields, solutions with optical fibres are recommended. Fibre optic connectors are many industrial applications, particularly, modern railway vehicles, converters, wind energy, naval equipments and robots.

The new connectors <u>can be used in applications from -40 °C up to +85°C</u> even in case of frequent temperature variability.

The inserts can be mounted in CX .. TF/TM frames and in the relative enclosures for industrial applications to achieve IP65/66/67/68/69K degree of protection (according to the required versions). The realization of mixed connectors electrical/optical are also possible.



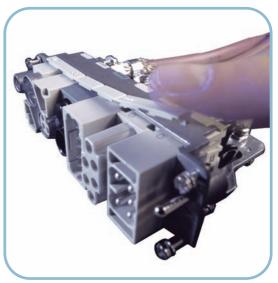
On request we may provide also POF ( $\emptyset$  2.2 mm external diameter,  $\emptyset$  1,0 mm fibre) and MOST-POF ( $\emptyset$  2,3 mm external diameter,  $\emptyset$  1,0 mm fibre) contacts for use at higher temperatures and high temperature variations. For further optical fibre versions, please contact us.

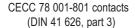
To assemble the contacts it is needed to cut and strip the cable, to crimp the contact (even gluing is possible) and then to grind the fibre tip protruding from the contact.

In the same MIXO insert it is also possible to use coaxial connectors for 50 ohm (RG 316/U, RG 174/U and RG 188 A/U) and 75 ohm (RG 179 B/U, RG 187 A/U and TZC 75 101) cables.

To remove both male and female contacts please use the correct extraction tool.









Mixo insert for 4 optical fibre contacts



DIN 41 626 contacts



frames for modular units ...... page: 214 - 215

modular units, crimp connections



POF / MOST crimp contacts



description part No. part No. without contacts (to be ordered separately) CX 04 LF 1) - female inserts for female contacts CX 04 LM 1) - male inserts for male contacts female contacts POF \* 1.0 mm **CX PLF** male contacts POF \* 1.0 mm CX PLM female contacts MOST \*\* 1/1.5 mm CX MLF male contacts MOST \*\* 1/1.5 mm CX MLM

- \* POF = POLYMER OPTICAL FIBRE
- \*\* MOST = MEDIA ORIENTED SYSTEM TRANSPORT
- cUL (UL for USA and Canada), EAC certified
- ambient temperature limit: -40 °C ... +85 °C
- inserts are made of self-extinguishing thermoplastic resin UL 94 V0  $\,$
- mechanical life: ≥ 500 cycles
- max external diameter: 2.2 mm (POF)

2.3 mm (MOST)

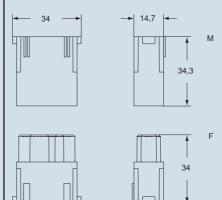
- polymer fibre diameter: 1.0 mm (POF)
  - 1/1.5 mm (MOST)
- attenuation: < 2.5 dB
- to crimp contacts CX PLF / PLM and CX MLF / MLM please use tool CLPZ R (see the crimping tool section on page 550)

We recommend to use CLASS enclosures with two levers or V-Type enclosures (with one or two levers) that provides a higher coupling depth due to the higher locking force they produce. We further suggest the use of code pins CRF CX / CRM CX.

1) cUL (UL for USA and Canada), EAC certified

dimensions in mm

# CX 04 LF / LM



contacts side (front view)

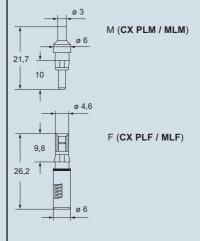
side with reference arrow A



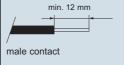


- 1 frame slot

dimensions in mm



cable stripping for fibre optic





female contact

# for coaxial contacts

# DIN 41626



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

frames for modular units ...... page: 214 - 215

modular units, crimp / solder connections



crimp / solder coaxial contacts



description	part No.	part No.
without contacts (to be ordered separately) - female inserts for female contacts - male inserts for male contacts	CX 04 LF <sup>1)</sup> CX 04 LM <sup>1)</sup>	
female coaxial contacts $50\Omega$ male coaxial contacts $50\Omega$		CX 50 F CX 50 M
female coaxial contacts 75Ω male coaxial contacts 75Ω		CX 75 F CX 75 M

- inserts are made of self-extinguishing thermoplastic resin UL 94 V0  $\,$
- mechanical life: ≥ 500 cycles
- in accordance with standard DIN 41626-2
- finishing: contact surfaces and body gold plated, back end and ferrule nickel plated
- frequency range: ≤ 2 GHz
- reflection coefficient: ≤ 0.1
- rated voltage: 50V
- rated current: 1.5A
- to crimp contacts CX 50 M/F, CX 75 M/F use tool COPZ (see the crimping tool section on page 552).

