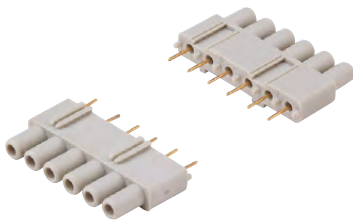


CIF PCB adapters

inserts		page:
CDD	24 poles + ⊕	76
CDD	42 poles + ⊕	78
CDD	72 poles + ⊕	79
CDD	108 poles + ⊕	81
CX	8/24 poles + ⊕	194
CX	6/36 poles + ⊕	198
CX 12 (MIXO)	12 poles	281

interface
for printed circuit



6A contacts for interface
silver and gold plated



description	part No.	part No.	part No.
interface module with 6 female contacts (gold) for up to 2,4 mm thick PCB	CIF 2.4		
interface module with 6 female contacts (silver) for up to 2,4 mm thick PCB	CIF 2.4 A		
6A female contacts for female inserts with terminal Ø 1 mm		CDFA 6A	CDFD 6A
6A male contacts for male inserts with terminal Ø 1 mm		CDMA 6A	CDMD 6A

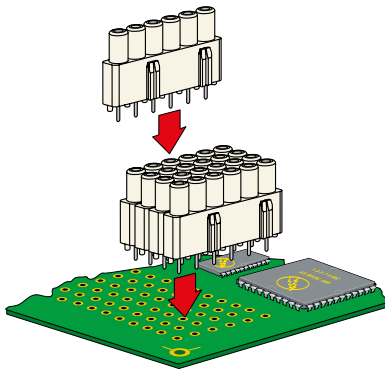
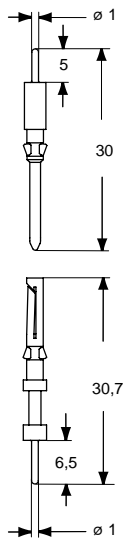
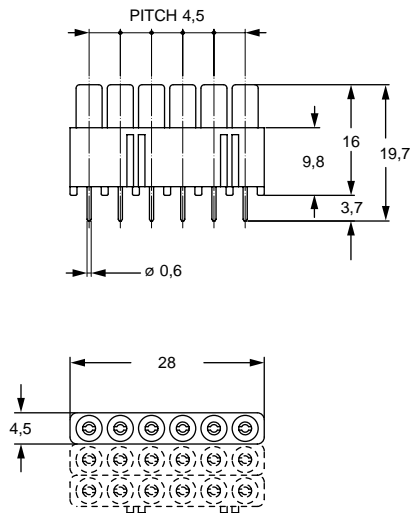
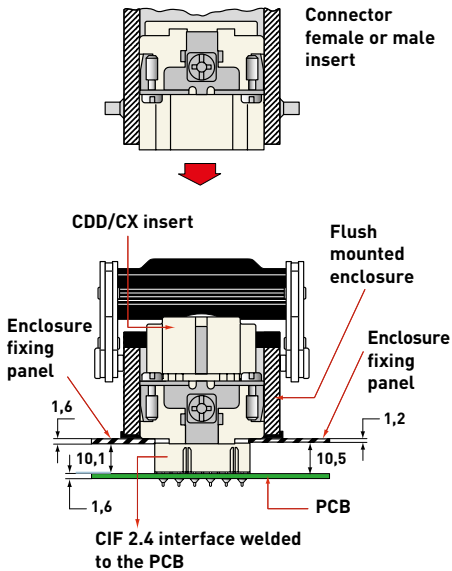
CIF interface

The interface block is made according to the multipole connector used by assembling a suitable number of CIF modules (see table).

inserts	poles	modules "CIF"
series	n°	n°
CDD	24	4
CDD	42	7
CDD	72	12
CDD	108	18
CX	8/24	4
CX	6/36	6
CX (MIXO)	12	2

The block is then welded on the printed circuit on which the multipole connector (female or male) equipped with coupling contacts will then be inserted.

CIF 2.4, CIF 2.4 A PCB ADAPTERS



CIF PCB adapters

inserts
CQ 8 poles + ⊕ page: 192

interface
for printed circuit

16A contacts for interface
silver plated



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

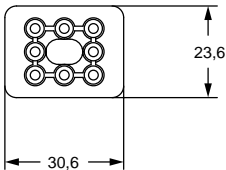
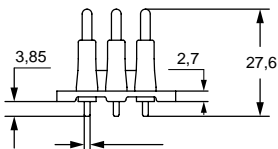
PCB adapter with contacts
for up to 1,6 mm thick PCB
16A female contacts for female inserts

CIF Q08 1.6

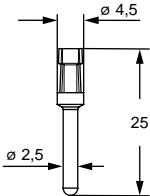
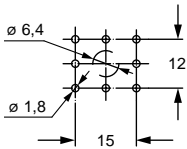
16A male contacts for male inserts

CCFFA silver plated
CCMFA

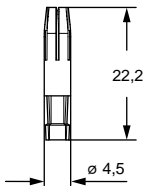
The block is soldered on the printed circuit on which
the multipole connector (female or male) equipped with
coupling contacts will then be inserted.



PCB-Layout



CCMFA (M)



CCFFA (F)

CIF PCB adapters

inserts

CQ 4 poles + 2 poles + ⊕

page:

191

interface
for printed circuit



7,5A and 30A contacts for interface
silver plated

7,5A



30A



description

part No.

part No.

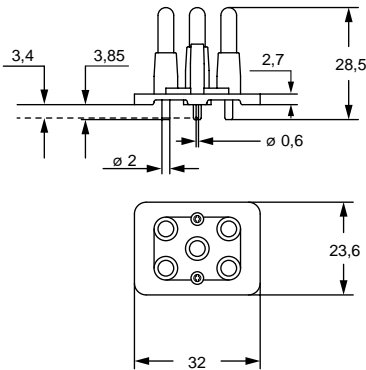
PCB adapter with contacts
for up to 2,4 mm thick PCB
7,5A female contacts for female inserts
7,5A male contacts for male inserts
30A female contacts for female inserts
30A male contacts for male inserts

CIF Q4/2 2.4

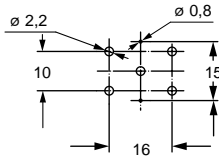
CDFA 6A28
CDMA 6A
CXFFA
CXMFA

silver
plated

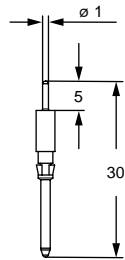
The block is soldered on the printed circuit on which
the multipole connector (female or male) equipped with
coupling contacts will then be inserted.



