

**MIXO CX 3/4 XD modular connectors**

CX 3/4 XD connectors have the following characteristics:

- 3 slots for CX crimped contacts (40A<sub>max</sub>) for power circuits
- 4 slots for CD crimped contacts (10A<sub>max</sub>) for signal circuits

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.

Live parts having a residual voltage greater than 60V after the supply has been disconnected shall be discharged to 60V or less within a time period of 5 s after disconnection of the supply voltage provided that this rate of discharge does not interfere with the proper functioning of the equipment. Exempted from this requirement are components having a stored charge of 60 µC or less. Where this specified rate of discharge would interfere with the proper functioning of the equipment, a durable warning notice drawing attention to the hazard and stating the delay required before the enclosure may be opened shall be displayed at an easily visible location on or immediately adjacent to the enclosure containing the capacitances.

In the case of plugs or similar devices, the withdrawal of which results in the exposure of conductors (for example pins), the discharge time shall not exceed 1 s, otherwise such conductors shall be protected against direct contact to at least an IP2X or IPXXB. If neither a discharge time of 1 s nor a protection of at least IP2X or IPXXB can be achieved (for example in the case of removable collectors on conductor wires, conductors bars, or slip-ring assemblies, see 12.7.4), additional switching devices or an appropriate warning device (for example a warning notice in accordance with 16.1) shall be applied.

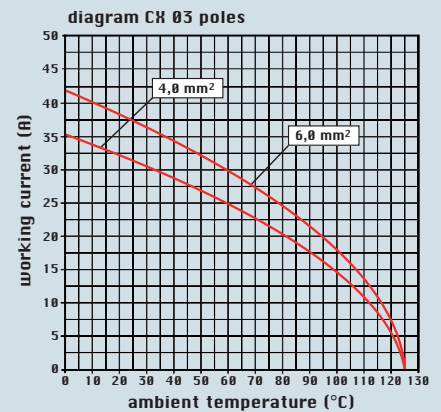
The IP2X or IPXXB protection offered by CX 3/4 XDM modules fitted with CX and CD contacts ensures greater design flexibility as it enables, for example, connectors to be used for drives of electric motors (frequency converters) and in all applications where voltage could be present on both sides of the connector (for example power circuits in loop configuration, opening, circuits of battery-chargers).

Thanks to the enhanced insulation, the rated voltage of the module is equivalent to 830V, in compliance with standards EN 61984 and EN 60664-1, with an impulse withstand voltage of 8 kV for pollution degree 3 even between signal contacts.

code inserts (MIXO series)		CX..XD
No. of poles	main contacts	3
	auxiliary contacts	4
rated current <sup>1)</sup>	main contacts	40A
	auxiliary contacts	10A
EN 61984 pollution degree 3	rated voltage	830V
	rated impulse withstand voltage	8kV
	pollution degree	3
UL/CSA certification	rated voltage (a.c./d.c.)	600V
certifications <sup>2)</sup>		(cULus), (SE), (CCC), (BL)
contact resistance	main contacts	≤ 0.3 mΩ
	auxiliary contacts	≤ 3 mΩ
insulation resistance		≥ 10 GΩ
ambient temperature limit (°C)	min	-40
	max	+125
degree of protection	with enclosures	IP65, IP66, IP67, IP68, IP69K (according to type)
	without enclosures	IP20, also on male contacts
conductor connections		crimp
conductor cross-section main contacts	mm <sup>2</sup>	1.5÷6
	AWG	16÷10
conductor cross-section auxiliary contacts	mm <sup>2</sup>	0.14÷2.5
	AWG	26÷14
stripping length main contacts	mm	9 (1.5÷2.5 mm <sup>2</sup> ) 9.6 (4÷6 mm <sup>2</sup> )
	mm	8 (0.14÷1.5 mm <sup>2</sup> ) 6 (2.5 mm <sup>2</sup> )
mechanical endurance (rating cycles)		≥500

- 1) Please check the insert load curves to establish the actual maximum operating current according to the ambient temperature.
- 2) Certifications shown in brackets are currently being applied for.

load curves - MIXO series (CX 3/4 XD)



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: 151\*

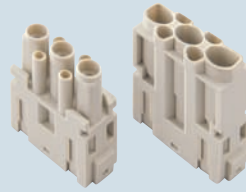
- characteristics according to EN 61984:

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

- certifications: (c), (us), (S), (CC), (U); the certifications shown in brackets are being applied for
- for maximum current load, see the insert load curve MIXO series page 6
- for contact crimping, see the crimp tool section (40A contacts CXF, CXM series and 10A contacts CDF, CDM series) on pages 296, 298, 300, 304, 306, 308 \*
- male and female contacts to test of contact with fingers
- maximum Ø of the insulator, contacts of power: 5 mm