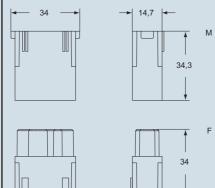
# Warnings:

We recommend the use of code pins CRF CX / CRM CX

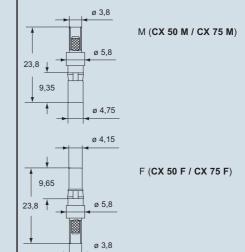
1) cUL (UL for USA and Canada), EAC certified

dimensions in mm

# CX 04 LF / LM



dimensions in mm



contacts side (front view)

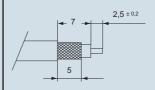
side with reference arrow A





- 1 frame slot

conductor stripping



coaxial contacts	for cables	ø external	part No.
50Ω	RG 316/U RG 174/U	2,49 ±0,1 2.79 ±0,127	CX 50 F
	RG 188 A/U	2,79 max	CX 50 M
75Ω	RG 179 B/U RG 187 A/U	2,54 ±0,127	CX 75 F
	TZC 75 101	2,79 max 2,79 max	CX 75 M

# for pneumatic contacts



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

frames for modular units ...... page: 214 - 215

- UL, CSA, CCC \*, GL, EAC certified
- \* CQC certification being applied for
- are made of self-extinguishing thermoplastic resin UL 94 V0  $\,$
- mechanical life: ≥ 500 cycles

modular units with 2 or 3 seats





pneumatic contacts with or without closing valve



description	part No.	part No.
without contacts (to be ordered separately) - inserts with 3 housings for tube $\emptyset$ 1,6 $\div$ 4,0 - inserts with 2 housings for tube $\emptyset$ 6,0	CX 03 P CX 02 P	
female contacts without closing valve - for tubes with internal ø 1,6 mm - for tubes with internal ø 3 mm - for tubes with internal ø 4 mm - for tubes with internal ø 6 mm male contacts without closing valve - for tubes with internal ø 1,6 mm - for tubes with internal ø 3 mm - for tubes with internal ø 4 mm - for tubes with internal ø 6 mm		CX 1.6 PF CX 3.0 PF CX 4.0 PF CX 6.0 PF CX 1.6 PM CX 3.0 PM CX 4.0 PM CX 6.0 PM
female contacts with closing valve - for tubes with internal Ø 1,6 mm - for tubes with internal Ø 3 mm - for tubes with internal Ø 4 mm - for tubes with internal Ø 6 mm male contacts (use contacts without closing valve)		CX 1.6 VC CX 3.0 VC CX 4.0 VC CX 6.0 VC

# Warnings:

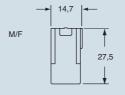
CRM/F CX (page 430) code pins and guides must be used for pneumatic contacts modules. These pins also provide coding if pneumatic contacts modules are used exclusively.

# Use of units for pneumatic contacts

- identical male and female modular units
- pneumatic contacts for pressure values up to 8 bar, for use with clean and dry compressed air
- contacts for gas on request (see Warnings)
- use of tubes with Ø 1,6 3 4 and 6 mm, and possible replacement of tubes with assembled units
- possibility of using tubes with different diameters in the same modular unit
- female contacts with or without closing valve
- working temperature range 40 °C ÷ + 80 °C

dimensions in mm





contacts side (front view)

side with reference arrow  $\blacktriangle$ 

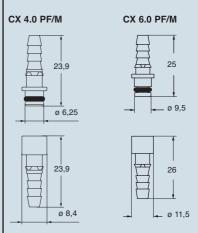
# 1 M/F

CX 03 P



- 1 frame slot

# dimensions in mm CX 1.6 PF/M CX 3.0 PF/M 20,3 0 6,25 0 6,25 0 8,4



The modular units inserts must be installed in suitable frames which in turn are installed in traditional housings or COB panel support.

Alternatively, individual modules with a width of 14.7, can be installed in plastic supports.

frames for modular units ...... page: 214 - 215

dummy module

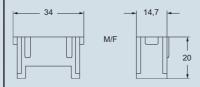


description	part No.
-------------	----------

dummy module for unused frame seats

CX FM

dimensions in mm



- 1 frame slot

# guide to select the frames

1) Calculate the number of frame slots taken up by the required inserts frame slot 1, 2 or 3 modules

