

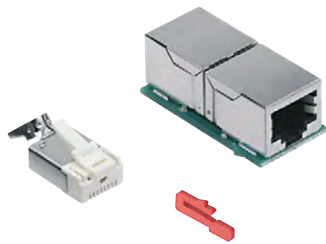
CJ RJ45 connector

enclosures:	page:
size "21.21"	
insulating type (CK IN, CKG/MKG VN/VAN)	346 - 348
metallic type (CKAX I, CKAG/MKAG V/VA) (MKAX/MKA/MKAXX IF)	353 - 355 362 - 363
IP68 (CGK I, CGK/MGK V)	628 - 631

adaptor for RJ45 connectors



RJ45 connectors



description	part No.	part No. data contacts only	part No. data contacts/+2 power contacts
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without RJ45 connector (to be ordered separately) adapter for RJ45 female connector in fixed enclosures	CJ KF		
RJ45 coupler jack with 8 data contacts ¹⁾ RJ45 coupler jack with 8 data contacts/2 power contacts ¹⁾		CX 8 JF	CX 8/2 JF
without RJ45 connector (to be ordered separately) adapter for RJ45 male connector ²⁾	CJ KM		
RJ45 plug with 4 data contacts RJ45 plug with 4 data contacts/2 power contacts RJ45 plug with 6 data contacts/2 power contacts RJ45 plug with 8 data contacts RJ45 plug, 4 data contacts cat. 5e ProfiNET®		CX 4 JM CX 8 JM CX 4E JM	CX 4/2 JM CX 6/2 JM

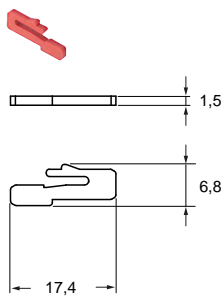
¹⁾ 4-pole version on request, part No. **CX 4 JF** and **CX 4/2 JF** with "crossover" link

²⁾ to be used with hoods

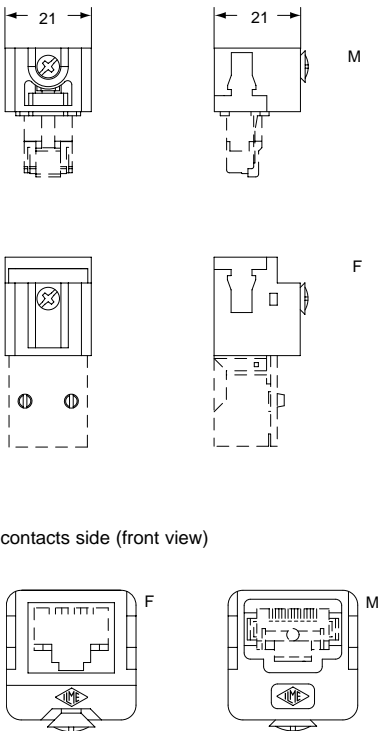
RJ45 connector features:

- RJ45 insert, Class 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
- for 0,14 mm² (AWG 26/7) data contacts **CX 6/2 JM**
- for 0,25 mm² (AWG 23/19) power contacts
- 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
- Ø_{max} insulating conductors 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
- insert coding pin for RJ45 adapters (optional)*: **CR KC**
- * Optional four coding positions CR KC insert coding pin (4 pins required for each connector coupling).
- self-extinguishing properties: to UL 94V-0
- crimp pliers: **CJPZ Y**
- screened cable stripper: **CJST**
- for crimping a male connector, see the crimp tool section page 735
- cULus (UL for USA and Canada) certified

CR KC
insert coding pin



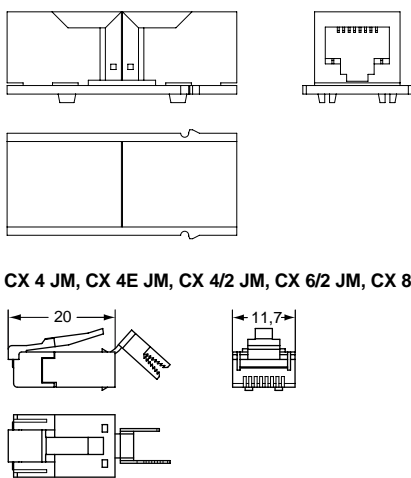
CJ KF, CJ KM



contacts side (front view)

☒ inserts already supplied with stainless steel fixing screw with gasket, which ensures IP66/IP67/IP69 degree of protection

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



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

How to use CR KC coding pins
(cannot be used with IP68 enclosures)



CJZ RJ45 connector

- IP66/IP67/IP69 degree of protection (EN 60529)
- insert RJ45, CAT. 5 Ethernet
- rated current: 2.1A at 70 °C
- rated voltage: 50V DC / 35V AC
- temperature limit: -40 °C, +120 °C
- nickel-plated brass screening
- insert coding pin: **CR KC**
- self-extinguishing: UL 94V-0
- insulating enclosures in black self-extinguishing thermoplastic material
- hoods with cable gland
- female insert with two connected entries

IP66 / IP67 connector in bulkhead housing, female inserts

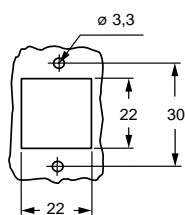
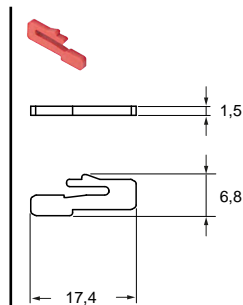


patch cord with 2 RJ45 connectors, male inserts

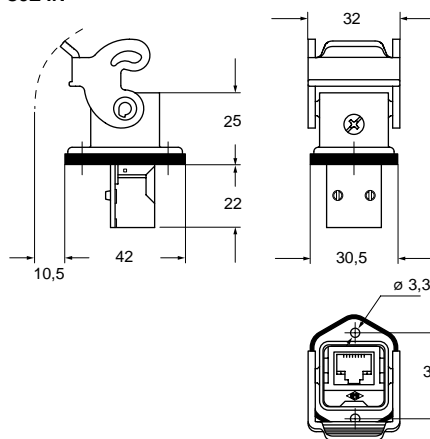


description	part No.	part No.	(L) metre
connector in insulating enclosure and insert with 8 data contacts	CJZ 8 IN		
connector in metal enclosure and insert with 8 data contacts	CJZA 8 I		
RJ45 connector 8 data contacts, in insulating enclosure		CWK 2 J2M8	2
		CWK 5 J2M8	5
		CWK 10 J2M8	10
RJ45 connector 8 data contacts, in metal enclosure		CWKA 2 J2M8	2
		CWKA 5 J2M8	5
		CWKA 10 J2M8	10

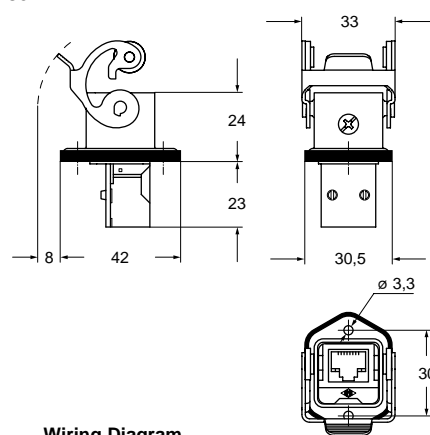
panel cut-out for bulkhead mounting housings

CR KC
insert coding pinHow to use CR KC coding pins
(cannot be used with IP68 enclosures)

