

MIXO SERIES

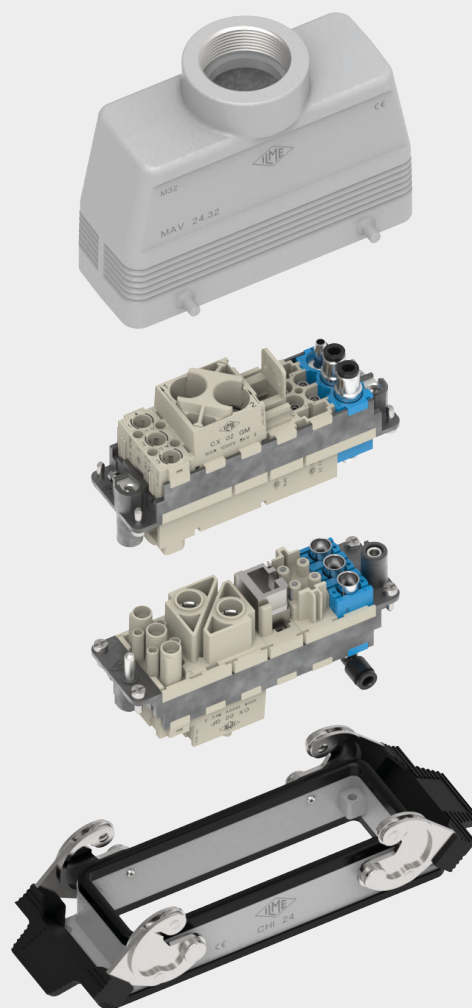
GENERAL OVERVIEW

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 contacts for the conduction of compressed air with pressure values of up to 10 bar.

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

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

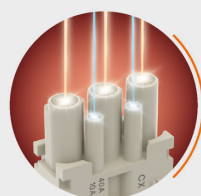
ILME MIXO series of modular connectors is an open connector system that provides versatile configuration to the users' individual requirements, giving the **freedom to assemble a customized connector** from a range of 76 modules for power electrical, data transmission, optical signals or air. The module range is continuously expanded, allowing new configurations to be realised.



📌 The use of enclosures provides the possibility of innumerable applications.



POWER



SIGNAL



POWER



FIBRE OPTIC



PNEUMATIC

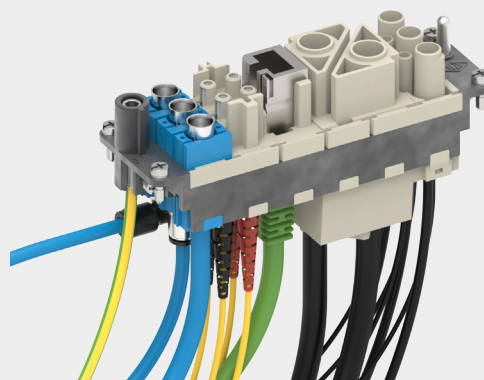


DATA

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

Frames	one or two-lever metallic enclosures
CX 01 T	size "49.16"
CX 02 TF/ TM	size "44.27"
CX 03 TF/ TM	size "57.27"
CX 04 TF/ TM	size "77.27"
CX 06 TF/ TM	size "104.27"
CX 04 TF/ TM (x 2)	size "77.62"
CX 06 TF/ TM (x 2)	size "104.62"

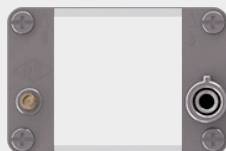
Single-sized modules, where specified, can also be installed directly inside **MIXO ONE** and **MIXO TWO** enclosures.



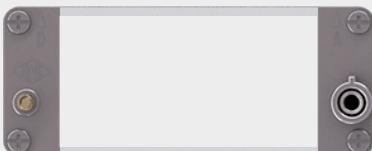
CX 01 T
1 module



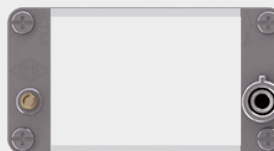
CX 02 TF/ TM
2 modules



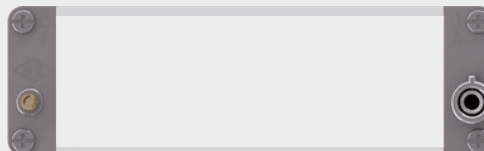
CX 04 TF/ TM
4 modules



CX 03 TF/ TM
3 modules

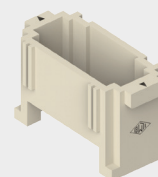


CX 06 TF/ TM
6 modules



Possibility – to be verified case-by-case – to use 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.
CX 02 TF/ TM	fixed: COB 06 BC and COB TCQ mobile: COB TSF, COB TSFS and COB 06 CMS
CX 03 TF/ TM	fixed: COB 10 BC and COB TCQ mobile: COB TSF, COB TSFS and COB 10 CMS

Frames	COB panel supports part No.
CX 04 TF/ TM	fixed: COB 16 BC and COB TCQ mobile: COB TSF, COB TSFS and COB 16 CMS
CX 06 TF/ TM	fixed: COB 24 BC and COB TCQ mobile: COB TSF, COB TSFS and COB 24 CMS

THE COMPLETE RANGE

2023 products are marked with the symbol **+**.