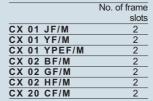


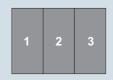
size: 1 frame slot

	No. of frame
	slots
CX 01 J8	1
CX 01 9VF/M	1
CX 01 UF/M	1
CX 02 4AF/M	1
CX 02 4BF/M	1
CX 02 7F/M	1
CX 02 P	1
CX 03 4F/M	1
CX 03 4BF/M	1
CX 03 P	1
CX 3/4 XDF/M	1
CX 04 LF/M	1
CX 04 XF/M	1
CX 05 SF/M	1
CX 06 CF/M	1
CX 08 CF/M	1
CX 12 DF/M	1
CX 17 DF/M	1
CX 25 IF/M	1
CX FM	1



size: 2 frame slots





size: 3 frame slots

			No. of frame
			slots
СХ	02	JF/M	3

2) Select the right frame according to the number of required modules available 1, 2, 3, 4 and 6 modules



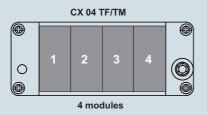
1 module



2 modules



3 modules



CX 06 TF/TM

1 2 3 4 5 6

6 modules

6 module

Fill the unused frame slots by using CX FM dummy module



# frames for modular units



0

 frames for modular units



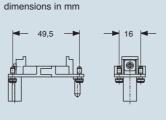
description

# part No.

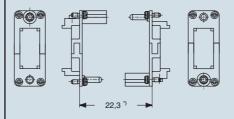
for CZ enclosures, size 49.16

# CX 01 T

- die-cast zinc alloy frames
- with VDE ground contacts
- possibility of mounting female and male modular units on the same frame
- polarisation on frames
- code pins CR..CX







- \*) distance for electric contacts: max 24 mm distance for pneumatic contacts: max 23,5 mm
- small earth terminal for cables from 1-2,5  $\mbox{mm}^{2}$  , AWG 18-14

# enclosures: page: C-TYPE IP65/IP66 ...... 240 - 271 **C7 IP67** ...... 274 - 277 V-TYPE IP65/IP66 ...... 280 - 299 **BIG hoods** ...... 304 - 319 T-TYPE IP65 insulating ...... 326 - 333 **HYGIENIC T-TYPE / H IP66/IP69** ............. 350 - 357 HYGIENIC T-TYPE / C IP66/IP69, -50 °C 358 - 365 W-TYPE for aggressive environments 373 - 378 central lever ...... 404 - 412 **LS-TYPE** ...... 450 - 457 panel supports: page: **COB** ...... 462 - 463

frames for modular units with lock-in tabs

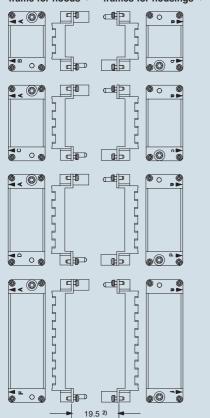


aescription	part No.	part No.	
frames for modular units (module lock-in tabs included)	type for hoods	type for housings	for housings size
- for 2 modular units	CX 02 TM	CX 02 TF	44.27
- for 3 modular units	CX 03 TM	CX 03 TF	57.27
- for 4 modular units	CX 04 TM	CX 04 TF	77.27 and 77.62
- for 6 modular units	CX 06 TM	CX 06 TF	104 27 and 104 62

# lock-in tabs for modular units (6 units) dividable

polarisation of frames with relative identification letters and couplings

# frame for hoods 1) frames for housings 1)

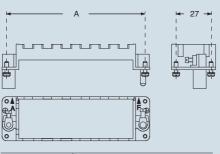


- 1) the frames can be used either in hoods or housings, for a correct coupling please use both frame types (one with upper-case letters and the other with lower-case letters)
- <sup>2)</sup> distance for electric and fibre optic contacts: max 21 mm distance for pneumatic contacts: max 20,5 mm

dimensions shown are not binding and may be changed without notice

# CX CFM

dimensions in mm



part No.	A (mm)	for housings size
CX 02 TM / TF	44	44,27
CX 03 TM / TF	57	57,27
CX 04 TM / TF	77,5	77,27 and 77,62
CX 06 TM / TF	104	104,27 and 104,62

- large earth terminal for cables from 4-6 mm<sup>2</sup>, AWG 12-10
- small earth terminal for cables from 1-2,5 mm<sup>2</sup>, AWG 18-14

- die-cast zinc alloy frames
- with VDE ground contacts
- possibility of mounting female and male modular units on the same frame
- frames supplied with lock-in tab to attach units
- polarisation on frames
- code pins CR..CX

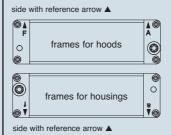
# Warning

the module support frames are marked:

- with upper-case letters A-B, A-C, A-D and A-F (for use in hoods)
- with lower-case letters **a-b**, **a-c**, **a-d** and **a-f** (for use in housings)

Positioning the modules in the frames according to the respective letters is ensuring the specular assembly of modules, for which the hood will be coupled correctly to the housing.

position of modules (contact side view)



When two or more identical connectors of the MIXO series are used, coded pins are used prevent incorrect coupling (CR...CX series).

# CX CFM

