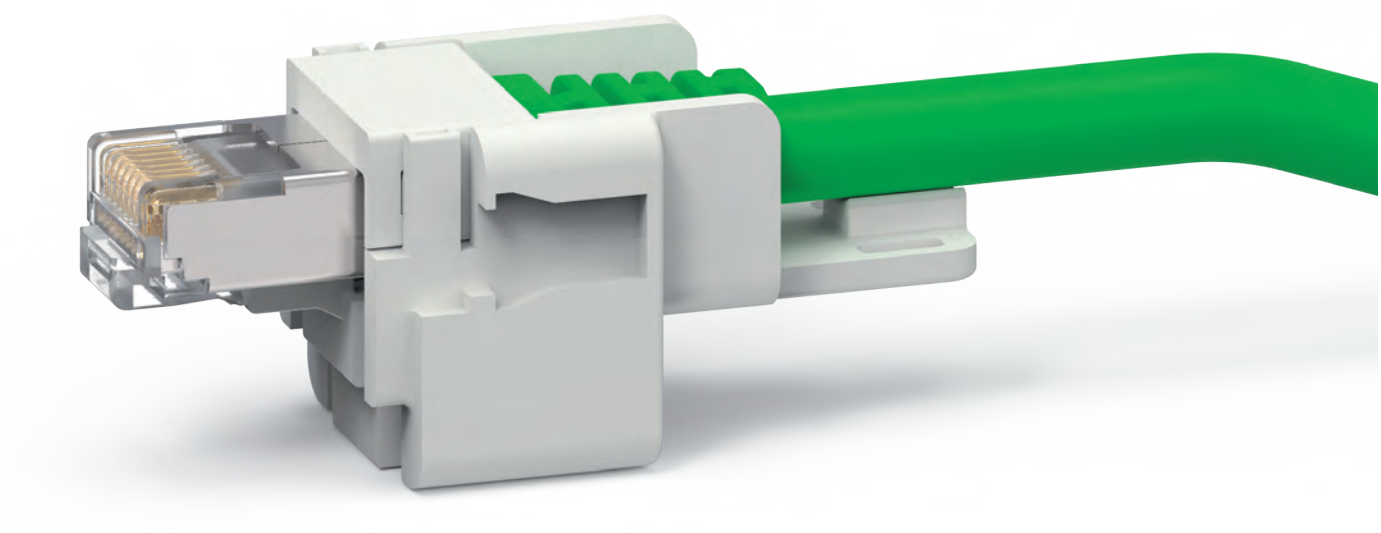
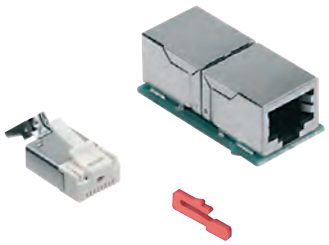


CJ RJ45 connector

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

adaptor for RJ45 connectors

RJ45 connectors



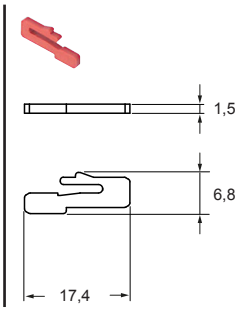
description	part No.	part No. data contacts only	part No. data contacts/+2 power contacts
without RJ45 connector (to be ordered separately) adapter for RJ45 female connector in fixed enclosures	**CJ KF**		
RJ45 coupler jack with 8 data contacts [1]		**CX 8 JF**	
RJ45 coupler jack with 8 data contacts/2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

[1] 4-pole version on request, part No. **CX 4 JF** and **CX 4/2 JF** with “crossover” link

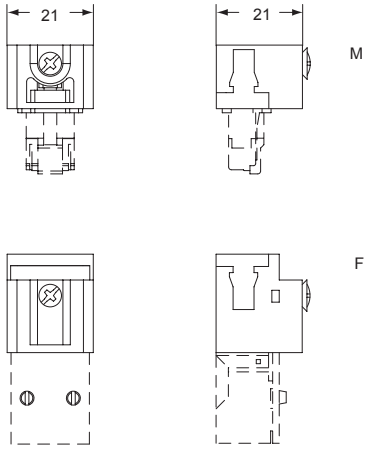
[2] to be used with hoods

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

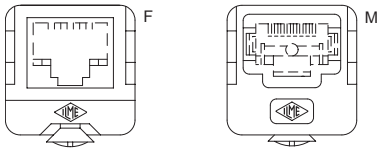
CR KC insert coding pin



CJ KF, CJ KM

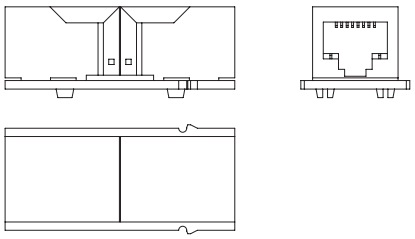


contacts side (front view)

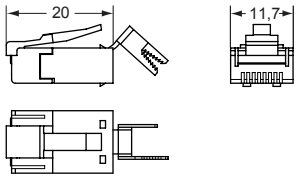


inserts already supplied with stainless steel fixing screw with gasket, which ensures IP66/IP67/IP69 degree of protection

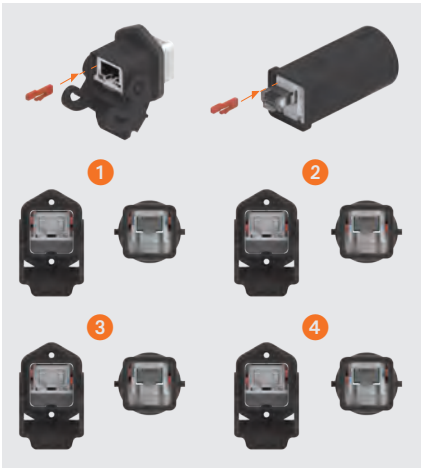
CX 4 JF, CX 4/2 JF, CX 8 JF, CX 8/2 JF



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)