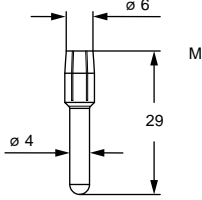
PCB-Layout



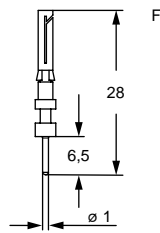
CDMA 6A



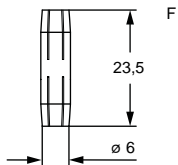
CXMFA



CDFA 6A28



CXFFA



PCB INTERFACE ADAPTER FOR CQ 12 CIF INSERTS SPECIAL CQ 12 INSERTS FOR PCB ADAPTERS



CIF Q12 2.4 (with 12+⊕ gold plated contacts)

Number of contacts: 12 + ⊕

CQF /M 12 CIF (with ⊕ contact with rear Ø 1 mm pin)

EN/IEC 61984 ratings: 7,5 A 250 V 4 kV 3



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TECHNICAL FEATURES

CIF Q12 2.4 - CQF 12 CIF /CQM 12 CIF

CIF Q12 2.4 (with 12+ Ⓢ gold plated contacts)

NOTE – CIF Q12 2.4A (with 12 + Ⓢ silver plated contacts) available upon request.

Special CQ 12 inserts for PCB adapter:

- CQF 12 CIF
- CQM 12 CIF

with PE contact equipped with rear Ø 1 mm pin for mating with the PE contact of the PCB adapter.

CIF interface contacts for CQF /M 12 CIF:

- **CDFA 6A28** (female contact, silver plated, with rear Ø 1 mm pin for mating with the PCB adapter)
- **CDMA 6A** (male contact, silver plated, with rear Ø 1 mm pin for mating with the PCB adapter)

NOTE – Gold plated variants of the interface contacts CDFD 6A28 and CDMD 6A available upon request.

The new PCB adapter **CIF Q12 2.4** (gold plated contacts, available on request **CIF Q12 2.4** with silver plated contacts) allows cable-to-PCB connection with CQ 12 – 12P+ Ⓢ industrial heavy-duty connector inserts for power electronics and/or signal applications, to reduce wiring costs (where “large numbers” justify the development of a PCB design).

Due to the contact pitch and the layout pattern on the PCB, a reduction of rated voltage for CQ 12 is required from 400/690V to 250V.

The **CIF Q12 2.4** PCB interface adapter is suitable for printed circuit board application by soldering to PCBs with thickness up to 2,4 mm.

The special variants of **CQ 12** inserts that mate on this adapter:

- CQF 12 CIF
- CQM 12 CIF

feature the PE contact with Ø 1 mm pin instead of the usual screw terminal, for mating with the PCB adapter. This PE contact provides protective earth connection to a metal housing. These inserts are therefore suitable for any kind of bulkhead mounting “21.21” enclosure (insulating, metal).

In such special inserts it is necessary to use special interface contacts:

- for female CQF 12 CIF: **CDFA 6A28** female, silver plated, with rear Ø 1 mm pin for mating with **CIF Q12 2.4** PCB interface adapter;
- for male CQM 12 CIF: **CDMA 6A** male, silver plated, with rear Ø 1 mm pin for mating with **CIF Q12 2.4** PCB interface adapter.

The above special contacts are available on request with standard gold plating as **CDFD 6A28** and **CDMD 6A**.

Each of the above special inserts, to be mated respectively by a corresponding standard insert of opposite gender (**CQM 12** or **CQF 12**, see Assembly Instructions on page 91), can be equipped, together with their mating counterpart, with 2 **coding pins CR Q12**, allowing up to 16 different codings (see page 689 of CN.19 catalogue), to avoid unintended mating in case of multiple of these connectors installed nearby on the same PCB.

Connectorization allows minimisation of downtime in factory automation due to easy replacement of modular PCB circuitry (easier and faster maintenance).

NOTE: In cable-to-PCB connection applications, safety does not depend only on the designs of the adapter and of the corresponding connector, it depends also on the design of the PCB and of the equipment – e.g. its enclosure and relevant spacings if metallic – where the PCB circuit and the cable to board are employed; hence, no **CE** marking (nor the conceptually equivalent Eurasian Conformity mark EAC) can be applied on the PCB adapters, even if by rated voltage they fall under the scope of the Low Voltage Directive 2014/35/EU.

Technical characteristics

Number of contacts: 12 + Ⓢ

EN/IEC 61984 ratings: **7,5 A 250 V 4 kV 3**

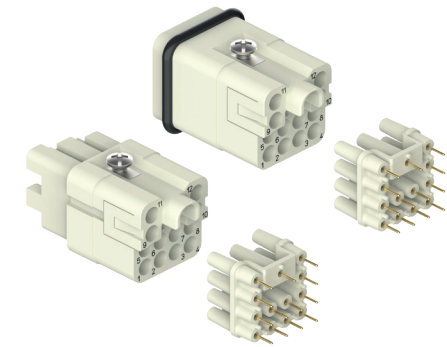
Lower and Upper Limiting Temperatures (LLT, ULT):
-40 °C ... +125 °C

NOTE – The adapter insulating material is able to withstand wave soldering of the PCB.