CJZ IN



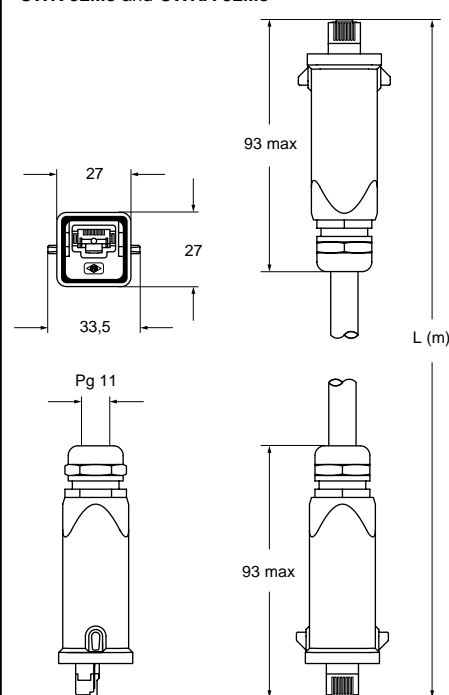
CJZA I



Wiring Diagram

1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
VS	VS

CWK J2M8 and CWKA J2M8



Wiring Diagram

1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
VS	VS

CYG RJ45 connector

Allows two complete portable RJ45 connectors to be joined, IP65/IP67/IP69 version

insulated version coupling,
for RJ45 connectors



metal version coupling,
for RJ45 connectors



description	part No.	part No.	part No.	part No.
	data contacts only	data contacts/+2 power contacts	data contacts only	data contacts/+2 power contacts

RJ45 coupler jack within housings, 8 data contacts ¹⁾
RJ45 coupler jack within housings,
8 data contacts/2 power contacts ¹⁾

CYG 8 JF
CYG 8/2 JF

RJ45 coupler jack within housings, 8 data contacts ²⁾
RJ45 coupler jack within housings,
8 data contacts/2 power contacts ²⁾

CYG 8 JFA
CYG 8/2 JFA

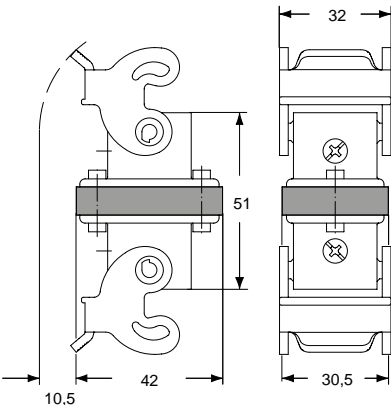
¹⁾ 4-pole version on request, part No. **CYG 4 JF**
and **CYG 4/2 JF** with "crossover" link

CYG 4 JF, CYG 4/2 JF, CYG 8 JF, CYG 8/2 JF

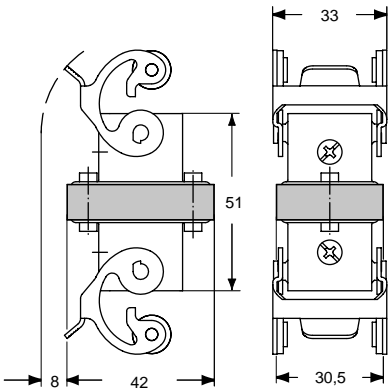
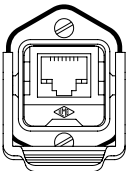
²⁾ 4-pole version on request, part No. **CYG 4 JFA**
and **CYG 4/2 JFA** with "crossover" link

CYG 4 JFA, CYG 4/2 JFA, CYG 8 JFA, CYG 8/2 JFA

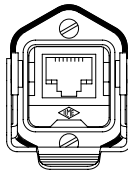
- RJ45 connector features:**
- RJ45, Class 5 connector
 - nominal current: 2.1A at 70 °C
 - nominal voltage: 50VDC / 35VAC
 - temperature range: from -40 °C to +120 °C
 - nickel plated brass screening
 - insert coding pin: **CR KC**
 - self-extinguishing properties: UL 94V-0
 - die cast zinc alloy metal enclosures
 - black self-extinguishing thermoplastic insulated enclosures.



contacts side (front view)



contacts side (front view)




CJK adapters 1 seat for RJ45 connector Cat. 6 Class E_A

enclosures:	page:
size "21.21"	
insulating type (CK IN, CKG/MKG VN/VAN *)	346 - 348
metallic type (CKAX I, CKAX/MKAX IAP/AP/VG) (CKAG/MKAG V/VA *) (MKAX/MKA/MKAXX IF)	349 and 353 354 - 355 362 - 363
IP68 (CGK I, CGK/MGK IAP, CGK/MGK V)	628 - 631

*) angled enclosures cannot be used with CX 8 J6IM

- characteristics according to EN 61984:

- 1A 50V 0,8kV 3**
-  (UL for USA and Canada) certified
- insulation resistance: ≥ 10 G Ω
- made of self-extinguishing thermoplastic resin UL 94V-0
- mechanical life: ≥ 500 cycles
- temperature range: from -40 °C to +70 °C
- we recommend to fix the cable with cable tie

adapters for RJ45 male connectors,
RJ45 female-female connectors



RJ45 male connectors,
crimp and IDC termination



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our
online
tutorial

description	part No.	part No.
socket insert with 1 RJ45 female connector plug inserts for 1 RJ45 male crimp connector, 8 data contacts (without RJ45 connector, to be ordered separately) plug insert for 1 RJ45 male IDC connector, 8 data contacts (without RJ45 connector, to be ordered separately)	CJK 8FT CJK 8MT	
	CJK 8IMT	
RJ45 male crimp connector, 8 data contacts RJ45 male IDC connector, 8 data contacts		CX 8 J6M CX 8 J6IM

CJK 8FT 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

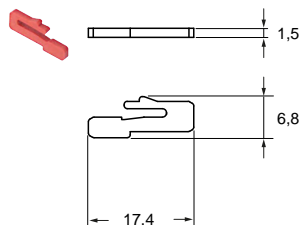
CX 8 J6M technical data:

- RJ45 male crimp connectors Cat. 6_A
- crimp pliers: **CJPZ T**
- screened cable stripper: **CJST**
- 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 - 7,0 mm
- connectors: IEC 60603-7-5
- 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

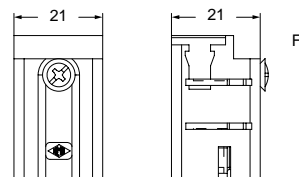
CX 8 J6IM technical data:

- 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
- cable diameter: 5,5 - 8,5 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

CR KC
insert coding pin



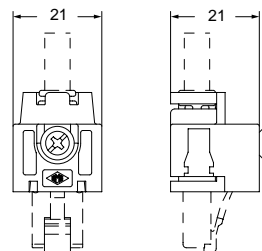
CJK 8FT



Female-Female



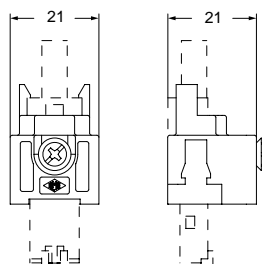
CJK 8MT¹⁾



M (CRIMP)

¹⁾ to be used with hoods

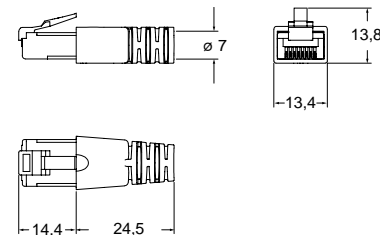
CJK 8IMT¹⁾



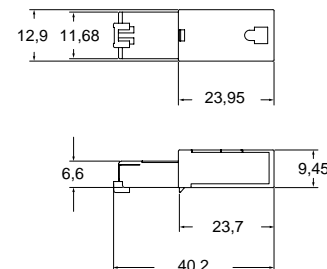
M (IDC)

¹⁾ to be used with hoods

CX 8 J6M (can be used with CJK 8MT)



CX 8 J6IM (can be used with CJK 8IMT)



How to use CR KC coding pins
(cannot be used with IP68 enclosures)



