for 1 RJ45 Cat. 6 Class E_A

The modular inserts must be installed in suitable frames, which are then mounted in traditional enclosures or in COB panel supports.

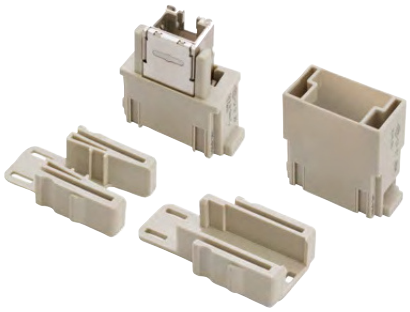
page:

frames for modular units 316 - 317

MIXO ONE enclosures 369

- characteristics according to EN 61984:
  1A 50V 0,8kV 3
- c UL us (UL for USA and Canada), DNV·GL BUREAU VERITAS EAC certified
- rated voltage according to UL/CSA: 50V
- insulation resistance: ≥ 10 GΩ
- made of self-extinguishing thermoplastic resin UL 94V-0
- mechanical life: ≥ 500 cycles
- contact resistance: ≤ 3 mΩ
- temperature range: from -40 °C to +70 °C
- we recommend to fix the cable with cable tie
- for contact crimping instructions, please see the crimping tool section on page 736 and 737

housing for RJ45 male connectors, RJ45 female connectors



crimp and IDC termination, RJ45 male connectors

description	part No.	part No.
- female insert with 1 RJ45 female connector	**CX 01 J8F**	
- male insert for 1 RJ45 male crimp connector, (without RJ45 connector, to be ordered separately) or connecting cables	**CX 01 J8M**	
- male insert for 1 RJ45 male IDC connector, 8 data contacts (without RJ45 connector, to be ordered separately) [1]	**CX 01 J8IM**	
RJ45 male crimp connector, 8 data contacts		**CX 8 J6M**
RJ45 male IDC connector, 8 data contacts		**CX 8 J6IM**

CX 01 J8F technical data:
- RJ45 female insert, Cat. 6 Class E_A
- 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 EN 50173-1 ISO/IEC 24702 EN 61918
- Class E_A (channel): ISO/IEC 11801, EN 50173-1

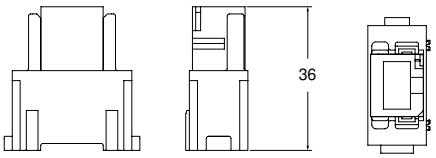
CX 8 J6M technical data:
- RJ45 male crimp connectors Cat. 6_A
- crimp pliers: **CJPZ T**
- screened cable stripper: **CJST**
- current carrying capacity at 50 °C: 1A
- Cu-conductor diameter solid: 0,40 - 0,51 mm (AWG 26/1 - 24/1) stranded: 0,46 - 0,61 mm (AWG 27/7 - 24/7)
- insulation diameter: 0,85 - 1,05 mm
- cable diameter: 5,0 - 6,6 mm
- connectors: IEC 60603-7-51
- 10 Gigabit Ethernet acc. to IEEE 802.3an: adequate for 10 Gigabit Ethernet
- category 6_A: ISO/IEC 11801; EN 50173-1
- Class E_A: ISO/IEC 11801; EN 50173-1
- Category 6_A: ANSI/TIA/EIA-568-C.2

CX 8 J6IM technical data:
- RJ45 male IDC connectors Cat. 6 Class E_A
- Cu-conductor diameter 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
- current carrying capacity at 50 °C: 1A
- cable diameter: 5,5 - 7,3 mm
- connectors: IEC 60603-7-5
- category 6_A: ISO/IEC 11801; DIN EN 50173-1
- wrenches pliers for CX 8 J6IM: **CJPW K**
- 10 Gigabit Ethernet acc. to IEEE 802.3an: adequate for 10 Gigabit Ethernet
- Class E_A: ISO/IEC 11801; EN 50173-1
- Category 6: ANSI/TIA/EIA-568-C.2
- custom-designed cabling systems: according to PROFINET Installation Guideline

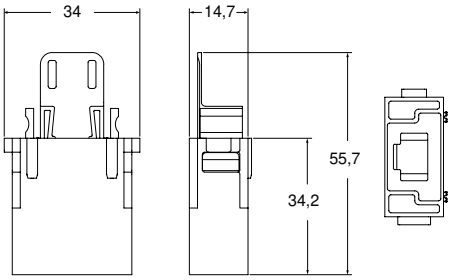
WARNING:
inserts can be used on high enclosures or bulkhead housings only.

[1] 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.

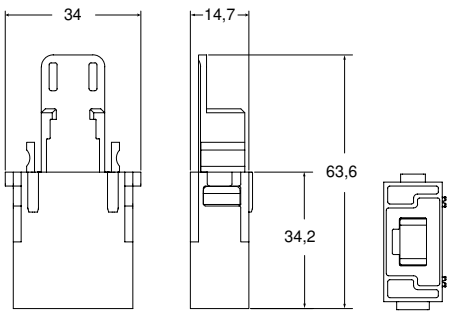
CX 01 J8F



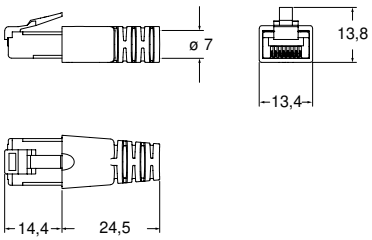
CX 01 J8M
can be used with connecting cables CW series (RJ45 and M12x1)



