

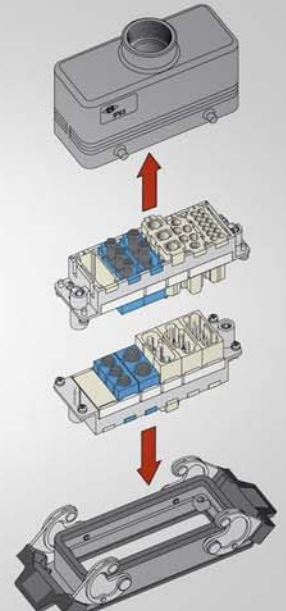
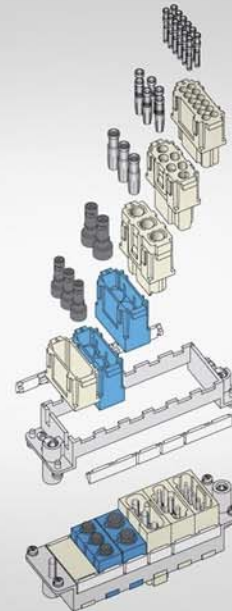


Electrical Components



ILME MIXO

- Modular multipole connectors
 - Data contacts
 - Power Contacts
- Pneumatic Contacts
- Fibre Optic Contacts



ILME MIXO Series

General overview

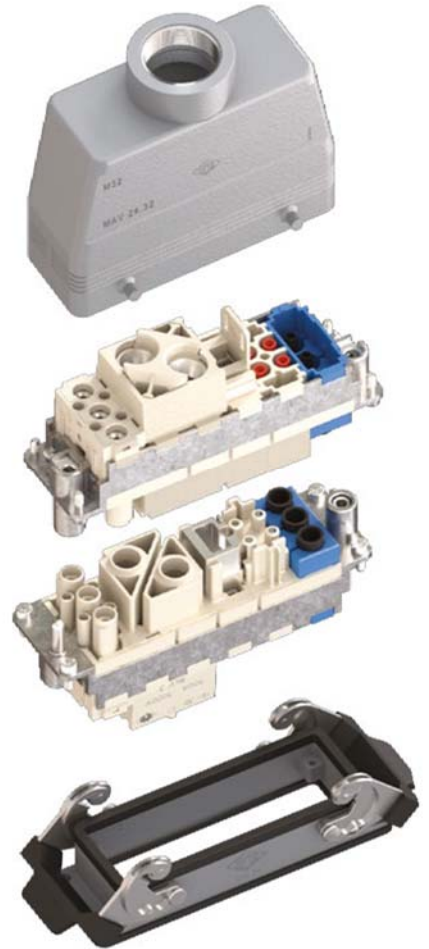
The MIXO series is a system of modular units for special applications that uses the traditional ILME enclosures. Each enclosure can house different types of connections such as electric signals and pneumatic contacts for compressed air.

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

The modular system makes it easy to access a series of contacts inserted in the frame without having to disassemble the entire connector.

ILME MIXO series of modular connectors is an open connector system that provides versatile configuration to the users' individual requirements, giving the freedom to assemble a customized connector from a range of over 50 modules for power electrical, data transmission, optical signals or air. The module range is continuously expanded, allowing new configurations to be realized.

The use of enclosures provides the possibility of innumerable applications.



**POWER/
SIGNAL**



POWER



**DATA
TRANSMISSION**



FIBRE OPTIC



PNEUMATIC



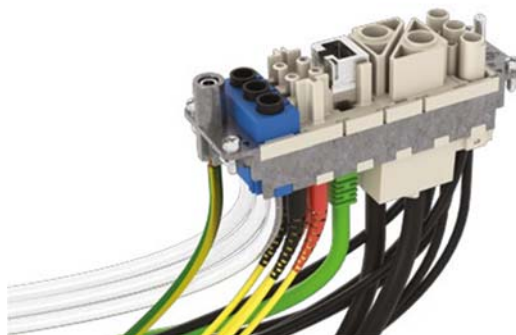
Frame Sizes

The MIXO series can be used with 5 different frame sizes:

Frame Sizes (one or two-level metallic enclosures)

Part No.	Housing Size	Size
CX 01 T	15	49.16
CX 02 TM/TF	6	44.27
CX 03 TM/TF	10	57.27
CX 04 TM/TF	16	77.27
CX 06 TM/TF	24	104.27
CX 04 TM/TF (x2)	32	77.62
CX 06 TM/TF (x2)	48	104.62

Information subject to change without notice



Single sized modules, where specified, can also be installed directly inside MIXO ONE enclosures.

CX 01 T
1 module



CX 02 TF/TM
2 modules



CX 03 TF/TM
3 modules



CX 04 TF/TM
4 modules



CX 06 TF/TM
6 modules



The recently added MIXO HNM frames (provided with special gold plated PE contacts) together with R series of crimp contacts and the relevant connector hoods and housings, to produce, where required, an HNM connector (High Number of Matings, up to 10,000 cycles of operation).

Fill the unused frame slots with CX FM dummy module




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

Frames	COB Panel Supports Part No.	Frames	COB Panel Supports Part No.
CX 02 TM/TF	Fixed: COB 06 BC, COB TCQ	CX 04 TM/TF	Fixed: COB 16 BC, COB TCQ
	Mobile: COB TSF, COB TSFS, BOB 06 CMS		Mobile: COB TSF, COB TSFS, BOB 16 CMS
CX 03 TM/TF	Fixed: COB 10 BC, COB TCQ	CX 06 TM/TF	Fixed: COB 24 BC, COB TCQ
	Mobile: COB TSF, COB TSFS, BOB 10 CMS		Mobile: COB TSF, COB TSFS, BOB 24 CMS

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General overview

Calculate the number of frame slots taken up by the required inserts (frame slot 1, 2 or 3 modules) and select the right frame according to the number of required modules (available 1, 2, 3, 4 and 6 modules).

Inserts	Contact Type	Signal Type	Kind of Connection	Rated Current (A)	Rated Voltage (V)	Frame Slots
CX 01 YF/M	main	electric	crimp	200	1000	2
CX 01 YPEF/M	PE	—	crimp	200	—	2
CX 01 GF/M	main	electric	crimp	100	830	1
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 02 4F/M	main	electric	crimp	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 ¾ 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	crimp	16	400	1
CX 05 SHF/M	main	electric	Squich - spring	16	400	1
CX 06 CF/M	main	electric	crimp	16	500	1
CX 06P CF/M	main	electric	crimp	16	830	1
CX 08 CF/M	main	electric	crimp	16	400	1
CX 08 16 F/M	main + shield	electric	Crimp	5	50	1
RX08 16/FM (HNM)	main + shield	electric	crimp	5	50	1
CX 08 D5F/F2 M/M2	main + shield	electric	crimp	10	50	1
RX 08 D5F/F2 M/M2 (HNM)	main + shield	electric	crimp	10	50	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 42 DF/M	main/auxiliary	electric	crimp	10	150	2
CX 25 IBF/M	main/auxiliary	electric	crimp	4	50	1
CX 25 IF/M^	main/auxiliary	electric	crimp	4	50	1
CX 20S F/M	main + shield	electric	crimp	4	32	1
RX 20S IF/M	main + shield	electric	crimp	4	32	1
CX 36 IF/M	main/auxiliary	electric	crimp	4	32	1
CX 02 CHF/M	main	electric	crimp	16	2500	1
CX 02 HF/M	main	electric	crimp	16	2900/5000	2
CX 02 4HF/M	main	electric	crimp	40	2900/5000	2
CX 02 BF/M	seat for two shielded connectors (refer to CX 04 B, CX 01 B, CX 01BC, CX08 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 1.6-3.0-4.0mm	air	push-in	—	—	1
CX 02 P	pneumatic Ø 6.0mm	air	push-in	—	—	1
CX FM	None (dummy mod.)	—	—	—	—	1
CX 01 J8F/M/IM	RJ45	electric	crimp / IDC	—	—	1
CX 01 J8AIF/BIF/PIF	RJ45 + shield	electric	IDC	1	50	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 01 9VF2/M2	D-SUB + shield	electric	crimp	5	50	1
CX 01 9VTF	D-SUB	electric	screw	5	50	1
CX 01 MIF/MIM	HDMI 	electric	—	—	—	1
CX 04 LF/M	POF/MOST	optic	crimp	—	—	1
CX 04 RF/M	Coaxial	electric	crimp	—	—	1
CX 04 SCF/M	SC fibre optic	optic	crimp/glue	—	—	1