CW RJ45 patch cord

with 2 RJ45 male connectors



description	part No.	(L) metre
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

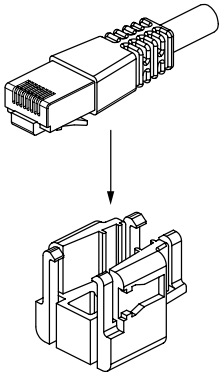
RJ45 patch cord technical data:

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

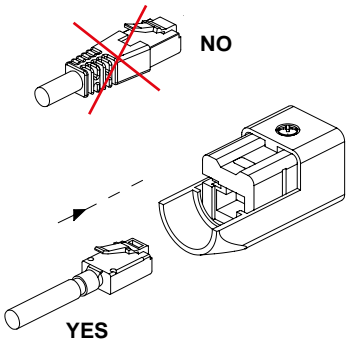
Can be used with:

- MIXO RJ45 CX 01 J8M male inserts (see page 302)
- CJK 8MT adapters

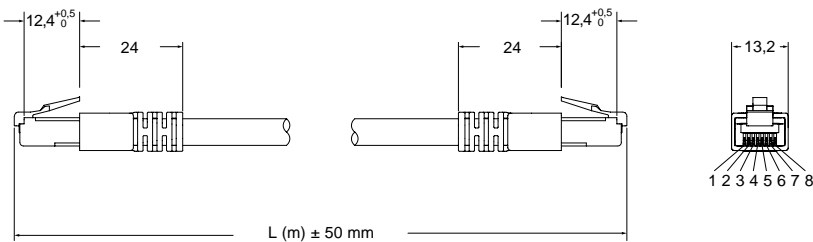
CJK 8MT male assembly



CJK 8FT to be used in VG or IAP enclosures with male crimp version



CW...J2M87



Wiring Diagram

1	—————	1
2	—————	2
3	—————	3
4	—————	4
5	—————	5
6	—————	6
7	—————	7
8	—————	8
S	—————	S

CJk adapters 1 seat for RJ45 IDC connector Cat. 6 Class E_A

enclosures:	page:
size "21.21"	
insulating type (CK IN, CKG/MKG VN/VAN *)	346 - 348
metallic type (CKAX I, CKAX/MKAX IAP/AP/VG) (CKAG/MKAG V/VA *) (MKAX/MKA/MKAXX IF)	349 and 353 354 - 355 362 - 363
IP68 (CGK I, CGK/MGK IAP, CGK/MGK V)	628 - 631
*) angled enclosures cannot be used with CX 8 J6IM	

- characteristics according to EN 61984:

1A 50V 0,8kV 3

- cULus (UL for USA and Canada) certified
- insulation resistance: ≥ 10 G Ω
- made of self-extinguishing thermoplastic resin UL 94V-0
- mechanical life: ≥ 500 cycles
- temperature range: from -40 °C to +70 °C
- we recommend to fix the cable with cable tie

adapters for RJ45 male connectors,
RJ45 female - cable IDC connectors



RJ45 male connectors,
IDC termination



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description	part No.	part No.
socket insert with 1 RJ45 female-IDC connector contact coding according to T568A	CJK 8IFT	
socket insert with 1 RJ45 female-IDC connector contact coding according to T568B	CJK 8B IFT	
socket insert with 1 RJ45 female-IDC connector contact coding according to PROFINET	CJK 8P IFT	
plug insert for 1 RJ45 male IDC connector, 8 data contacts (without RJ45 connector, to be ordered separately)	CJK 8IMT	
RJ45 male IDC connector, 8 data contacts		CX 8 J6IM

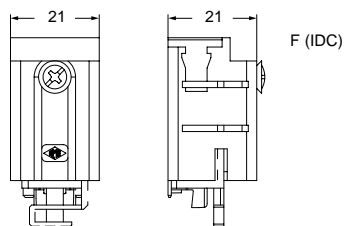
CJK 8IFT, CJK 8B IFT, CJK 8P IFT technical data:

- RJ45 female insert, Cat. 6_A
- 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: 0,85 - 1,6 mm
- 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
EN50173-1
ISO/IEC 24702
EN 61918
- class E_A (channel): ISO/IEC 11801, EN 50173-1

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
- cable diameter: 5,5 - 8,5 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

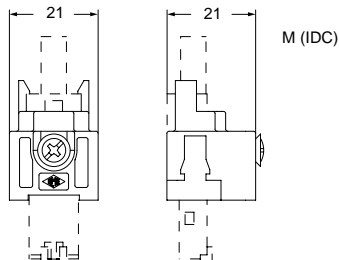
CJK 8IFT



Female-Cable IDC

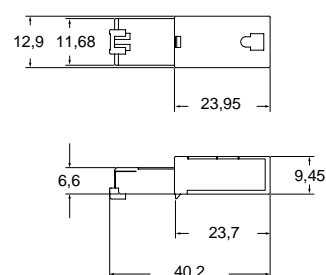


CJK 8IMT ¹⁾



¹⁾ to be used with hoods

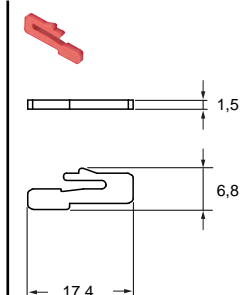
CX 8 J6IM (can be used with CJK 8IMT)



How to use CR KC coding pins (cannot be used with IP68 enclosures)

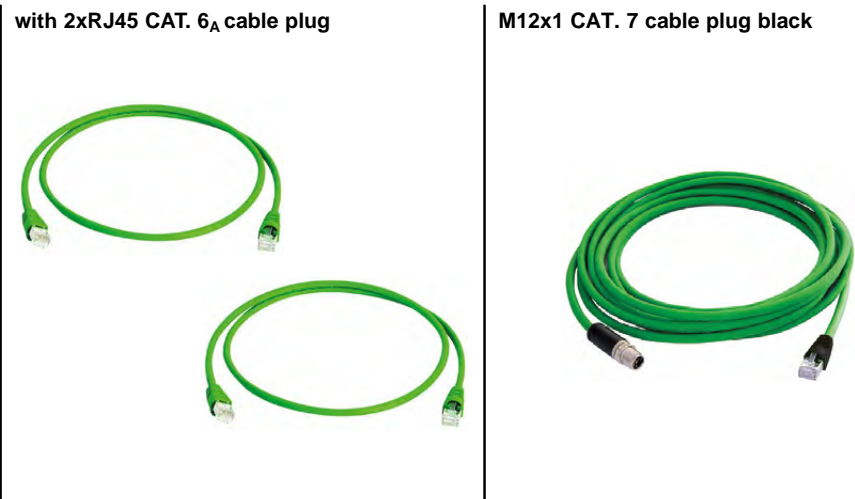


CR KC insert coding pin





CW - CWC connecting cables for MIXO RJ45 CAT. 6_A



description	part No.	(L) metre	part No.	(L) metre	part No.	(L) metre
S/FTP CAT. 6A cable 4x2xAWG 27/7 (PUR) * - SHIELDED * chemical resistant cable jacket Colour outer jacket green	CW J6 1M	1				
	CW J6 2M	2				
	CW J6 3M	3				
	CW J6 5M	5				
	CW J6 7.5M	7,5				
	CW J6 10M	10				
	CW J6 15M	15				
S/FTP CAT. 6A cable 4x2xAWG 27/7 (PVC) - SHIELDED Colour outer jacket green			CWC J6 1M	1		
			CWC J6 2M	2		
			CWC J6 3M	3		
			CWC J6 5M	5		
			CWC J6 7.5M	7,5		
			CWC J6 10M	10		
			CWC J6 15M	15		
Over moulded IP67 to RJ45 plug crimp IP20					CW XJ0.5M	0,5
S/FTP CAT. 7 cable					CW XJ1M	1
4x2xAWG 26/7 (PUR) *					CW XJ2M	2
* chemical resistant cable jacket					CW XJ3M	3
Colour outer jacket green					CW XJ5M	5
					CW XJ7.5M	7,5
					CW XJ10M	10

