cpe italia

DMC 5.5

DIGITAL MODULAR CONNECTOR 5.5

MADE IN ITALY

RoHS compliant

REACH COMPLIANT

ITAR EAR FREE

HDMI

COAX

FIBER OPTICS

DATA LINK

USB 2.0

CAT.5

CAT.6

Table of Contents

Solder Modules (WIRES & P.C.B)

Crimp Contacts (CLOC & CLIP)

Coaxial Modules

Optical Modules

Company History and new Targets

CPE is a family company founded in 1978 and established in Milan, Italy.
The business started as a trading company of connectors and cables, addressing defense and telecommunication.
After a few years of activity, transforming from a trading to a manufacturing company was an organic and natural progression, thus pursuing high specialization in harness assembly and connector production.
Since the spirit of CPE ITALIA has always been and will always be to assist the "client ally", constant growth was sustained by the founder of the company by opening new production sites all over the world.
CPE ITALIA is now a Group of about 400 people with production facilities in Brazil, China, Italy, Mexico, Romania, branch offices in North America and India, headquarters in Milan.
With profound knowledge of and years of experience in multiple sectors like Defense, Broadcasting, Communication Infrastructure, Medical, Transportation, Nuclear, Oceanographic Installations, CPE supports its client-focused ideology with the development of solutions tailored to each and every client's needs.

We like to imagine our behavior and capability results similar to these of the well known "**Tricolor Arrows**" pilot team:

attentive to the rules → guidelines, organization and discipline
total security as top priority → quality
amaze and engage → Innovation and results that exceed customer expectations

cpe italia GROUP

40 YEARS
INSIDE CONNECTIVITY MARKET

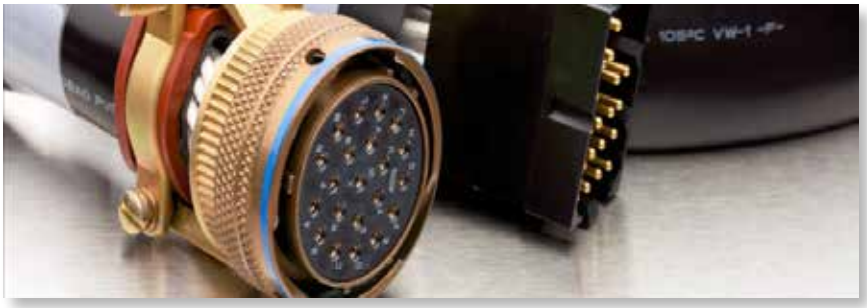








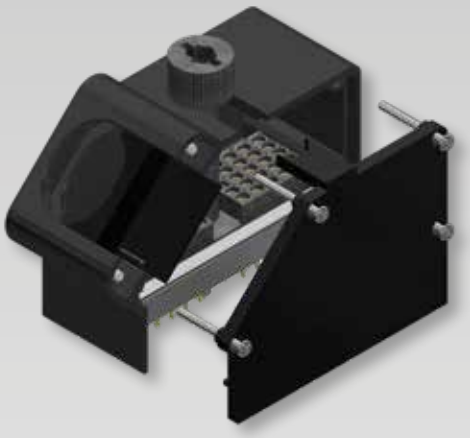


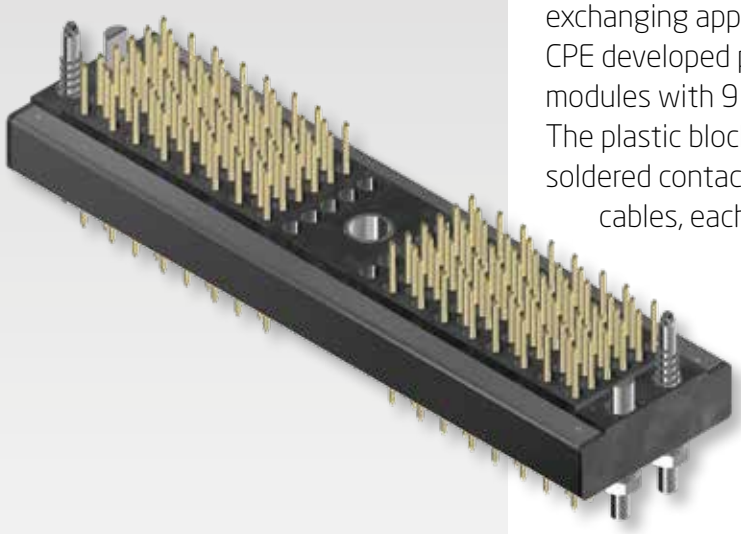







Digital Modular Connector 5.5 System



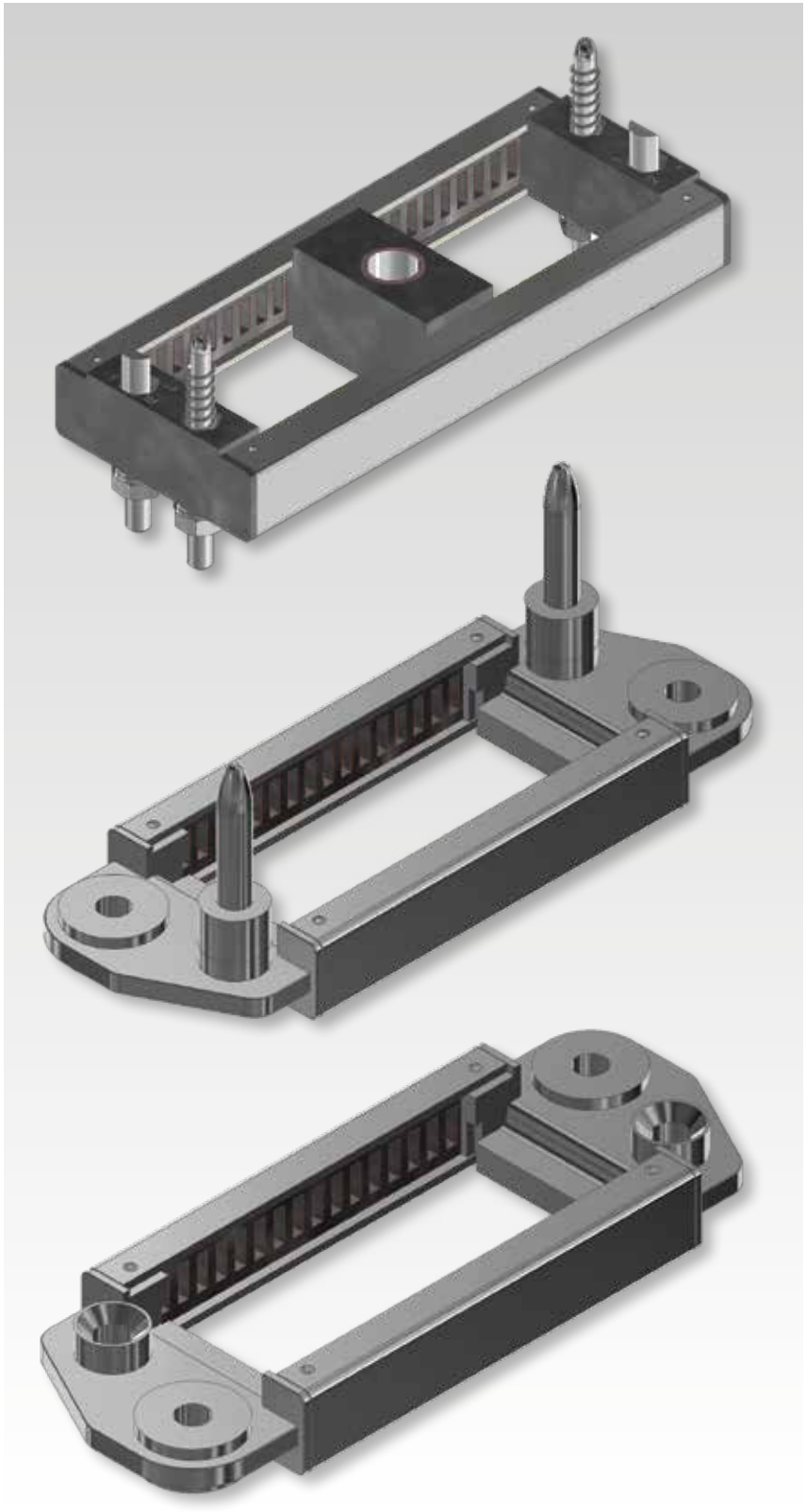


The CPE DMC 5.5 (Digital Modular Connector 5.5) is a customizable rectangular connector, which each customer can build according to his needs, depending on the number of the requested connections and current carrying capacity.
It uses the same philosophy of the 'Digital Building': elementary bricks connected to obtain a complex building. The DMC 5.5 consists of different types of plastic building blocks, with several types of contacts, in the same metallic frame. Each block, depending on its size, can contain a different number of pins or socket contacts.
The socket hyperboloid shaped contacts increase the reliability of the connector and its current carrying capacity, ensuring a high mate / demate duty cycle and an extraordinary resistance to shock and vibration.
All these characteristics make the DMC 5.5 useful especially for military or railway environments, where telecom or data exchanging applications are necessary.
CPE developed plastic modules with 2, 3, 5, 17 contacts. and modules with 9 or 30 contacts are developed on request.
The plastic blocks can accommodate two families of contacts: soldered contacts for cables or PCBs and crimped contacts for cables, each one with its own current carrying capacity.

CONNECTOR REQUIREMENTS:

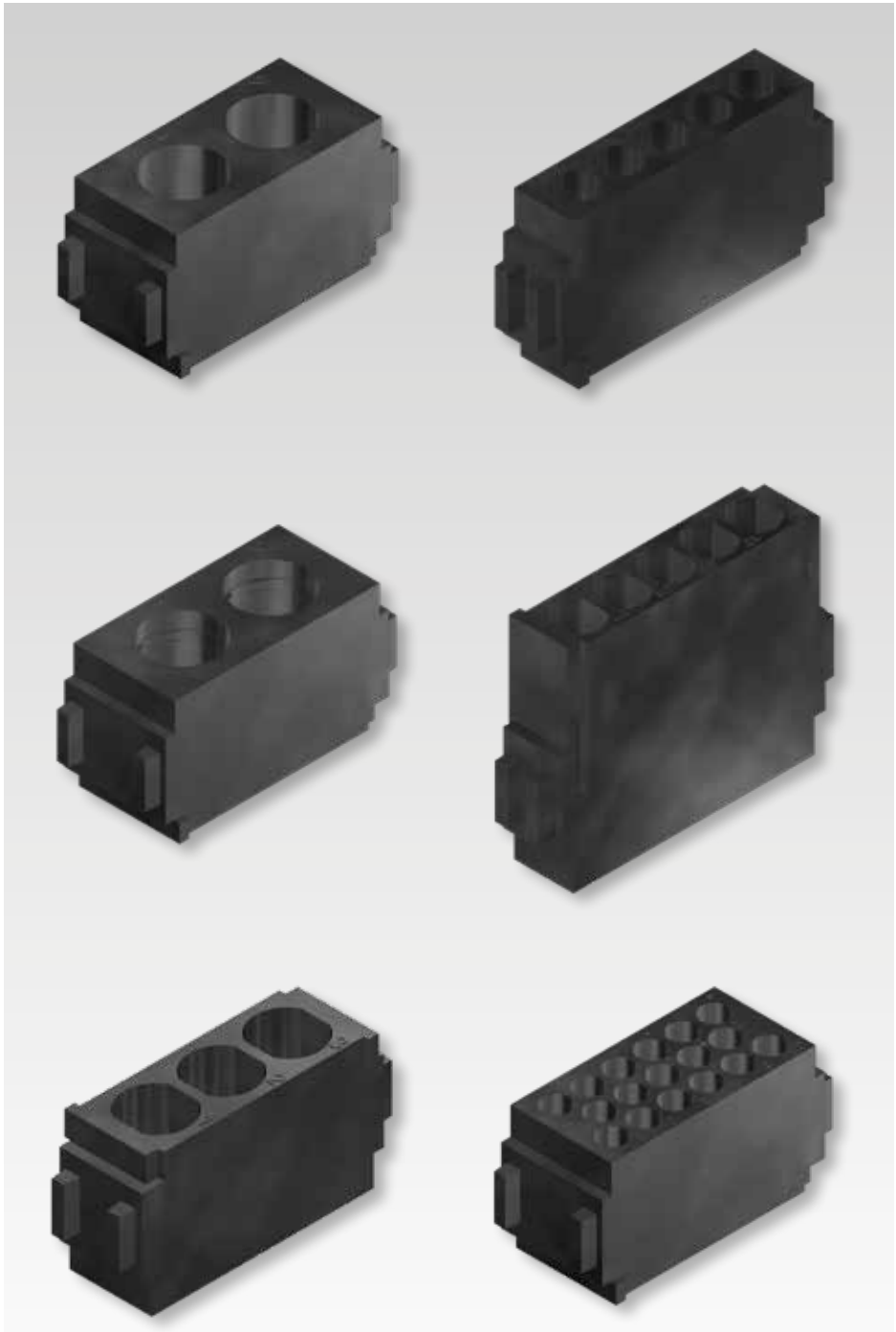
- General Requirements: EN 45545; MIL-STD-1344; NF F16-101
- Operating Temperature: from -65°C to + 125°C
- Fire Testing: Classification: I2/F1
- Humidity: MIL-STD-1344 Method 1002 (EIA-364-31 procedure)
- Temperature Cycling: MIL-STD-1344 Method 1003 (EIA-364-32 procedure)
- Salt Spray: MIL-STD-1344 Method 1001 (EIA-364-26 procedure)
- Vibration: MIL-STD-1344 Method 2005 (EIA-364-28 procedure)
- Mechanical Shock: MIL-STD-1344 Method 2004 (EIA-364-27 procedure)
- Solderability (when applicable): IPC/EIA J-STD-002, category 3

DMC 5.5 Frame



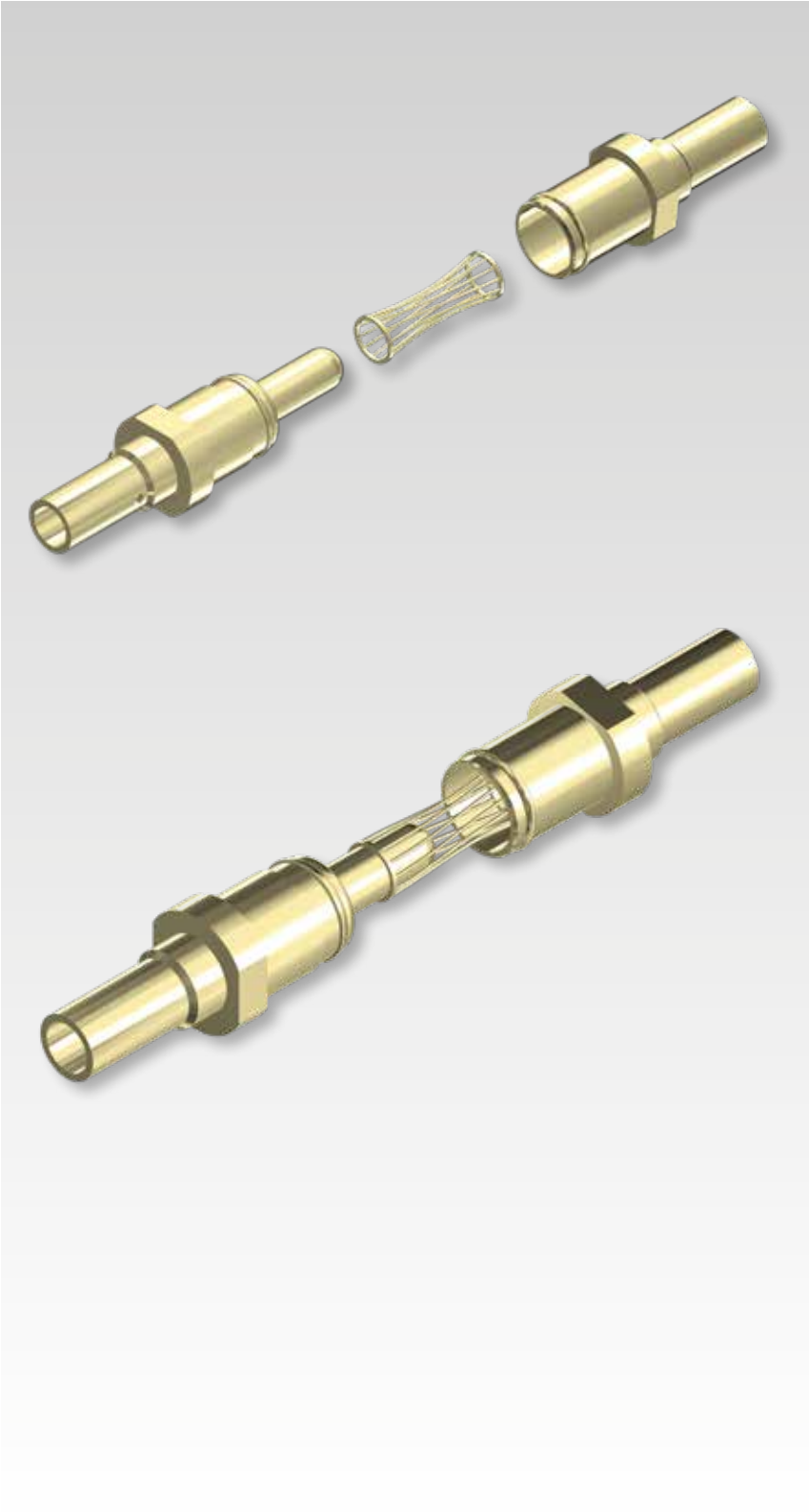
Each CPE DMC 5.5 frame consists of two rails and two end caps.
The more complex version uses jack screws, hoods, cable clamps and coupling rods. It can be customized according to the needs and applications of the customer and provided with lengths in multiple of steps equal to 5.5 mm.

Insulator



CPE develops different types of insulator blocks for accommodating different numbers of contacts: 2, 3, 5, 17 contacts as standard and 9, 30 contacts on customer request.
The pictures/images shows some blocks.
They are made of Nylon with glass reinforcement and are placed in the aluminium frame.

DMC 5.5 Contacts



Each CPE DMC 5.5 plastic module can accomodate two different type of male / female contacts: solder type and removable crimp type (clip, cloc). The female contact use the HYPERBOLOID technology.
The distinguishing feature of the HYPERBOLOID socket is the hyper-boloid-shaped sleeve formed by straight wires strung at an angle to the longitudinal axis. Viewed from the side, you see a curve defined by a series of apparent short straight line segments which are tangent lines to points along a hyperbolic curve. This geometry provides for a design which has a decreasing circumscribed circle when viewed from the entry. It begins larger than the pin acceptance diameter and is less than this same diameter at the center. When the pin is inserted into this sleeve, the wires stretch, well within elastic limits, to accommodate it. In so doing, the wires wrap themselves around the pin providing a number of continuous line contact paths.

- VLIF (Very Low Insertion Force)
- Extraordinary Resistance to Shock & Vibration.
- Duty Cycle Exceeding 100,000 Mate/ Demate.
- Low Contact Resistance.
- Improved Current Carrying Capacity.
- Highest Reliability.

Different contact diameters used are: 1 mm, 1.2 mm, 1.5 mm, 2.5 mm and 3.5 mm.
CPE provides soldered contacts for cables or PCBs and removable crimped contacts for cables, each one with its own current carrying capacity. Tables 1, 2, 3 show some electrical and mechanical characteristics of the used contacts.