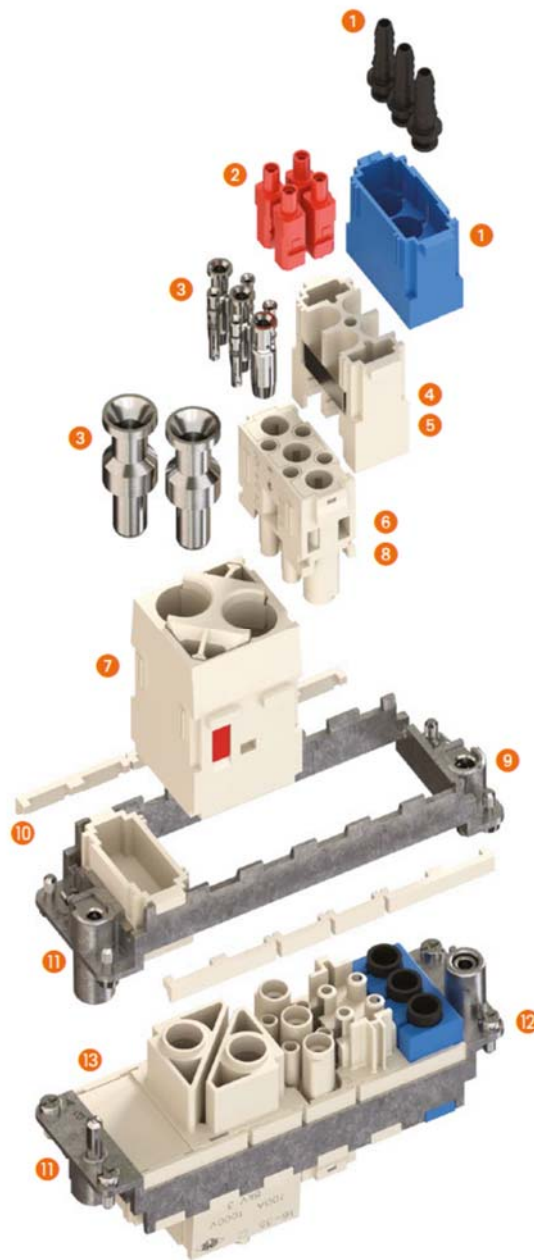
^ Special order

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Features and specifications

1. Pneumatic contacts in plastic with hose barb connection
2. Fibre-optic contacts SC type
3. Electric contacts in silver-plated or gold-plated brass with connections to the conductors via crimping, spring clamp or axial screw
4. Modular inserts of identical size with insertion system for forming the complete module and frame lock tab
5. Inserts in self-extinguishing thermoplastic material, reinforced with glass fibre, UL 94V-0 approved, with a working temperature range of -40 to 125 °C
6. Inserts approved according to EN 61984 standard and UL, CSA marked
7. Inserts with patented dovetails to prevent incorrect coupling
8. Position of contacts identified with numbers or codes on both sides of every insert
9. Male/female module carrier frames with mandatory housings and polarity, in die-cast zinc alloy
10. 10 Module lock tab, may be divided according to the number of modules used; it guarantees a perfect stability of the modules during wiring and coupling/uncoupling of the connectors
11. Asymmetric protective earth contacts (two per frame) with wide contact surface to prevent incorrect coupling; when two or more identical connectors of the MIXO series are used, coded pins may prevent incorrect coupling
12. Captive frame fastening screws, with spring washer
13. Dummy module for unused frame slots