CW - CWC connecting cables for MIXO RJ45 CAT. 5

DATA CONNECTORS

with 2xRJ45 CAT. 5 cable plug



description	part No.	(L) metre	part No.	(L) metre
SF/UTP CAT. 5 4x2xAWG 26/7 (PUR) ¹⁾ - SHIELDED ¹⁾ chemical resistant cable jacket Colour outer jacket green	CW J5 1M	1		
	CW J5 2M	2		
	CW J5 3M	3		
	CW J5 5M	5		
	CW J5 7.5M	7,5		
	CW J5 10M	10		
	CW J5 15M	15		
SF/UTP CAT. 5 4x2xAWG 26/7 (PVC) - SHIELDED Colour outer jacket green			CWC J5 1M	1
			CWC J5 2M	2
			CWC J5 3M	3
			CWC J5 5M	5
			CWC J5 7.5M	7,5
			CWC J5 10M	10
			CWC J5 15M	15



CWH connecting cables for MIX0 RJ45 CAT. 6_A - CAT. 5_e

with 2xRJ45 CAT. 6_A cable plug



with 2xRJ45 CAT. 5_e cable plug

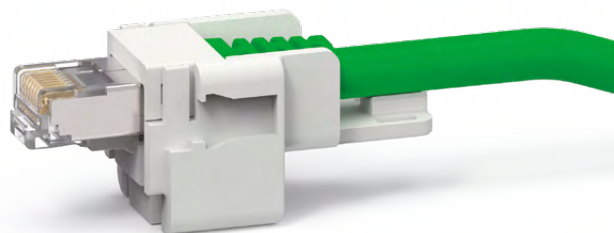


description	part No.	(L) metre	part No.	(L) metre	part No.	(L) metre
CAT. 6_A wiring 1:1 cable S/FTP (LSHZ) - SHIELDED Colour outer jacket green	CWH J6 0.25M	0,25				
	CWH J6 0.5M	0,5				
	CWH J6 1M	1				
	CWH J6 2M	2				
	CWH J6 3M	3				
	CWH J6 5M	5				
	CWH J6 7.5M	7,5				
	CWH J6 10M	10				
	CWH J6 15M	15				
1x90° - 1x180° cable boot			CWH J6 0,5MA	0,5		
CAT. 6_A wiring 1:1 cable S/FTP (LSHZ) - SHIELDED Colour outer jacket green			CWH J6 1MA	1		
			CWH J6 2MA	2		
			CWH J6 3MA	3		
			CWH J6 5MA	5		
			CWH J6 7.5MA	7,5		
			CWH J6 10MA	10		
CAT. 5_e wiring 1:1 cable S/FTP (LSHZ) - SHIELDED Colour outer jacket green					CWH JE 0.5M	0,5
					CWH JE 1M	1
					CWH JE 2M	2
					CWH JE 3M	3
					CWH JE 5M	5
					CWH JE 7.5M	7,5
					CWH JE 10M	10
					CWH JE 15M	15

CJK 8M

TECHNICAL FEATURES

- **CJK 8M** adapter insert size "21.21" for placing an RJ45 plug (male connector) of a pre-assembled patch cord into a **M25** size "21.21" top cable entry hood, either metal or insulating;
- it allows a **truly "universal"** use thanks to the possibility to install virtually any RJ45 patch cord plugs available on the market (of any Category: Cat. 5, 5e, 6, 6A, 7, or 8) inside the growing range of size "21.21" top entry hoods with glued gasket, **without any disassembly of the patch cord**. A straightforward smart solution, all the more so if compared with more complex and expensive solutions;
- the **proprietary ILME design** of this adapter foresees a **two-part insulating carrier** (the first part acting as **carrier**, the second as **latch**) that can quickly and easily make captive the RJ45 plug (male connector), the assembly is then introduced in the relevant "21.21" M25 top entry hood and fastened to it by the usual screw;
- a **metallic** (nickel plated brass) **or insulating** (light grey or black colour) **M25 cable gland** with suitable internal diameter to let the patch cord RJ45 plug pass-through **is separately available**;
- the **CR CJK G special sealing gasket**, provided with the **CJK 8M** RJ45 universal patch cord adapter, **is longitudinally cut** on its flank and must be applied over the cable to increase its diameter in the portion to introduce in the cable gland sealing, according to instructions;



- suitable for the combination of an RJ45 patch cord with one or both RJ45 plug extremities mounted inside suitable size "21.21" *insulating or metal* M25 top entry hood with glued gasket, with an RJ45 jack counterpart (female connector), e.g. a **CJ KF** adapter combined with the relevant female/female RJ45 connector **CX 8 JF** or **CX 8/2 JF** (4-way version **CX 4 JF** or 4/2-way version **CX 4/2 JF** are available upon request), mounted inside a corresponding counterpart hood or housing with locking lever size "21.21";
- optional four coding positions with **CR KC** insert coding pin (4 pins required for each connector coupling).



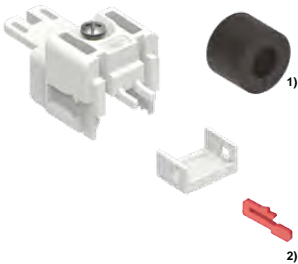
enclosures:
size "21.21"

MKG V25
MKG VN25
MKAG V25

page:

348
348
353

RJ45
universal patch cord adapter



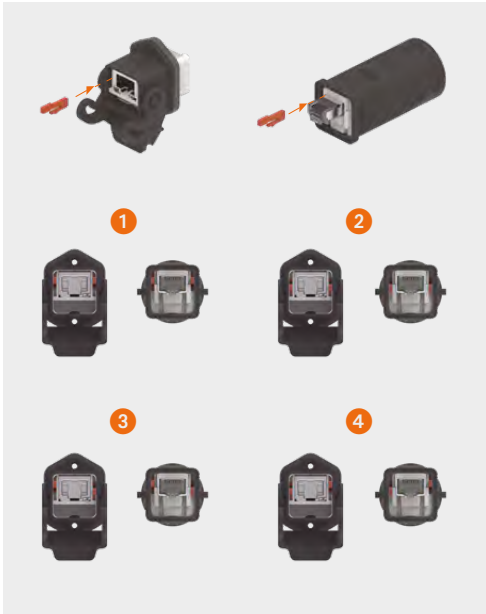
M25
cable gland



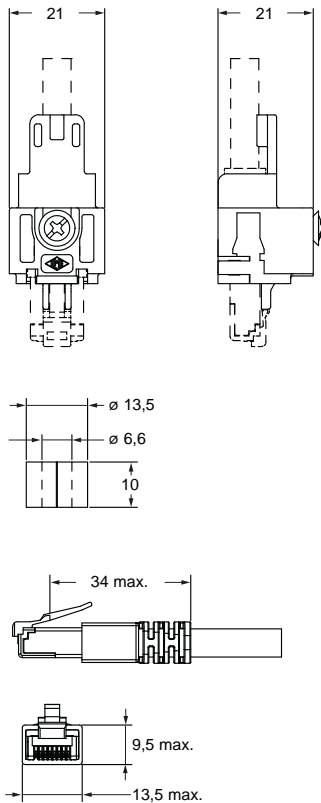
description	part No	part No.	entry M
universal patch cord adapter	CJK 8M		
insert coding pin for RJ45 adapters (optional) ²⁾	CR KC		
plastic cable gland, light grey (RAL 7035)		AW M25IJ	25
plastic cable gland, black (RAL 9005)		AW M25INJ	25
nickel plated brass cable gland		AW M25PJ	25

¹⁾ CR CJK G gasket, supplied with CJK 8M universal patch cord adapter, see page 234, note (*****).
²⁾ Optional four coding positions CR KC insert coding pin (4 pins required for each connector coupling).