Inserts	Series	Contact type	Signal type	Kind of connection	Rated current (A)	Rated voltage (V)	Number of frame slots
+ CX 01/01B 30F/M		main	electric	crimp	300	1000	2
+ CX 01/01B 30PEF/M		PE	electric	crimp	300	—	2
+ CX 01 30AF/M		main	electric	90° screw	300	1000	2
+ CX 01 30PEAF/M		PE	electric	90° screw	300	—	2
CX 01 YF/M		main	electric	crimp	200	1000	2
CX 01 YPEF/M		PE	electric	crimp	200	—	2
CX 01 YAF/M		main	electric	90° screw	200	1000	2
CX 01 YPEAF/M		PE	electric	90° screw	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 3/4 XDF/M		main / auxiliary	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 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 06 CYF/M		main	electric	AXYR®-spring	16	500	1
CX 08 I6F/M		main + shield	electric	crimp	5	50	1
CX 08 I6GF/I6GM		main + shield	electric	crimp	5	50	1
RX 08 I6F/M	HNM	main + shield	electric	crimp	5	50	1
RX 08 I6GF/I6GM	HNM	main + shield	electric	crimp	5	50	1
CX 08 D5F/F2 M/M2		main + shield	electric	crimp	10	50	1
CX 08 D5GF/F2 GM/M2		main + shield	electric	crimp	10	50	1
RX 08 D5F/F2 M/M2	HNM	main + shield	electric	crimp	10	50	1
RX 08 D5GF/F2 GM/M2	HNM	main + shield	electric	crimp	10	50	1
CX 08 CYF/M		main	electric	AXYR®-spring	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 12 DYF/M		main / auxiliary	electric	AXYR®-spring	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 IF/M		main / auxiliary + shield	electric	crimp	4	32	1
CX 20S IGF/IGM		main / auxiliary + shield	electric	crimp	4	32	1

▲ Available upon request

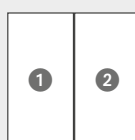
Inserts	Series	Contact type	Signal type	Kind of connection	Rated current (A)	Rated voltage (V)	Number of frame slots
RX 20S IF/M	HNM	main / auxiliary + shield	electric	crimp	4	32	①
RX 20S IGF/IGM	HNM	main / auxiliary + shield	electric	crimp	4	32	①
CX 36 IF/M		main / auxiliary	electric	crimp	4	32	①
CX 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 01 BC, CX 08 B)					
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 plastic Ø 1,6 - 3,0 - 4,0 mm	air	push-in	—	—	①
CX 02 P		pneumatic plastic Ø 6,0 mm	air	push-in	—	—	①
CX 03 MP		pneumatic metal Ø 3,0 - 4,0 - 6,0 mm	air	push-in / quick-fitting	—	—	①
+ CX 02 MPBF/M		pneumatic metal Ø 8,0 - 10,0 mm	air	push-in / quick-fitting	—	—	②
CX FM		none (dummy module)	—	—	—	—	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 J8UM		RJ45	electric	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 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

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).

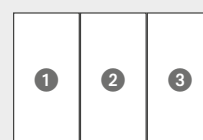
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size: 1 frame slot



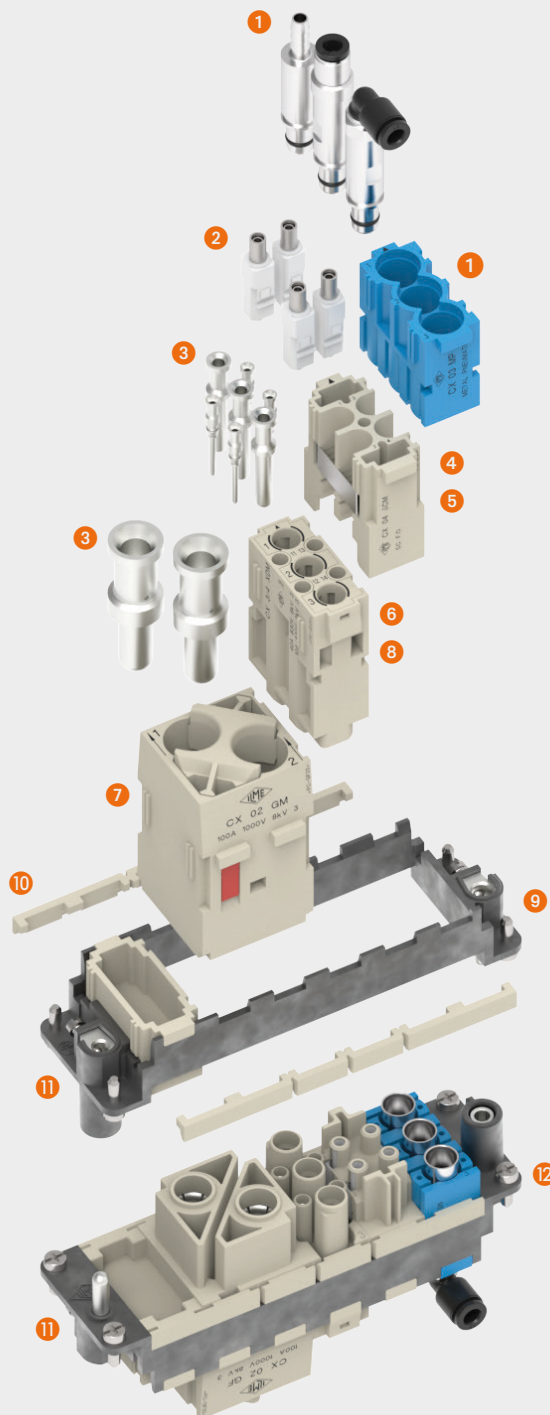
size: 2 frame slots



size: 3 frame slots

TECHNICAL CHARACTERISTICS

- 1 Pneumatic contacts in metal (or plastic) with hose barb or quick-fitting 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 °C to +125 °C (unless otherwise declared).
- 6 Inserts in conformance with the requirements of the EN 61984 standard and certified and marked with the UL, CSA (where applicable), CQC, DNV, BV, EAC (where applicable) marks.
- 7 Inserts with patented "swallowtails" 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 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);
- ☑ 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).



Watch our
MIXO series Video