DATA CONNECTORS

CJZ RJ45 connector

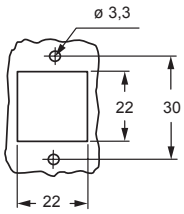
- IP66/IP67/IP69 degree of protection (EN 60529)
- insert RJ45, CAT. 5 Ethernet
- rated current: 2.1A at 70 °C
- rated voltage: 50V DC / 35V AC
- temperature limit: -40 °C, +120 °C
- nickel-plated brass screening
- insert coding pin: **CR KC**
- self-extinguishing: UL 94V-0
- insulating enclosures in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

IP66 / IP67 connector in bulkhead housing, female inserts

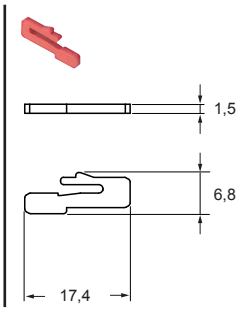
patch cord with 2 RJ45 connectors, male inserts

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

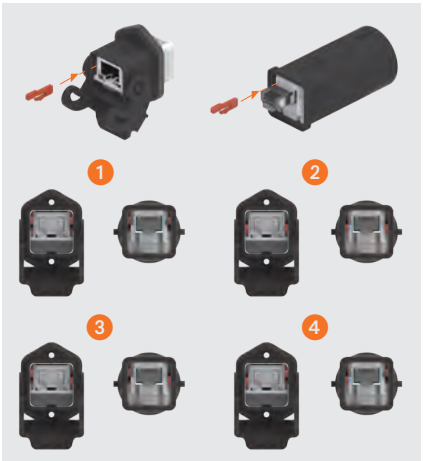
panel cut-out for bulkhead mounting housings



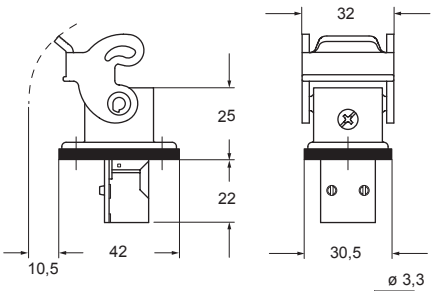
CR KC
insert coding pin



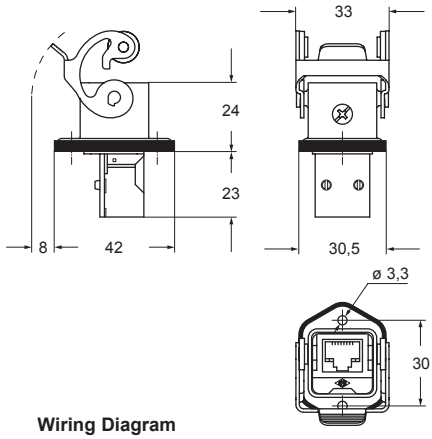
How to use CR KC coding pins
(cannot be used with IP68 enclosures)



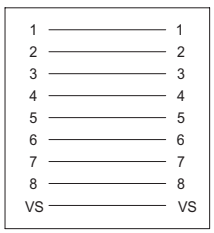
CJZ IN



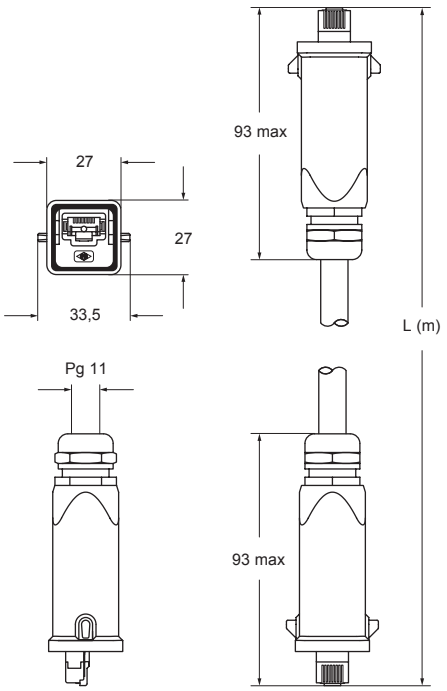
CJZA I



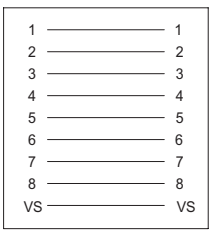
Wiring Diagram



CWK J2M8 and **CWKA J2M8**



Wiring Diagram



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

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

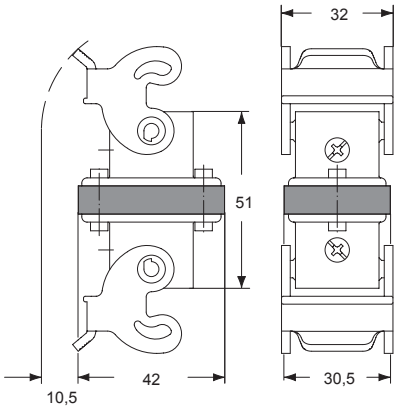
description	part No. data contacts only	part No. data contacts/+2 power contacts	part No. data contacts only	part No. data contacts/+2 power contacts
RJ45 coupler jack within housings, 8 data contacts [1] RJ45 coupler jack within housings, 8 data contacts/2 power contacts [1]	**CYG 8 JF**	**CYG 8/2 JF**		
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

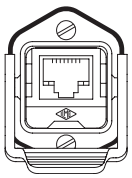
[2] 4-pole version on request, part No. **CYG 4 JFA** and **CYG 4/2 JFA** with “crossover” link

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.