EXAMPLE Crimp Contact «CLOC»

EXAMPLE Crimp Contact «CLIP»

Tab. 1

PIN CONTACT DIAMETER [mm]	CONTACT MAX ENGAGEMENT FORCE MIL-STD-1344 method 2014 (procedure EIA 364-37)
	Force [g]
1	40
1.2	90
1.5	160
2.5	400
3.5	850

Tab. 2

PIN CONTACT DIAMETER [mm]	CONTACT RESISTANCE (1mA) MIL-STD-1344 method 3004 (procedure EIA 364-06) [mΩ]	CURRENT RATING (25°C) IEC 512-3 Test 5b		
		Solder contact	Crimp contactclip	Crimp contact-cloc
1	< 2.5	9	9	-
1.2	< 2.5	9	-	-
1.5	< 2.5	20	20	15
2.5	< 1.0	40	-	35
3.5	< 0.8	57	37	37

Tab. 3

PIN CONTACT DIAMETER [mm]	ACCEPTED AWG FOR REMOVABLE CONTACT CRIMP (for crimping accessories see 'crimp modules' paragraph)	
	Crimp contact-clip	Crimp contact-cloc
1	AWG 16-20 AWG 20-24	-
1.2	-	-
1.5	AWG 16-20 AWG 14 AWG 20-24	AWG 16-20 AWG 20-24
2.5	-	AWG 14-16 AWG 12 AWG 10-12
3.5	AWG 10-12 10mm² cable	AWG 14-18 AWG 10-12

Material and Finishing Specifications

INSULATING MODULE

Polyamide 66, 25% glass filled, black color, UL94 V0 classified, compliant with EN 45545-2 (Hazard Levels HL1 – HL2 – HL3, for requirement sets R22 and R23) and NF F16-101 (Classification: I2/F1).
or
Polyphenylenesulphide (PPS), 40% glass reinforced, black color, type BST-40F in accordance with MIL-M-24519.

FRAME

- *Rail:* Stainless Steel AISI 303 (ASTM-A-582)
- *HeaderBlock:*
  Zinc Alloy ZAMA G-Zn Al4 per UNI EN 1774
  or
  Polyamide 66, 25% glass filled, black color, UL94 V0 classified
  or
  Polyphenylenesulphide (PPS), 40% glass reinforced, black color, type BST-40F in accordance with MIL-M-24519.
- *Guiding Pin:* Brass CuZn39Pb3 finished with white Chrome CR3 on 12-15 µm Zn
- *Coded Guide:* Brass CuZn39Pb3 (CW614N per EN 12164), finished with white Chrome CR3 over 5-7 µm Zn per QQ-Z-325 type 2 class 3 (ASTM-B-633 Type 2)
- *Guiding Floating Header Block:* Zinc Alloy ZAMA G-Zn Al4 per UNI EN 1774
- *Floating Washer:* Brass CuZn39Pb3 finished with white Chrome CR3 on 12-15 µm Zn
- *Modules Positioner:* Polyamide 66, 25% glass filled, black color, UL94 V0 classified, compliant with EN 45545-2 (Hazard Levels HL1 – HL2 – HL3, for requirement sets R22 and R23) and NF F16-101 (Classification: I2/F1).

HYPERBOLOID SOCKET CONTACT

- *Elastic element (Wires):*
  - Standard
    Berillium-Copper (CuBe per ASTM B 197) or Phosphor – Bronze (CuSn6P) per ASTM B139 plated with Gold, 0.25 µm, over Nickel, 2 µm, per SAE AMS-QQ-N-290, class 1, over Copper, 1 µm, per SAE-AMS-2418 or ASTM B734
  - Military
    Berillium-Copper (CuBe per ASTM B 197) or Phosphor – Bronze (CuSn6P) per ASTM B139 plated with Gold, 1.27 µm, per ASTMB488 Type II, Class 1.27, Code C, over Nickel, 2 µm, per SAE AMS-QQ-N-290 over Copper, 1 µm, per SAE-AMS-2418 or ASTM B734

– *Inner Sleeve, Front Sleeve:* Brass according to ASTM-B-455 Alloy UNS C38500, Rif. ISO CuZn39Pb3 ,plated with Nickel, 2 µm, per SAE AMS-QQ-N-290 class 1 , form SD, over Copper, 1 µm, per SAE AMS 2418 or ASTM B734

– *Rear Tail:*

a) Dip solder and solder cup: Brass per ASTM-B-455 Alloy UNS C38500, Rif. ISO CuZn39Pb3, plated with Gold, 0.15 µm, per ASTM-B-488- type II - grade C, over Nickel,2 µm, per SAE AMS-QQ-N-290, class 1, over Copper,1 µm, per SAE-AMS-2418 or ASTM B734

b) Crimp Termination: Brass per ASTM-B-121 Alloy UNS C35300, Rif. ISO CuZn35Pb2, plated with Gold, 0.15 µm, per ASTM-B-488- type II - grade C, over Nickel,2 µm, per SAE AMS-QQ-N-290, class 1, over Copper,1 µm, per SAE-AMS-2418 or ASTM B734

PIN CONTACT

- Standard

a) Dip solder and solder cup: Brass per ASTM-B-455 Alloy UNS C38500, Rif. ISO CuZn39Pb3, plated with Gold, 0.25 µm, per ASTM-B-488- type II - grade C, over Nickel, 2 µm, per SAE AMS-QQ-N-290, class 1, over Copper, 1 µm, per SAE-AMS-2418 or ASTM B734

b) Crimp Termination: Brass per ASTM-B-121 Alloy UNS C35300, Rif. ISO CuZn35Pb2, plated with Gold, 0.25 µm, per ASTM-B-488- type II - grade C, over Nickel, 2 µm, per SAE AMS-QQ-N-290, class 1, over Copper,1 µm, per SAE-AMS-2418 or ASTM B734

- Military

a) Dip solder and solder cup: Brass per ASTM-B-455 Alloy UNS C38500, Rif. ISO CuZn39Pb3, plated with Gold, 1.27 µm, per ASTM-B-488- type II - grade C, over Nickel, 2 µm, per SAE AMS-QQ-N-290, class 1, over Copper, 1 µm, per SAE-AMS-2418 or ASTM B734

b) Crimp Termination: Brass per ASTM-B-121 Alloy UNS C35300, Rif. ISO CuZn35Pb2, plated with Gold, 1.27 µm, per ASTM-B-488- type II - grade C, over Nickel, 2 µm, per SAE AMS-QQ-N-290, class 1, over Copper, 1 µm, per SAE-AMS-2418 or ASTM B734

PLASTIC HOOD

Polyamide 66, 25% glass filled, black color, UL94 V0 classified. Compliant with EN 45545-2 (Hazard Levels HL1 – HL2 – HL3, for requirement sets R22 and R23) and NF F16-101 (Classification: I2/F1).


Connectors
with floating
guides

«C» SERIES

Plug & receptacle connectors with Floating hardware Metal side heads

ORDERING CODE

*	C	*	/	***

Connector type

Plug	M
Receptacle	R

Series

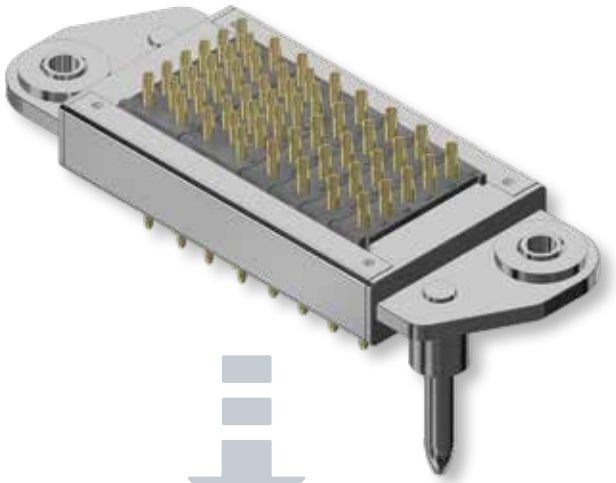
Contact surface treatment

Gold standard	S
Gold as for MIL-DTL-55302	M

Element progression

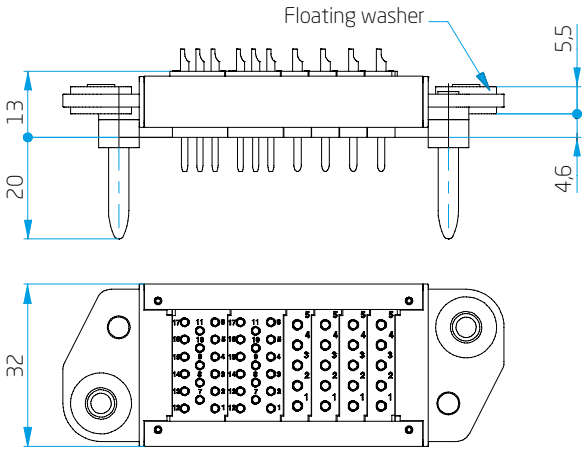
EXAMPLE "C" SERIES CONNECTOR

MCS/2Um-4Pm

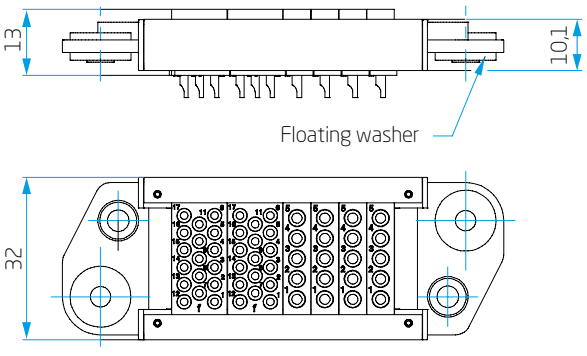


RCS/2Uf-4Pf

C SERIES PLUG CONNECTOR



C SERIES RECEPTACLE CONNECTOR



Dimensions are in mm.

«E» SERIES

Rack & Panel with guiding Floating hardware

Slim metal side heads with 11,2mm positioning guide

ORDERING CODE

*	E	*	/	***

Connector type

Plug	M
Receptacle	R

Series

Contact surface treatment

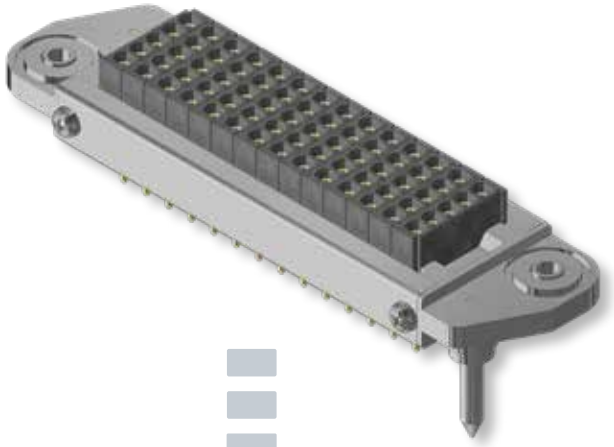
Gold standard	S
Gold as for MIL-DTL-55302	M

Element progression

NOTE - The positioning indications of the modules are vertical

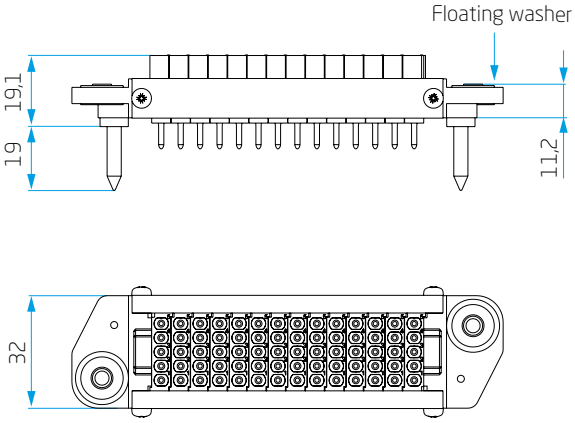
EXAMPLE "E" SERIES CONNECTOR

MES/14Qm

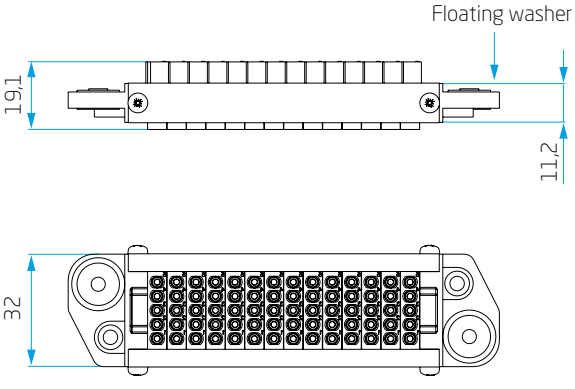


RES/14Qf

E SERIES PLUG CONNECTOR



E SERIES RECEPTACLE CONNECTOR



Dimensions are in mm.

«F» SERIES

Shielded Connector that can be coupled with C & E series receptacle connectors

Plug connectors with guiding

Floating hardware

Slim metal side heads with 11,2mm positioning guide

ORDERING CODE

*	F	*	/	***

Connector type

Plug	M

Series

Contact surface treatment

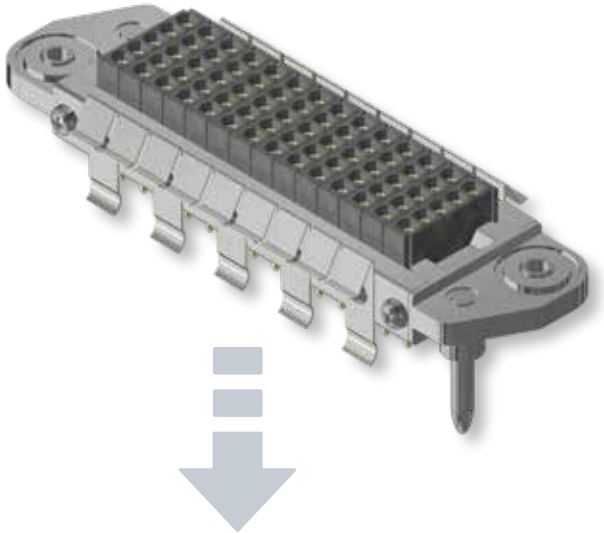
Gold standard	S
Gold as for MIL-DTL-55302	M

Element progression

NOTE - The positioning indications of the modules are vertical

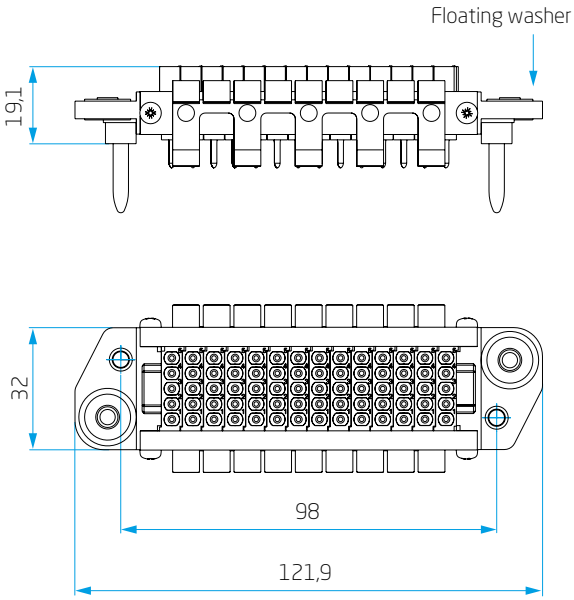
EXAMPLE "F" SERIES CONNECTOR

MFS/14Qm



RCS/14Qf or RES/14Qf

F SERIES PLUG CONNECTOR



Dimensions are in mm.

«G» SERIES

Rack & Panel connectors with guiding Floating hardware

Slim plastic side heads with 11,2mm positioning guide

ORDERING CODE

*	G	*	/	***

Connector type

Plug	M
Receptacle	R

Series

Contact surface treatment

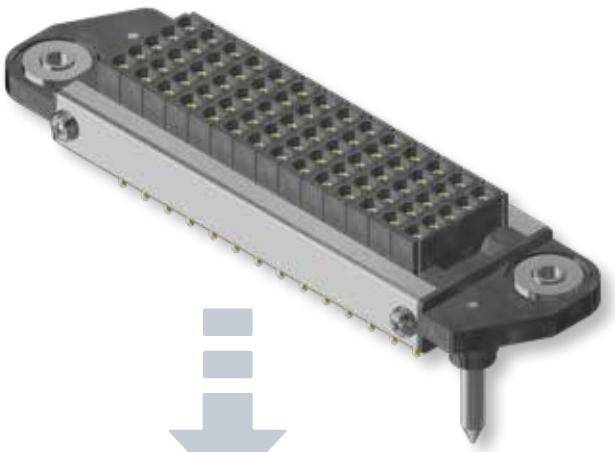
Gold standard	S
Gold as for MIL-DTL-55302	M

Element progression

NOTE - The positioning indications of the modules are vertical

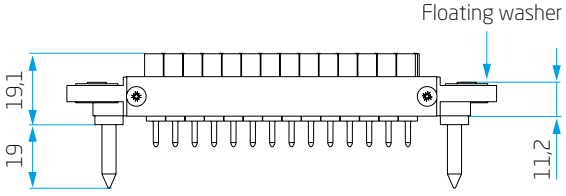
EXAMPLE "G" SERIES CONNECTOR

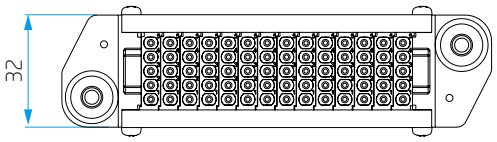
MGS /14Qm



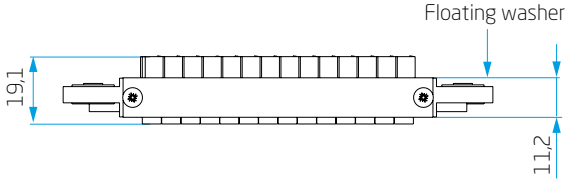
RGS /14Qf /14Qf

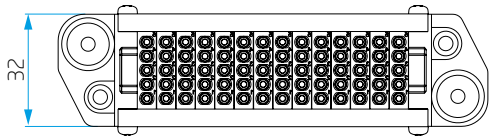
G SERIES PLUG CONNECTOR





G SERIES RECEPTACLE CONNECTOR





Dimensions are in mm.