CX 01 J8IM

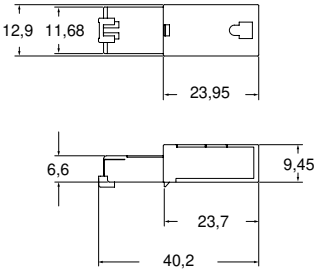


CX 8 J6M
can be used with CX 01 J8M



for free cable end X-coded DTW X...W (M12x1)

CX 8 J6IM
can be used with CX 01 J8IM



for free cable end X-coded DTW...W (M12x1)

MIXO DATA

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

CW RJ45 patch cord

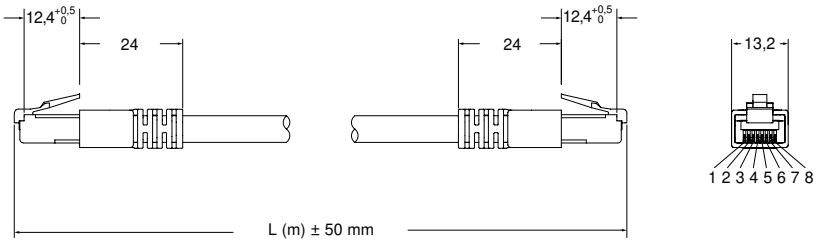
with 2 RJ45 male connectors

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

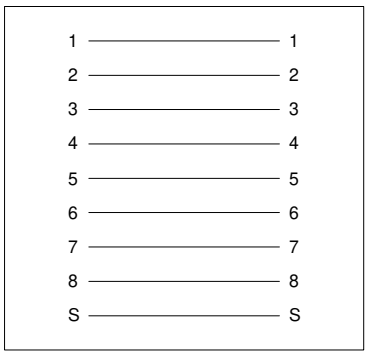
RJ45 patch cord technical data:
- S/FTP Cat. 7 PUR
- temperature range: from -40 °C ÷ +75 °C
- nickel plated brass screening
- green RAL 6018 colour

Can be used with:
- MIXO RJ45 **CX 01 J8M** male inserts
- **CJK 8MT** adapters (see page 226)

CW...J2M87



Wiring Diagram



for 1 RJ45 + 4 poles connector 10A - 250V

The modular inserts must be installed in suitable frames, which are then mounted in traditional enclosures or in COB panel supports.

page:
frames for modular units **316**

- characteristics according to EN 61984:
  10A 250V 4kV 3
- c UL us (UL for USA and Canada), certified
- insulation resistance: ≥ 10 GΩ
- made of self-extinguishing thermoplastic resin UL 94V-0
- mechanical life: ≥ 500 cycles
- contact resistance: ≤ 3 mΩ
- **it is recommended to crimp the contacts with crimping tools homologated by ILME** (please see the crimping tool section 10A contacts, CDF and CDM series) on pages 708 - 741

housing for RJ45 + 4 poles connector

RJ45 connectors

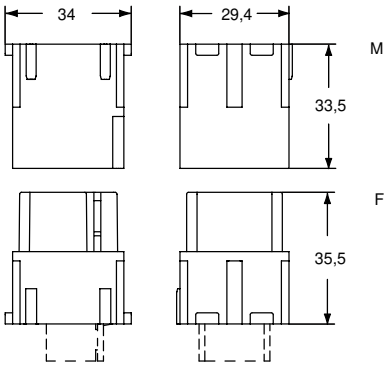
description	part No.	part No. data contacts only	part No. data contacts/+2 power contacts
without RJ45 connector and without contacts (to be ordered separately)			
- female inserts for 1 RJ45 female connector and for 4 10A (CDF) female contacts [1]	**CX 01 JF**		
- male inserts for 1 RJ45 male connector and for 4 10A (CDM) male contacts	**CX 01 JM**		
RJ45 coupler jack, 8 data contacts [2]		**CX 8 JF**	
RJ45 coupler jack, 8 data contacts / 2 power contacts [2]			**CX 8/2 JF**
RJ45 plug, 4 data contacts		**CX 4 JM**	
RJ45 plug, 4 data contacts / 2 power contacts			**CX 4/2 JM**
RJ45 plug, 6 data contacts / 2 power contacts			**CX 6/2 JM**
RJ45 plug, 8 data contacts **Cat. 5e**		**CX 8 JM**	
RJ45 plug, 4 data contacts **Cat. 5e ProfiNET®**		**CX 4E JM**	

RJ45 connector features:
- RJ45 insert, **Cat. 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 mm² (AWG 23/19) power contacts **CX 6/2 JM**
  for 0,14 mm² (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
- insulation diameter: 1 mm (data), 1,4 mm (power and CX 4E JM)
- $Ø_{max}$ complete cable 7 mm (CX 8 JM: 6,9 mm)
- temperature range: from -40°C to 120 °C
- nickel plated brass screening
- crimp pliers: **CJPZ Y**
- screened cable stripper: **CJST**

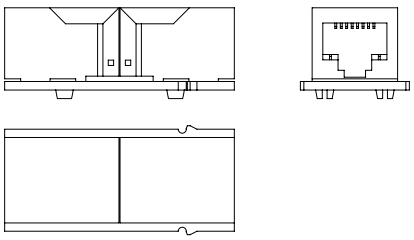
[1] **WARNING:**
the female inserts can only be used on high or flush mounting enclosures