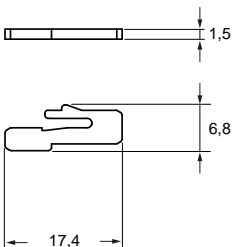
How to use CR KC coding pins
(cannot be used with IP68 enclosures)



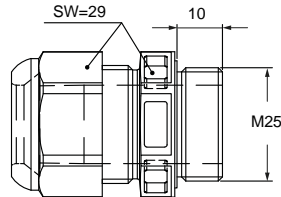
CJK 8M



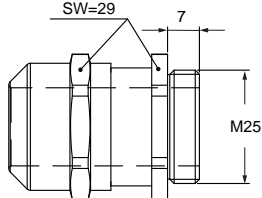
CR KC



AW M25IJ and AW M25INJ



AW M25PJ



cURus pending



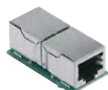
Watch
our
online
tutorial

Female inserts

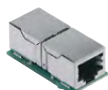
Housings

RJ45 CONNECTOR Cat 6^ARJ45 female/female coupler
(8 data contacts)

CJK 8FT

RJ45 female/IDC jack
(8 data contacts)CJK 8IFT
CJK 8B IFT
CJK 8P IFTRJ45 CONNECTOR Cat 5-5^eRJ45
female crimp coupler jack
(8 data contacts)

CX 8 JF** + CJ KF

RJ45
female crimp coupler jack
(8 data + 2 power contacts)

CX 8/2 JF** + CJ KF

Legend

* angled enclosures cannot be used with CX 8 J6IM, CJK 8FT/IFT, CLK and CJ KF inserts/adapters

** version with 4 data crossover wirings on request (CX4 JF, CX4/2 JF)

*** cannot be used with CJ KF adapter

**** suitable cable glands AW M25 PJ/IJ/INJ

***** suitable cable glands AW M25 PJ/IJ/INJ + CR CJK G gasket (already supplied with the CJK 8M universal patch cord adapter, see page 233, note 1); cannot be used with CJ KF adapter



MK VGN25*****

MK VG25*****



CK 03 IN

CK 03 I

21.21 CK/MK PLASTIC



CKAX 03 I



CKAX 03 ILS

CKAX IAPS*** /APS*** /VGS***
MKAX IAP20*** /AP20*** /VG20***CKAX 03 IA4*
MKAX AP25 /IAP25*****

MKAX IF



MKAX VG25

CKAX 03 CXA
(cover for hoods)

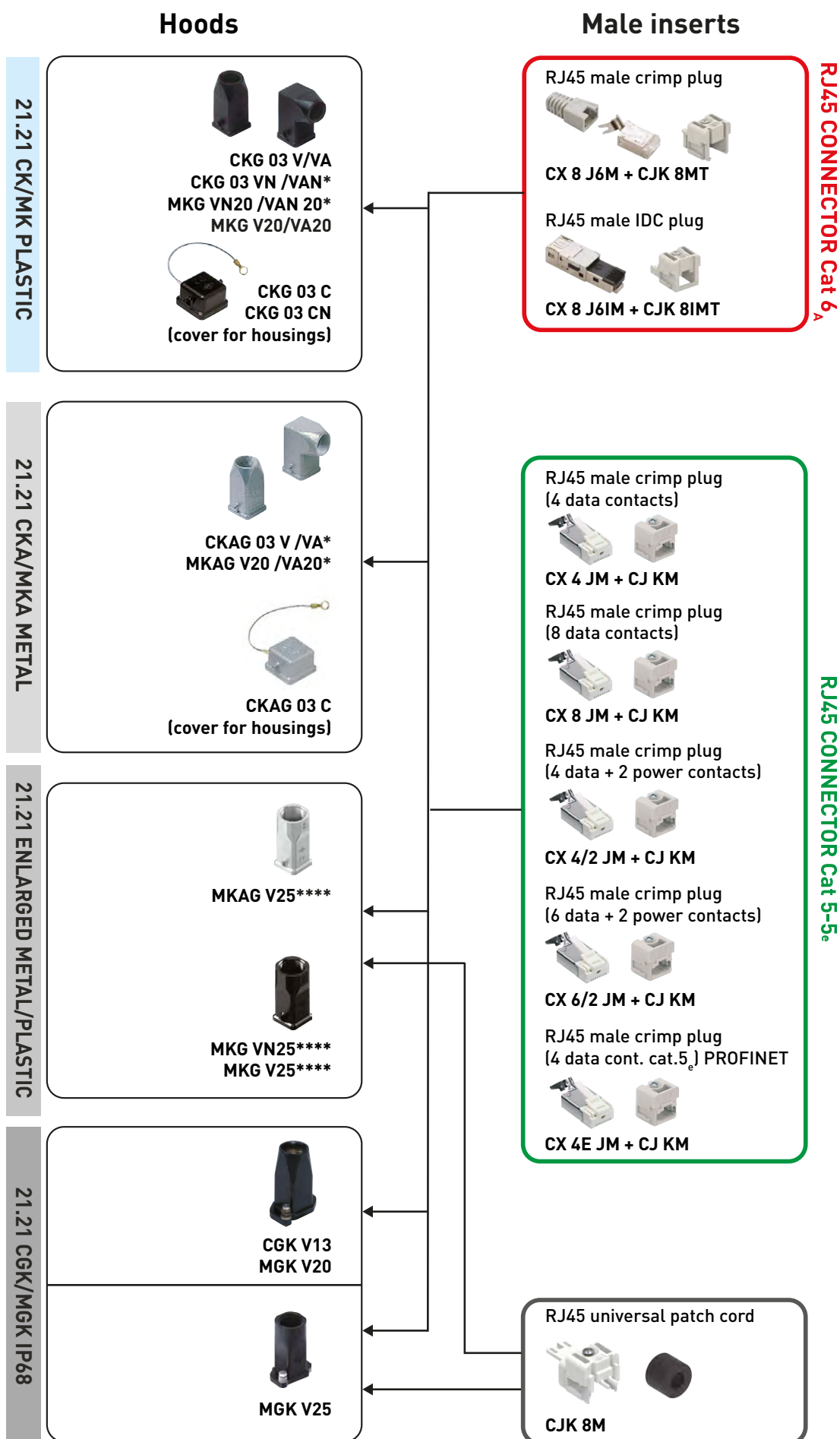
21.21 CKA/MKA METAL



CGK I

CGK IAP13***
MGK IAP20***

21.21 CGK/MGK IP68



CUK adapters with 1 USB connector

enclosures:	page:
size "21.21"	
insulating type (CK IN, CKG/MKG VN/VAN *)	346 - 348
metallic type (CKAX I, CKAX/MKAX IAP/AP/VG) (CKAG/MKAG V/VA *)	349 and 353 354 - 355
IP68 (CGK I, CGK/MGK IAP, CGK/MGK V)	628 - 631
*) angled enclosures cannot be used with CX 8 J6IM	

USB female - female connectors




patch cable USB



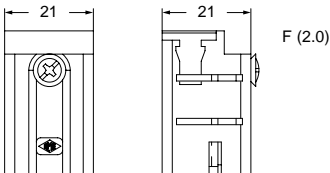
description	part No.	part No.
female insert with USB 2.0 female - female connector	CUK 2FT	
female insert with USB 3.0 female - female connector,	CUK 3FT	
patch cable USB-A / USB-A, 2 m ¹⁾		CW 2 UAM