CIF Q12 2.4 PCB interface adapters for CQ 12 CIF inserts 7,5 A 250 V

inserts
CQ CIF 12 poles + ⊕
page: 90

PCB interface adapter for CQ 12 inserts,
special CQ 12 inserts for PCB adapter



FROM JULY 2020

7,5 A interface contacts
for special CQ 12 inserts, silver plated



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

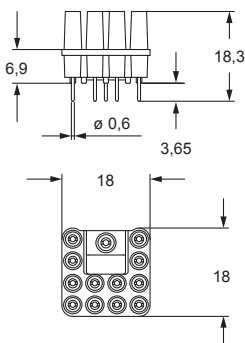
PCB interface adapter with contacts for up to 2,4 mm thick PCB	CIF Q12 2.4	
female special insert for female interface contacts	CQF 12 CIF	
male special insert for male interface contacts	CQM 12 CIF	
7,5 A female interface contacts for female special insert	CDFA 6A28	silver plated
7,5 A male interface contacts for male special insert	CDMA 6A	

- characteristics according to EN/IEC 61984 ratings:
7,5 A 250 V 4 kV 3
- Lower and Upper Limiting Temperatures (LLT, ULT):
-40 °C ... +125 °C
- ☑ The adapter insulating material is able to withstand
wave soldering of the PCB.
- number of contacts: 12 + ⊕

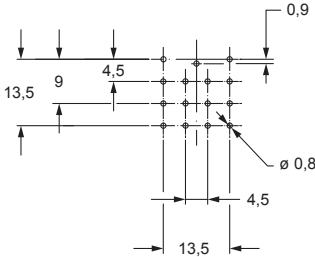
☑ **NOTE: CQ 12 inserts are already fit with the special PE interface contact. To fully populate the inserts, twelve interface contacts, respectively male or female, are required.**

The adapter is soldered on the printed circuit on which the multipole connector (female or male) equipped with interface contacts will then be inserted.

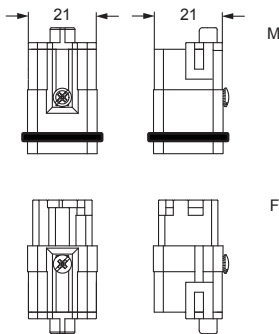
CIF Q12 2.4



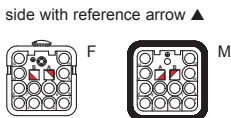
PCB-Layout



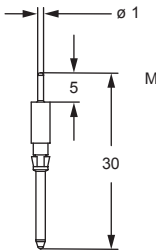
CQ CIF



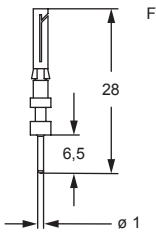
contacts side (front view)



CDMA 6A



CDFA 6A28



☑ The **CR Q12** coding pins (to be ordered separately), allow the user to create 16 different combinations, according to the diagram shown on **page 689 of CN.19 catalogue**.



CIF Q12 2.4 PCB interface adapters for CQ 12 CIF inserts 7,5 A 250 V

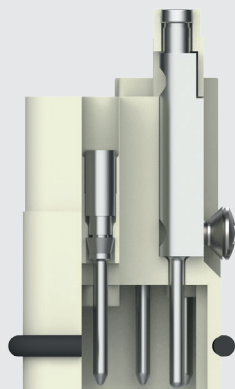
ASSEMBLY INSTRUCTIONS

CIF Q12 2.4 - PCB INTERFACE ADAPTERS FOR CQ 12 INSERTS

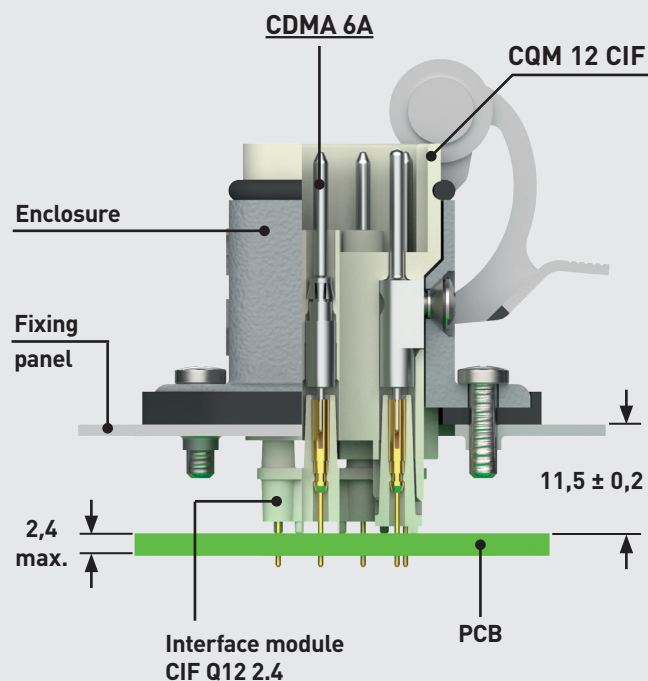
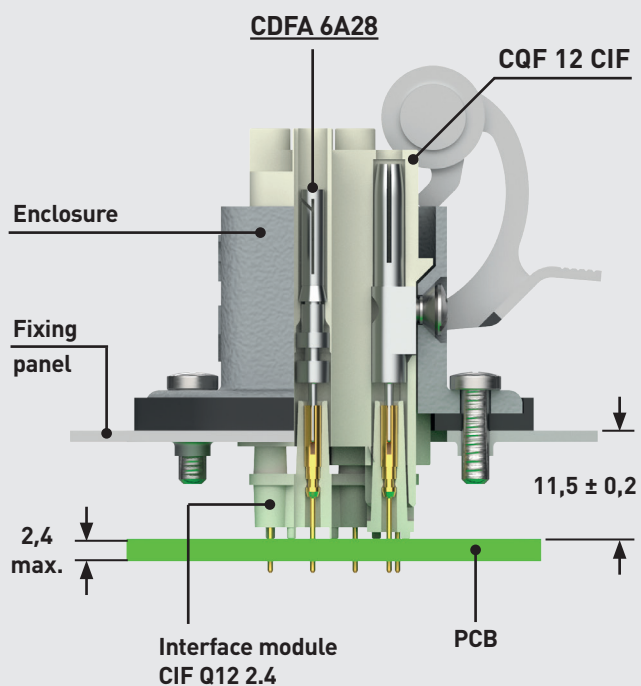
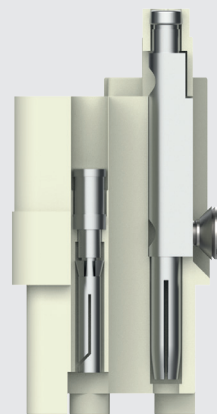