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

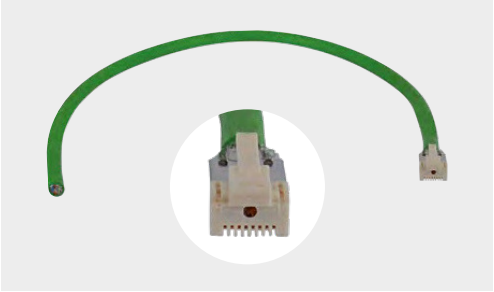
CX 01 JF, CX 01 JM



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



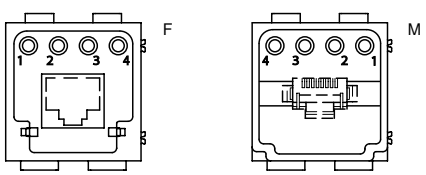
CW patch cord RJ45



CW JM from page 308

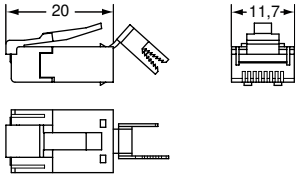
contacts side (front view)

side with reference arrow ▲



- 2 frame slots

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

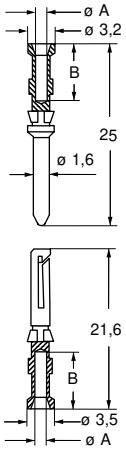


MIXO DATA

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

10A crimp contacts, silver and gold plated

description			part No.			
10A female crimp contacts				silver plated		gold plated✢
0,14-0,37 mm²	AWG 26-22	identification No. 1	**CDFA 0.3**		**CDFD 0.3**	
0,5 mm²	AWG 20	identification No. 2	**CDFA 0.5**		**CDFD 0.5**	
0,75 mm²	AWG 18	identification No. ②	**CDFA 0.7**		**CDFD 0.7**	
1 mm²	AWG 18	identification No. 3	**CDFA 1.0**		**CDFD 1.0**	
1,5 mm²	AWG 16	identification No. 4	**CDFA 1.5**		**CDFD 1.5**	
2,5 mm²	AWG 14	identification No. 5	**CDFA 2.5**		**CDFD 2.5**	
10A male crimp contacts						
0,14-0,37 mm²	AWG 26-22	identification No. 1	**CDMA 0.3**		**CDMD 0.3**	
0,5 mm²	AWG 20	identification No. 2	**CDMA 0.5**		**CDMD 0.5**	
0,75 mm²	AWG 18	identification No. ②	**CDMA 0.7**		**CDMD 0.7**	
1 mm²	AWG 18	identification No. 3	**CDMA 1.0**		**CDMD 1.0**	
1,5 mm²	AWG 16	identification No. 4	**CDMA 1.5**		**CDMD 1.5**	
2,5 mm²	AWG 14	identification No. 5	**CDMA 2.5**		**CDMD 2.5**	



CDF and CDM contacts

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

✢ for basic or high thickness gold plating, please refer to page 674

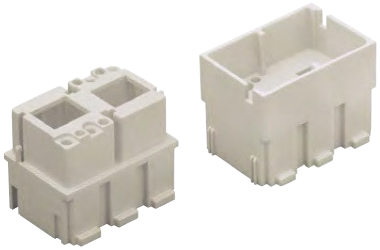
for 2 RJ45 + 8 poles connector 10A - 250V

The modular inserts must be installed in suitable frames, which are then mounted in traditional enclosures or in COB panel supports.

page:
frames for modular units **316**

- characteristics according to EN 61984:
  10A 250V 4kV 3
- c UL us (UL for USA and Canada), SP cec DNV·GL
  BUREAU VERITAS EAC certified
- insulation resistance: ≥ 10 GΩ
- made of self-extinguishing thermoplastic resin UL 94V-0
- mechanical life: ≥ 500 cycles
- contact resistance: ≤ 3 mΩ
- **it is recommended to crimp the contacts with crimping tools homologated by ILME** (please see the crimping tool section 10A contacts, CDF and CDM series) on pages 708 - 741

housing for RJ45 + 8 poles connector



RJ45 connectors

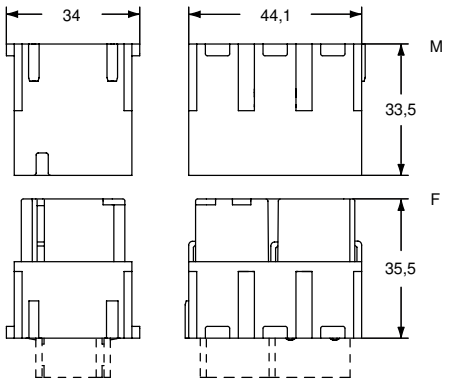
description	part No.	part No. data contacts only	part No. data contacts/+2 power contacts
without RJ45 connector and without contacts (to be ordered separately)			
- female insert for 2 RJ45 female connectors and for 8 10A (CDF) female contacts [1]	**CX 02 JF**		
- male insert for 2 RJ45 male connectors and for 8 10A (CDM) male contacts	**CX 02 JM**		
RJ45 coupler jack, 8 data contacts [2]		**CX 8 JF**	
RJ45 coupler jack, 8 data contacts / 2 power contacts [2]			**CX 8/2 JF**
RJ45 plug, 4 data contacts		**CX 4 JM**	
RJ45 plug, 4 data contacts / 2 power contacts			**CX 4/2 JM**
RJ45 plug, 6 data contacts / 2 power contacts			**CX 6/2 JM**
RJ45 plug, 8 data contacts **Cat. 5e**		**CX 8 JM**	
RJ45 plug, 4 data contacts **Cat. 5e ProfiNET®**		**CX 4E JM**	