¹⁾ 5 m on request

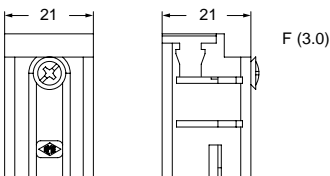
- USB connector features:**
- USB-A / USB-A Hi-Speed - 2.0 or 3.0 insert
 - temperature range: from -25 °C to +80 °C


-  (UL for USA and Canada) certified

CUK 2FT

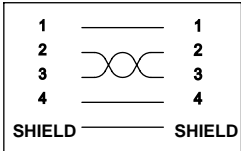
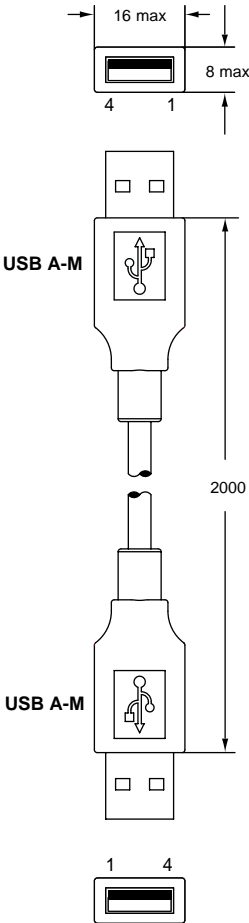


CUK 3FT



 inserts already supplied with stainless steel fixing screw with gasket, which ensures IP66/IP67/IP69 degree of protection

CW UAM



ATR cover for boxes for unit Ø 22 mm

cover for RJ45/USB/LC connectors



RJ45/USB/LC connectors for ATR C22



description	part No.	part No.
communication interface bulkhead IP65	ATR C22	
RJ45 jack A Cat.6A ¹⁾		AT 8IFT
RJ45 coupler Cat.6		AT 8FT
USB 2.0 coupler F-F Type A		AT U2F
USB 3.0 coupler F-F Type A		AT U3F
LC-Duplex adapter MM		AT LCMM
LC-Duplex adapter SM		AT LCSM

¹⁾ jack B and jack P on request

Technical Data

Mechanical Characteristics

Materials	
Housing	PA UL94V-0 - black
Nut	PA UL94V-0 - black
Bulkhead protective cap	EPDM
Elastic band / Seal	EPDM
EU Directive 2011/65/EU (RoHS)	RoHS-compliant

Environmental Requirements

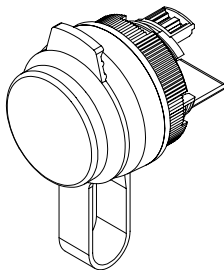
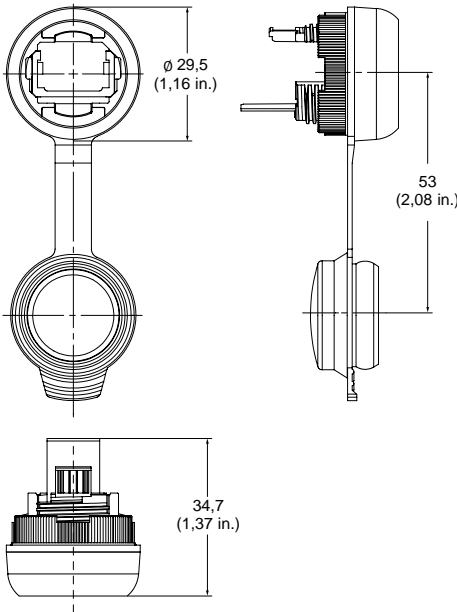
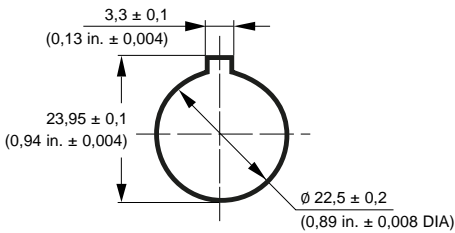
Protection against ingress	
Particulate ingress	IP6X
Water / Immersion	IPX5
Degrees of protection provided by enclosures (IP code)	IEC 60529

Climatical and chemical

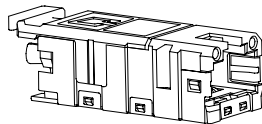
Ambient temperature	-40 °C ... + 70 °C
---------------------	--------------------

Mounting dimensions

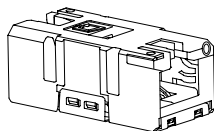
wall thickness 1-5 mm (0,039-0,197 in.)



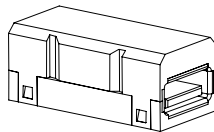
AT 8IFT (RJ45 IDC-FEMALE)



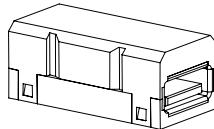
AT 8FT (RJ45 FEMALE-FEMALE)



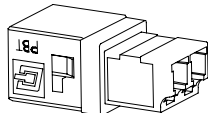
AT U2F (USB 2.0)



AT U3F (USB 3.0)



AT LCMM - AT LCSM (LC DUPLEX)



CX BD adapter insert

TECHNICAL FEATURES

To be able to use circular shielded connectors series **MIXO BUS** (multiaxial, for balanced cables with multiple pairs) or coaxial connectors (for coaxial cables) even in compact enclosures size "21.21" **CK/MK**, **CKA/MKA** or **CGK/MGK**, it is necessary to purchase the adapter insert **CX 1/2 BD**. This insert can be used to assemble MIXO coaxial connectors part No. **CX 01 BM/BF** for coaxial cables with a characteristic impedance of 75 Ω and **CX 01 BCM/BCF** for coaxial cables with a characteristic impedance of 50 Ω, or MIXO BUS **CX 04 BM/BF** multiaxial shielded connectors with 4 poles + shield and the new **CX 08 BM/BF** shielded connectors with 8 poles + shield, in addition to providing seats for 2 additional optional contacts series CD for the connection of a SELV (safety extra-low voltage) supply line.

The connector portion of this adaptor has rated values compliant with standard EN 61984 and equivalent to 10A 50V 0,8kV 3.

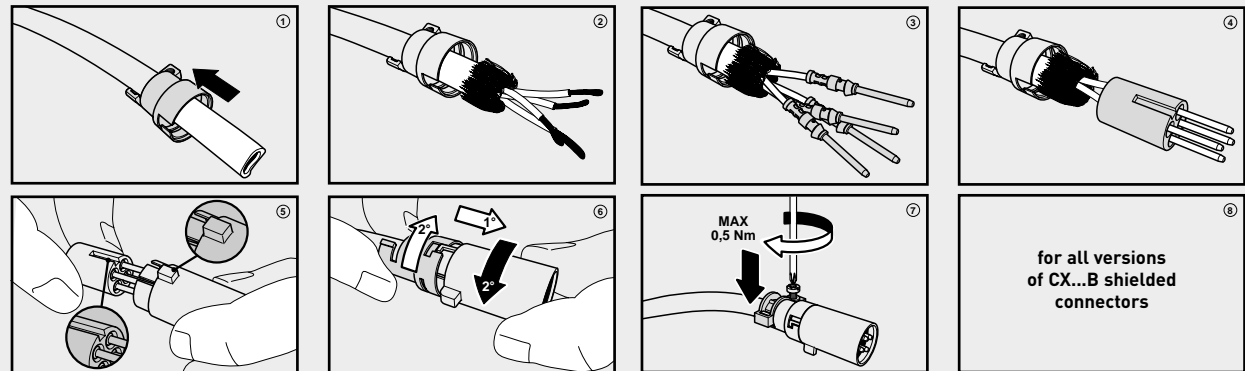
Adaptor insert **CX 1/2 BDM/BDF** is fitted with multiaxial and coaxial MIXO BUS shielded connectors and is designed to be used only with the models specified below of the following enclosures: **CK/MK** or **CKA/MKA** (IP66/IP67/IP69) or **CGK/MGK** (IP66/IP68/IP69) with glued gasket on hoods and covers. The cable shielding is electrically separated from the earthing connection of the metal enclosure. If used with MIXO BUS **CX 04 BM/BF** shielded connectors, the connector is able to support all field bus protocols with 4 conductors.