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CQM 12

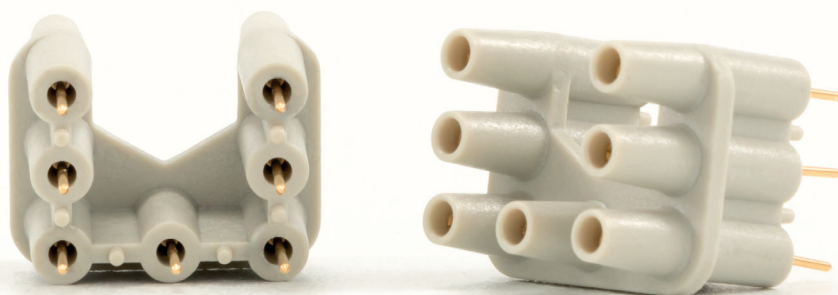


CQF 12



PCB INTERFACE ADAPTER FOR CQ 07 INSERTS

CIF Q07 2.4



CIF Q07 2.4

(with gold plated contacts)

Number of contacts: 7

EN/IEC 61984 ratings: 7,5 A 250 V 4 kV 3



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TECHNICAL FEATURES

CIF Q07 2.4

CIF Q07 2.4 (with gold plated contacts)

NOTE – CIF Q07 2.4A (with silver plated contacts) available upon request

CIF interface contacts:

- **CDFA 6A28** (female contact, silver plated, with rear Ø 1 mm pin for mating with the PCB adapter)

- **CDMA 6A** (male contact, silver plated, with rear Ø 1 mm pin for mating with the PCB adapter)

NOTE – Gold plated variants of the interface contacts CDFD 6A28 and CDMD 6A available upon request.

This new **CIF Q07 2.4** adapter (with gold plated contacts, available upon request with silver plated contacts **CIF Q07 2.4A**) allows cable-to-PCB connection with CQ 07 7P+⊕ industrial heavy-duty connector inserts for power electronics and/or signal applications, to reduce wiring costs (where “large numbers” justify the development of a PCB design).

The **CIF Q07 2.4** PCB interface adapter is suitable for printed circuit board application by soldering to PCBs with thickness up to 2,4 mm.

Due to the contact pitch and the layout pattern on the PCB, a reduction of rated voltage for CQ 07 is required from 400V to 250V.

For the connection to the PCB adapter of **CQ 07** inserts it is necessary to equip these standard inserts with **special interface contacts** (except the PE contact, embedded in the insert, and screw-type):

- for female CQF 07: **CDFA 6A28** female, silver plated, with rear Ø 1 mm pin for mating with **CIF Q07 2.4** PCB interface adapter;
- for male CQM 07: **CDMA 6A** male, silver plated, with rear Ø 1 mm pin for mating with **CIF Q07 2.4** PCB interface adapter.

Connectorization allows minimisation of downtime in factory automation due to easy replacement of modular PCB circuitry (easier and faster maintenance).

NOTE: In cable-to-PCB connection applications, safety does not depend only on the designs of the adapter and of the corresponding connector, it depends also on the design of the PCB and of the equipment – e.g. its enclosure and relevant spacings if metallic – where the PCB circuit and the cable to board are employed; hence, no **CE** marking (nor the conceptually equivalent Eurasian Conformity mark EAC) can be applied on the PCB adapters, even if by rated voltage they fall under the scope of the Low Voltage Directive 2014/35/EU.

Technical characteristics

Number of contacts: 7

EN/IEC 61984 ratings: **7,5 A 250 V 4 kV 3**

Lower and Upper Limiting Temperatures (LLT, ULT):
-40 °C ... +125 °C

NOTE – The adapter insulating material is able to withstand wave soldering of the PCB.

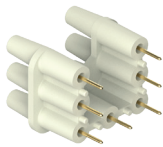
CAUTION – The layout of the PCB for this adapter must foresee a suitable pass-through hole for the PE wiring coming from the screw-type PE terminal of CQF /M 07 connector. This adapter does not foresee a PE connection. It is important to fulfil the continuity of PE connection of the CQF /M 07 connector, also for the possibility to use a metal housing.

CIF Q07 2.4 PCB interface adapters for CQ 07 inserts 7,5 A 250 V

inserts
CQ 7 poles + ⊕

page: 187

PCB interface adapter
for CQ 07 inserts



7,5 A interface contacts for CQ 07 inserts,
silver plated



refer to CN.19 pages

FROM JULY 2020

description

part No.

part No.

PCB interface adapter with contacts
for up to 2,4 mm thick PCB

CIF Q07 2.4

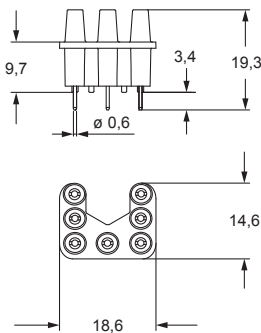
7,5 A female interface contacts for female insert
7,5 A male interface contacts for male insert

CDFA 6A28 silver plated
CDMA 6A

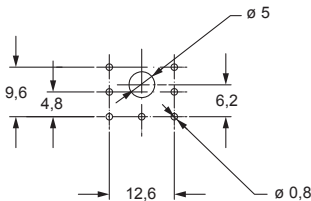
- characteristics according to EN/IEC 61984 ratings:
7,5 A 250 V 4 kV 3
- Lower and Upper Limiting Temperatures (LLT, ULT):
-40 °C ... +125 °C
- ☑ The adapter insulating material is able to withstand
wave soldering of the PCB.
- number of contacts: 7

- ☑ The adapter is soldered on the printed circuit on
which the multipole connector (female or male)
equipped with interface contacts will then be inserted.