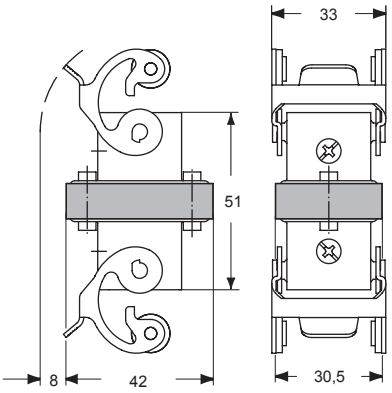
CYG 4 JF, CYG 4/2 JF, CYG 8 JF, CYG 8/2 JF



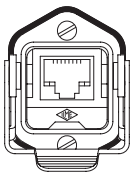
contacts side (front view)



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



contacts side (front view)



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

enclosures: size "21.21" — **page:**

insulating type (CK IN, CKG/MKG VN/VAN *) — **346 - 348**

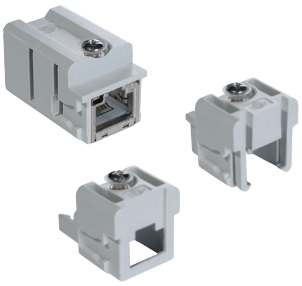
metallic type
(CKAX I, CKAX/MKAX IAP/AP/VG) — **349 and 353**
(CKAG/MKAG V/VA *) — **354 - 355**
(MKAX/MKA/MKAXX IF) — **362 - 363**

IP68 (CGK I, CGK/MGK IAP, CGK/MGK V) — **628 - 631**

*) angled enclosures cannot be used with CX 8 J6IM

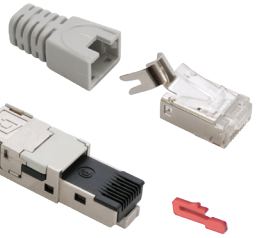
- characteristics according to EN 61984:
  1A 50V 0,8kV 3
- c UL us (UL for USA and Canada) certified
- insulation resistance: ≥ 10 GΩ
- made of self-extinguishing thermoplastic resin UL 94V-0
- mechanical life: ≥ 500 cycles
- temperature range: from -40 °C to +70 °C
- we recommend to fix the cable with cable tie

adapters for RJ45 male connectors, RJ45 female-female connectors



RJ45 male connectors, crimp and IDC termination

Watch our CX 8 J6M online tutorial



Watch our CX 8 J6IM online tutorial

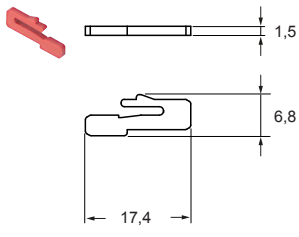
description	part No.	part No.
socket insert with 1 RJ45 female connector plug inserts for 1 RJ45 male crimp connector, 8 data contacts (without RJ45 connector, to be ordered separately) plug insert for 1 RJ45 male IDC connector, 8 data contacts (without RJ45 connector, to be ordered separately)	**CJK 8FT** **CJK 8MT** **CJK 8IMT**	
RJ45 male crimp connector, 8 data contacts		**CX 8 J6M**
RJ45 male IDC connector, 8 data contacts		**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 EN50173-1 ISO/IEC 24702 EN 61918
- class E_A (channel): ISO/IEC 11801, EN 50173-1

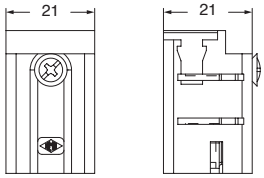
CX 8 J6M technical data:
- RJ45 male crimp connectors Cat. 6_A
- crimp pliers: **CJPZ T**
- screened cable stripper: **CJST**
- Cu-conductor diameter solid: 0,40 - 0,51 mm (AWG 26/1 - 24/1) stranded: 0,46 - 0,61 mm (AWG 27/7 - 24/7)
- insulation diameter: 0,85 - 1,05 mm
- cable diameter: 5,0 - 7,0 mm
- connectors: IEC 60603-7-51
- 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
- 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

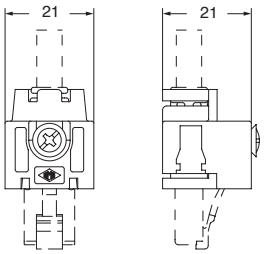


CJK 8FT



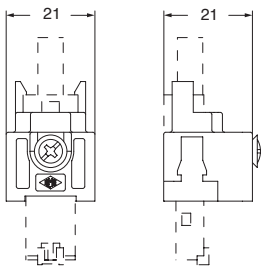
Female-Female

CJK 8MT [1)]



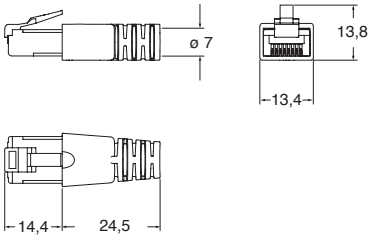
[1)] to be used with hoods

CJK 8IMT [1)]

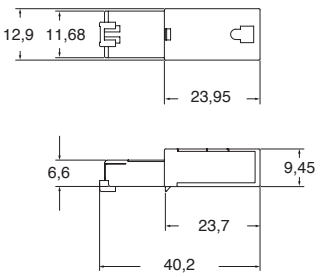


[1)] to be used with hoods

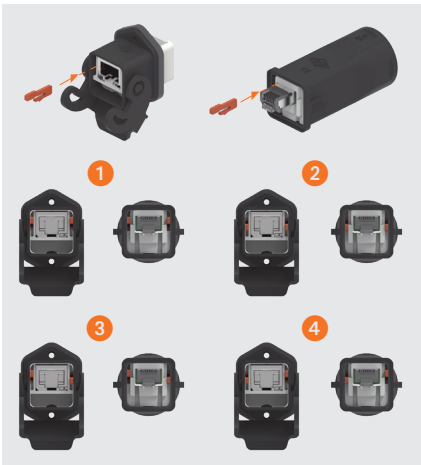
CX 8 J6M (can be used with CJK 8MT)



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



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



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

CW RJ45 patch cord

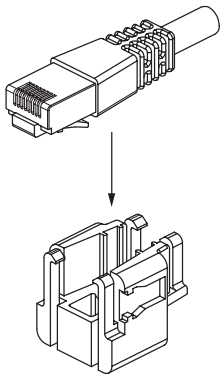
with 2 RJ45 male connectors

description	part No.	(L) 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

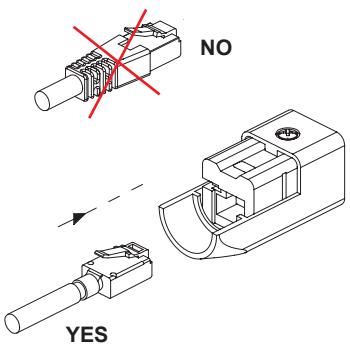
RJ45 patch cord technical data:
- S/FTP Cat. 7 PUR
- temperature range: from -40 °C ÷ +75 °C
- nickel plated brass screening
- green RAL 6018 colour