RJ45 connector features:
- RJ45 insert, **Cat. 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 mm² (AWG 23/19) power contacts **CX 6/2 JM**
  for 0,14 mm² (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
- insulation diameter: 1 mm (data), 1,4 mm (power and CX 4E JM)
- $Ø_{max}$ complete cable 7 mm (CX 8 JM: 6,9 mm)
- temperature range: from -40°C to 120 °C
- nickel plated brass screening
- crimp pliers: **CJPZ Y**
- screened cable stripper: **CJST**

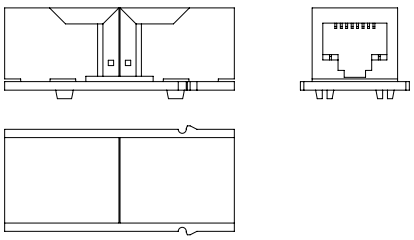
[1] **WARNING:**
the female inserts can only be used on high or flush mounting enclosures

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

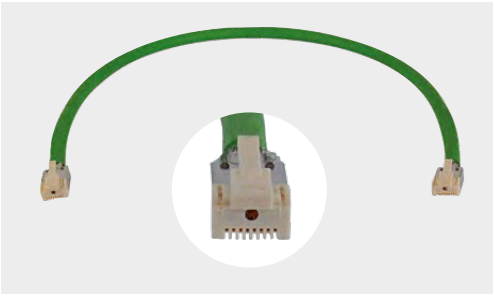
CX 02 JF, CX 02 JM



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



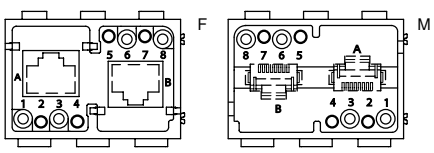
CW patch cord RJ45



CW J2M from page 308

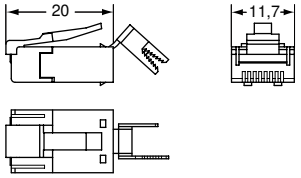
contacts side (front view)

side with reference arrow ▲



- 3 frame slots

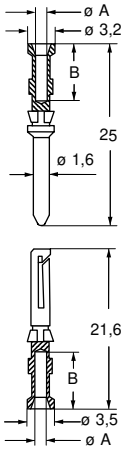
CX 4 JM, CX 4/2 JM, CX 6/2 JM, CX 8 JM, CX 4E JM



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

10A crimp contacts, silver and gold plated

description			part No.			
10A female crimp contacts						
0,14-0,37 mm²	AWG 26-22	identification No. 1	**CDFA 0.3**	silver plated	**CDFD 0.3**	gold plated✢
0,5 mm²	AWG 20	identification No. 2	**CDFA 0.5**		**CDFD 0.5**	
0,75 mm²	AWG 18	identification No. ②	**CDFA 0.7**		**CDFD 0.7**	
1 mm²	AWG 18	identification No. 3	**CDFA 1.0**		**CDFD 1.0**	
1,5 mm²	AWG 16	identification No. 4	**CDFA 1.5**		**CDFD 1.5**	
2,5 mm²	AWG 14	identification No. 5	**CDFA 2.5**		**CDFD 2.5**	
10A male crimp contacts						
0,14-0,37 mm²	AWG 26-22	identification No. 1	**CDMA 0.3**		**CDMD 0.3**	
0,5 mm²	AWG 20	identification No. 2	**CDMA 0.5**		**CDMD 0.5**	
0,75 mm²	AWG 18	identification No. ②	**CDMA 0.7**		**CDMD 0.7**	
1 mm²	AWG 18	identification No. 3	**CDMA 1.0**		**CDMD 1.0**	
1,5 mm²	AWG 16	identification No. 4	**CDMA 1.5**		**CDMD 1.5**	
2,5 mm²	AWG 14	identification No. 5	**CDMA 2.5**		**CDMD 2.5**	



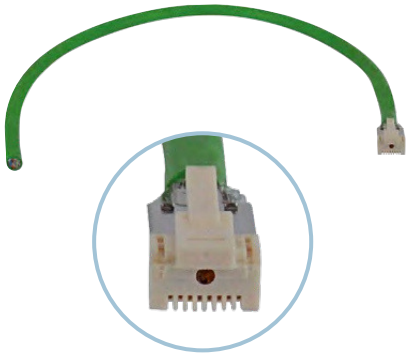
CDF and CDM contacts

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

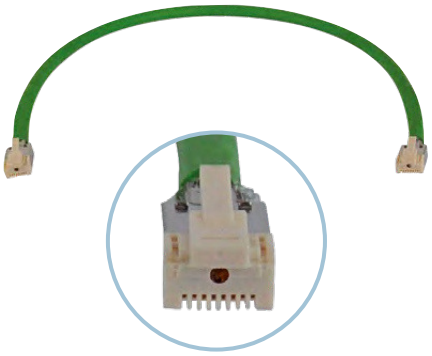
✢ for basic or high thickness gold plating, please refer to page 674