«WZ» SERIES

In-line connectors with metal hood

Plug and receptacle with guiding Floating

ORDERING CODE

*	WZ	*	***	/	***

Connector type

Plug	M
Receptacle	R

Series

Contact surface treatment

Gold standard	S
Gold as for MIL-DTL-55302	M

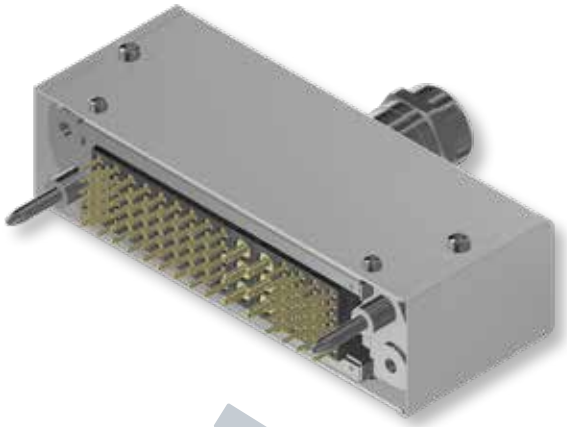
Cable clamp

Cable clamp PG16 ø 8.0 ø 14.0	16
Double Cable clamp PG16 ø 8.0 ø 14.0	32

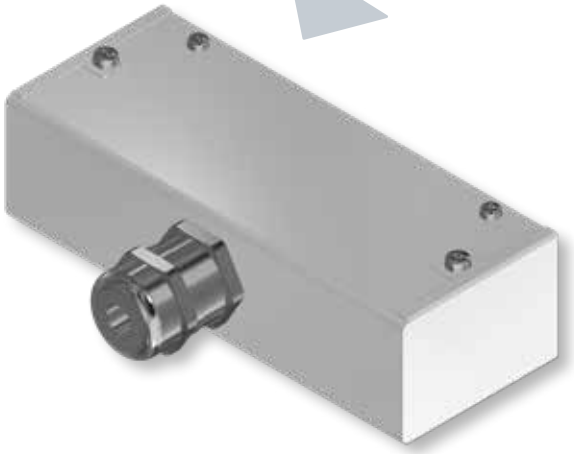
Element progression

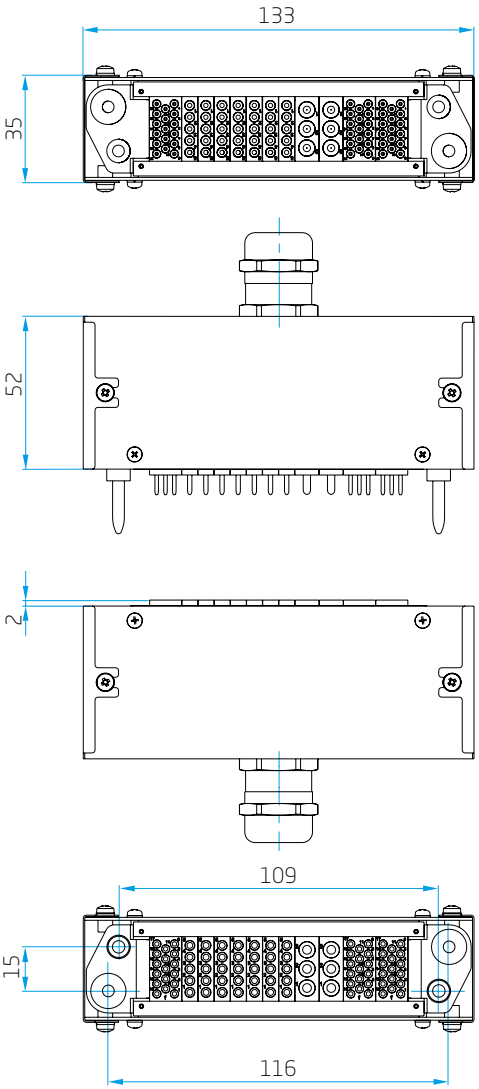
EXAMPLE "WZ" SERIES CONNECTOR

MWZS/1Um-7Pm -2Km 2Um



RWZS/1Uf-7Pf -2Kf-2Uf





Dimensions are in mm.


Connectors
Without floating guides

«D» SERIES

Plug & Receptacle connectors without guiding Floating

Plastic side heads

ORDERING CODE

*	D	*	/	***

Connector type

Plug	M
Receptacle	R

Series

Contact surface treatment

Gold standard	S
Gold as for MIL-DTL-55302	M

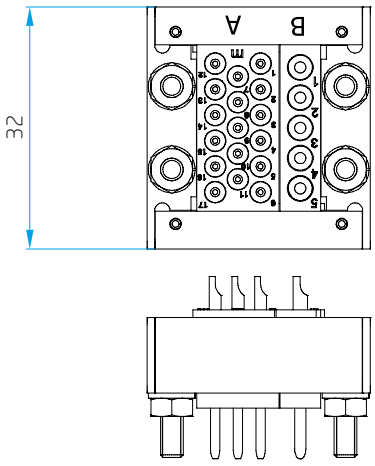
Element progression

EXAMPLE "D" SERIES CONNECTOR

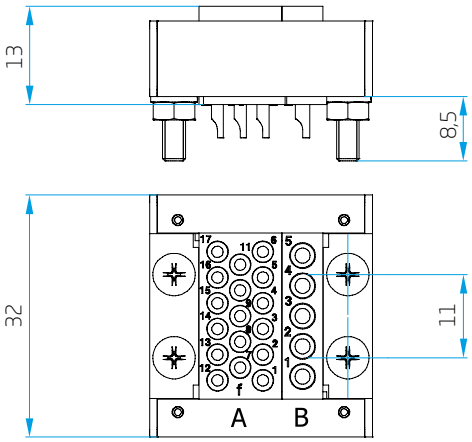
MDS/1Um-1Pm

RDS/1Uf - 1Pf

D SERIES PLUG CONNECTOR



D SERIES RECEPTACLE CONNECTOR



Dimensions are in mm.

«H» SERIES

Connectors Plug with plastic Hood

Plug & receptacle connectors that can be provided with and without coding guides

ORDERING CODE

*	H*	*	/	***	–	*	–	***	/	*	**	***

Connector type

Plug	M
Receptacle	R

Series

Without coding	H0
With coding	H1

Contact surface treatment

Gold standard	S
Gold as for MIL-DTL-55302	M

Element progression before screw extractor

Extractor

Type 2: standard (2 steps)	A
Type 0: special (2 steps)	S

Element progression after screw extractor

Standard lengths

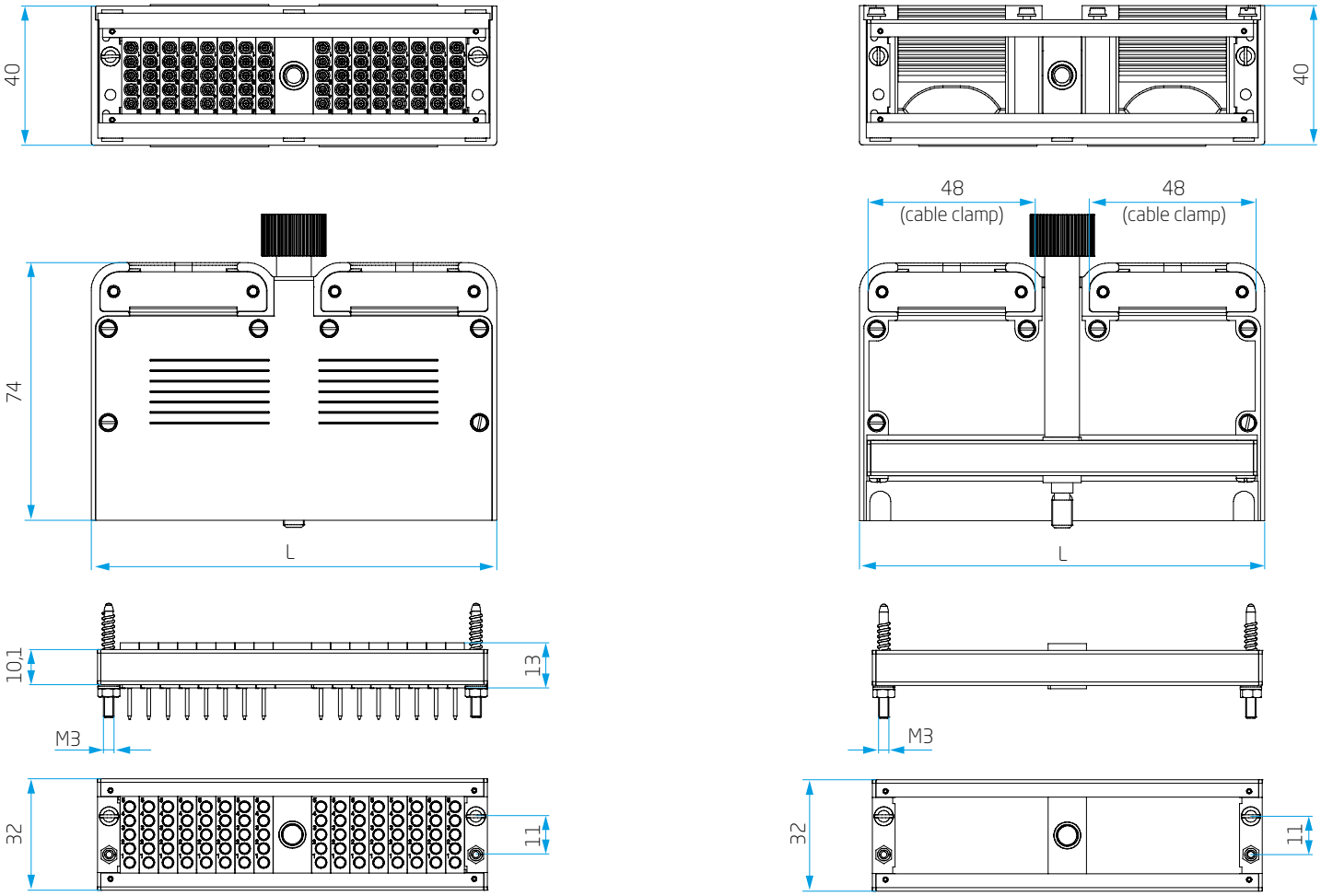
PLUG (with cover)	RECEPT.	PROGRESSION (in steps: 1 step= 5,50mm) extr.2 or 0	
83,5	79	5-2-5	1
100	95,5	6,5-2-6,5	2
100	95,5	7-2-6	3
111	106,5	8-2-7	4
127,5	123	9-2-9	5
138,5	134	10-2-10	6

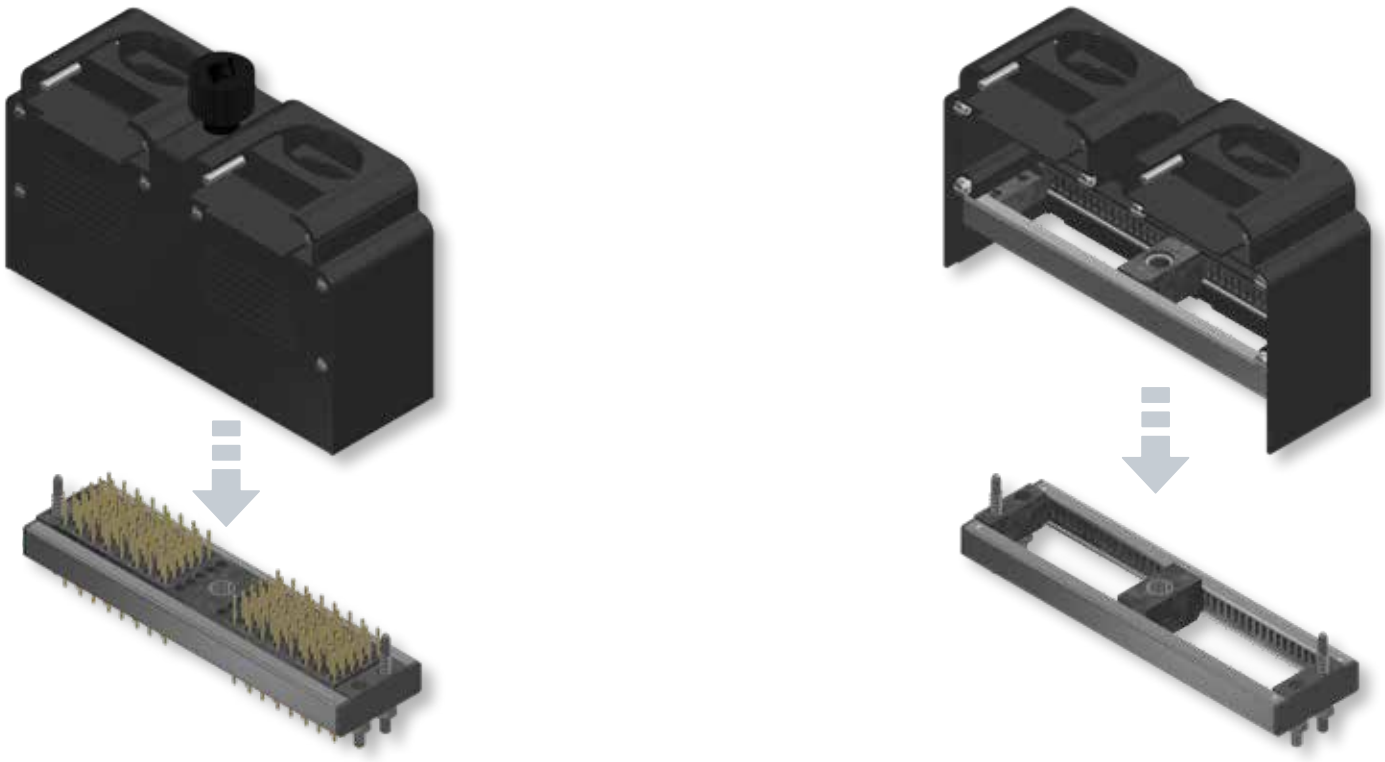
Quantity and size of cable clamp (only for plug)

n°1 standard adjustable cable clamp	AA
n°2 standard adjustable cable clamps	BB
n°1 3/4" GAS cable clamp	CC
n°2 3/4" GAS cable clamps	DD
n°1 1" GAS cable clamp	EE
n°2 1" GAS cable clamps	FF
n°2 adjustable cable clamps 45°	GG

H1 Series: Coding
Leave blank if standard 6F coding is required

«H0» Series

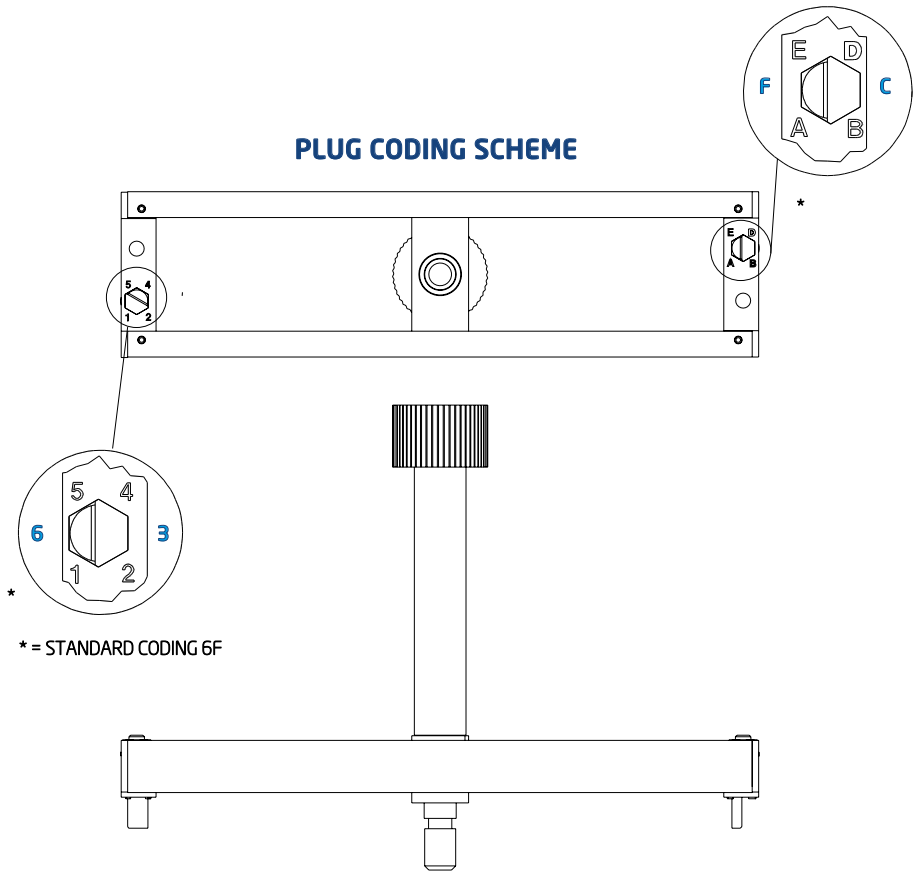




Dimensions are in mm.

«H1» Series

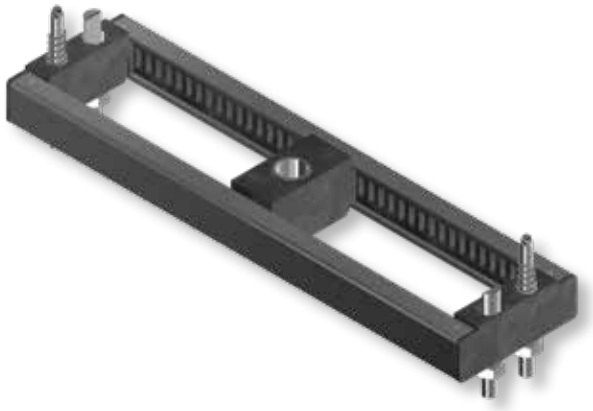
PLUG CODING SCHEME

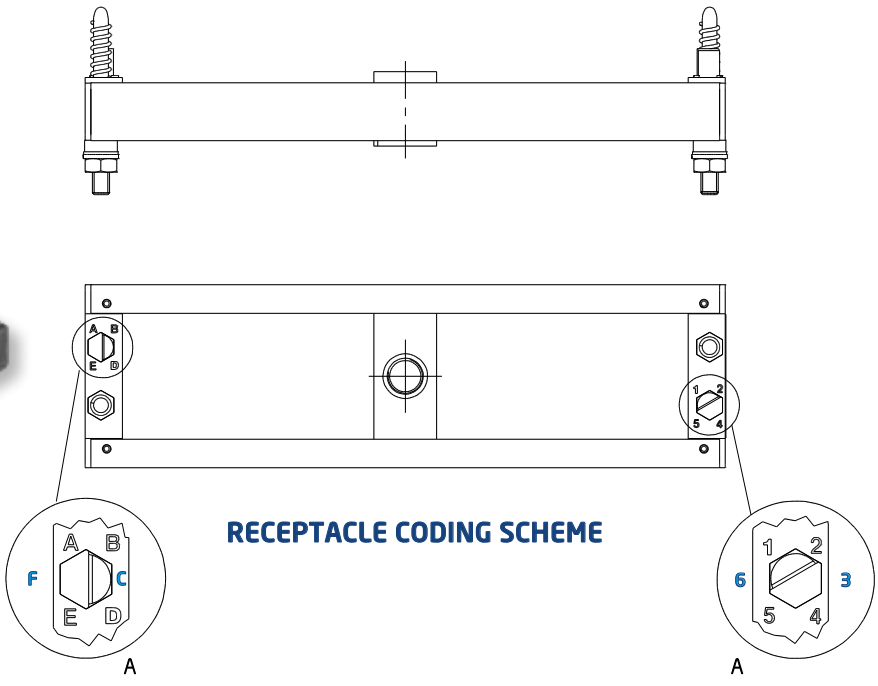


* = STANDARD CODING 6F

NUMERICAL CODE LATER CHANGE AS ALPHABETICAL CODE

3-6 and C-F are not represented but can be used as a key to codes.