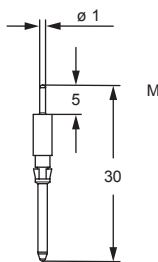
CIF Q07 2.4



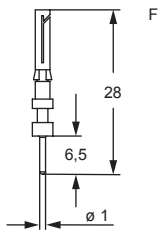
PCB-Layout



CDMA 6A



CDFA 6A28



CIF Q07 2.4 PCB interface adapters for CQ 07 inserts 7,5 A 250 V

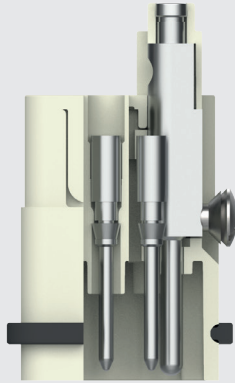
ASSEMBLY INSTRUCTIONS

CIF Q07 2.4 - PCB INTERFACE ADAPTERS FOR CQ 07 INSERTS

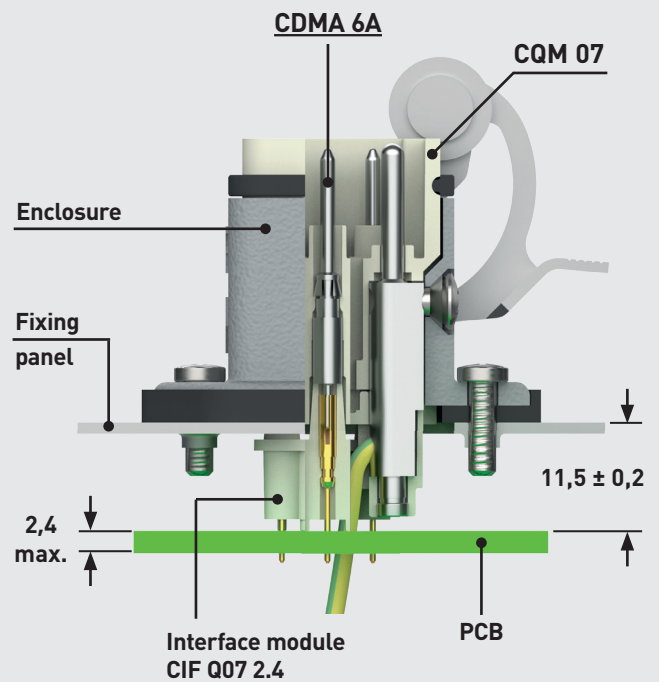
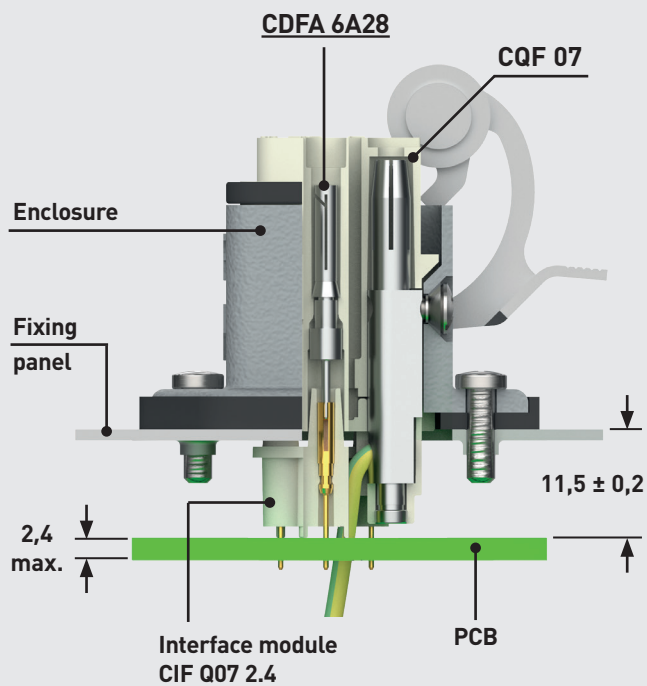
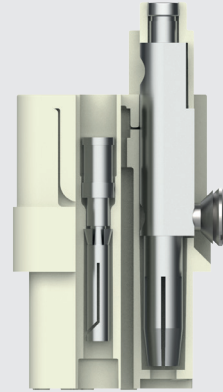


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CQM 07

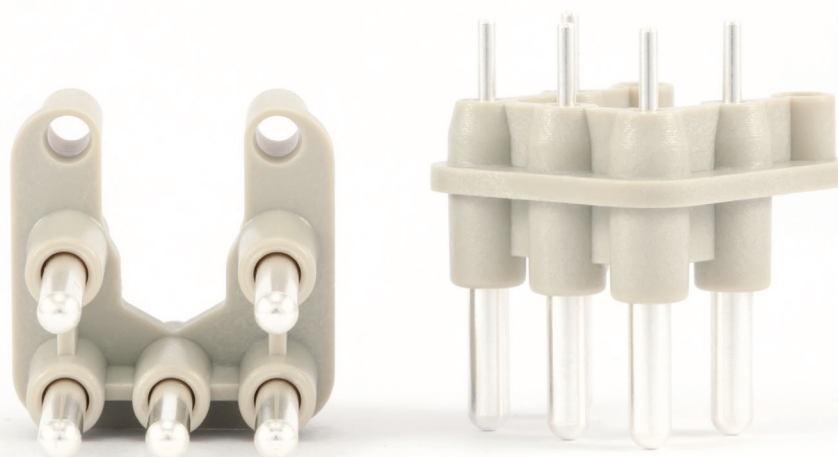


CQF 07



PCB INTERFACE ADAPTER FOR CQ 05 INSERTS

CIF Q05 2.4



CIF Q05 2.4

(with silver plated contacts)

Number of contacts: 5

EN/IEC 61984 ratings: 10 A 250 V 4 kV 3



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TECHNICAL FEATURES

CIF Q05 2.4

CIF Q05 2.4 (with silver plated contacts)

NOTE – CIF Q05 2.4D (with gold plated contacts) available upon request

CIF interface contacts:

- **CCFFA** (female/female contact)
- **CCMFA** (male/female contact)

NOTE – CCFFD and CCMFD interface contacts available with standard gold plating upon request.