Can be used with:
- MIXO RJ45 **CX 01 J8M** male inserts (see page 302)
- RJ45 universal patch cord adapter **CJK 8M** (see page 233)
- **CJK 8MT** adapters

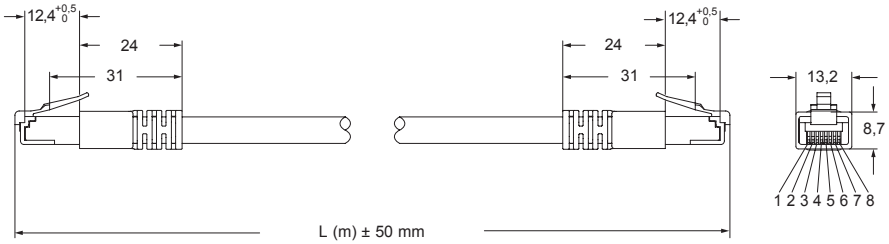
CJK 8MT male assembly



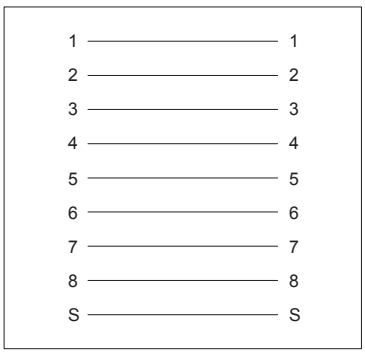
CJK 8FT to be used in VG or IAP enclosures with male crimp version



CW...J2M87



Wiring Diagram



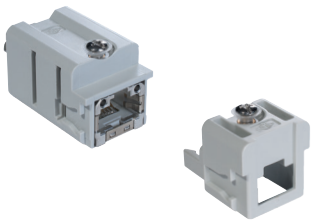
CJK adapters 1 seat for RJ45 IDC connector Cat. 6 Class E_A

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

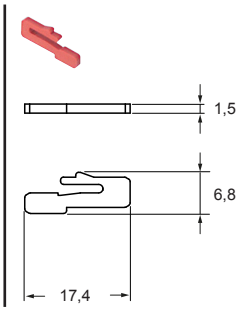
Watch our online tutorial

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**

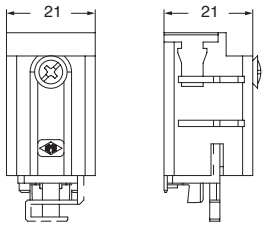
CJK 8IFT, CJK 8B IFT, CJK 8P IFT technical data:
- RJ45 female insert, Cat. 6_A
- Cu-conductor diameter
  solid: 0,40 - 0,64 mm (AWG 26/1 - 22/1)
  stranded: 0,48 - 0,76 mm (AWG 26/7 - 22/7)
- insulation diameter: 0,85 - 1,6 mm
- shielding housing: zinc diecast
- housing finish: nickel-plated
- current 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

CR KC insert coding pin

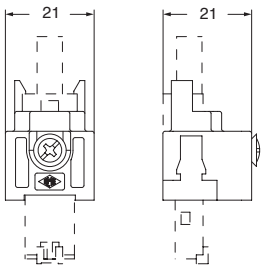


CJK 8IFT



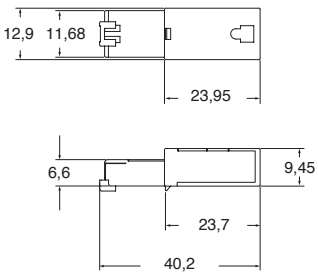
Female-Cable IDC

CJK 8IMT [1]

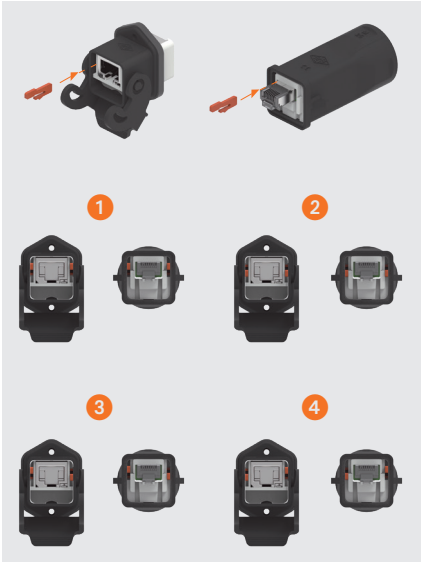


[1] to be used with hoods

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



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



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

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

with 2xRJ45 CAT. 6_A cable plug

M12x1 CAT. 7 cable plug black

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** **CW J6 2M** **CW J6 3M** **CW J6 5M** **CW J6 7.5M** **CW J6 10M** **CW J6 15M**	1 2 3 5 7,5 10 15				
S/FTP CAT. 6A cable 4x2xAWG 27/7 (**PVC**) - SHIELDED Colour outer jacket green			**CWC J6 1M** **CWC J6 2M** **CWC J6 3M** **CWC J6 5M** **CWC J6 7.5M** **CWC J6 10M** **CWC J6 15M**	1 2 3 5 7,5 10 15		
Over moulded IP67 to RJ45 plug crimp IP20 **S/FTP CAT. 7 cable** 4x2xAWG 26/7 (**PUR**) * * chemical resistant cable jacket Colour outer jacket green					**CW XJ0.5M** **CW XJ1M** **CW XJ2M** **CW XJ3M** **CW XJ5M** **CW XJ7.5M** **CW XJ10M**	0,5 1 2 3 5 7,5 10

CW - CWC connecting cables for MIXO RJ45 CAT. 5

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** **CW J5 2M** **CW J5 3M** **CW J5 5M** **CW J5 7.5M** **CW J5 10M** **CW J5 15M**	1 2 3 5 7,5 10 15		
SF/UTP CAT. 5 4x2xAWG 26/7 (**PVC**) - SHIELDED Colour outer jacket green			**CWC J5 1M** **CWC J5 2M** **CWC J5 3M** **CWC J5 5M** **CWC J5 7.5M** **CWC J5 10M** **CWC J5 15M**	1 2 3 5 7,5 10 15