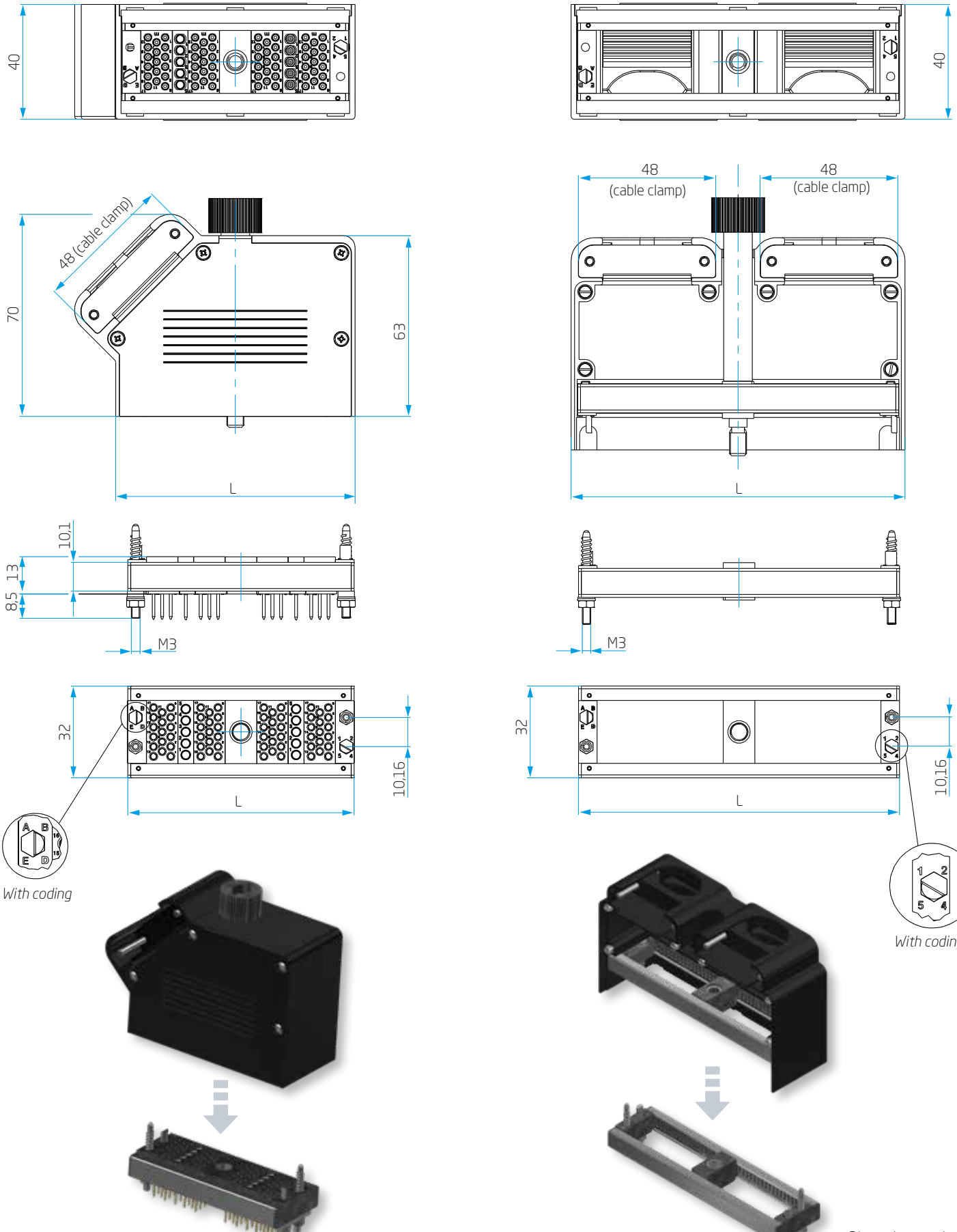


RECEPTACLE CODING SCHEME

A = EXAMPLE OF CODING 1C

Dimensions are in mm.

«H1» Series



Dimensions are in mm.

«K» SERIES

Connectors Plug with metal Hood

Plug connectors that can be provided with and without coding guides

ORDERING CODE

*	K*	*	/	***	–	*	–	***	/	*	**	***

Connector type

Plug	M

Series

Without coding	K0
With coding	K1

Contact surface treatment

Gold standard	S
Gold as for MIL-DTL-55302	M

Element progression before screw extractor

Extractor

Type 2: standard (2 steps)	A
Type 0: special (2 steps)	S

Element progression after screw extractor

Standard lengths

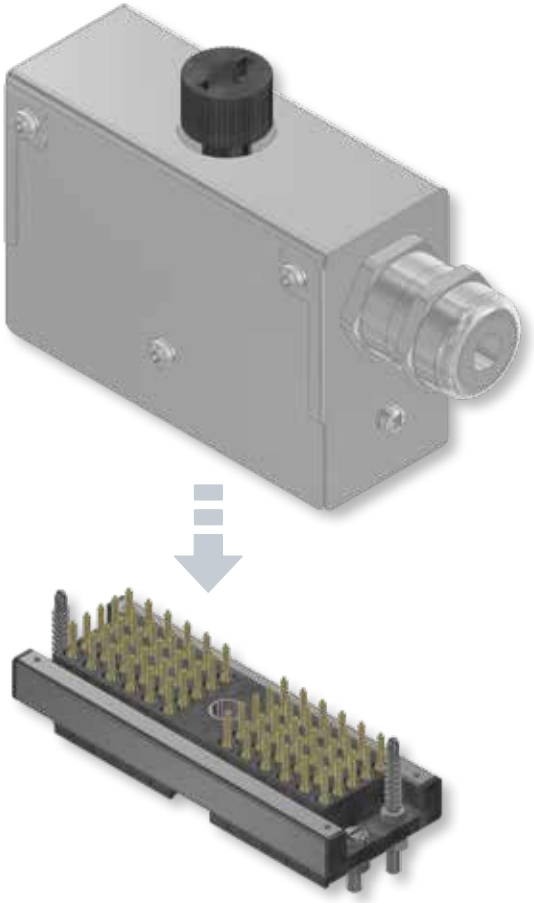
PLUG (with cover)	RECEPT.	PROGRESSION (in steps: 1 step= 5,50mm) extr.2 or 0	
83,5	79	5-2-5	1
100	95,5	6,5-2-6,5	2
100	95,5	7-2-6	3
111	106,5	8-2-7	4
127,5	123	9-2-9	5
138,5	134	10-2-10	6

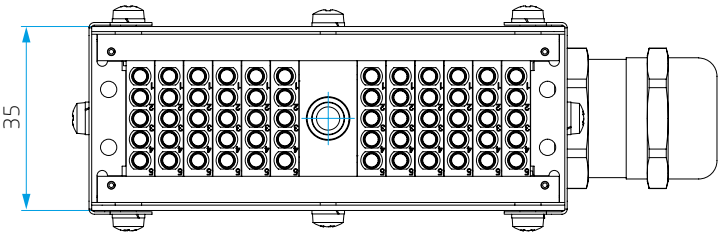
Quantity and size of cable clamp (only for plug)

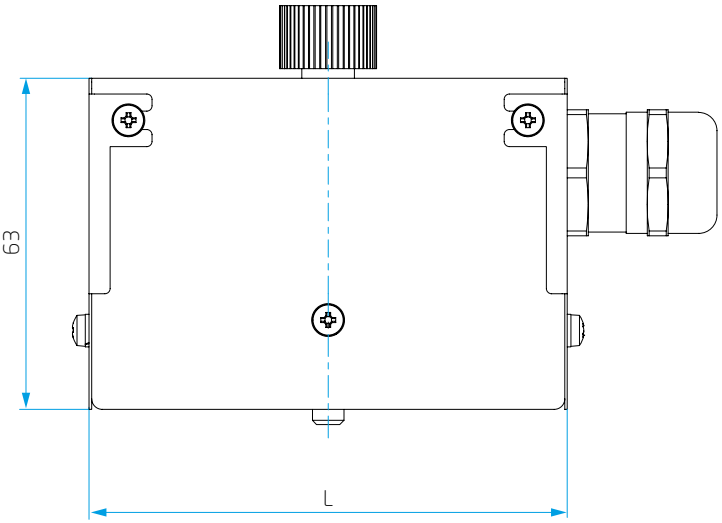
n°1 standard adjustable cable clamp	AA
n°2 standard adjustable cable clamps	BB
n°1 3/4" GAS cable clamp	CC
n°2 3/4" GAS cable clamps	DD
n°1 1" GAS cable clamp	EE
n°2 1" GAS cable clamps	FF

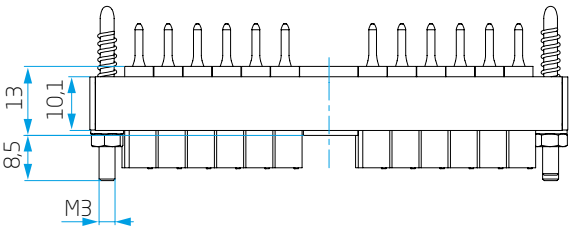
H1 Series: Coding
Leave blank if standard 6F coding is required

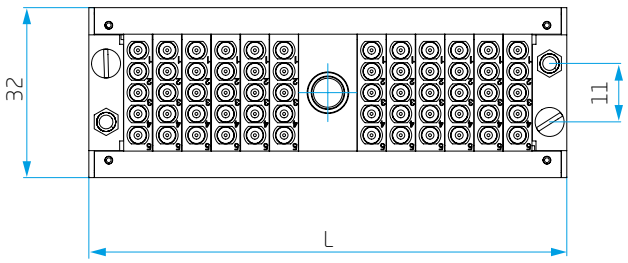
«KO» Series







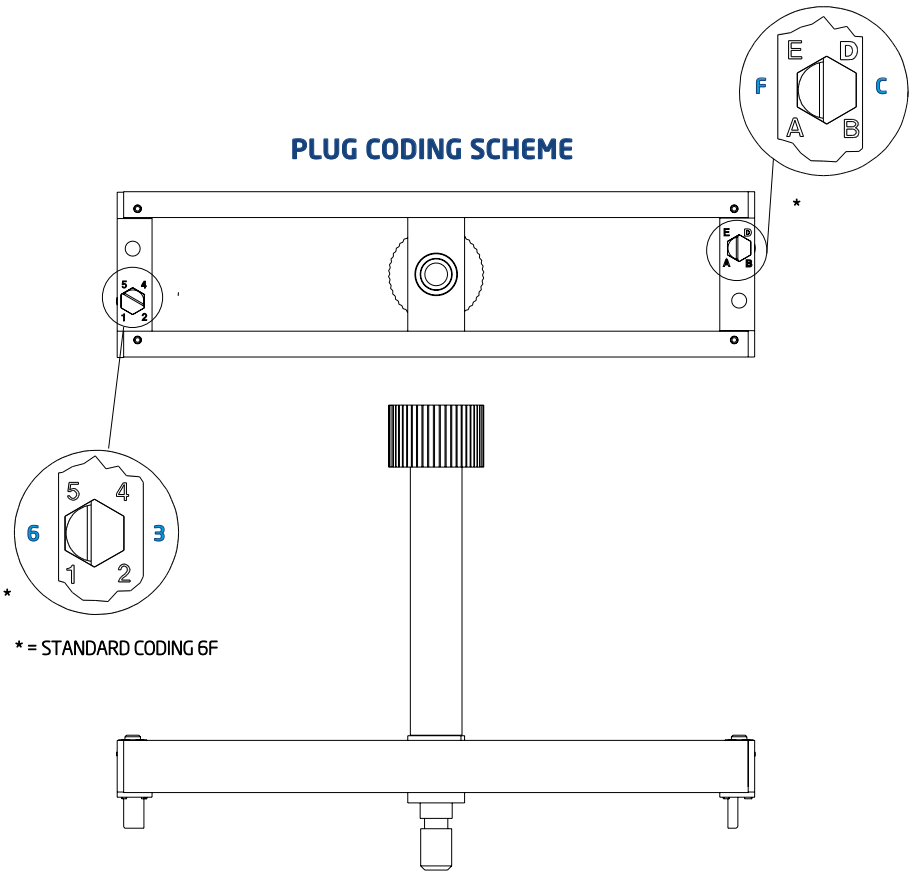




Dimensions are in mm.

«K1» Series

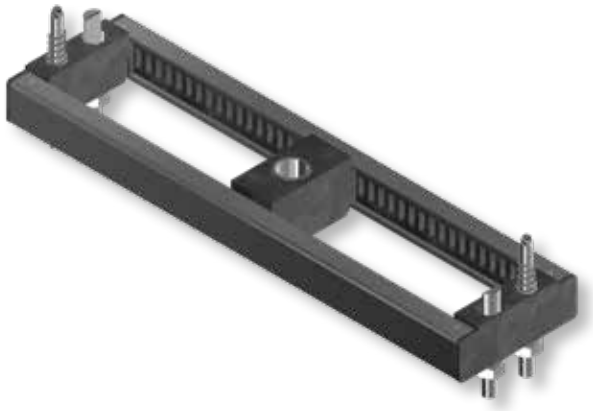
PLUG CODING SCHEME

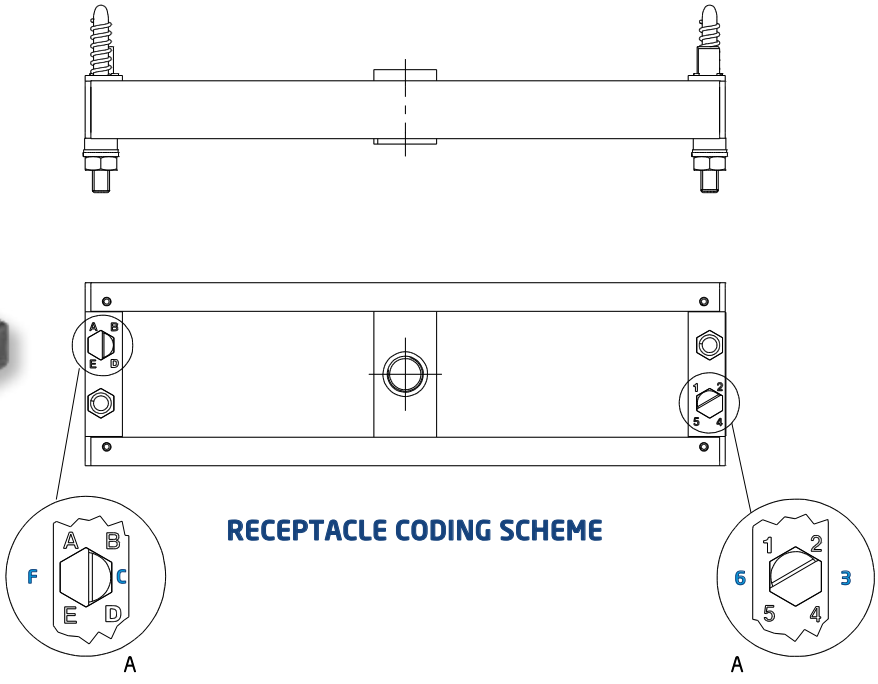


* = STANDARD CODING 6F

NUMERICAL CODE LATER CHANGE AS ALPHABETICAL CODE

3-6 and C-F are not represented but can be used as a key to codes.



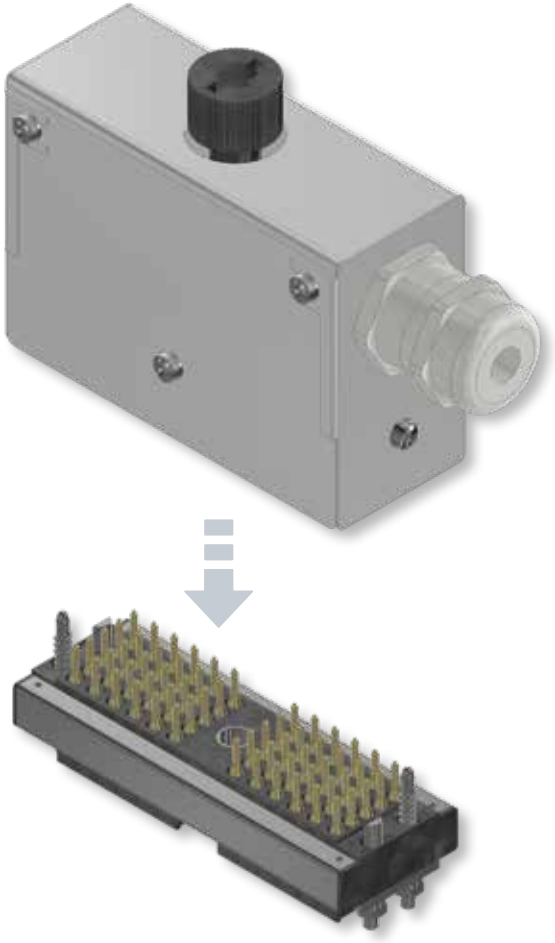


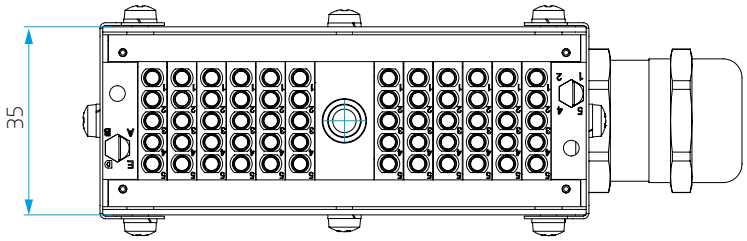
RECEPTACLE CODING SCHEME

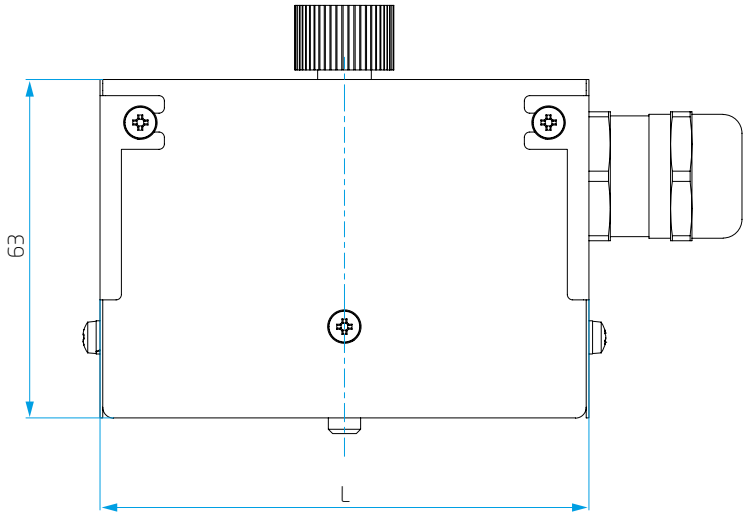
A = EXAMPLE OF CODING 1C

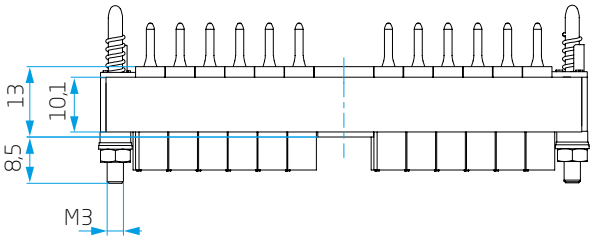
Dimensions are in mm.

