CRIMP

Removable crimp contacts (with retention device)

MIXO 70A - 100A - 200A

This layout enables the wires to be connected to the insert removable contacts by crimping them with a crimp tool and its locating turret. Connection is ensured and is **extremely resistant** even to the most insidious strains, such as vibrations.

MIXO 70A/100A max contacts

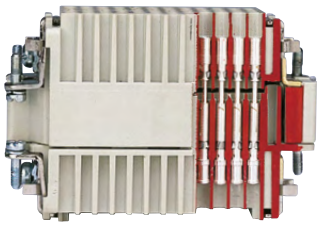
Conductor section		Identification
(mm²)	AWG	hole Ø (mm)
8 - 10	8 - 7	4,3
16	6 - 5	5,5
25	4 - 3	7,0
35	2	7,9 / 8,2

MIXO 200A max contacts

Conductor section		Identification
(mm²)	AWG	
16	6	
25	4	
35	2	
50	1	
70	2/0	

Contacts supplied in silver plated version only

Removable crimp contacts (with retention device on contacts)



MIXO CD - CDD - CX

This layout enables the wires to be connected to the insert removable contacts by crimping them with a crimp tool and its locating turret.

The crimped connections are then inserted (with a fitting tool for sizes 1 and 2, without any tools for sizes ②, 3, 4 and 5) in the above mentioned sizes and are kept firmly in place by means of the flexible device fitted on the contacts.
The wire housing entry on the contact is tapered to facilitate wire insertion and to avoid any damages occurring after the crimping operation. To remove connections, a special **extractor tool** must be used.

4A/5A/6,5A max contacts

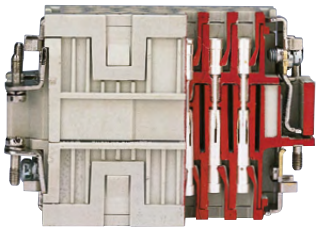
Conductor section		Identification
(mm²)	AWG	hole Ø (mm)
0,08 - 0,21	28 - 24	0,64 mm
0,13 - 0,33	26 - 22	0,90 mm
0,33 - 0,52	22 - 20	1,12 mm
0,52 - 0,75	20 - 18	1,12 mm

10A max contacts

Conductor section		Number Identification
(mm²)	AWG	
0.14 - 0.37	26 - 22	
0.5	20	
0.75	18	
1	18	
1.5	16	
2.5	14	

Contacts supplied in both silver/gold plated versions

Removable crimp contacts (with retention device inside insert)



MIXO CQ - CQE - CCE - CDC - CMCE - CX

The connections of the conductors to the removable contacts of the male and female inserts are made via crimping with a crimping tool and locator. The crimped connections are then introduced in the inserts of the above mentioned series and are **firmly held in place** by means of a retainer device fitted on the insert which holds down the contact. The contact can be removed by simply using a flat head 3 mm screwdriver through the openings provided in the inserts (CMCE 16+2, CX 8/24 series) or by means of special extractor tools, to unlock the retainer device and release the contact (CQ, CCE, CMCE, CQE, CX, CDC, MIXO series).
The wire housing entry on the contact is tapered to facilitate wire insertion and to avoid any damages occurring after the crimping operation.

16A max contacts

Conductor section		Throat Identification
(mm²)	AWG	
0.14 - 0.37	26 - 22	
0.5	20	
0.75	18	
1	18	
1.5	16	
2.5	14	
3	12	
4	12	

Contacts supplied in both silver /gold plated versions. Male contacts can also be supplied in the "advanced" version and iron/constantan contacts for thermocouples J type.

40A max contacts

Conductor section		Identification
(mm²)	AWG	hole Ø (mm)
1,5	16	1,75
2,5	14	2,25
4	12	2,85
6	10	3,5

MIXO above contacts are supplied in the silver plated version only

CRIMP CONTACTS OVERVIEW

The 4/6,5A, 10A and 16A crimp contacts are available either **silver or gold-plated.** The gold-plated crimp contacts are recommended for applications with very low rated currents and rated voltages.
Thanks to the conduction characteristics of gold, the deterioration of signals is prevented and an excellent resistance to the surface oxidation of the contacts is achieved. In particular, gold-plated contacts are recommended with signals with less then ±5 mA current and ±5V voltage.