Part No. of adapter		CX 1/2 BD
No. of seats/poles	seats for shielded connector 1)	1
	seats for auxiliary contacts	2
Rated current 2)	shielded connector	depending on type: 5A, 10A, 16A
	auxiliary contacts	10A
EN 61984	rated voltage	50V
	rated impulse withstand voltage	0,8kV
	pollution degree	3
UL 1977 / CSA C22.2 - N°187.3	rated voltage (a.c./d.c.)	50V
Contact resistance	shielded connector	depending on the type of contact used
	auxiliary contacts	≤ 3 mΩ
Insulation resistance		≥ 10 GΩ
Ambient temperature limit (°C)	min	-40
	max	+70
Degree of protection	with enclosures (according to type)	IP66/IP67/IP69, IP66/IP68/IP69
	without enclosures (in mated condition)	IP20 (IPXXB)
Conductor connections		crimp
Conductor section	shielded connector (mm²/AWG)	depending on the type of contact used
	auxiliary contacts (mm²)	0,14÷2,5
	auxiliary contacts (AWG)	26÷14
Conductors stripping lenght		depending on contact
Mechanical endurance (mating cycles)		≥ 500
Self-extinguishing capacity UL 94		V0

1) Depending on the selected shielded connector, which must be ordered separately, the number of poles + shield could be 1 (coaxial connectors), 4 (4-way multiaxial connector for 2 pairs) or 8 (8-way multiple connector, for example for 4 pairs).

2) It is generally necessary to refer to the loading curves of the inserts to determine the actual operating current limit for a specific ambient temperature. These curves are not required for MIXO BUS / coaxial shielded connectors, because these are signal connectors designed to be used by the transmission protocols to transmit currents in fractions of amperes. The current capacity specified is the maximum current traditionally assigned to contacts, not the one assigned to the shielded connector when in use.

CX 04 BF/BM Assembling instructions



CX BD adapter insert 1 seat for shielded connector + 2 aux contacts 10A - 50V

enclosures:	page:
size "21.21"	
insulating type (CK IN, CKG/MKG VN)	346 - 348
metallic type (CKAX I, CKAX/MKAX IAP/AP/VG) (CKAG/MKAG V) (MKAX/MKA/MKAXXIAP/AP25) (MKAX/MKA/MKAXX VG25) (MKAX/MKA/MKAXX IF)	349 and 353 354 - 355 358 - 359 360 - 361 362 - 363
IP68 (CGK I, CGK/MGK IAP, CGK/MGK V)	628 - 631

adapter insert for shielded connectors



10A crimp contacts, silver or gold plated



description	part No.	part No.
-------------	----------	----------

adapter insert with seats for 1 shielded connector + 2 aux contacts 10A
female insert, 1 seat for BUS connector and 2 seats for 10A female contacts (CDF)
male insert, 1 seat for BUS connector and 2 seats for 10A male contacts (CDM)

CX 1/2 BDF

CX 1/2 BDM

10A female contacts

0,14-0,37 mm ²	AWG 26-22	identification No. 1
0,5 mm ²	AWG 20	identification No. 2
0,75 mm ²	AWG 18	identification No. ②
1 mm ²	AWG 18	identification No. 3
1,5 mm ²	AWG 16	identification No. 4
2,5 mm ²	AWG 14	identification No. 5

10A male contacts

0,14-0,37 mm ²	AWG 26-22	identification No. 1
0,5 mm ²	AWG 20	identification No. 2
0,75 mm ²	AWG 18	identification No. ②
1 mm ²	AWG 18	identification No. 3
1,5 mm ²	AWG 16	identification No. 4
2,5 mm ²	AWG 14	identification No. 5

CDFA 0.3
CDFA 0.5
CDFA 0.7
CDFA 1.0
CDFA 1.5
CDFA 2.5

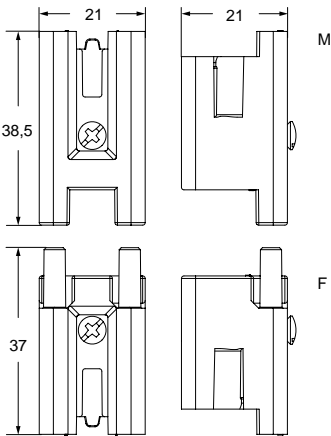
silver plated

CDFD 0.3
CDFD 0.5
CDFD 0.7
CDFD 1.0
CDFD 1.5
CDFD 2.5

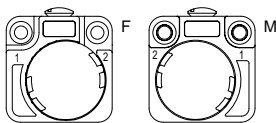
gold plated⁺

- characteristics according to EN 61984:
adapter insert CX 1/2 BD (2 aux contacts)
10A 50V 0,8kV 3
- (UL for USA and Canada), certified
- both the female and the male inserts may accept any of the above shielded connectors of any gender, as far as the correct specular assignment is set on the mating connector
- 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)
- extraction tool for BUS/coax shielded connectors from adaptor insert **CX 1/2 BD** part No. **CX BES** see page 703
- contact resistance adaptor insert, 2 aux contacts: ≤ 3 mΩ
- inserts already supplied with stainless steel fixing screw with gasket, which ensures IP66/IP67/IP69 degree of protections
- adapter insert designed to be used with **CX01 BCF/M**
CX 01 BF/M, **CX 04 BF/M** and **CX 08 BF/M** shielded connectors see pages 289, 291, 293

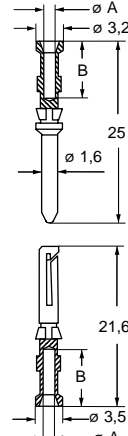
CX 1/2 BDF, CX 1/2 BDM



contacts side (front view)



CDF and CDM



CDF and CDM contacts

conductor section mm ²	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

CX 01 BF/BM - CX 04 BF/BM 1 or 4 poles + shield (each connector) 10A - 50V

- characteristics according to EN 61984:
CX 04 B / CX 01 B shielded connector
10A 50V 0,8kV 3
- certified
- rated voltage according to UL/CSA: 50V
- insulation resistance: $\geq 10\text{ G}\Omega$
- ambient temperature limit: $-40\text{ }^{\circ}\text{C} \dots +85\text{ }^{\circ}\text{C}$
- mechanical life: ≥ 500 cycles
- contact resistance:
shielded connector CX 04 B: $\leq 3\text{ m}\Omega$
coaxial connector CX 01 B: $\leq 3\text{ m}\Omega$
- for contact crimping instructions, refer to the crimping tool section (10A contacts, CDF and CDM series) on pages 708 - 741
- coaxial connector CX 01 B cables with a typical impedance of $75\text{ }\Omega$ (attenuation see below)
- CX 04 B multiaxial connector for STP cables with 2 pairs and terminations compliant with EN 50173-1 Cat. 5 (100 MHz), compatible with 4-wire field bus protocols
- suitable for CX 02 B (MIXO 2-seat holder) or CX 1/2 BD ("21.21" 1-seat adapter insert)
- female and male shielded connectors fit both in female and in male holder / adapter insert

shielded connectors



10A crimp contacts, silver and gold plated



description	part No.	part No.
-------------	----------	----------

shielded BUS coaxial connectors, 1 pole + shield
female insert, one contact seat 10A (CDF) + shield
male insert, one contact seat 10A (CDM) + shield

CX 01 BF
CX 01 BM

shielded BUS multi axial connectors, 4 poles + shield
female insert, four contact seats 10A (CDF) + shield
male insert, four contact seats 10A (CDM) + shield