CWH connecting cables for MIXO RJ45 CAT. 6_A - CAT. 5e

with 2xRJ45 CAT. 6_A cable plug

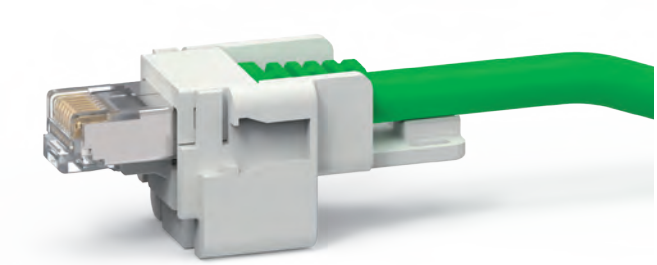
with 2xRJ45 CAT. 5_e cable plug

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** **CWH J6 0.5M** **CWH J6 1M** **CWH J6 2M** **CWH J6 3M** **CWH J6 5M** **CWH J6 7.5M** **CWH J6 10M** **CWH J6 15M**	0,25 0,5 1 2 3 5 7,5 10 15				
1x90° - 1x180° cable boot **CAT. 6_A wiring 1:1 cable** S/FTP (LSHZ) - SHIELDED Colour outer jacket green			**CWH J6 0,5MA** **CWH J6 1MA** **CWH J6 2MA** **CWH J6 3MA** **CWH J6 5MA** **CWH J6 7.5MA** **CWH J6 10MA**	0,5 1 2 3 5 7,5 10		
CAT. 5_e wiring 1:1 cable S/FTP (LSHZ) - SHIELDED Colour outer jacket green					**CWH JE 0.5M** **CWH JE 1M** **CWH JE 2M** **CWH JE 3M** **CWH JE 5M** **CWH JE 7.5M** **CWH JE 10M** **CWH JE 15M**	0,5 1 2 3 5 7,5 10 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, 6_A, 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 straighforward 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;

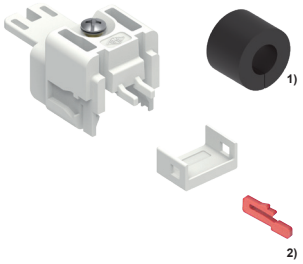


- suitable for the combination of an RJ45 patch cord with one or both RJ45 plug extremities mounted inside suitable size “21.21” *insulating* or *metal* M25 top entry hood with glued gasket, with an RJ45 jack counterpart (female connector), e.g. a **CJ KF** adapter combined with the relevant female/female 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).

CJK 8M

enclosures: size “21.21”	page:
MKG V25	348
MKG VN25	348
MKAG V25	353

RJ45
universal patch cord adapter



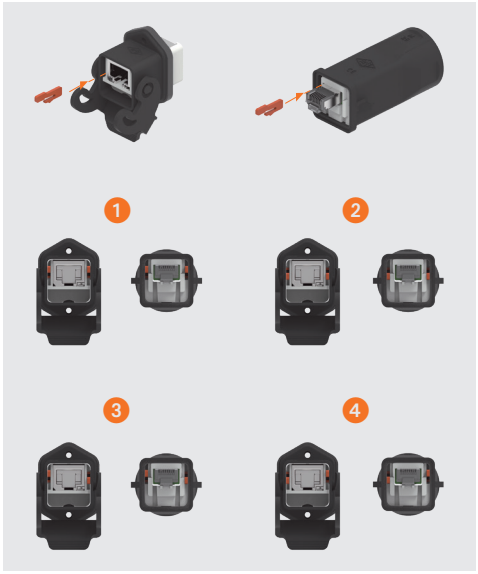
M25
cable gland

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) [3]		**AW M25IJ**	25
plastic cable gland, black (RAL 9005) [3]		**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)

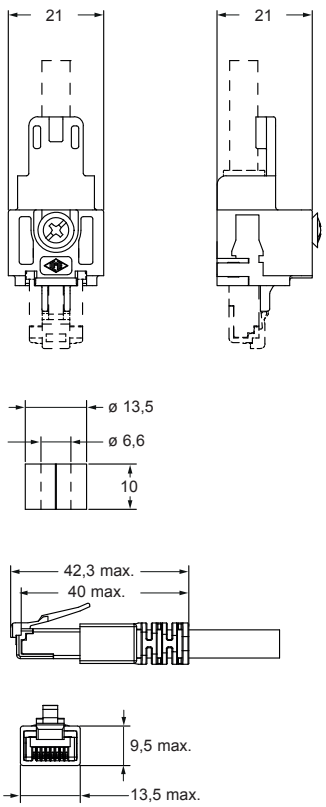
How to use CR KC coding pins
(cannot be used with IP68 enclosures)



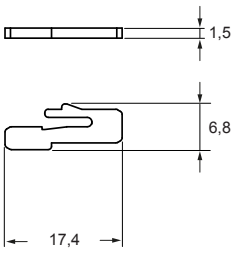
[3] IP65 degree of protection; for higher degree we recommend the use of ASR B25 gasket

cURus pending

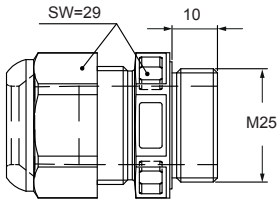
CJK 8M



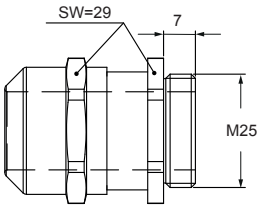
CR KC



AW M25IJ and AW M25INJ



AW M25PJ



Watch our online tutorial

Female inserts

Housings

RJ45 CONNECTOR Cat 6$_A$

RJ45 female/female coupler
(8 data contacts)

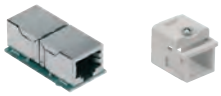
CJK 8FT

RJ45 female/IDC jack
(8 data contacts)

CJK 8IFT
CJK 8B IFT
CJK 8P IFT

RJ45 CONNECTOR Cat 5-5$_e$

RJ45
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

21.21 CK/MK PLASTIC

MK VGN25*****
MK VG25*****

CK 03 IN
CK 03 I

21.21 CKA/MKA METAL

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 CGK/MGK IP68

CGK I

CGK IAP13***
MGK IAP20***

Legend

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

Hoods

21.21 CK/MK PLASTIC

CKG 03 V/VA
CKG 03 VN /VAN*
MKG VN20 /VAN 20*
MKG V20/VA20

CKG 03 C
CKG 03 CN
(cover for housings)