This new **CIF Q05 2.4** PCB adapter (silver plated contacts, available upon request with standard gold plated contacts **CIF Q05 2.4D**) allows cable to printed circuit board connection with CQ 05 5P+⊕ industrial heavy-duty connector inserts for power electronics and/or signal applications, to reduce wiring costs (where “large numbers” justify the development of a PCB design).

The **CIF Q05 2.4** PCB interface adapter is suitable for printed circuit board application by soldering to PCBs with thickness up to 2,4 mm.

For the connection to the PCB adapter of CQ 05 inserts it is necessary to equip these inserts with **special interface contacts** (except the PE contact, embedded in the insert, and screw-type):

- for female CQF 05: **CCFFA** female, silver plated, with rear □ 1 mm post for soldering on the PCB passing through the CIF Q05 2.4 PCB interface adapter;
- for male CQM 05: **CCMFA** male, silver plated, with rear □ 1 mm post for soldering on the PCB passing through the CIF Q05 2.4 PCB interface adapter.

Connectorization allows minimisation of downtime in factory automation due to easy replacement of modular PCB circuitry (easier and faster maintenance).

NOTE: In cable-to-PCB connection applications, safety does not depend only on the designs of the adapter and of the corresponding connector, it depends also on the design of the PCB and of the equipment – e.g. its enclosure and relevant spacings if metallic – where the PCB circuit and the cable to board are employed; hence, no **CE** marking (nor the conceptually equivalent Eurasian Conformity mark EAC) can be applied on the PCB adapters, even if by rated voltage they fall under the scope of the Low Voltage Directive 2014/35/EU.

Technical characteristics

Number of contacts: 5

EN/IEC 61984 ratings: **10 A 250 V 4 kV 3**

Lower and Upper Limiting Temperatures (LLT, ULT):
-40 °C ... +125 °C

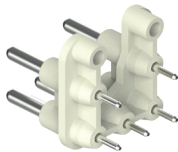
NOTE – The adapter insulating material is able to withstand wave soldering of the PCB.

CAUTION – The layout of the PCB for this adapter must foresee a suitable pass-through hole for the PE wiring coming from the screw-type PE terminal of CQF /M 05 connector. This adapter does not foresee a PE connection. It is important to fulfil the continuity of PE connection of the CQF /M 05 connector, also for the possibility to use a metal housing that must be connected to the PE circuit.

CIF Q05 2.4 PCB interface adapter for CQ 05 inserts 10 A 250 V

inserts
CQ 5 poles + ⊕ page: 186

PCB interface adapter
for CQ 05 inserts



16 A interface contacts for CQ 05 inserts,
silver plated



refer to CN.19 pages

FROM JULY 2020

description

part No.

part No.

PCB interface adapter with silver plated contacts
for up to 2,4 mm thick PCB

CIF Q05 2.4

16 A female interface contacts for female insert
16 A male interface contacts for male insert

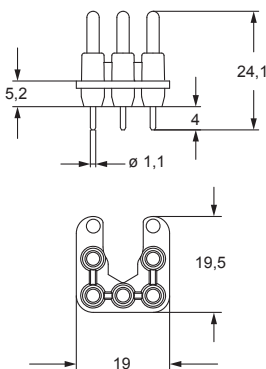
CCFFA
CCMFA

silver plated

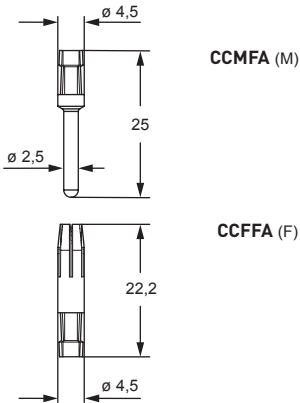
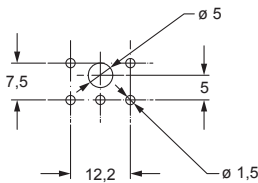
- characteristics according to EN/IEC 61984 ratings:
10 A 250 V 4 kV 3
- Lower and Upper Limiting Temperatures (LLT, ULT):
-40 °C ... +125 °C
- ☑ The adapter insulating material is able to withstand
wave soldering of the PCB.
- number of contacts: 5

- ☑ The adapter is soldered on the printed circuit on
which the multipole connector (female or male)
equipped with interface contacts will then be inserted.