CX 04 BF
CX 04 BM

10A female crimp contacts

0,14-0,37 mm ²	AWG 26-22	identification No. 1
0,5 mm ²	AWG 20	identification No. 2
0,75 mm ²	AWG 18	identification No. ②
1 mm ²	AWG 18	identification No. 3
1,5 mm ²	AWG 16	identification No. 4
2,5 mm ²	AWG 14	identification No. 5

CDFA 0.3
CDFA 0.5
CDFA 0.7
CDFA 1.0
CDFA 1.5
CDFA 2.5

silver plated

CDFD 0.3
CDFD 0.5
CDFD 0.7
CDFD 1.0
CDFD 1.5
CDFD 2.5

gold plated⁺

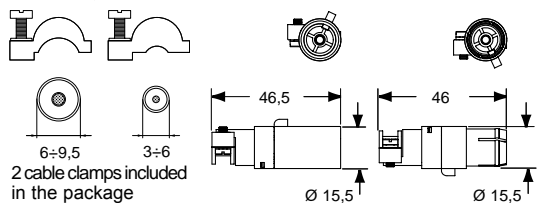
10A male crimp contacts

0,14-0,37 mm ²	AWG 26-22	identification No. 1
0,5 mm ²	AWG 20	identification No. 2
0,75 mm ²	AWG 18	identification No. ②
1 mm ²	AWG 18	identification No. 3
1,5 mm ²	AWG 16	identification No. 4
2,5 mm ²	AWG 14	identification No. 5

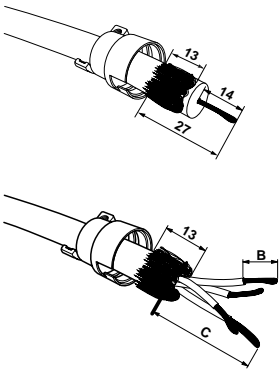
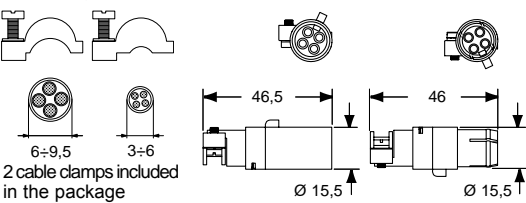
CDMA 0.3
CDMA 0.5
CDMA 0.7
CDMA 1.0
CDMA 1.5
CDMA 2.5

CDMD 0.3
CDMD 0.5
CDMD 0.7
CDMD 1.0
CDMD 1.5
CDMD 2.5

CX 01 BF, CX 01 BM

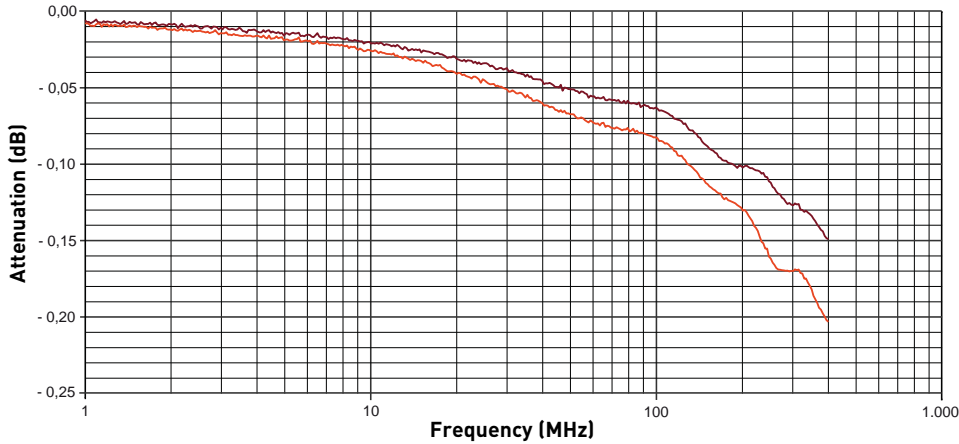


CX 04 BF, CX 04 BM



Test performed in accordance with IEC/EN 60512-25-2 (2002), 4.1.3.2 (coaxial cable only) and 4.2.2.2 (coaxial cable and connector).

Attenuation (insertion loss) 75 ohm coaxial connector (CX 01 BF / BM)



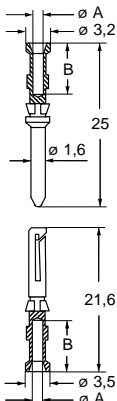
- RG 11 A/U cable and CX 01 B connector (75 ohm)
- RG 11 A/U cable (75 ohm)

cable clamp	C (mm)
3-6	20
6-9,5	25

CDF and CDM contacts

conductor section (mm ²)	conductor slot ϕ 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





CX 08 BF/BM 8 poles + shield (each connector) 5A - 50V

shielded connectors



CI (5A) crimp contacts, silver and gold plated



description	part No.	part No.
-------------	----------	----------

shielded BUS multi axial connectors, 8 poles + shield
female insert, eight contact seats 5A (CIF) + shield
male insert, eight contact seats 5A (CIM) + shield

CX 08 BF
CX 08 BM

CI (5A) female crimp contacts
0,08-0,21 mm² AWG 28-24
0,13-0,33 mm² AWG 26-22
0,33-0,52 mm² AWG 22-20

CIFA 0.2
CIFA 0.3
CIFA 0.5

silver plated

CIFD 0.2
CIFD 0.3
CIFD 0.5

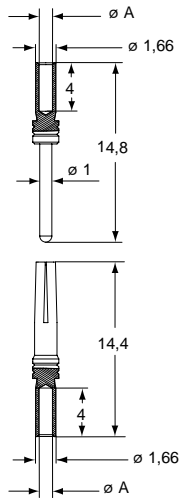
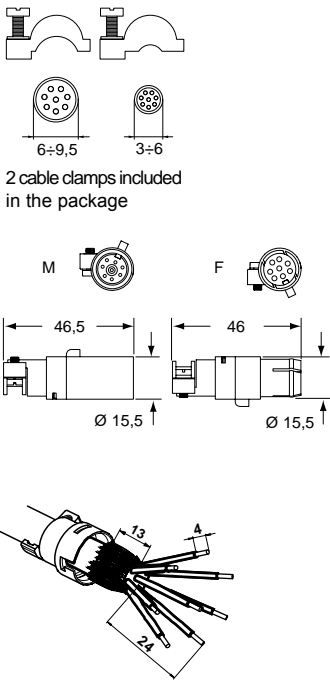
gold plated

CI (5A) male crimp contacts
0,08-0,21 mm² AWG 28-24
0,13-0,33 mm² AWG 26-22
0,33-0,52 mm² AWG 22-20

CIMA 0.2
CIMA 0.3
CIMA 0.5

CIMD 0.2
CIMD 0.3
CIMD 0.5

- characteristics according to EN 61984:
CX 08 B shielded connector
5A 50V 0,8kV 3
- certified
- rated voltage according to UL/CSA: 50V
- insulation resistance: ≥ 10 GΩ
- ambient temperature limit: -40 °C ... +85 °C
- mechanical life: ≥ 500 cycles
- contact resistance: ≤ 4 mΩ
- max. Ø of insulation for contacts CI series: 2,4 mm
- suitable for **CX 02 B** (MIXO 2-seat holder) or **CX 1/2 BD** ("21.21" 1-seat adapter insert)
- female and male shielded connectors fit both in female and in male holder / adapter insert
- for crimp 5A contacts CI series use:
CIPZ D crimping tool
CITP D turret head
CIES insertion / removal tool



CIF and CIM contacts

conductor section (mm ²)	conductor slot Ø A (mm)	conductors stripping length (mm)
0,08-0,21	0,64	4
0,13-0,33	0,90	4
0,33-0,52	1,12	4