Standard ILME **gold treatment** is carried out in accordance with MIL-G-45204C Class 00, Type II, Grade C and ASTM B428-01 Class 0.5, Type II, Grade C.
The new basic or high thickness gold-plated contacts are in compliance with EN 61984: 2009, IEC 60512 and EN 60352-2:1994 (such as the standard version)

CRIMP SILVER PLATED

4-6,5A

10A

16A
Normal and for advanced opening

10-40-70-100-200A

CRIMP GOLD PLATED

10-16A
Standard

10-16-40A
HNM (High Number of Matings)

10-16A
High thickness

CI 4-6,5A
For very high density inserts

CRIMP IRON/CONSTANTAN THERMOCOUPLE

Constantan (Cu Ni) and Iron (Fe)
According to IEC 60584-1 type J

CRIMP POF/MOST

For POF/MOST Optic Fibres
POF 1,0 mm
and MOST 1/1,5 mm

COAXIAL TO CRIMP

50Ω - 75Ω
according to DIN 41626-2

LOAD CURVES

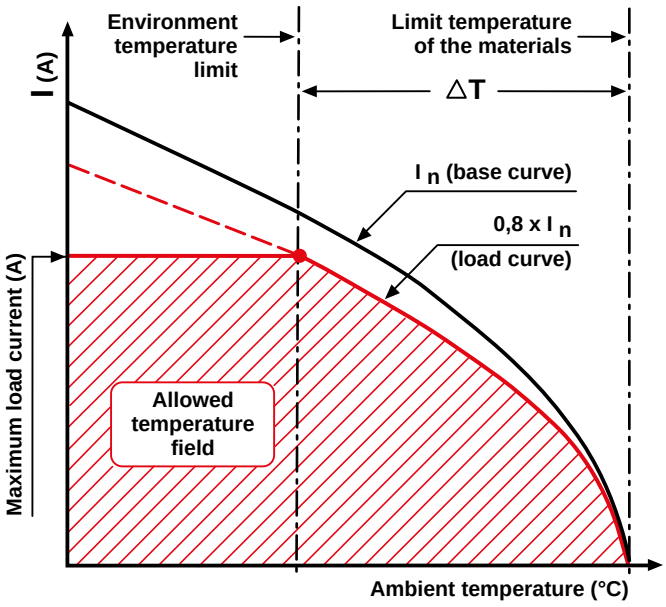
The permitted current carrying capacity for connectors is variable: it becomes lower with the increase of the number of poles and of the ambient temperature in which the connector is installed and it depends upon the thermal properties of the material used for the contacts and the insulating parts including those of the type of conductor used. The current carrying capacity is obtained from the load curves which are constructed according to standard IEC 60512-5-2 for currents circulating simultaneously in all poles.

The limit current curves express current values that determine the achievement of the upper limit temperature of the materials. The choice of the permanent load applicable on the contacts **must be made within the field of operation possible delimited by the above mentioned curves.**

Since use of connectors at the limit values of their characteristics is not recommended, the **base curve** is de-rated. The reduction of the load currents to 80% defines the correction curve where both the maximum permissible contact resistances and the inaccuracy of the temperature measurements are sufficiently taken into consideration.

The correction curve represents the final **limit current curve (load curve)** as defined by standard IEC 60512-5-2. It therefore bears in consideration the differences between the various connector inserts, as well as errors in the temperature measurements.

All the load curves presented in this catalogue include the correction. See figure below.



Legend

Maximum load current (A)
Value for which the connector reaches the upper limit temperature of the material at the corresponding ambient temperature intersected on the load curve.

Limit temperature of the materials
Value determined by the characteristics of the material used. The sum of the environmental temperature and the increase of the ΔT (temperature rise) caused by the current flow must not exceed the limit temperature of the materials.

Environment temperature limit
The environmental conditions must not exceed this value. It may be known and determines the maximum load current, or it may be directly obtained from the load curve.

Base curve
Set of current and temperature values obtained from laboratory tests and influenced by the connector's characteristics (number of poles, construction shape, thermal conductivity of the materials, etc.) and the cross-section of the conductor used.

Load curve (limit current curve)
Obtained from the base curve via the safety coefficient.

ΔT (temperature rise)
Temperature rise produced by a permanent current circulating through all the poles of a connector coupling; difference between the upper limit temperature of the material and the ambient temperature obtained on the limit current curve.