21.21 CKA/MKA METAL

CKAG 03 V /VA*
MKAG V20 /VA20*

CKAG 03 C
(cover for housings)

21.21 ENLARGED METAL/PLASTIC

MKAG V25****

MKG VN25****
MKG V25****

21.21 CGK/MGK IP68

CGK V13
MGK V20

MGK V25

Male inserts

RJ45 CONNECTOR Cat 6$_A$

RJ45 male crimp plug

CX 8 J6M + CJK 8MT

RJ45 male IDC plug

CX 8 J6IM + CJK 8IMT

RJ45 CONNECTOR Cat 5-5$_e$

RJ45 male crimp plug
(4 data contacts)

CX 4 JM + CJ KM

RJ45 male crimp plug
(8 data contacts)

CX 8 JM + CJ KM

RJ45 male crimp plug
(4 data + 2 power contacts)

CX 4/2 JM + CJ KM

RJ45 male crimp plug
(6 data + 2 power contacts)

CX 6/2 JM + CJ KM

RJ45 male crimp plug
(4 data cont. cat.5$_e$) PROFINET

CX 4E JM + CJ KM

RJ45 universal patch cord

CJK 8M

CUK adapters with 1 USB connector

enclosures: size “21.21”	page:
insulating type (CK IN, CKG/MKG VN/VAN *)	346 - 348
metallic type (CKAX I, CKAX/MKAX IAP/AP/VG)	349 and 353
(CKAG/MKAG V/VA *)	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

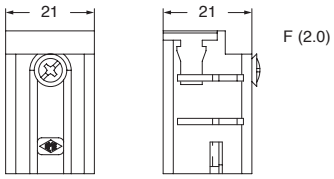
description	part No.	part No.
female insert with USB 2.0 female - female connector	CUK 2FT	
female insert with USB 3.0 female - female connector,	CUK 3FT	
patch cable USB-A / USB-A, 2 m [1]		CW 2 UAM

[1] 5 m on request

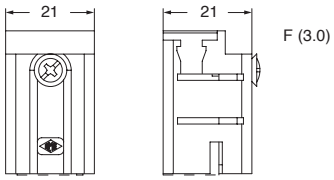
USB connector features:
- USB-A / USB-A Hi-Speed - 2.0 or 3.0 insert
- temperature range: from -25 °C to +80 °C

- c UL us (UL for USA and Canada) certified

CUK 2FT

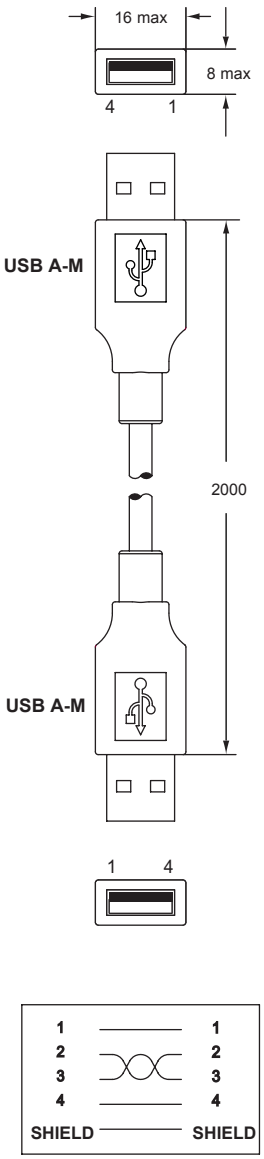


CUK 3FT



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

CW UAM



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

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] RJ45 coupler Cat.6		**AT 8IFT** **AT 8FT**
USB 2.0 coupler F-F Type A USB 3.0 coupler F-F Type A		**AT U2F** **AT U3F**
LC-Duplex adapter MM LC-Duplex adapter SM		**AT LCMM** **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

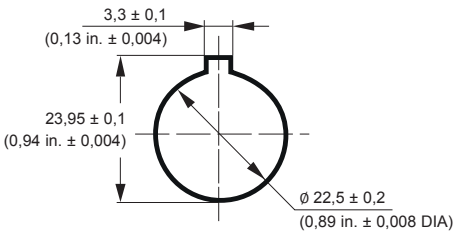
Protection against ingress

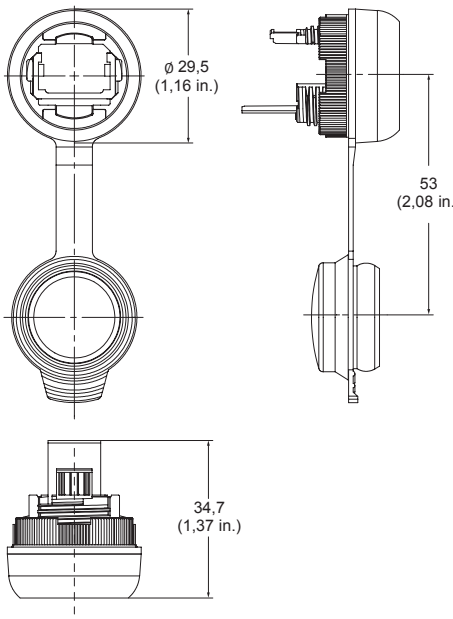
Particulate ingress	IP6X
Water / Immersion	IPX5
Degrees of protection provided by enclosures (IP code)	IEC 60529

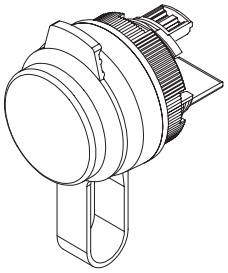
Climatical and chemical

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

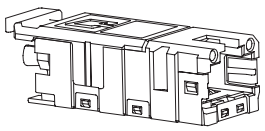
Mounting dimensions
wall thickness 1-5 mm (0,039-0,197 in.)