CIF Q05 2.4



PCB-Layout



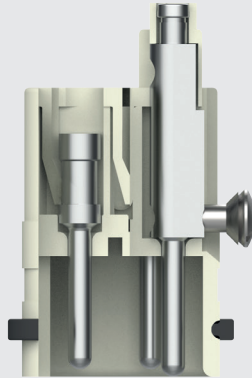
ASSEMBLY INSTRUCTIONS

CIF Q05 2.4 - PCB INTERFACE ADAPTERS FOR CQ 05 INSERTS

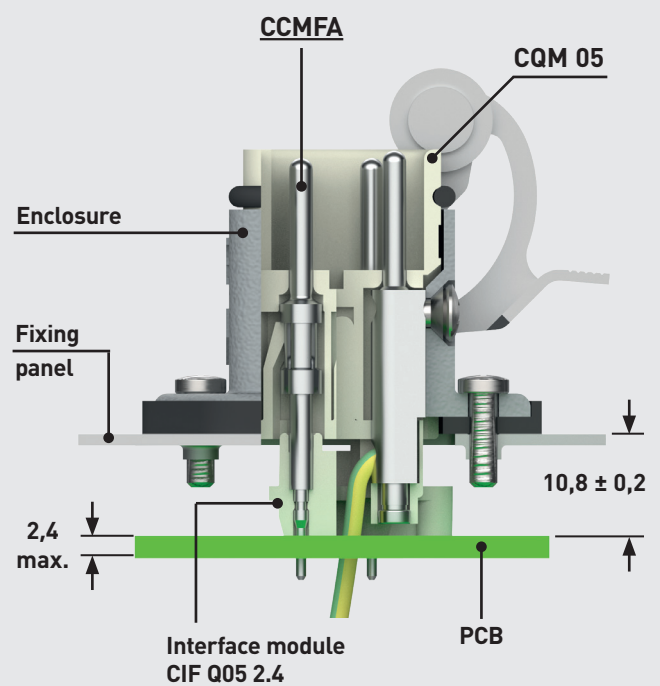
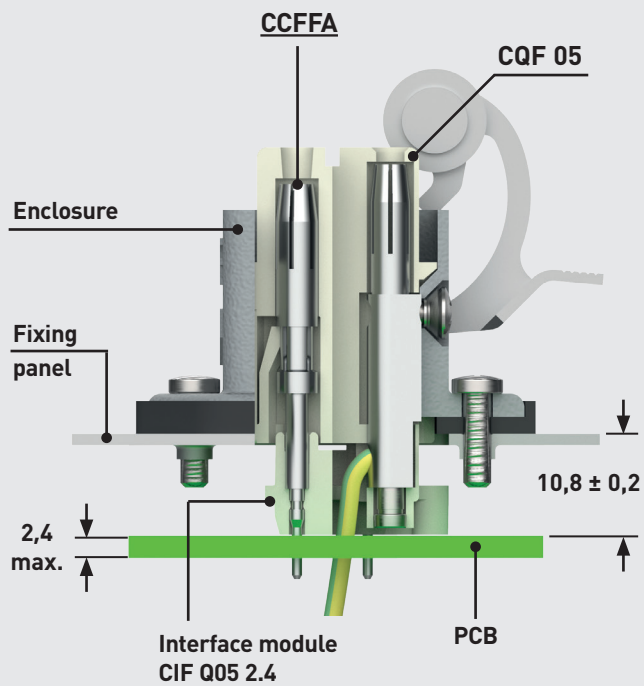
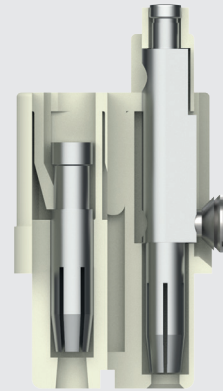


Watch
our online
tutorial

CQM 05

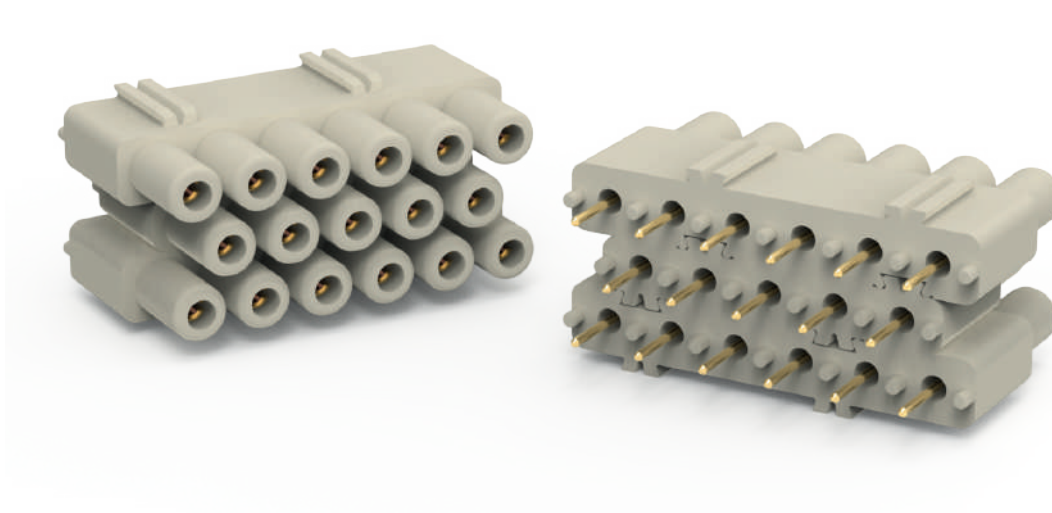


CQF 05



PCB INTERFACE ADAPTER

CIF X17 2.4



New CIF X17 2.4
(CIF 5 2.4 5P interface adapter
+ 2× CIF 2.4, 6P interface adapter)
for MIX0 CX 17 DF/M module



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

TECHNICAL FEATURES

CIF X17 2.4

CIF X17 2.4 **[complete set of 2× CIF 2.4 + new CIF 5 2.4]**

Interface PCB adapter for up to 2,4 mm thick PCBs, gold plated contacts suitable for high-density MIXO module **CX 17 DF/ DM**.

CIF 5 2.4 **[5P interface adapter alone]**

For customers already using **CIF 2.4*** available also as **CIF 5 2.4**, stand-alone additional 5P interface adapter, to be completed by 2× CIF 2.4.

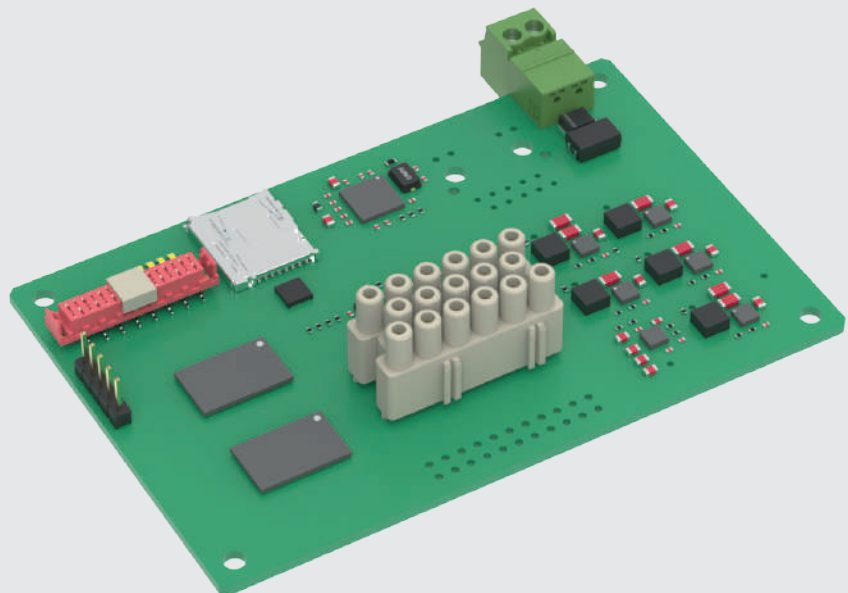
* See CN.19 p. 670, 6-pole PCB adapter, suitable in multiple units to provide PCB interface for series **CDD** inserts size **24** (4 units) **42** (7 units), **72** (12 units) and **108** (13 units), the 24-pole section of combined connector inserts CX 8/24 (3 units) or the 36-pole section of CX 6/36 (6 units), and MIXO **CX 12 DF/ DM** modules (2 units), see CN.19 p. 282.