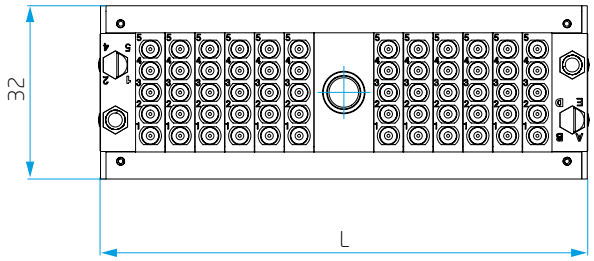
«K1» Series











«ZX» SERIES

Connectors Plug with screw locking device without hood

Connectors without coding guides

ORDERING CODE

*	ZX	*	/	***	–	*	–	***	/	*

Connector type

Plug	M
Receptacle	R

Series

Contact surface treatment

Gold standard	S
Gold as for MIL-DTL-55302	M

Element progression before screw extractor

Extractor

Type 2: standard (2 steps)	A
Type 0: special (2 steps)	S

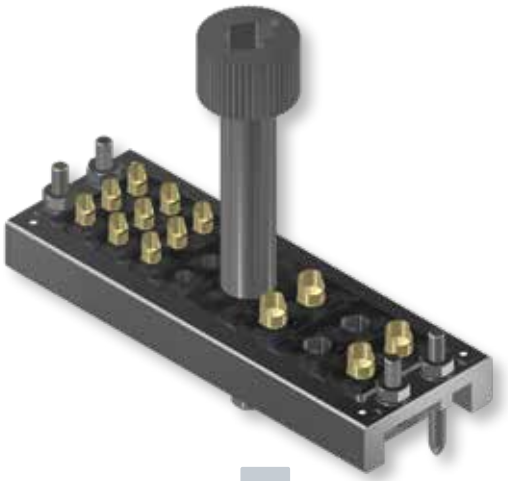
Element progression after screw extractor

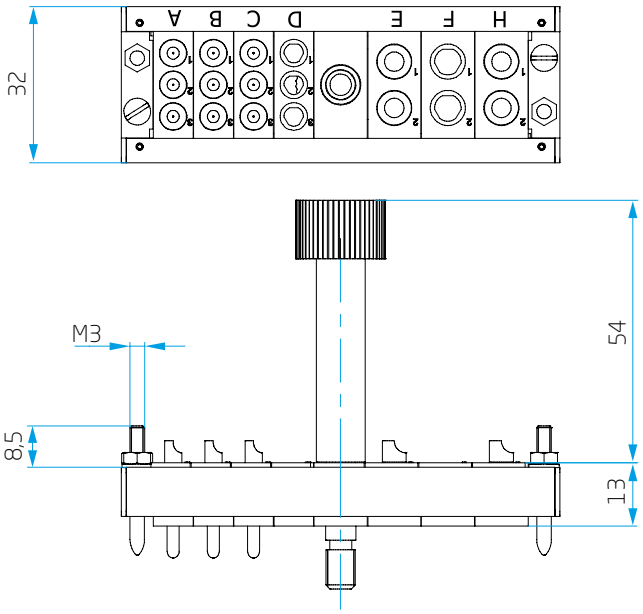
Standard lenghts

PLUG (with cover)	RECEPT.	PROGRESSION (in steps: 1 step= 5,50mm) extr.2 or 0	
83,5	79	5-2-5	1
100	95,5	6,5-2-6,5	2
100	95,5	7-2-6	3
111	106,5	8-2-7	4
127,5	123	9-2-9	5
138,5	134	10-2-10	6

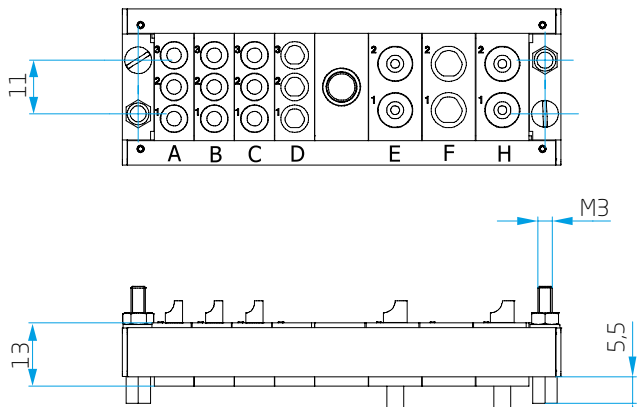
EXAMPLE "ZX" series connector

MZXS/3Km-1Ke-A-1Bf-1Be-1Bf

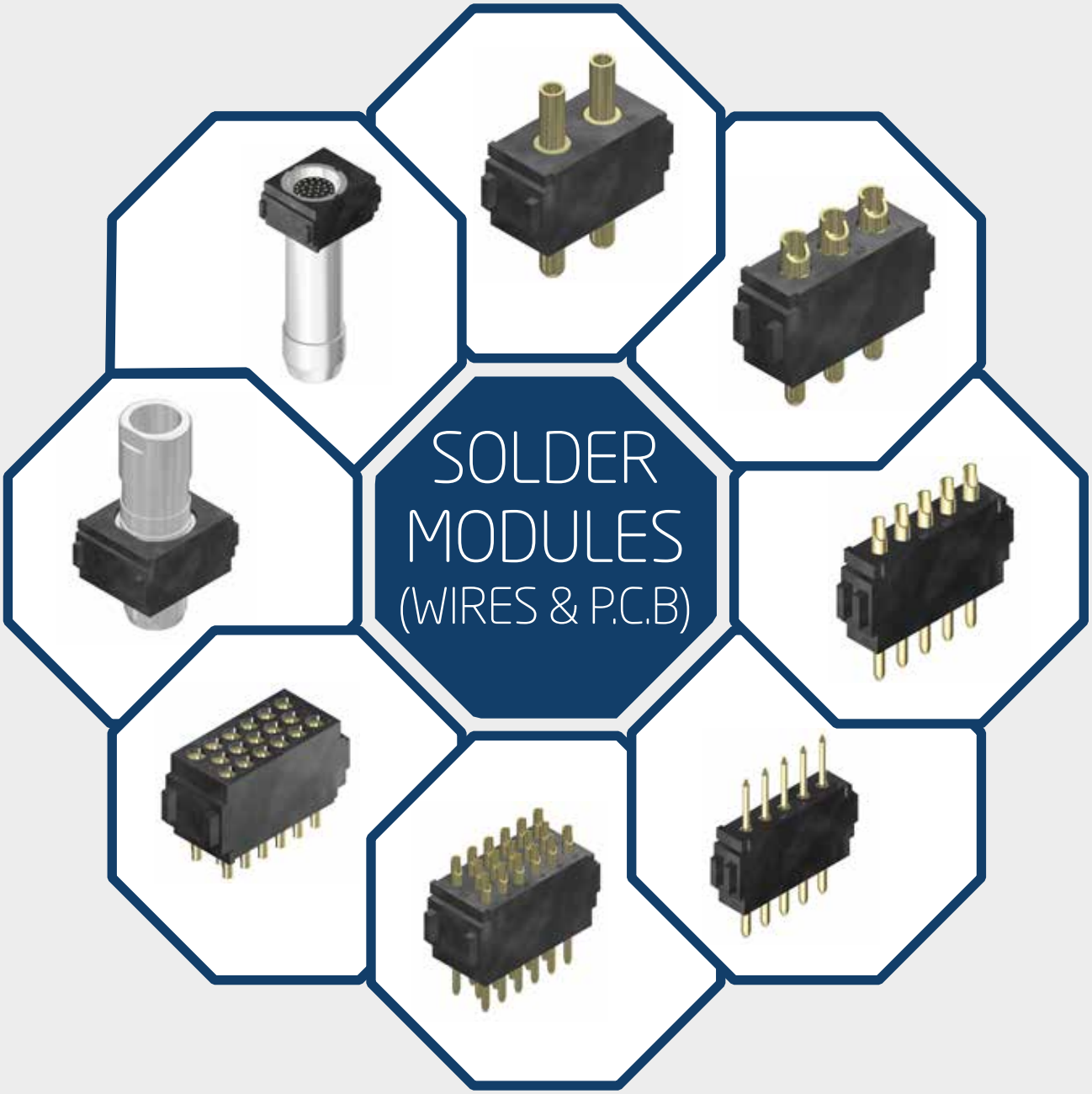




RZXS/3Kf-1Ke-A-1Bm-1Be-1Bm

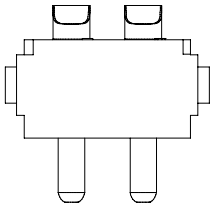


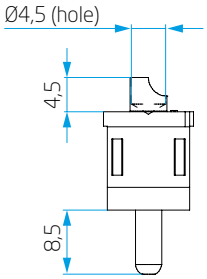
Dimensions are in mm.

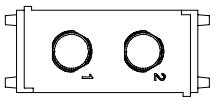

SOLDER
MODULES
(WIRES & P.C.B)

Type «B» element Ø3,5mm contacts

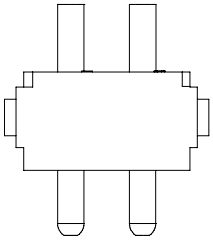
2 STEPS x 5,5 mm

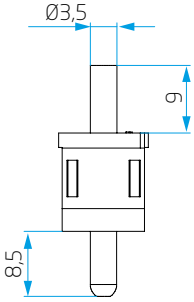


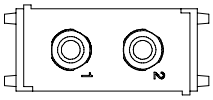




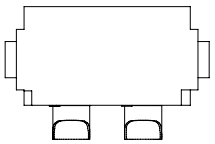
Bm= 2 Positions module male solder contacts

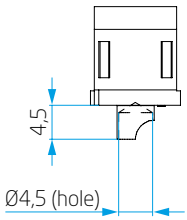


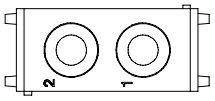




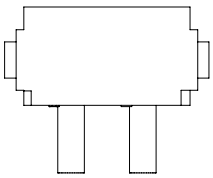
Bq= 2 Positions module male P.C.B.

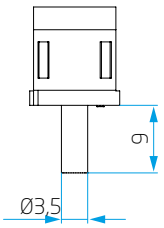


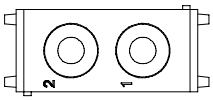




Bf= 2 positions module female solder contacts

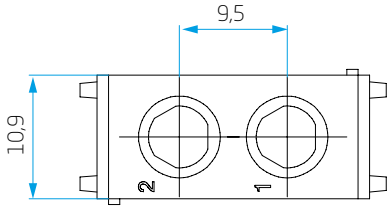


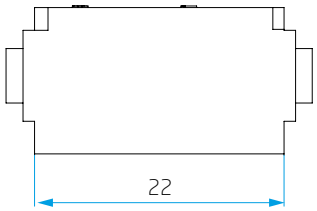


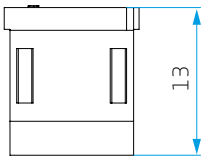


Bt= 2 Positions module female P.C.B.

****Be= 2 positions module empty**





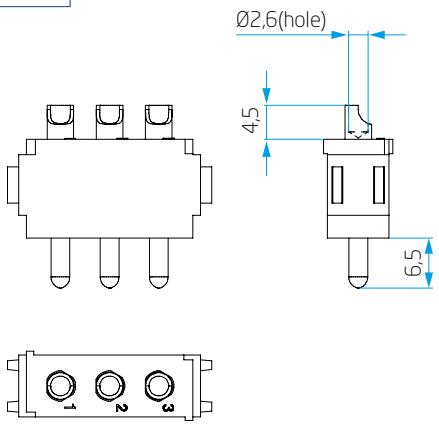


****Indicable as Ae**

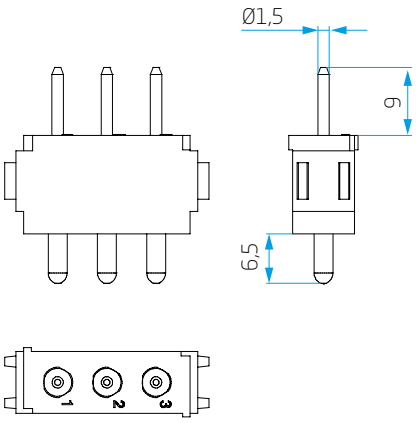
Dimensions are in mm.

Type «K» element Ø2,5mm contacts

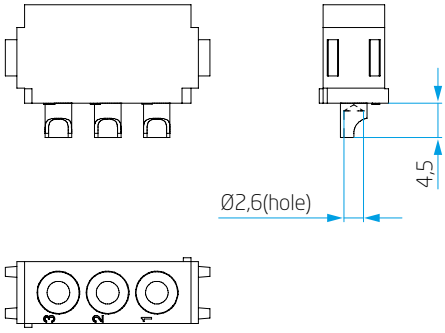
1,5 STEPS x 5,5 mm



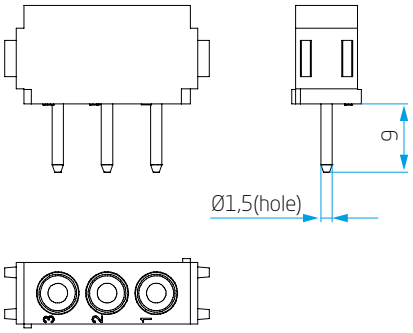
Km= 3 positions module male solder contacts



Kp= 3 positions module male P.C.B.

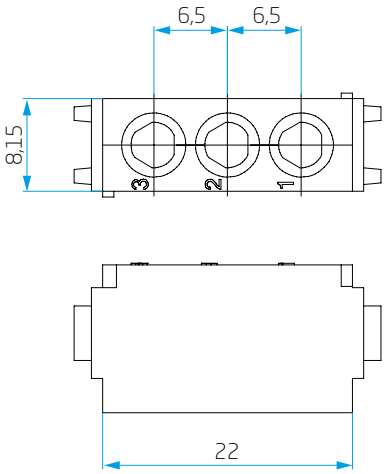


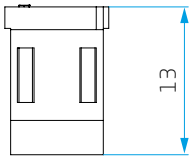
Kf= 3 positions module female solder contacts



Ks= 3 positions module female P.C.B.

Ke= 3 positions module empty

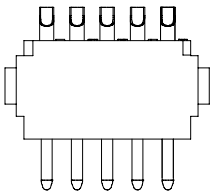


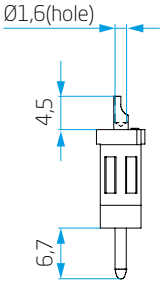


Dimensions are in mm.

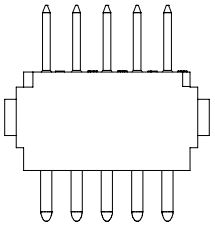
Type «P» element Ø1,5mm contacts

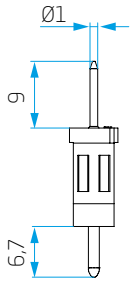
1 STEP x 5,5 mm

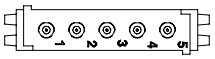




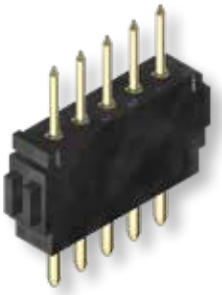
Pm= 5 positions module male solder contacts

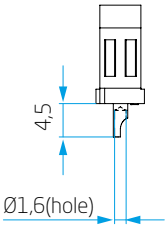


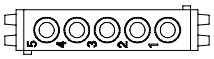




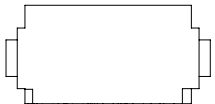
Pp= 5 positions module male P.C.B.

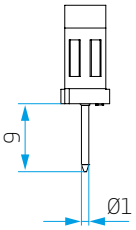




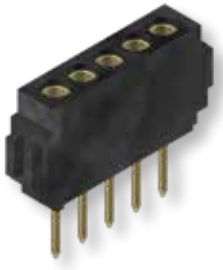


Pf= 5 positions module female solder contacts

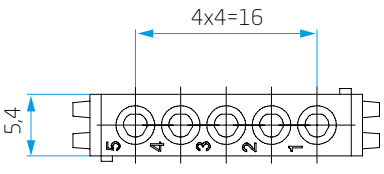


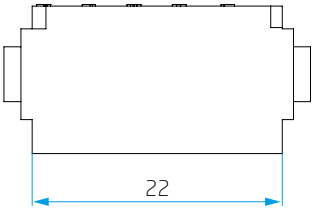


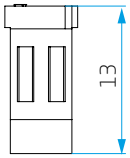
Ps= 5 positions module female P.C.B.



Pe= 5 positions module empty





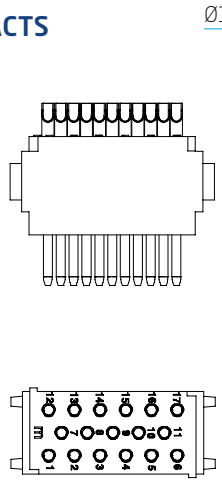


Dimensions are in mm.

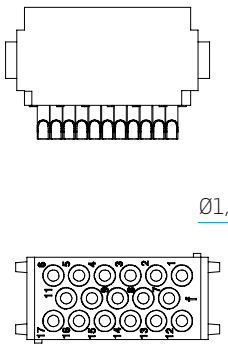
Type «U» element Ø1,2mm contacts

2 STEPS x 5,5 mm

Ø1,2mm. CONTACTS

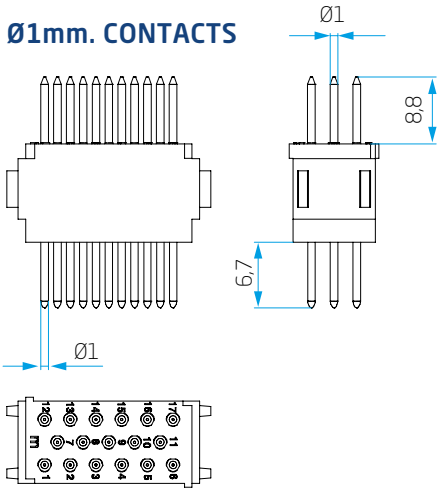


Um= 17 positions module male solder contacts

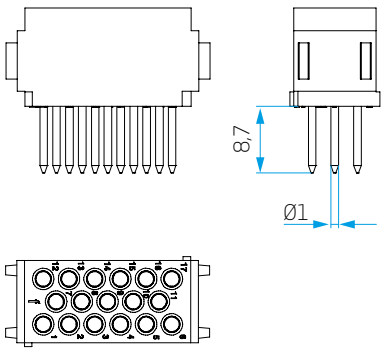


Uf= 17 positions module female solder contacts

Ø1mm. CONTACTS

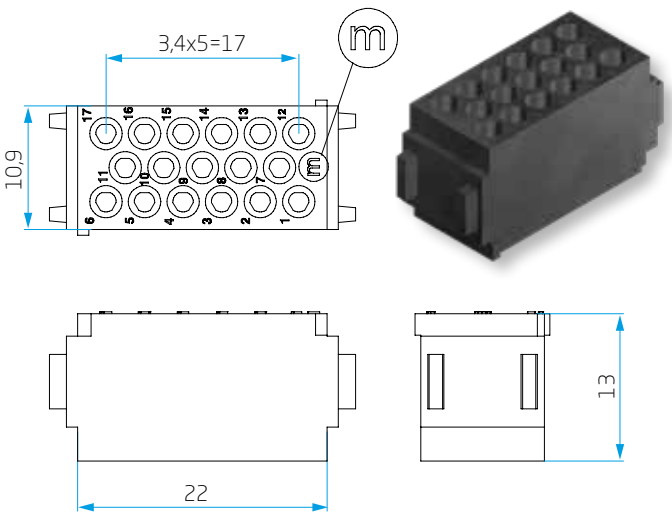


Up= 17 positions module male P.C.B.

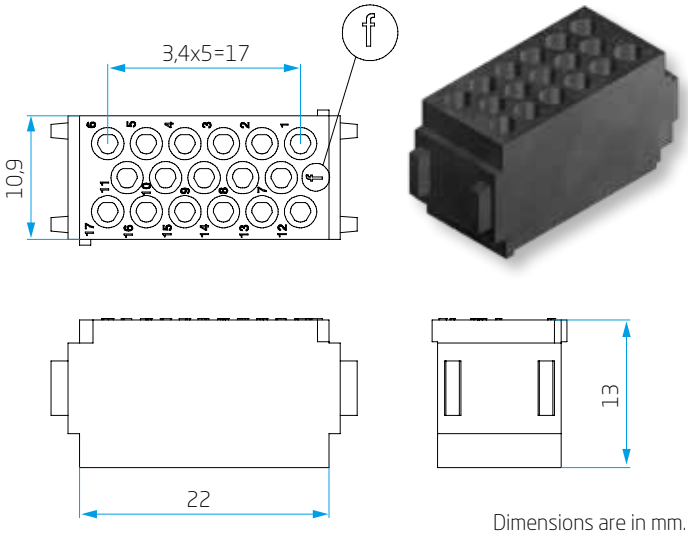


Us= 17 positions module female P.C.B.

Uem= 17 positions module male empty



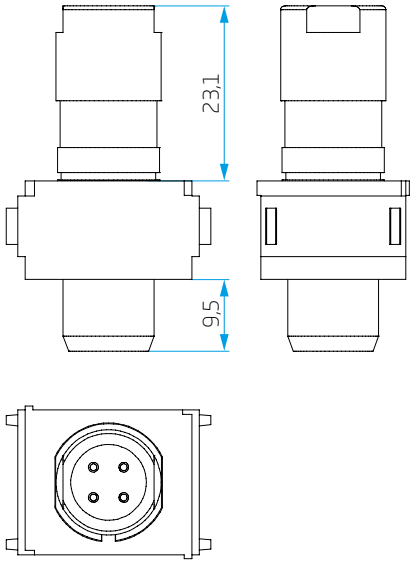
Uef= 17 positions module female empty



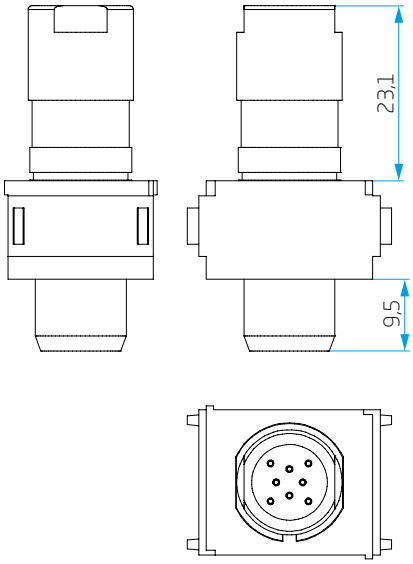
Dimensions are in mm.