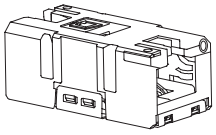




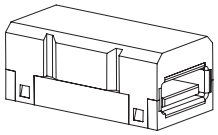
AT 8IFT (RJ45 IDC-FEMALE)



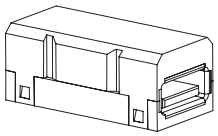
AT 8FT (RJ45 FEMALE-FEMALE)



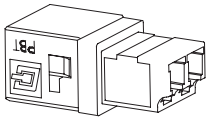
AT U2F (USB 2.0)



AT U3F (USB 3.0)



AT LCMM - AT LCSM (LC DUPLEX)



CLK 04 SC adapters
TECHNICAL FEATURES

The adapter CLK 04 SC enables use of fibre optic SC contacts, up to 4 SC contacts per connector, for indoor or outdoor heavy duty industrial applications, with ILME connector enclosures size “21.21” series CKA (IP66/IP67/IP69, metallic, both C-TYPE, grey-painted, for normal environments, and W-TYPE black-painted, for aggressive environments, only the hood models provided with sealing gasket), series CGK/MGK (IP66/IP68/IP69, metallic, either Pg or metric-threaded cable outlet) and series CK (IP66/IP67/IP69, insulating, only the hood models provided with sealing gasket).

The fibre optic SC contacts (genderless, to be purchased separately) are available both for multi-mode fibres (50/125 µm or 62,5/125 µm) and single-mode fibre (9/125 µm).
The fibre optic SC contacts are also available for the hard-clad silica (HCS) or polymer-clad fibre (PCF) 200/230 µm fibre optic cables and for the less demanding, with shorter transmission distance covered, but more cost effective POF Ø 1 mm applications, available with crimp technique version (crimping tool required).

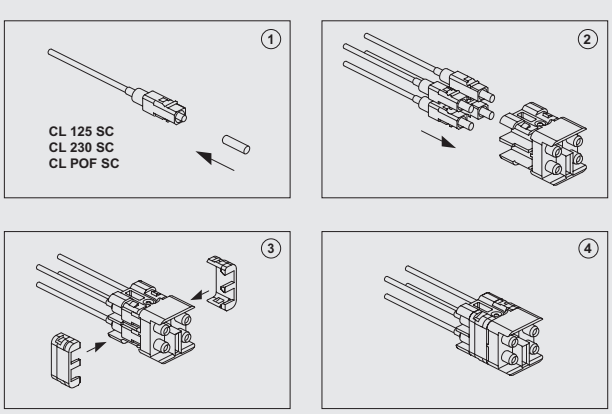
NOTE
Due to the higher skill and training required to produce an effectively performing fibre optic junction for a single-mode type fibre-optic cable than for a multi-mode one, dedicated contacts for single-mode are available only upon request. Contact our Commercial Department for a quotation. It is more practical in such case to equip the CLK 04 SC adaptor with ready-to-use fibre optic patch cords.
Quick assembly technique version (tool-less) for POF Ø 1 mm cables are also available only upon request, please send inquiry to our Commercial Department.

The female adapter inserts are provided with 4 ceramic (zirconia) type split alignment sleeves, for minimal insertion loss (e.g. critical network connections) and best suitable for single-mode F/O cable connections. As optional accessory, metallic (phosphor bronze) split alignment sleeves are also available for more durable (less prone to cracking) applications, but less demanding precision alignment, thus most suitable for multi-mode fibre applications.

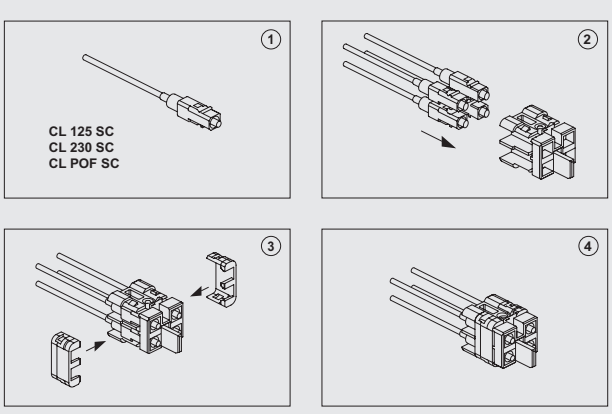
Part No. of adapter	**CLK 04 SC**
No. of seats/poles for optical contacts	4
Ambient temperature limit (°C)	min -40 / max +70
Degree of protection with enclosures (according to type)	IP66/**IP67**/IP69, IP66/**IP68**/IP69
Conductor connections	crimp
Mechanical endurance (rating cycles)	≥ 500
Self-extinguishing capacity UL 94	V0

CLK 04 SC Assembling instructions

FEMALE



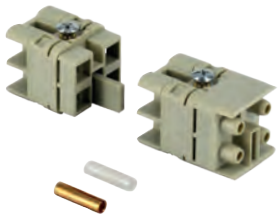
MALE



CLK adapters 4 seats for fibre optic SC contacts

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

adapter insert for SC connectors



crimp FO contacts

description	part No.	part No.
adapter insert with seats for 4 SC contacts		
female insert, with ceramic sleeve	**CLK 04 SCF**	
female insert, with metallic sleeve	**CLK 04 SCF-H**	
male insert	**CLK 04 SCM**	
SC contact for GI [1] FIBRE 50/125 µm or 62.5/125 µm		**CL 125 SC**
SC contact for 1 mm ø POF		**CL POF SC**

[1] **GI = Graded Index**

- inserts already supplied with stainless steel fixing screw with gasket, which ensures IP66/IP67/IP69 degree of protection
- adapter insert designed to be used with SC contacts
- SC contact for SI [2] FIBRE (HCS®) 200/230 µm: **CL 230 SC** (on request)

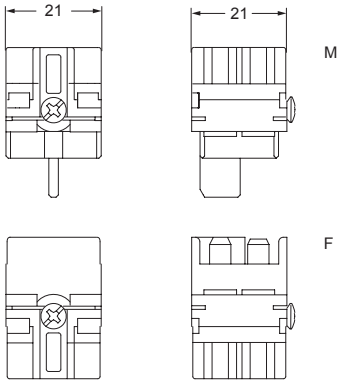
[2] **SI = Step Index**

- base equipment for SC contact GI FIBRE: **CLKZ 125 SC** If this application is required, please contact ILME S.p.A.