Advantages

- Easy and user-friendly assembly of the complete multi-module insert before fixing it on the relevant sized metal frame
- use of proprietary ILME technology providing each module with “swallowtails” (lateral keys/keyways), for reciprocal locking of modules and overall assembly of the insert into rigid (non-hinged) frames with snap-in locking strips
- faster and easier assembly compared with competitor solutions (easier handling of modules as a complete block than e.g. 6 independent parts)
- inter-mateability at “complete connector” (modules in frame) with other industry standard products
- robust and long lasting prevailing crimp connection technology (largely preferred over screw type technology in high vibration and shock environments)

MIXO - New Products

The MIXO series, featuring a flexible modular design for unlimited connector creation with easy and safe installation, is again expanded, with the addition of the following new modules (9 single-sized, 1 double-sized), widening the MIXO portfolio to 53 modules:

MIXO Module (Female / Male)	Description	Details
CX 36 IF /IM	New MIXO 4 A module, very high density	1-slot, 36 poles, 4 A (crimp) - 32 V 0,8 kV
CX 20S IF /IM	New MIXO Shielded 4 A module	1-slot, 20 poles + shield, 4 A (crimp) - 32 V 0,8 kV
RX 20S IF /IM	New MIXO HNM (High Number of Matings) Shielded 4 A module	1-slot, 20 poles + shield, 4 A (crimp) - 32 V 0,8 kV
CX 08 D5F /M (one cable)	New MIXO Megabit module with relevant accessories	1-slot, 8 poles + shield, 10 A (crimp) - 50 V 0,8 kV
CX 08 D5F2 /M2 (two cables)		
RX 08 D5F /M (one cable)		1-slot, 8 poles + shield, 10 A (crimp) - 50 V 0,8 kV
CX 08 D5F2 /M2 (two cables)	New MIXO HNM (High Number of Matings) Megabit module with relevant accessories	1-slot, 8 poles + shield, 10 A (crimp) - 50 V 0,8 kV
RX 08 I6F/M	New MIXO HNM (High Number of Matings) Gigabit module for use with new RI turned crimp HNM contacts	1-slot, 8 poles + shield, 5 A (crimp) - 50 V 0,8 kV
CX 01 MIF /MIM	New MIXO HDMI module 	1-slot, adapter (male) and coupler (female) for Type A slim sized patch cords
CW 2 MIAM	HDMI Type A slim sized patch cord 	(2m length, 5m length CW 5 MIAM upon request), 0,5 A - 40 V 0,8 kV
CX 01 J8AIF /J8BIF /J8PIF	New MIXO RJ45 Cat. 6A female module with IDC terminations	1-slot, 8-way shielded RJ45 jack (female connector), with IDC terminations for 4-pair data cables, Cat. 6A Class EA, for transmission rates up to 10 Gbit/s (IEEE 802.3an), 1 A - 50 V 0,8 kV
CX 02 4HF/4HM	New MIXO HT module 40A 2 poles	2-slot, 2 poles, 40 A (crimp) - 2900/5000 V 15 kV
CX 01 9VF2/9VM2	New MIXO 9-pole shielded D-SUB module for 2 cables	1-slot, 9-pole, 5A (crimp) - 50 V 0,8 kV D-Sub shielded female connector module for wiring to two separate cables (double cable clamp on the shield)