Type «C» element circular connectors

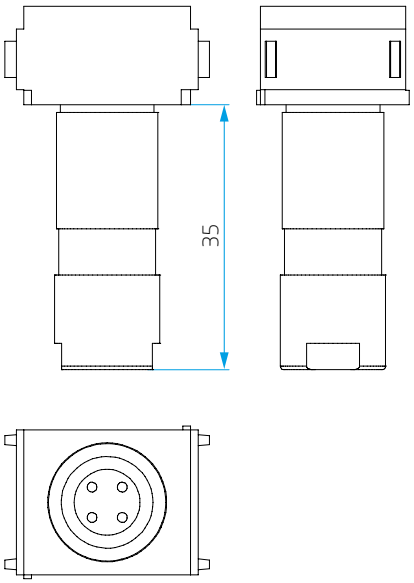
3.5 STEP x 5.5 mm



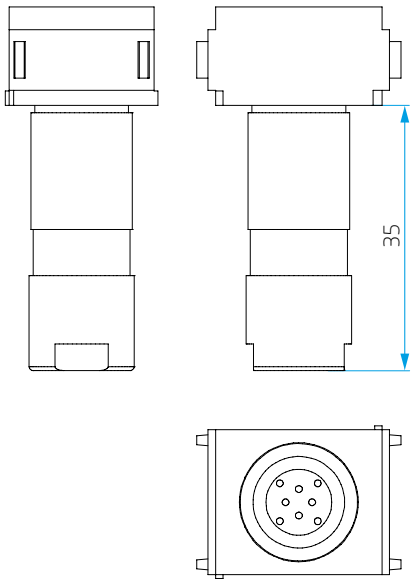
CAm= 4 way male circular metal connector CAT.5



CBm= 8 way male circular metal connector CAT.5 CAT.6



CAf= 4 way female circular metal connector CAT.5

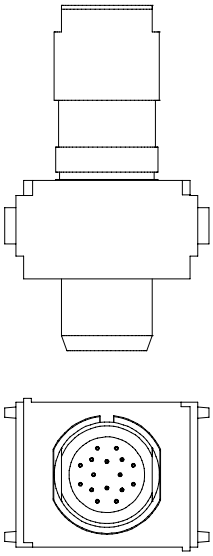


CBf= 8 way female circular metal connector CAT.5 CAT.6

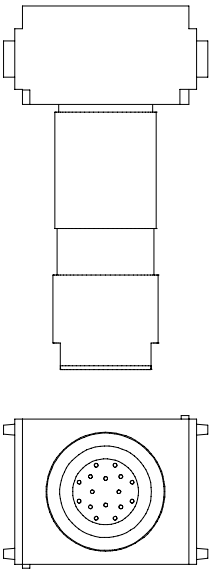
Dimensions are in mm.

Type «C» element circular connectors

3.5 STEP x 5.5 mm

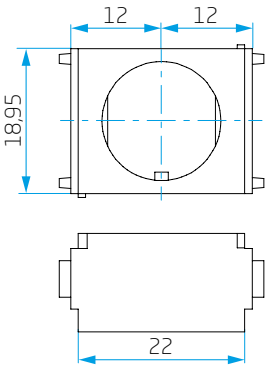


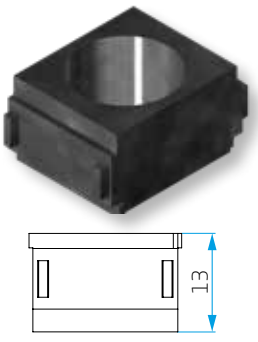
CCm= 16 way male circular metal connector



CCf= 16 way female circular metal connector

Cy= Empty module for circular metal connector (TYPE CA - CB - CC)

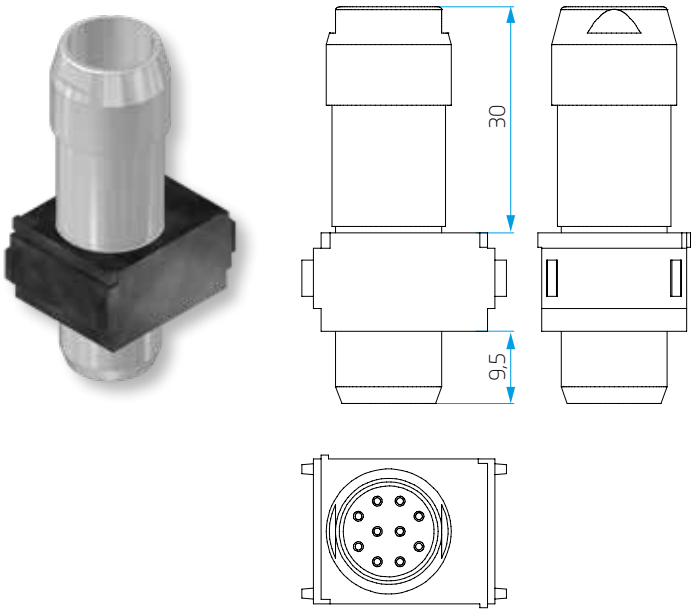




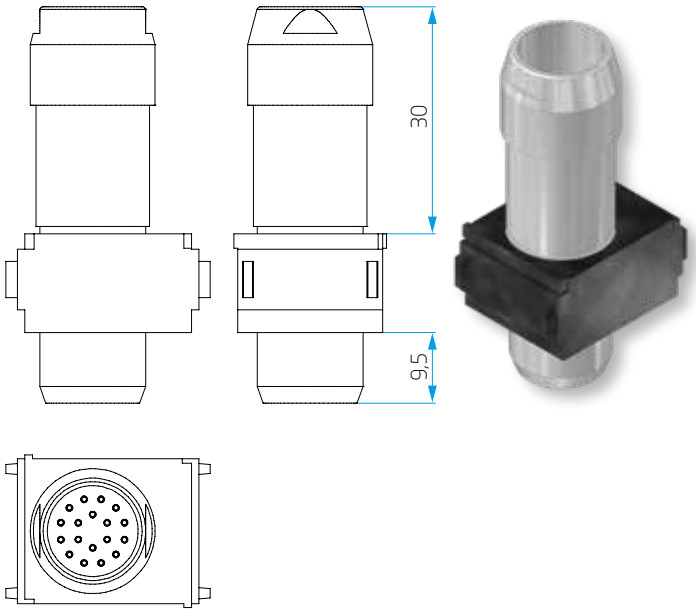
Dimensions are in mm.

Type «C» element circular connectors

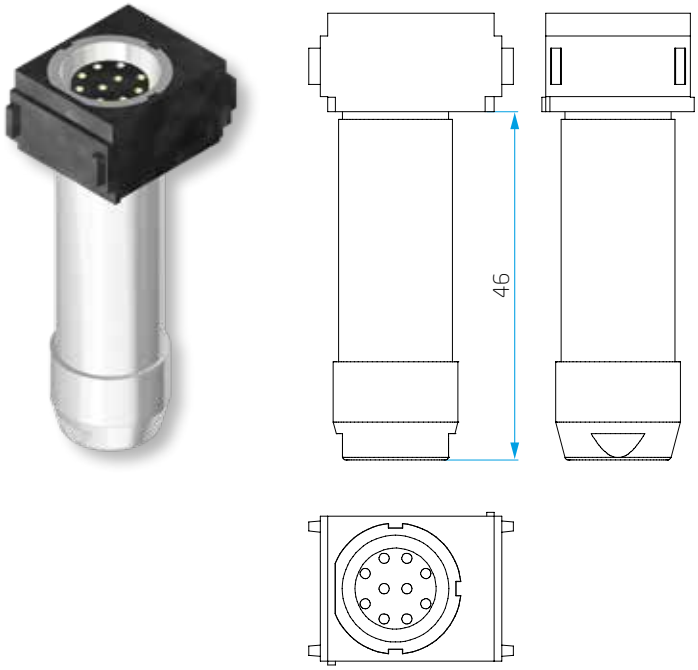
3.5 STEP x 5.5 mm



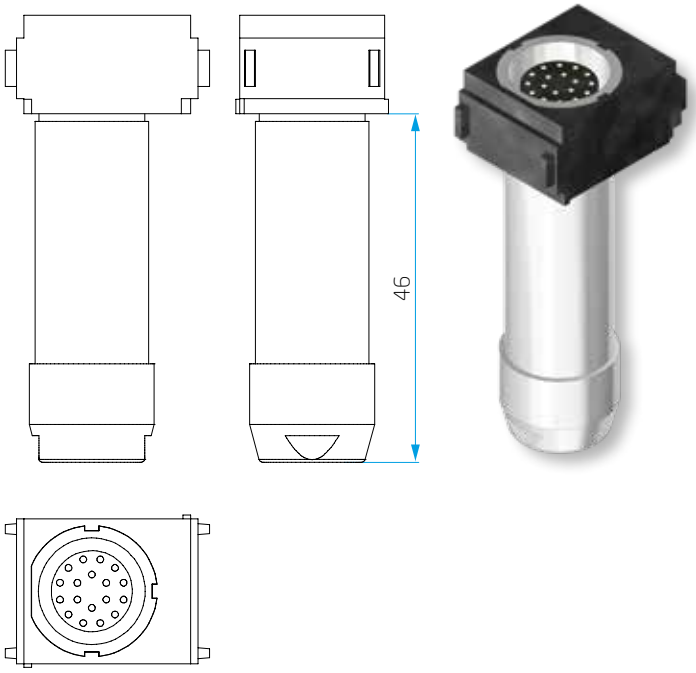
CDm= 10 way male circular metal connector



CGm= 18 way male circular metal connector



CDf= 10 way female circular metal connector

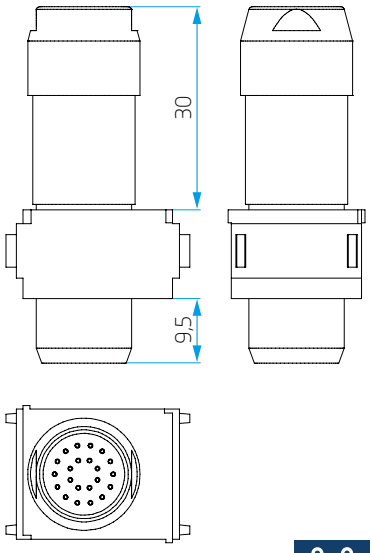


CGf= 18 way female circular metal connector

Dimensions are in mm.

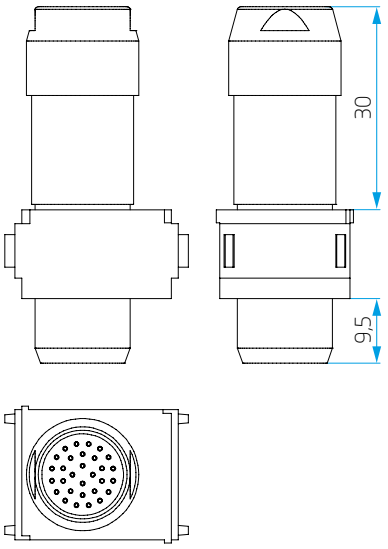
Type «C» element circular connectors

3.5 STEP x 5.5 mm



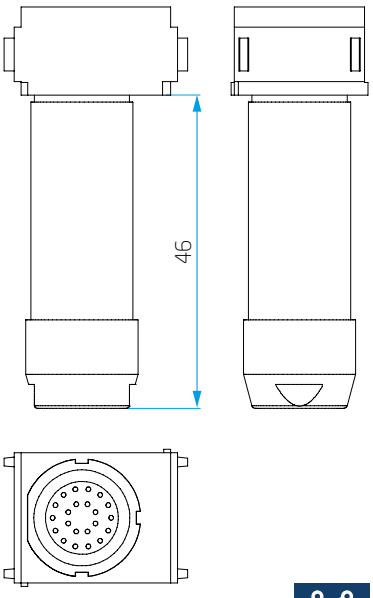
CHm= 22 way male circular metal connector

DATA LINK



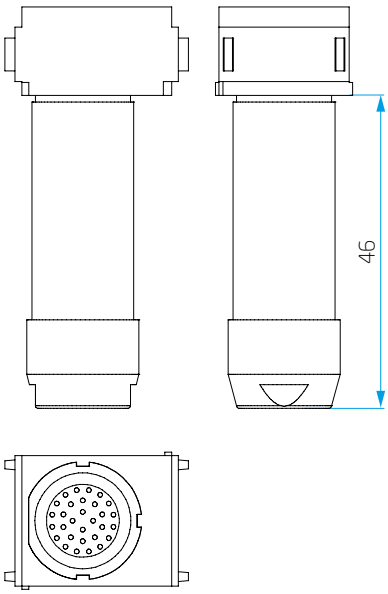
CIm= 30 way male circular metal connector

DATA LINK



CHf= 22 way female circular metal connector

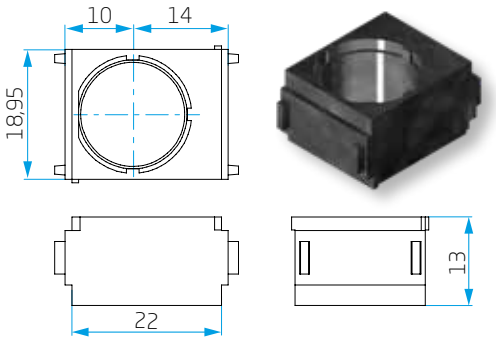
DATA LINK



CIf= 30 way female circular metal connector

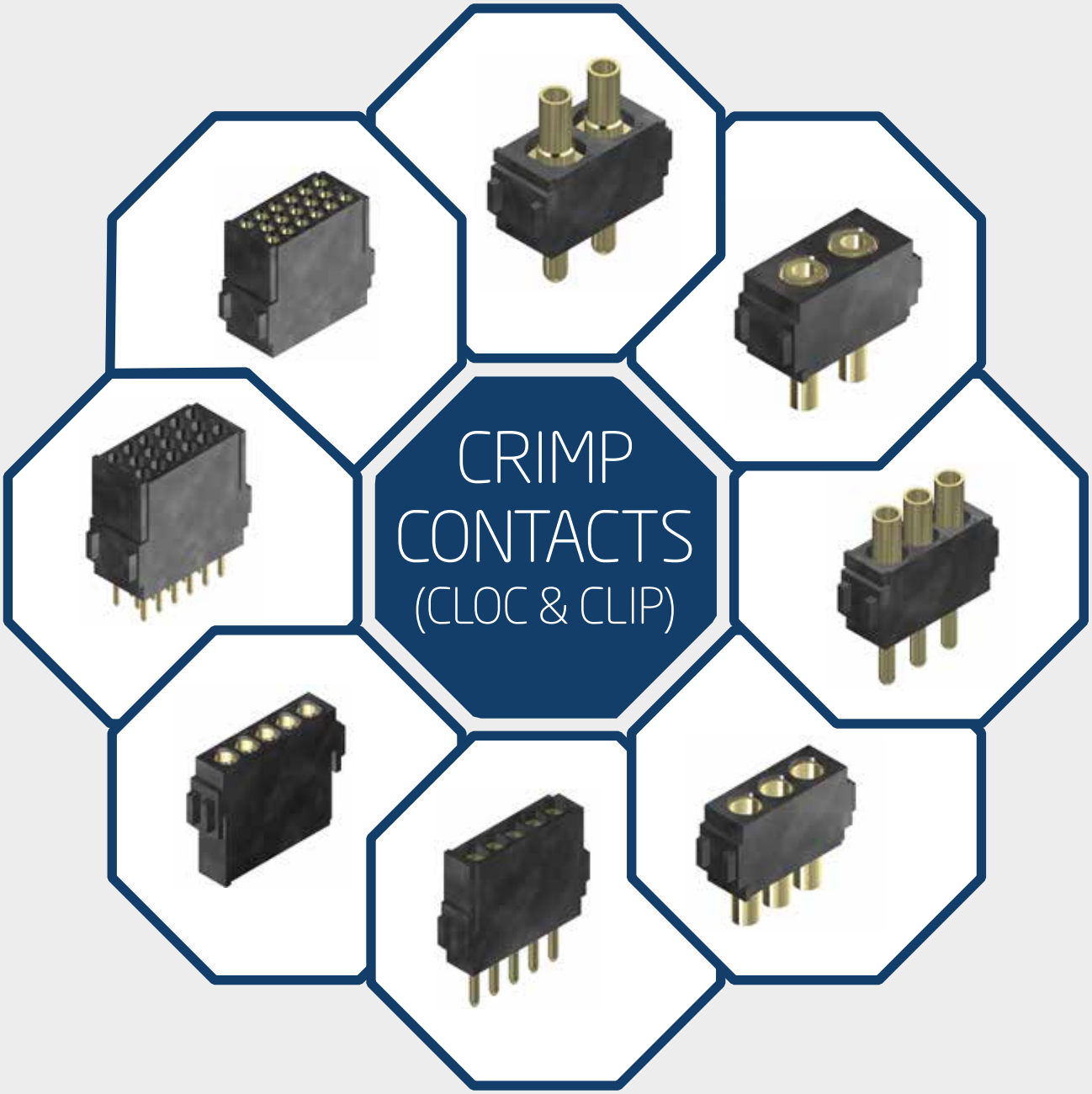
DATA LINK

Ce = Empty module for circular metal connector (TYPE CD - CG - CH -CI)



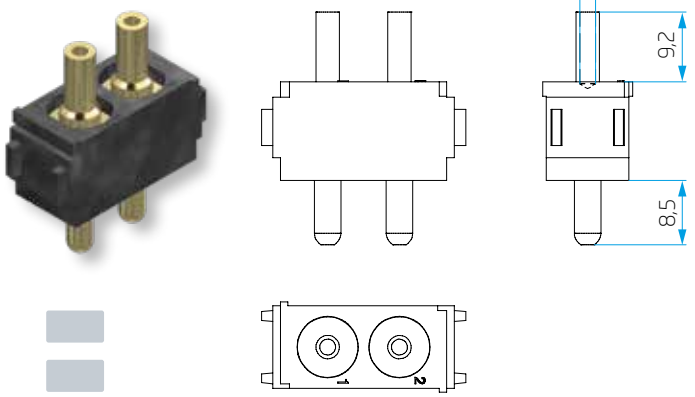
Dimensions are in mm.