CW patch cord RJ45

with 1 RJ45 male connector



with 2 RJ45 male connectors

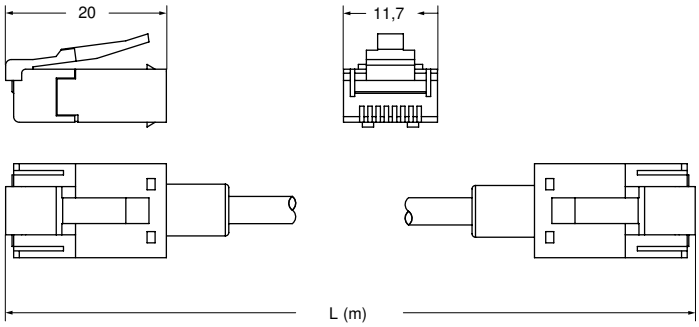


description	part No.	(L) metre	part No.	(L) metre
RJ45 male connector with 4 data contacts / 2 power contacts	**CW 0.5 JM4/2**	0.5		
	CW 2 JM4/2	2		
	CW 5 JM4/2	5		
	CW 10 JM4/2	10		
RJ45 male connector with 8 data contacts	**CW 0.5 JM8**	0.5	**CW 0.5 J2M8**	0.5
	CW 2 JM8	2	**CW 2 J2M8**	2
	CW 5 JM8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

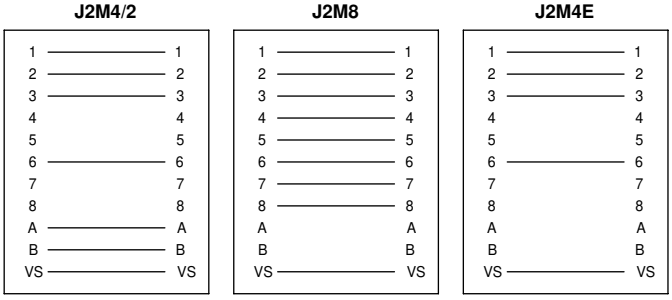
RJ45 connector features:
- insert RJ45, Cat. 5 Ethernet
- nominal current: 2,1A at 70 °C
- nominal voltage: 50V DC / 35V AC
- temperature range: from -40 °C to +120 °C
- nickel plated brass screening

Can be used with:
- MIXO RJ45: CX 01 JM and CX 02 JM male inserts
  see pages 304 and 306

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

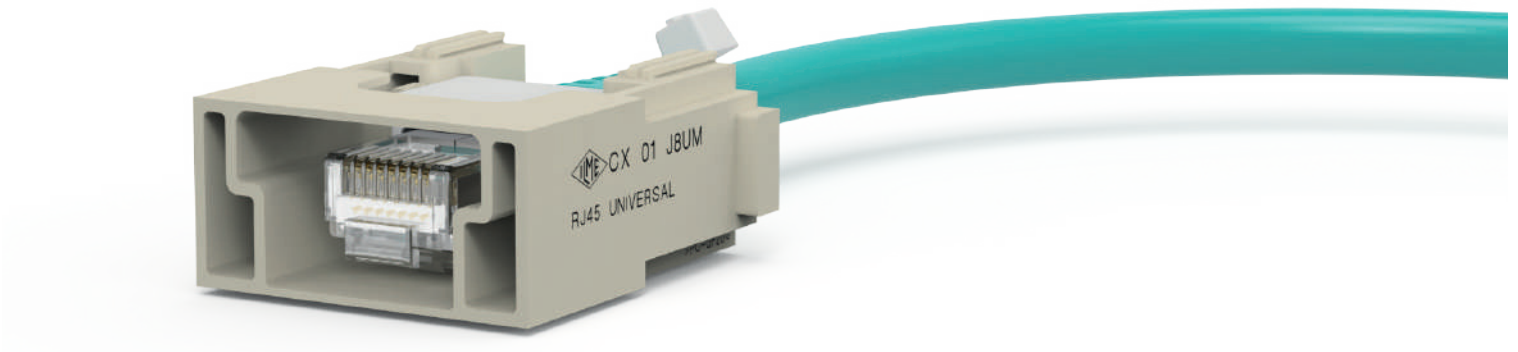


Wiring Diagram



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

MIXO RJ45 UNIVERSAL PATCH CORD ADAPTER CX 01 J8UM



MIXO Module
RJ45 male patch cord
universal adapter

Find more information on our products at www.ilme.com

TECHNICAL FEATURES
CX 01 J8UM

Watch our technical clip

Extending the current offer of male patch cord or plug adapters:

- **CX 01 J8M** for crimp type **CX 8 J6M** RJ45 Cat. 6_A plug connector or CW ... J2M87 patch cord, and
- **CX 01 J8IM,** for IDC type **CX 8 J6IM** RJ45 Cat. 6 plug connector,

mating with

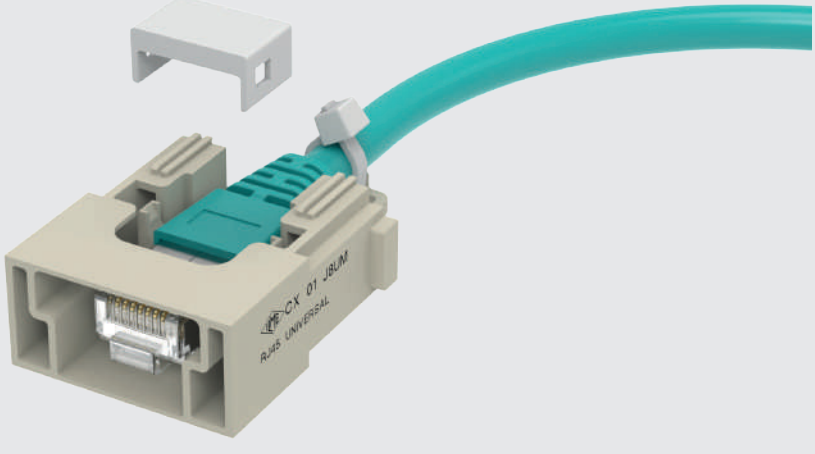
- **CX 01 J8F** RJ45 Cat. 6_A female/female coupler, or
- **CX 01 J8AIF / CX 01 J8BIF / CX 01 J8PIF** RJ45 Cat. 6_A female/IDC connector,

the new male module adapter **CX 01 J8UM** is suitable to lock in place RJ45 plugs of patch cords with maximum overall dimensions 13,5 mm x 9,5 mm on the shell, 34 mm max length (see drawing on page 48).