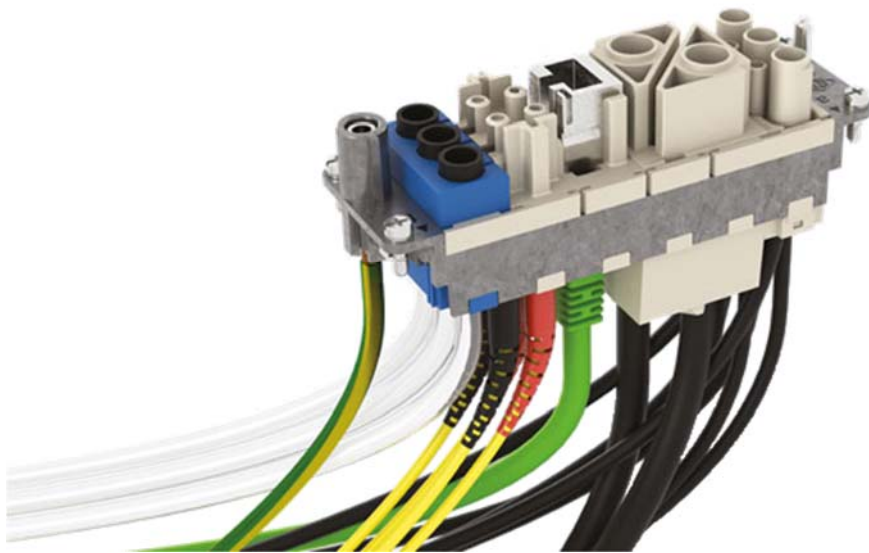
MIXO Series Advantages

- Easy and user-friendly assembly of the complete multi-module insert before fixing it on the relevant sized metal frame
- use of proprietary ILME technology providing each module with dovetail lateral keys/keyways, for reciprocal locking of modules and overall assembly of the insert into rigid (non hinged) frames with snap-in locking strips
- faster and easier assembly compared with competitor solutions (e.g. no need for additional, optional plastic stoppers to lock the hinge, no need for a hinged frame at all, easier handling of modules as a complete block than e.g. 6 independent parts)
- intermateability at “complete connector” (modules in frame) with other industry standard products
- robust and long-lasting prevailing crimp connection technology (largely preferred over screw type technology in high vibration and shock environments)
- possibility - to be verified case-by-case - to use the recently added MIXO HNM frames (provided with special gold-plated PE contacts) together with crimp contacts R series and the relevant connector hoods and housings, to produce where required an HNM connector (High Number of Matings, up to 10.000 cycles of operation).

In addition, each of the new modules adds the following individual features:

- **miniature-oriented**, very high density, 40% higher than previously available for 5A crimp contacts (CX 36 IF/IM);
- **robust shielding of larger number of connections** (20) for sensitive signals against possible interference by adjacent power contacts used for variable frequency driving of motors (MIXO Shielded CX 20S IF/IM)
- **fully shielded connections** for two 4-way data bus cables in a single-sized module (miniaturizing trend) (MIXO Megabit module)
- **HNM versions of Gigabit module and of new Megabit and Shielded modules**, as well as of new CX 36 IF/IM 36 poles module, for use when these modules are foreseen for frequent operation
- **high quality video signal transmission** (Ultra HD 4k@60 Hz) in the heavy-duty MIXO modular system (world premiere) alternative to the female/female RJ45 Cat 6A CX 01 J8F coupler module, for three different pin assignments (TIA 568A, TIA 568B and PROFINET) with IDC solderless connection (CX 01 J8...IF)
- **high tension (2900/4000V) at higher current (40A)**, widening the portfolio of MIXO HT modules for high tension applications (CX 02 4HF/4HM)
- **more versatility at lower cost** in serving data bus systems using the D-SUB 9-pole shielded connectors, with cable clamp for 2 shielded cables (CX 01 9VF2/9VM2)

MIXO Series at a glance



Check the MIXO series video: <https://youtu.be/UZI02uYgUjs>