Digital Modular Connector 5.5

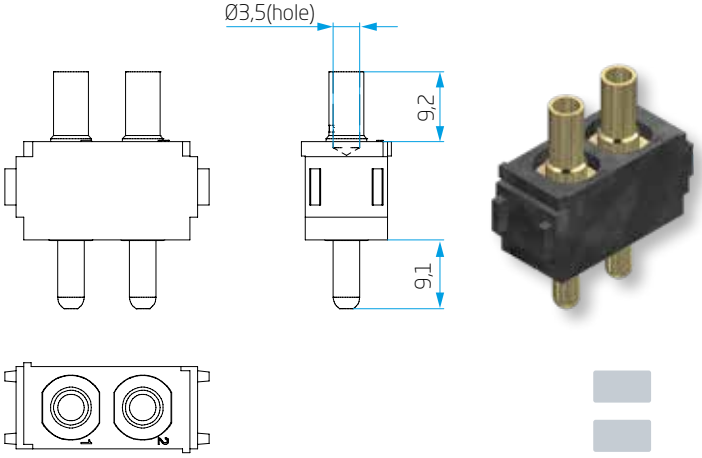


Type «D» element Ø3,5mm contacts Cloc

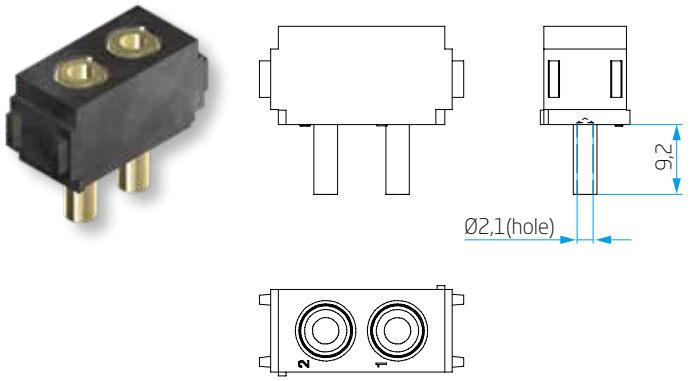
2 STEPS x 5.5 mm



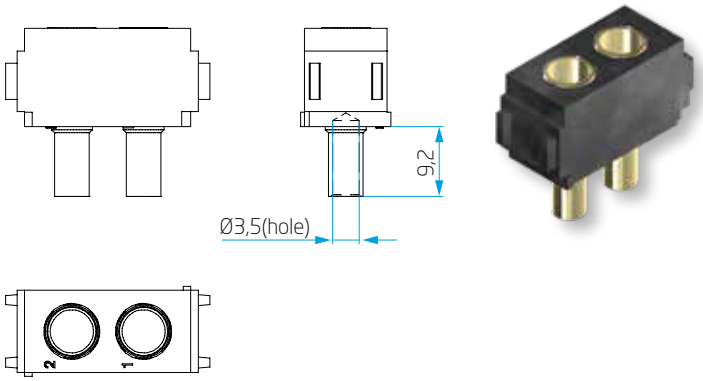
Dm= 2 position module male crimp for AWG 14-18



Dmx= 2 position module male crimp for AWG 10-12

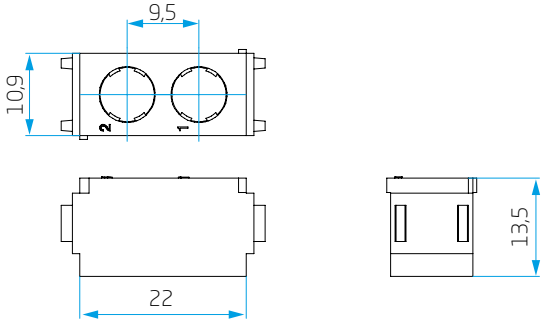


Df= 2 position module female crimp for AWG 14-18



Dfx= 2 position module female crimp for AWG 10-12

De= 2 positions module empty



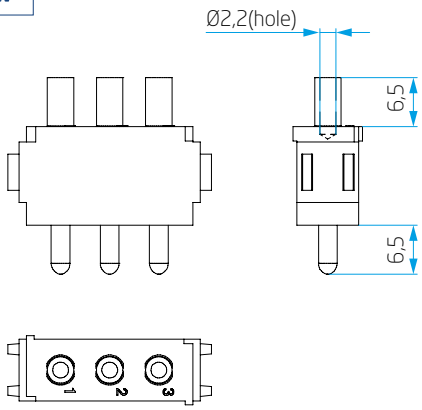
Spare contact reference			
Description	**AWG range**	**Gold standard**	**Gold as for MIL-DTL-55302**
Male contacts Dm:	(AWG 14-18)	17.000.500-402	17.001.600-B28
Female contacts Df:	(AWG 14-18)	17.000.500-403	17.001.500-B29
Male contacts Dmx:	(AWG 10-12)	17.000.500-553	17.001.600-B30
Female contacts Dfx:	(AWG 10-12)	17.000.500-554	17.001.500-B31

Tools reference
Crimping tool with positioner: 83.010.900-492
Extraction tool for Ø3,5mm: 83.810.000-457

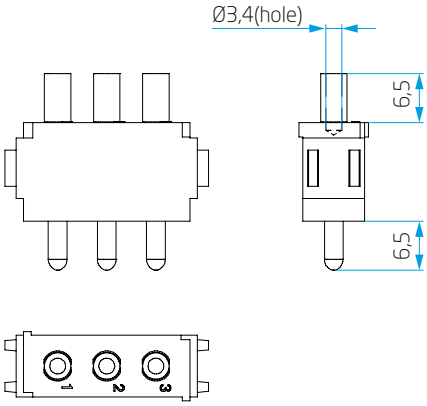
Dimensions are in mm.

Type «N» element Ø2,5mm contacts Cloc

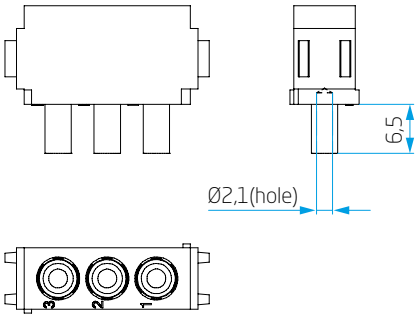
1.5 STEPS x 5.5 mm



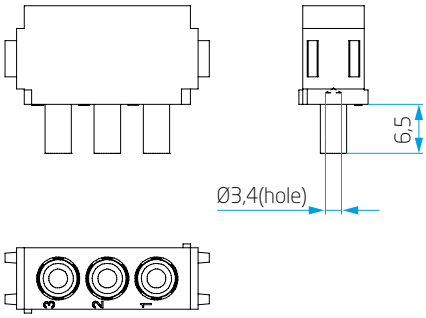
Nm= 3 positions module male crimp for AWG 14-16



Nmx= 3 positions module male crimp for AWG 10-12

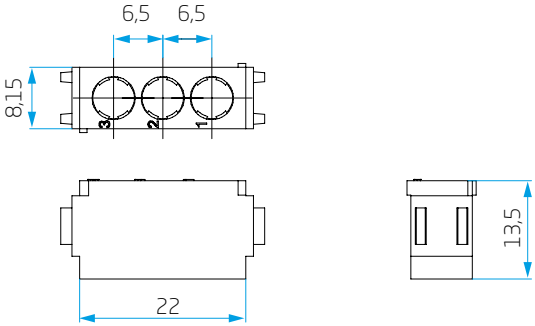


Nf= 3 positions module female crimp for AWG 14-16



Nfx= 3 positions module female crimp for AWG 10-12

Ne= 3 positions module empty



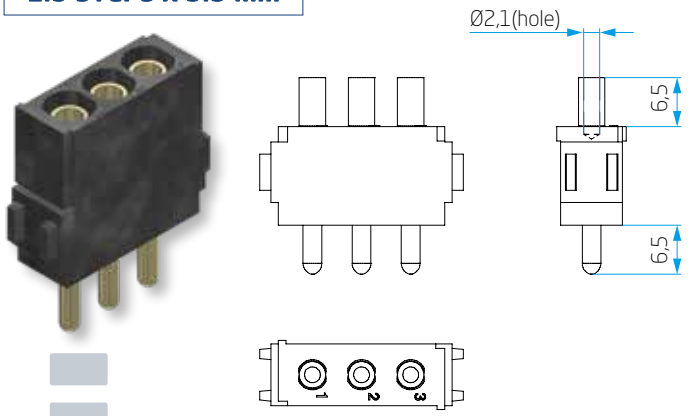
Spare contact reference			
Description	**AWG range**	**Gold standard**	**Gold as for MIL-DTL-55302**
Male contacts Nm:	(AWG 14-16)	17.000.500-B26	17.001.600-B32
Female contacts Nf:	(AWG 14-16)	17.000.500-B27	17.001.500-B33
Male contacts Nmx:	(AWG 10-12)	17.000.500-400	17.001.600-B34
Female contacts Nfx:	(AWG 10-12)	17.000.500-401	17.001.500-B35

Tools reference
Crimping tool with positioner: 83.010.900-493
Extraction tool for Ø2,5mm: 83.810.000-491

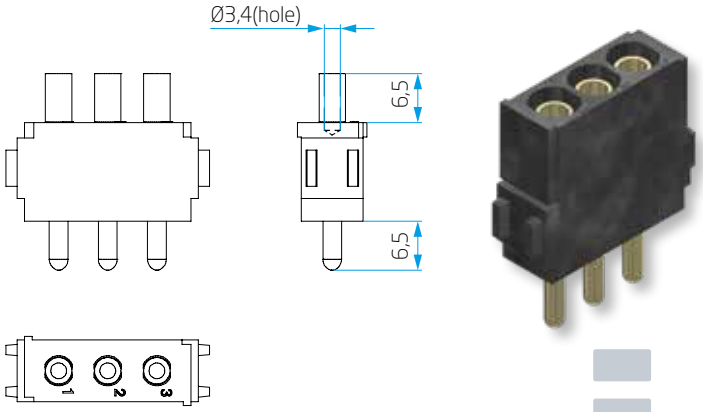
Dimensions are in mm.

Type «M» element Ø2,5mm contacts Cloc

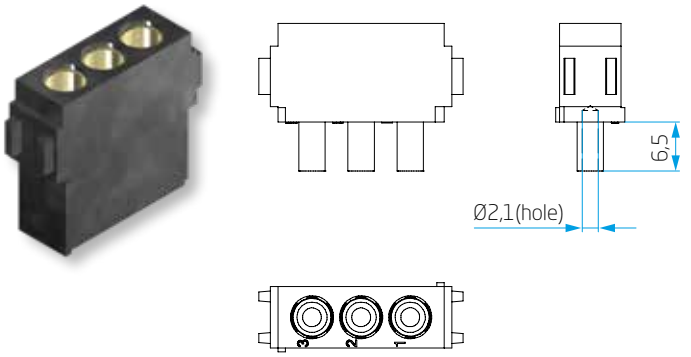
1.5 STEPS x 5.5 mm



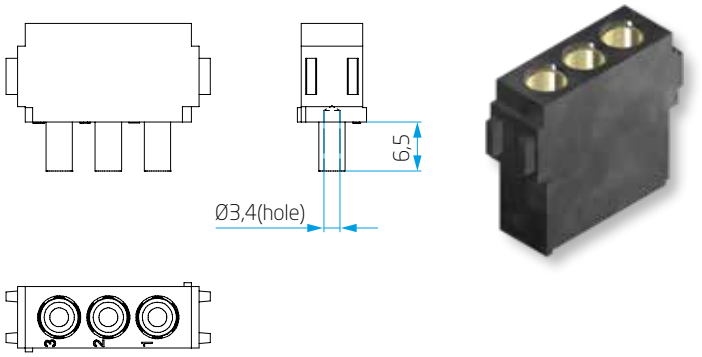
Mm= 3 positions module male crimp for AWG 14-16



Mmx = 3 positions module male crimp for AWG 10-12

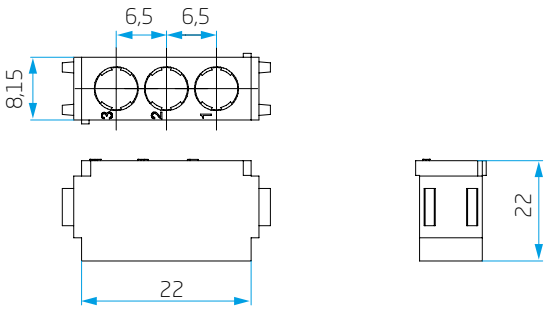


Mf= 3 positions module female crimp for AWG 14-16



Mfx = 3 positions module female crimp for AWG 10-12

Me= 3 positions module empty



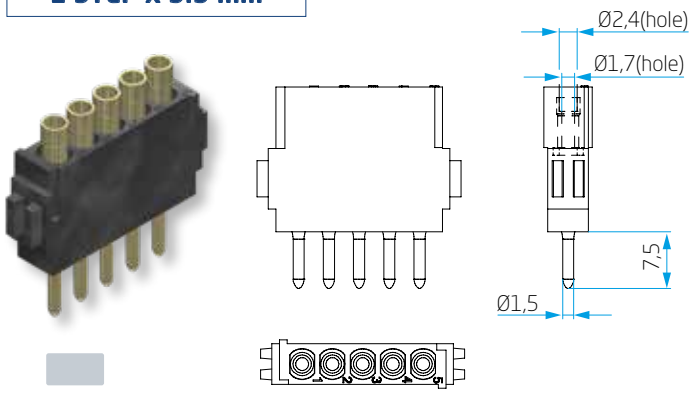
Spare contact reference			
Description	**AWG range**	**Gold standard**	**Gold as for MIL-DTL-55302**
Male contacts Mm:	(AWG 14-16)	17.000.500-B26	17.001.600-B32
Female contacts Mf:	(AWG 14-16)	17.000.500-B27	17.001.500-B33
Male contacts Mmx:	(AWG 10-12)	17.000.500-400	17.001.600-B34
Female contacts Mfx:	(AWG 10-12)	17.000.500-401	17.001.500-B35

Tools reference
Crimping tool with positioner: 83.010.900-493
Extraction tool for Ø2,5mm: 83.810.000-491

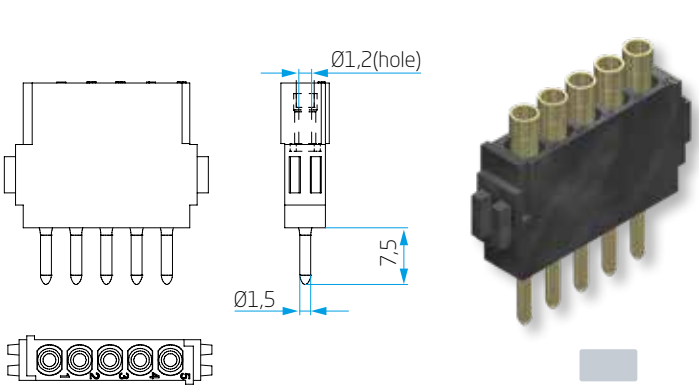
Dimensions are in mm.

Type «S» element Ø1,5mm contacts Cloc

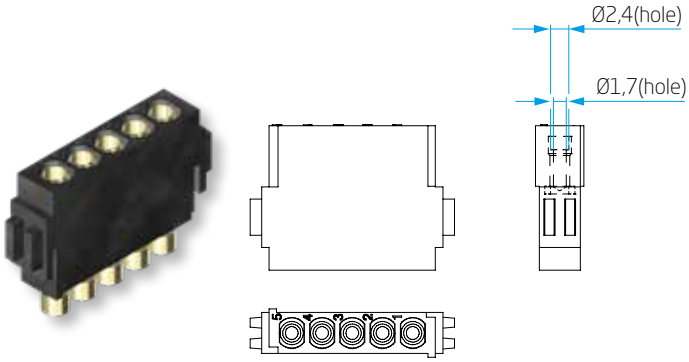
1 STEP x 5.5 mm



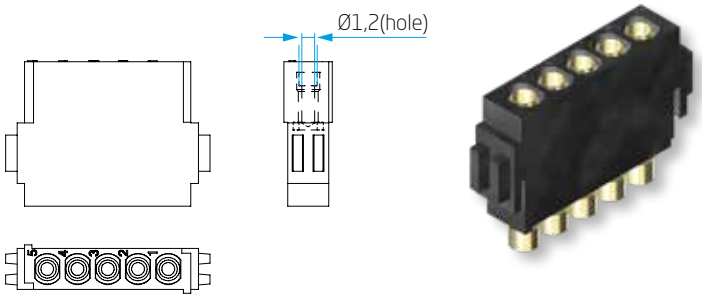
Sm= 5 positions module male crimp for AWG 16-20



Smw= 5 positions module male crimp for AWG 20-24

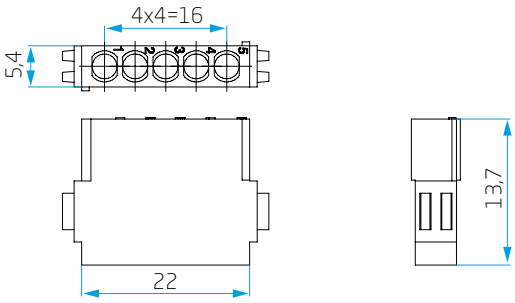


Sf= 5 positions module female crimp for AWG 16-20



Sfw= 5 positions module female crimp for AWG 20-24

Se= 5 positions module empty



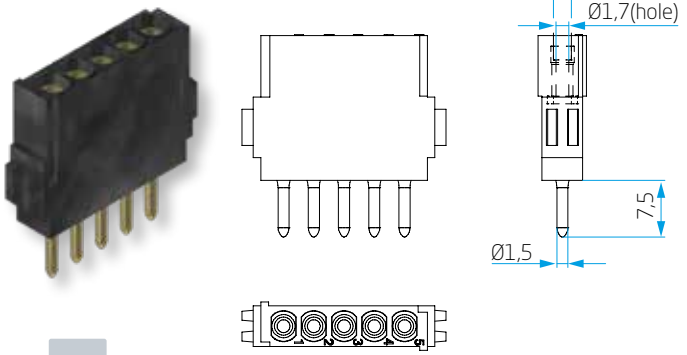
Spare contact reference			
Description	**AWG range**	**Gold standard**	**Gold as for MIL-DTL-55302**
Male contacts Sm:	(AWG 16-20)	17.000.500-972	17.001.600-B36
Female contacts Sf:	(AWG 16-20)	17.000.500-866	17.001.500-B37
Male contacts Smw:	(AWG 20-24)	17.000.500-B23	17.001.600-B38
Female contacts Sfw:	(AWG 20-24)	17.000.500-B22	17.001.500-B39

Tools reference
Crimping tool with positioner: 83.010.000-456
Extraction tool for Ø1,5mm: 83.810.000-251

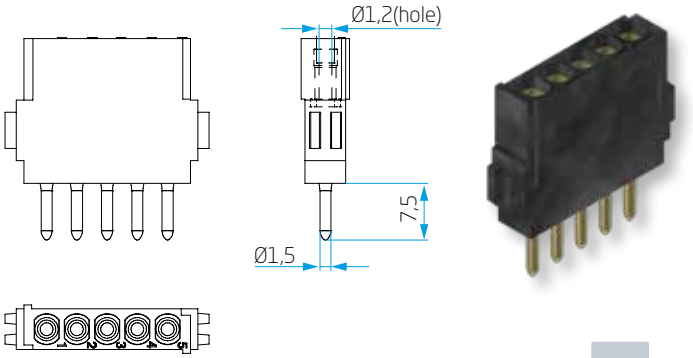
Dimensions are in mm.