NOTE – International Standard IEC 60603-7 covering RJ45 interface standardizes only the mating face and latch, and the connector performance, leaving the shell dimensions free.

Suitable for mating on counterpart F/F module adapter **CX 01 J8F** or any of the **CX 01 J8xIF** (x = A, B or P) presenting an RJ45 Cat. 6_A jack (female) connector on both the mating side and the cable side, to accept suitable patch cord.

snap-in, releasable, plastic latch for securing the plug and cable tie for strain relief



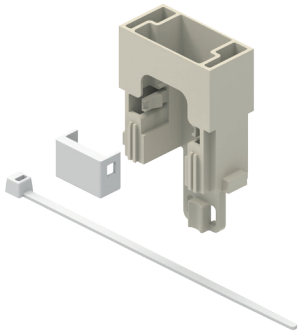
CX 01 J8UM RJ45 universal patch cord adapter

The modular inserts must be installed in suitable frames which are then mounted in traditional housings or in COB panel support. Single-sized modular units may be directly mounted inside MIXO ONE enclosures.

	page:
frames for modular units	**76**
MIXO ONE enclosures	**369**

refer to CN.19 pages

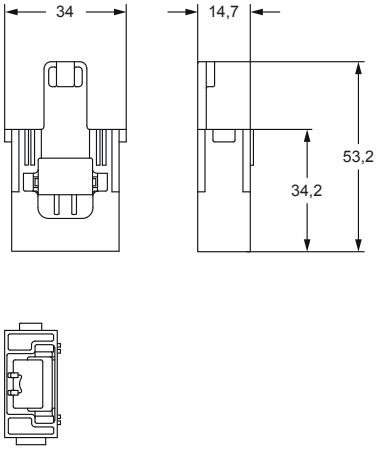
RJ45 universal patch cord adapter



description	part No.
RJ45 universal patch cord adapter	**CX 01 J8UM**

- UL, DNV-GL, BV pending
- insulation resistance: ≥ 10 GΩ
- ambient temperature limit: -40 °C ... +125 °C
- made of self-extinguishing thermoplastic resin UL 94V-0

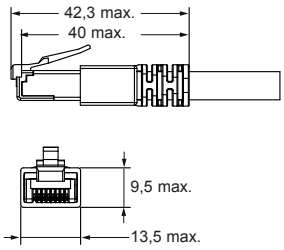
CX 01 J8UM



- 1 frame slot

CW PATCH CORD RJ45

Suitable ILME patch cords are available on **page 303 of CN.19 catalogue**.
Please refer to dimensions specified below for other-brand patch cords.