The new 5-pole interface adapter connector **CIF 5 2.4** of series **CIF**, once mounted in-between 2× **CIF 2.4**, 6-pole interface adapter connectors, forms a 17-pole PCB interface “block” equipped with female gold-plated contacts with rear post for soldering to the PCB.

Either so grouped, or conveniently purchased in the dedicated complete set **CIF X17 2.4**, it serves as interface for either a male or a female high-density module **CX 17 DF** or **CX 17 DM** of series MIXO, each equipped with corresponding interface contacts **CDFA 6A** or **CDMA 6A32** (silver plated) with rear post Ø 1 mm suitable for mating with the CIF adapter female contacts.

RoHS: compliant with exemption **6(c)**.

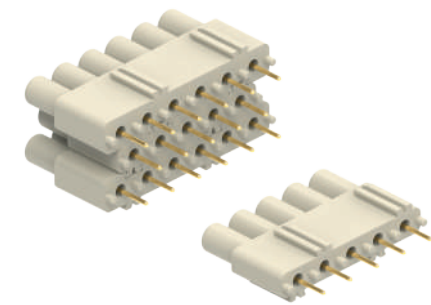
example of use
of CIF X17 2.4
on a PCB



CIF X17 2.4 PCB interface adapter for CX 17 DF /DM modular inserts

inserts page: 282
MIXO (CX DF /DM) 17 poles

PCB interface adapter
for CX 17 DF /DM modular inserts



6 A interface contacts,
silver plated, terminal Ø 1 mm



refer to CN.19 pages

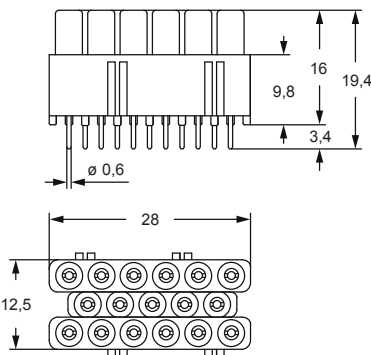
FROM JULY 2021

description	part No.	part No.
PCB interface adapter, <u>complete set</u> , with 17 contacts for up to 2,4 mm thick PCBs	CIF X17 2.4	
PCB interface adapter, <u>5P alone</u> , to be combined with 2x CIF 2.4	CIF 5 2.4	
6A interface contacts for female inserts with terminal Ø 1 mm		CDFA 6A
6A interface contacts for male inserts with terminal Ø 1 mm		CDMA 6A32

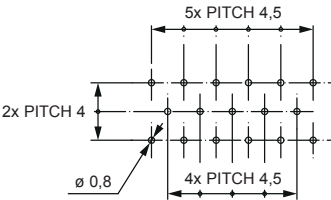
- characteristics according to EN/IEC 61984 ratings:
7,5 A 160 V 2,5 kV 3
- cUL (UL for USA and Canada), CSA, CQC, DNV-GL, BV pending
- rated voltage according to UL/CSA: 160 V
- insulation resistance: ≥ 10 GΩ
- ambient temperature limit: -40 °C ... +125 °C
- material (insert): polycarbonate
- material (contacts): copper alloy
- RoHS: compliant with exemption
- RoHS exemptions: 6c - Copper alloy containing up to 4% lead by weight

The adapter is soldered on the printed circuit on which the multipole connector (female or male) equipped with interface contacts will then be inserted.

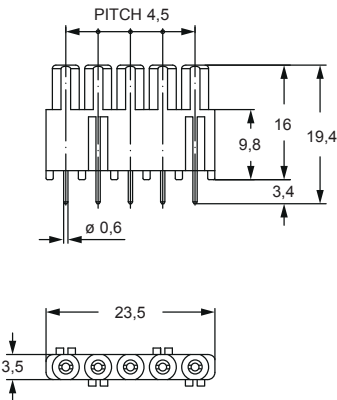
CIF X17 2.4



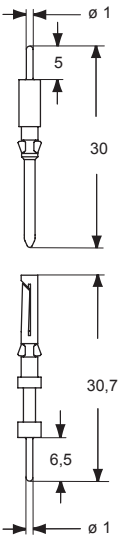
PCB LAYOUT



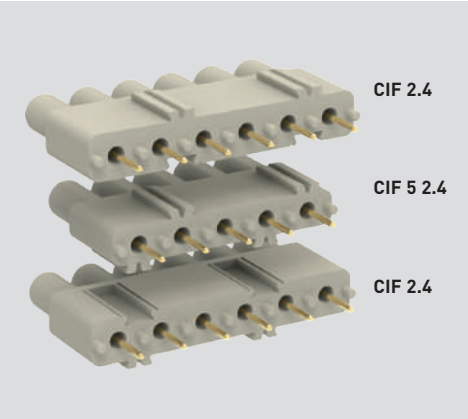
CIF 5 2.4



CDFA 6A and CDMA 6A32



CIF X17 2.4 COMPLETE SET



ASSEMBLY INSTRUCTIONS

CIF X17 2.4 CONNECTION