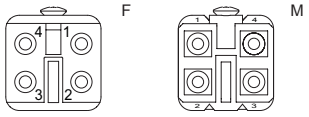
- supplementary set for POF: **CLKZ POF** (to be ordered with CLKZ 125 SC) If this application is required, please contact ILME S.p.A.

- c UL us (UL for USA and Canada), CSA, DNV·GL, BUREAU VERITAS certified
- insulation resistance: ≥ 10 GΩ
- temperature range: from -40 °C to +70 °C

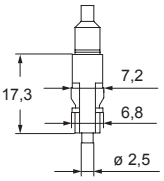
CLK 04 SCF, CLK 04 SCM



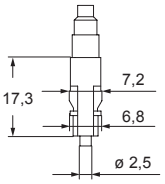
contacts side (front view)



CL 125 SC



CL POF SC



CW SC patch cord FO SC duplex patch cords

SC duplex patch cord

SC duplex patch cord

description	part No.	(L) metre	part No.	(L) metre
SC duplex patch cord, GL fibre E9/125 (YELLOW)	**CW 1 SC9**	1		
	CW 2 SC9	2		
	CW 3 SC9	3		
	CW 5 SC9	5		
	CW 10 SC9	10		
SC duplex patch cord, GL fibre G50/125 (ORANGE)			**CW 1 SC50**	1
			CW 2 SC50	2
			CW 3 SC50	3
			CW 5 SC50	5
			CW 10 SC50	10
SC duplex connector, GL fibre G62,5/125 (ORANGE)			**CW 1 SC62**	1
			CW 2 SC62	2
			CW 3 SC62	3
			CW 5 SC62	5
			CW 10 SC62	10

- operating temperature: from -5 °C ÷ +55 °C
- storage temperature: from -30 °C ÷ +70 °C
- installation temperature: from -5 °C ÷ +50 °C
- flame retardancy: IEC 60332-1
- halogen-free acc. to: IEC 60754-2

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 **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.

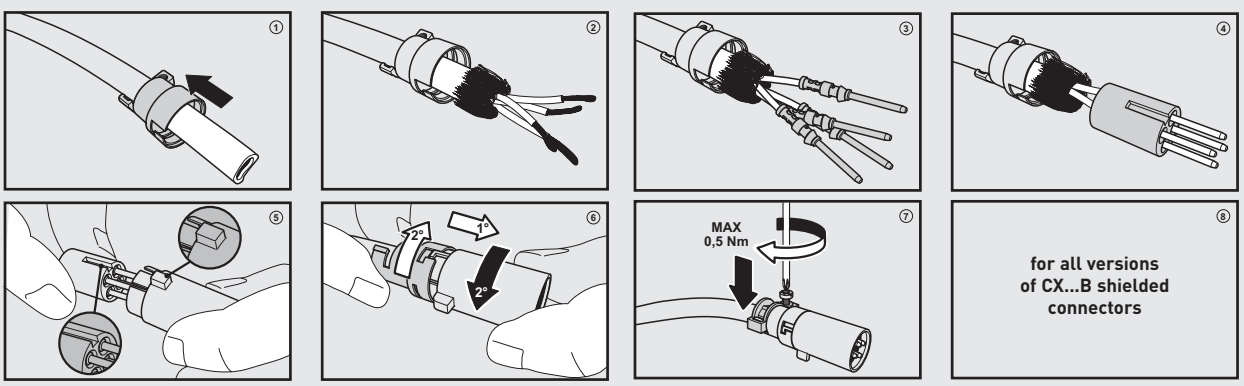
Adaptor insert **CX 1/2 BDM/BDF** is fitted with multiaxial and coaxial MIXO BUS shielded connectors and is designed to be used only with the models specified below of the following enclosures: **CK/MK** or **CKA/MKA** (IP66/IP67/IP69) or **CGK/MGK** (IP66/IP68/IP69) with glued gasket on hoods and covers. 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 (mm^2/AWG)	depending on the type of contact used
	auxiliary contacts (mm^2)	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: size “21.21”	page:
insulating type (CK IN, CKG/MKG VN)	346 - 348
metallic type	
(CKAX I, CKAX/MKAX IAP/AP/VG)	349 and 353
(CKAG/MKAG V)	354 - 355
(MKAX/MKA/MKAXXIAP/AP25)	358 - 359
(MKAX/MKA/MKAXX VG25)	360 - 361
(MKAX/MKA/MKAXX IF)	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

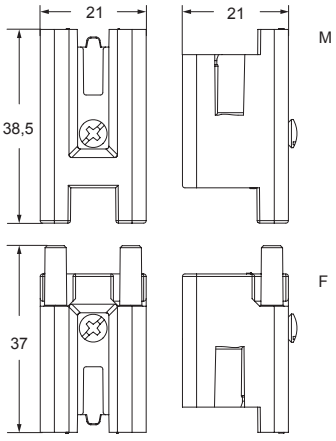
description	part No.	part No.	part No.
adapter insert with seats for 1 shielded connector + 2 aux contacts 10A female insert, 1 seat for BUS connector and 2 seats for 10A female contacts (CDF)	**CX 1/2 BDF**		
male insert, 1 seat for BUS connector and 2 seats for 10A male contacts (CDM)	**CX 1/2 BDM**		
10A female contacts			
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 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**

silver plated

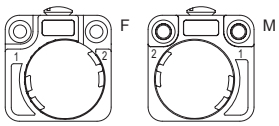
gold plated✢

- characteristics according to EN 61984:
  adapter insert CX 1/2 BD (2 aux contacts)
  10A 50V 0,8kV 3
- c UL us (UL for USA and Canada), CSA, DNV·GL, BUREAU VERITAS 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

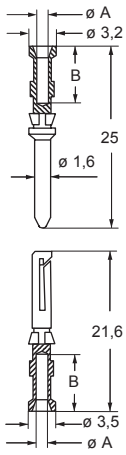
CX 1/2 BDF, CX 1/2 BDM



contacts side (front view)



CDF and **CDM**



CDF and CDM contacts

conductor section 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