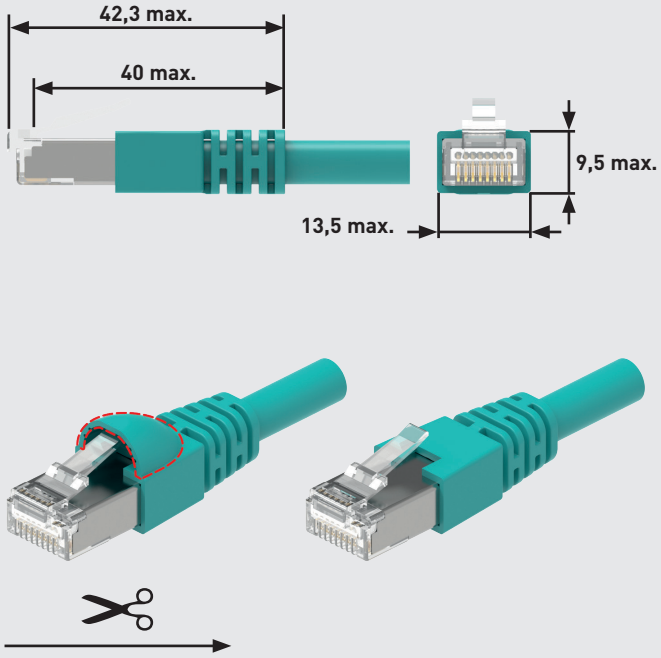


dimensions shown in mm are not binding and may be changed without notice

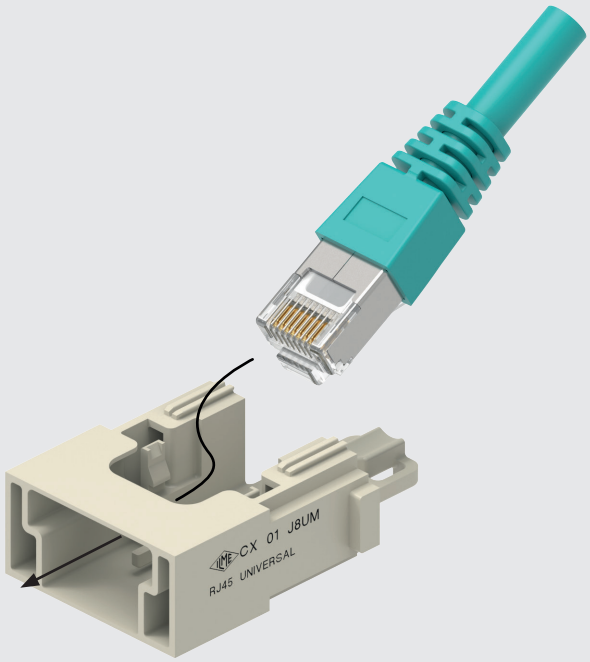
ASSEMBLY INSTRUCTIONS

CX 01 J8UM - RJ45 UNIVERSAL PATCH CORD CONNECTION

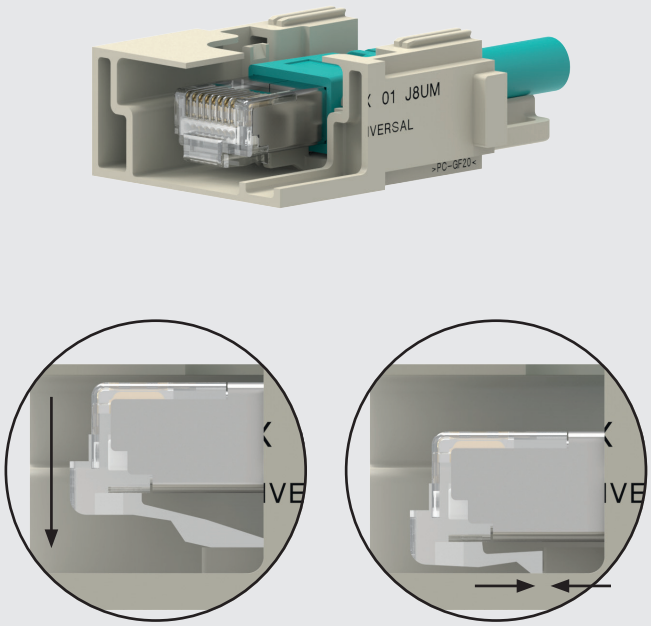
1



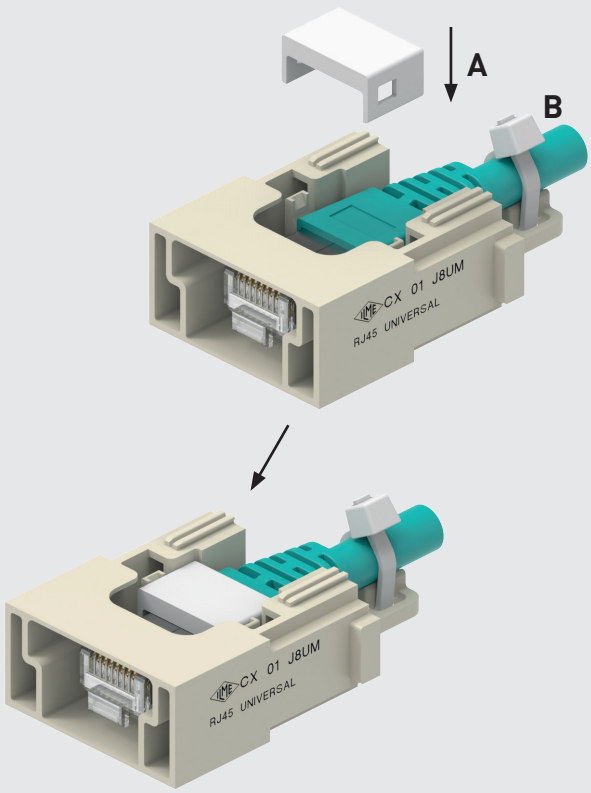
2



3



4



TECHNICAL FEATURES
CX 01 J8AIF /J8BIF /J8PIF

- RJ45, 8-way shielded jack (female connector) in a MIXO single module format, **with IDC terminations,** 4-pair data connector Cat. 6_A Class E_A, for transmission rates up to 10 Gbit/s (IEEE 802.3an), for solderless field wiring.

- It widens the portfolio of ILME RJ45 modular connectors, as an alternative to use the female/female RJ-45 coupler module **CX 01 J8F** rear coupled to a plug of an RJ45 patch cord.

- EN/IEC 61984 ratings: **1 A 50 V 0,8 kV 3**

  NOTE – As a connector with extra-low voltage rating, it is out of the scope of the EU Low Voltage Directive 2014/35/EU and of the Russian equivalent Technical Regulation TR CU 004/2011, hence neither the CE marking nor the EAC mark are applicable.

- Lower and Upper Limiting Temperatures (LLT … ULT): -40 °C … +85 °C

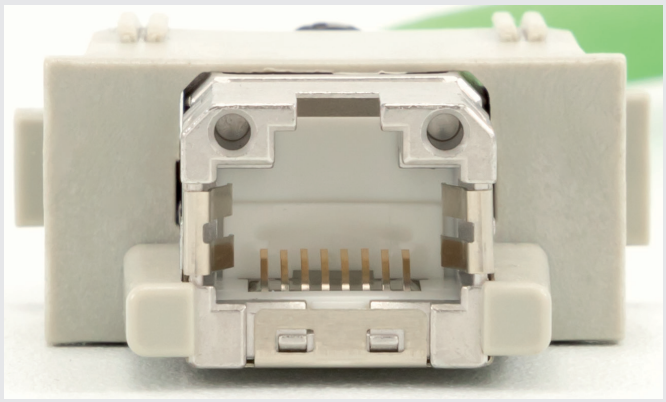
  NOTE – The limitation to the ULT is set upon the usual temperature rating of the telecommunication cables (2x2-pair or 1x4-pair).