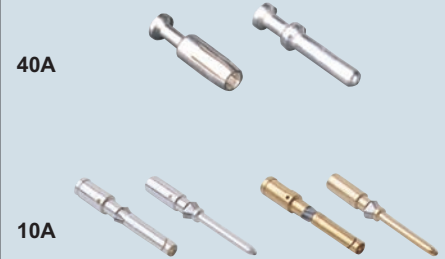
\* refer to catalogue page CN.07

modular units,  
crimp connections



**AVAILABLE  
2<sup>nd</sup> QUARTER 2010**

40A and 10A crimp contacts  
silver and gold plated



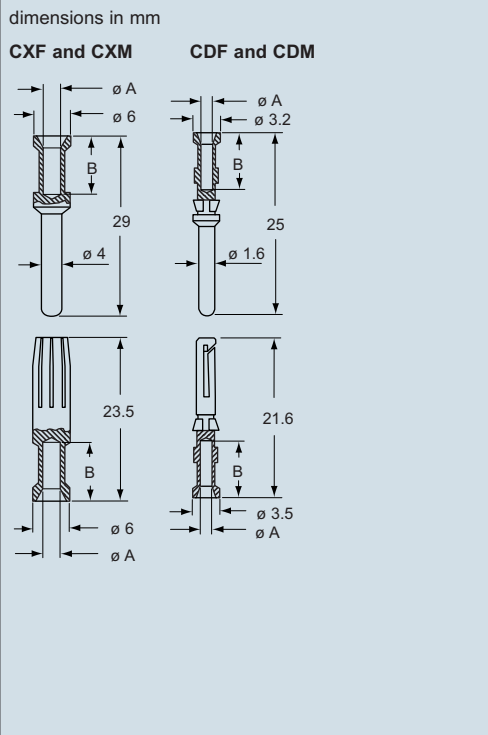
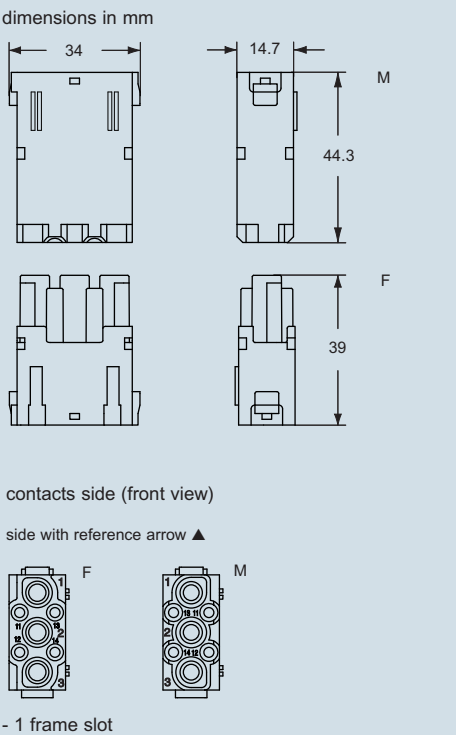
description	part No.	part No.	part No.
without contacts (to be ordered separately) - female inserts for female contacts - male inserts for male contacts	<b>CX 3/4 XDF</b> <b>CX 3/4 XDM</b>		
<b>40A female crimp contacts</b> 1.5 mm <sup>2</sup> AWG 16 2.5 mm <sup>2</sup> AWG 14 4 mm <sup>2</sup> AWG 12 6 mm <sup>2</sup> AWG 10  <b>40A male crimp contacts</b> 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		<b>CXFA 1.5</b> <b>CXFA 2.5</b> <b>CXFA 4.0</b> <b>CXFA 6.0</b>  <b>CXMA 1.5</b> <b>CXMA 2.5</b> <b>CXMA 4.0</b> <b>CXMA 6.0</b>	<b>silver plated</b>
<b>10A female contacts</b> 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  <b>10A male contacts</b> 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		<b>CDFA 0.3</b> <b>CDFA 0.5</b> <b>CDFA 0.7</b> <b>CDFA 1.0</b> <b>CDFA 1.5</b> <b>CDFA 2.5</b>  <b>CDMA 0.3</b> <b>CDMA 0.5</b> <b>CDMA 0.7</b> <b>CDMA 1.0</b> <b>CDMA 1.5</b> <b>CDMA 2.5</b>	<b>silver plated</b> <b>gold plated</b>

CXF and CXM contacts		
conductor section mm <sup>2</sup>	conductor slot ø A (mm)	B (mm)
1.5	1.8	9
2.5	2.2	9
4	2.85	9.6
6	3.5	9.6

CDF and CDM contacts		
conductor section mm <sup>2</sup>	conductor slot 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

- stripping length see section feature of inserts on page 13 catalogue CN.07



dimensions shown are not binding and may be changed without notice