- Can be coupled to the existing MIXO plug module **CX 01 J8IM** or to the **CX 8 J6IM** RJ45 modular connector with IDC terminations, or to the **CX 01 J8M** module with **CX 8 J6M** crimp connector (or to suitable patch cords with RJ45 plug).

- Available for three different pin assignments:
  - CX 01 J8**A**IF for **TIA 568A** wiring,
  - CX 01 J8**B**IF for **TIA 568B** wiring (pairs 2 and 3 swapped),
  - CX 01 J8**P**IF for **PROFINET** wiring.

- Suitable also for MIXO ONE enclosures.

3 different pin assignments:
-A for TIA 568A wiring
-B for TIA 568B wiring (pairs 2 and 3 swapped)
-P for PROFINET wiring



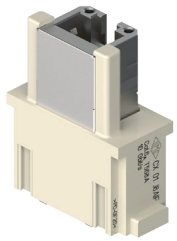
CX 01 J8AIF /J8BIF /J8PIF RJ45, 8-way shielded jack

The modular inserts must be installed in suitable frames which are then mounted in traditional housings or in COB panel support. Single-sized modular units may be directly mounted inside MIXO ONE enclosures.

	pages:
frames for modular units	**316 - 317**
MIXO ONE enclosures	**369**

refer to CN.19 pages

RJ45 8-way female connectors



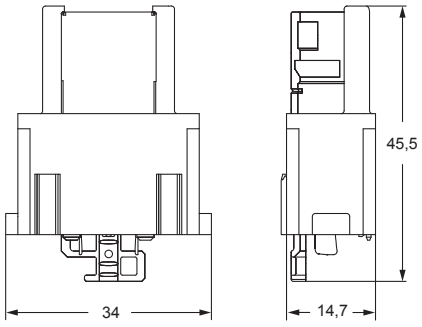
FROM MAY 2020

description	part No.
female insert with one RJ45 female IDC connector; contact coding according to: - TIA 568A - TIA 568B - PROFINET	**CX 01 J8AIF** **CX 01 J8BIF** **CX 01 J8PIF**

- characteristics according to EN/IEC 61984 ratings:
  1 A 50 V 0,8 kV 3
- cUL (UL for USA and Canada), CSA, DNV-GL, BV pending
- rated voltage according to UL/CSA: 50 V
- made of self-extinguishing thermoplastic resin UL 94V-0
- Lower and Upper Limiting Temperatures (LLT … ULT): -40 °C ... +125 °C
- we recommend to fix the cable with cable tie

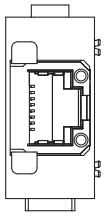
CX 01 J8AIF /J8BIF /J8CIF technical data:
- RJ45 female IDC connector Cat. 6_A Class E_A
- adequate for Power over Ethernet+ (PoE+) according to IEEE 802.3at
- connector: IEC 60603-7-51
- adequate for 10 Gigabit Ethernet acc. to IEEE 802.3an
- custom-designed cabling systems: PROFINET Installation Guideline
- generic cabling systems: ANSI/TIA/EIA-568-C.2 ISO/IEC 11801 EN 50173-1 ISO/IEC 24702 EN 61918
- custom-designed cabling systems: according to PROFINET Installation Guideline
- Class E_A (channel): ISO/IEC 11801, EN 50173-1
- Category 6_A (component): ISO/IEC 11801; DIN EN 50173-1
- Category 6A: ANSI/TIA/EIA-568-C.2
- shielding housing: zinc die cast
- housing finish: CuSnZn
- current carrying capacity at 50 °C: 1A
- durability (mating cycles): ≥750
- Cu-conductor diameter: solid: 0,40 – 0,64 mm (AWG 26/1 – 22/1) stranded: 0,48 – 0,76 mm (AWG 26/7 - 22/7)
- insulation diameter (cores): 0,85 – 1,6 mm (0.034 in – 0.063 in)
- cable diameter: 5,5 mm – 9 mm
- IDC: CuNi2Si
- IDC finish: 3-6 µm Sn

CX J8AIF/J8BIF/J8PIF



contacts side (front view)

side with reference arrow ▲



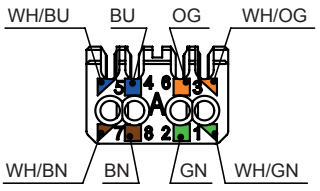
- 1 frame slot

Watch our online tutorial

PIN ASSIGNMENT

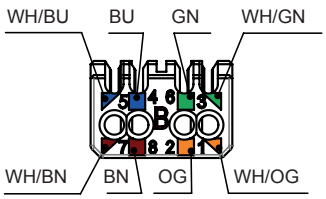
CX 01 J8AIF

PIN assignment T568A according to TIA/EIA 568-C.2



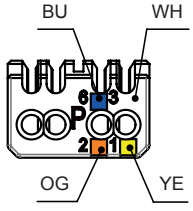
CX 01 J8BIF

PIN assignment T568B according to TIA/EIA 568-C.2



CX 01 J8PIF

PIN assignment Profinet / Industrial



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