Type «R» element Ø1,5mm contacts Cloc

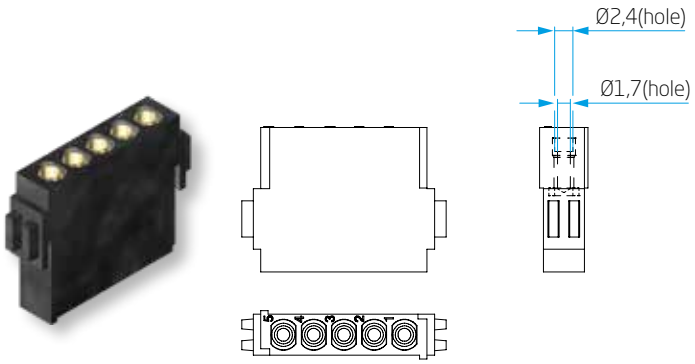
1 STEP x 5.5 mm



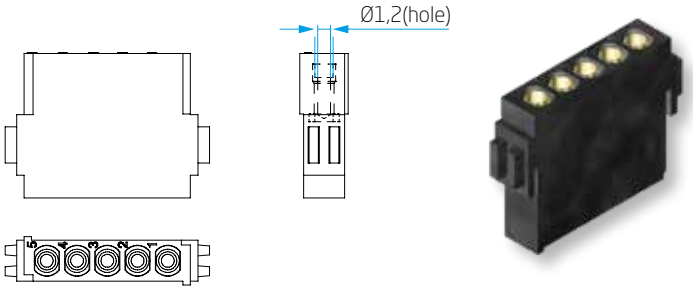
Rm= 5 positions module male crimp for AWG 16-20



Rmw= 5 positions module male crimp for AWG 20-24

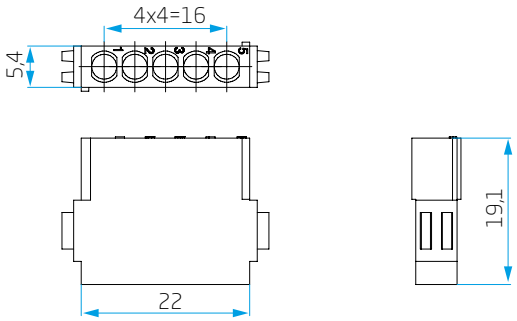


Rf= 5 positions module female crimp for AWG 16-20



Rfw= 5 positions module female crimp for AWG 20-24

Me= 3 positions module empty



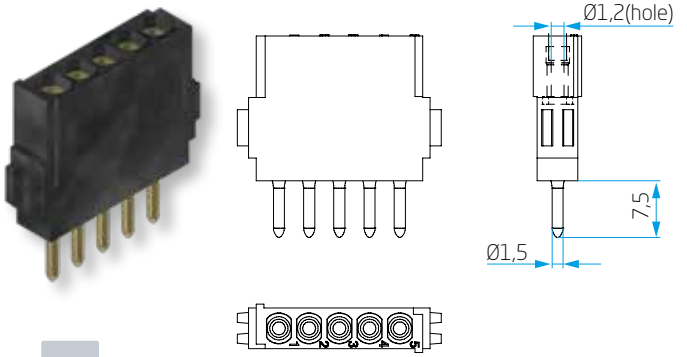
Spare contact reference			
Description	**AWG range**	**Gold standard**	**Gold as for MIL-DTL-55302**
Male contacts Rm:	(AWG 16-20)	17.000.500-972	17.001.600-B36
Female contacts Rf:	(AWG 16-20)	17.000.500-866	17.001.500-B37
Male contacts Rmw:	(AWG 20-24)	17.000.500-B23	17.001.600-B38
Female contacts Rfw:	(AWG 20-24)	17.000.500-B22	17.001.500-B39

Tools reference
Crimping tool with positioner: 83.010.000-456
Extraction tool for Ø1,5mm: 83.810.000-251

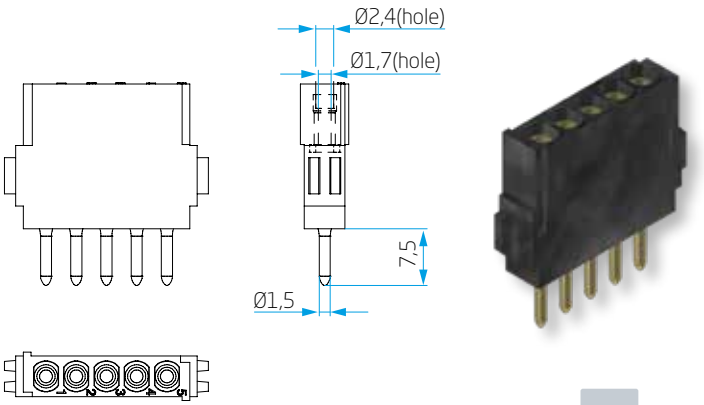
Dimensions are in mm.

Type «Q» element Ø1,5mm contacts Clip

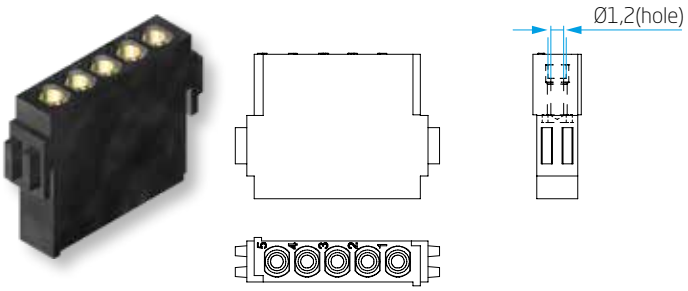
1 STEP x 5.5 mm



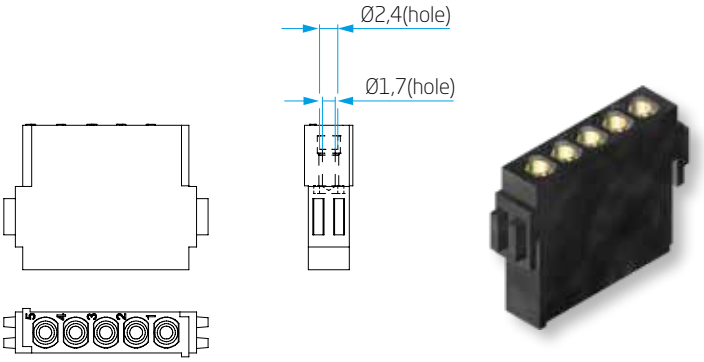
Qm= 5 positions module male crimp for AWG 20-24



Qmw= 5 positions module male crimp for AWG 16-20

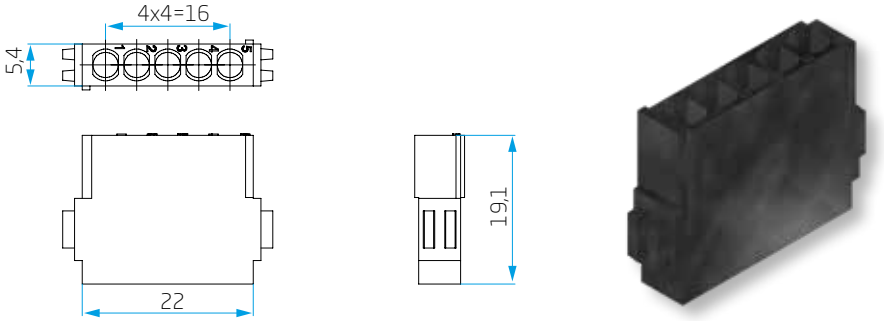


Qf= 5 positions module female crimp for AWG 20-24



Qfw= 5 positions module female crimp for AWG 16-20

Qe= 5 positions module empty



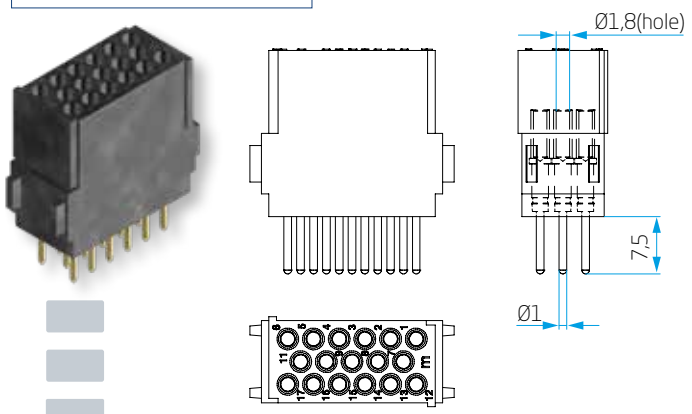
Spare contact reference			
Description	**AWG range**	**Gold standard**	**Gold as for MIL-DTL-55302**
Male contacts Qm:	(AWG 20-24)	17.000.200-502	17.001.600-B40
Female contacts Qf:	(AWG 20-24)	17.000.150-503	17.001.500-B41
Male contacts Qmw:	(AWG 16-20)	17.000.200-366	17.001.600-415
Female contacts Qfw:	(AWG 16-20)	17.000.200-365	17.001.500-414

Tools reference
Crimping tool with positioner: 83.010.000-456
Extraction tool for Ø1,5mm: 83.810.000-251

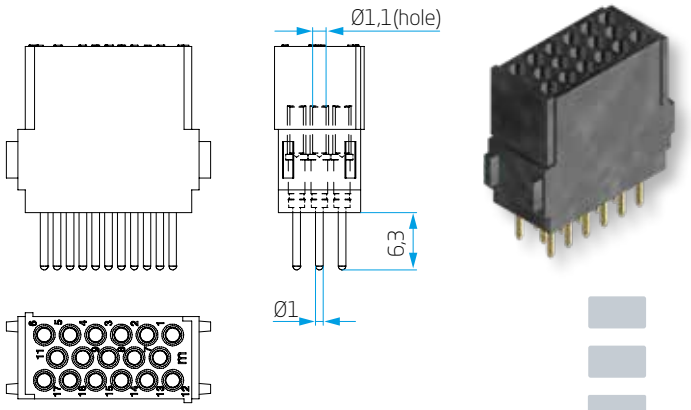
Dimensions are in mm.

Type «V» element Ø1mm contacts Clip

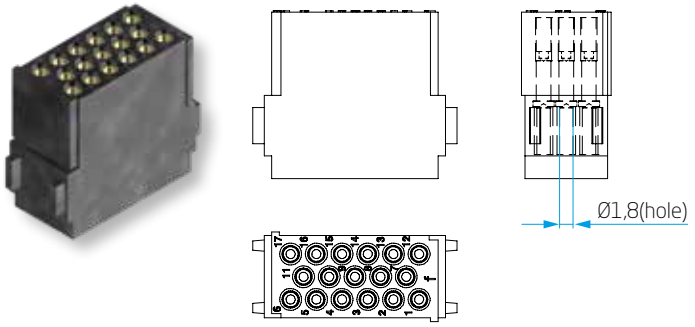
2 STEPS x 5.5 mm



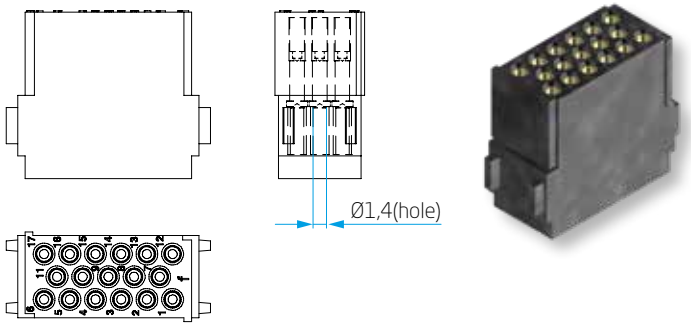
Vm= 17 positions module male crimp for AWG 16-20



Vmw= 17 positions module male crimp for AWG 20-24

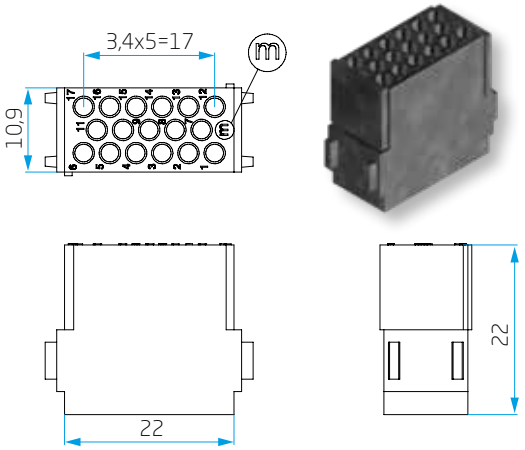


Vf= 17 positions module female crimp for AWG 16-20

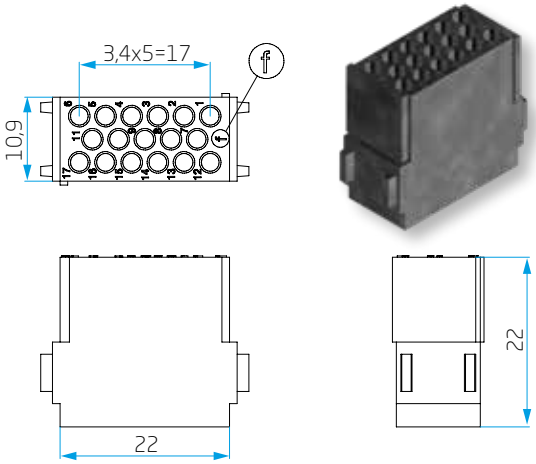


Vfw= 17 positions module female crimp for AWG 20-24

Vem= 17 positions module male empty



Vef= 17 position module female empty



Spare contact reference			
Description	**AWG range**	**Gold standard**	**Gold as for MIL-DTL-55302**
Male contacts Vm:	(AWG 16-20)	17.000.200-370	17.001.600-409
Female contacts Vf:	(AWG 16-20)	17.000.200-367	17.001.500-426
Male contacts Vmw:	(AWG 20-24)	17.000.200-940	17.001.600-B42
Female contacts Vfw:	(AWG 20-24)	17.000.200-A04	17.001.500-B43

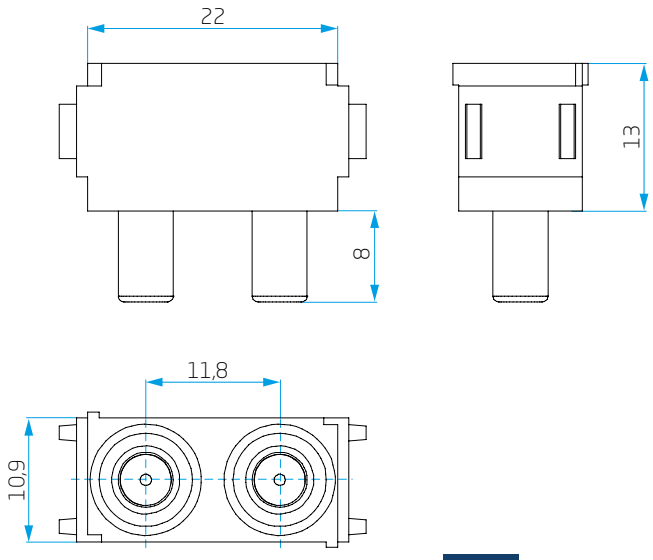
Tools reference
Crimping tool with positioner: 83.010.900-494
Extraction tool for Ø1mm: 83.810.000-252

Dimensions are in mm.

COAXIAL MODULES

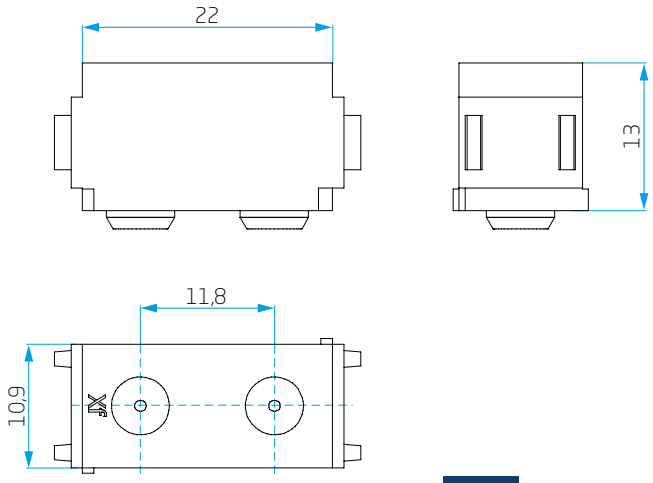
Type «Y» coaxial element SMA connection

2 STEP x 5.5 mm



Ym= 2 Position module coax male

COAX



Yf= 2 Position module coax female

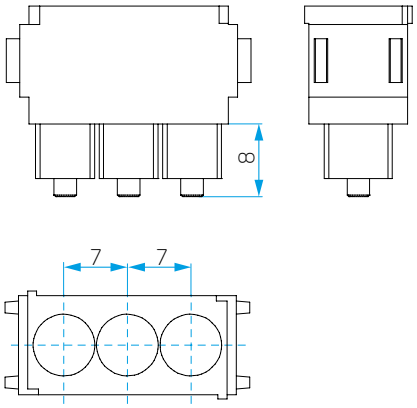
COAX

Dimensions are in mm.

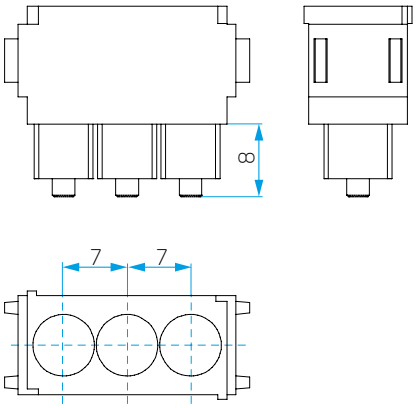
OPTICAL MODULES

Type «O» element optical contacts

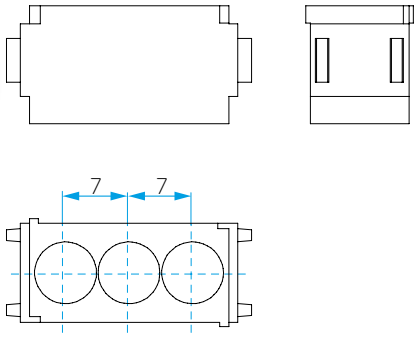
2 STEP x 5.5 mm



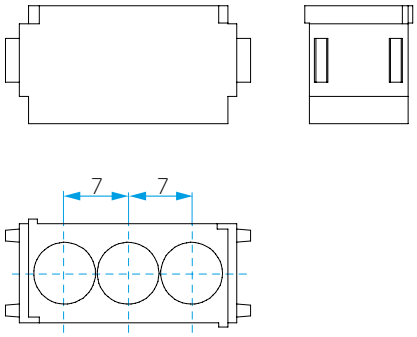
OSm= optical SM male contact



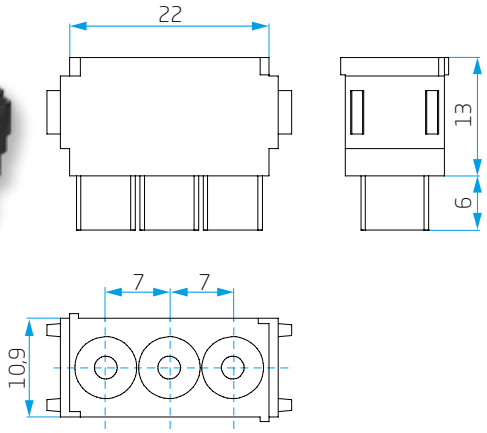
OMm= optical MM male contact



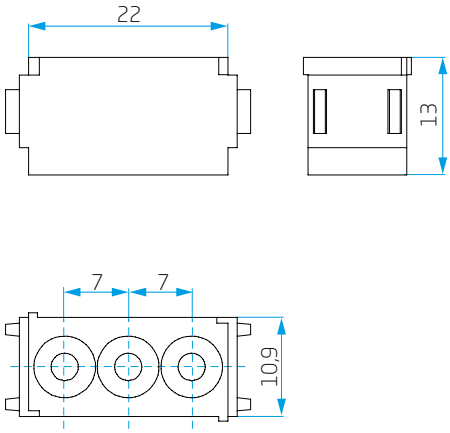
OSf= optical SM female contact



OMf= optical MM female contact



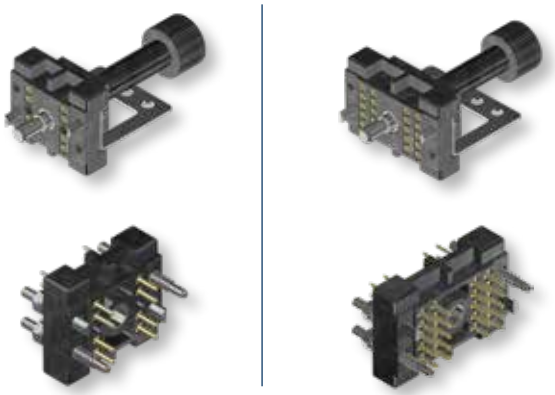
OEm= optical male module empty

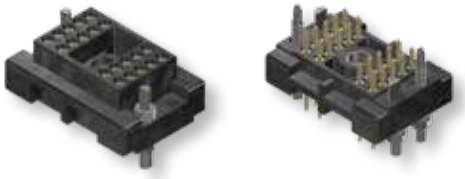


OEf= optical female module empty

Dimensions are in mm.

Customized solutions for railway application





In progres new version Serie «K»

CPE WORLDWIDE

CPE ITALIA SPA (HEADQUARTER)
Via Chiasserini, 15 - 20157 MILANO - Italy
5000 S.M.
Tel. +39.02.390961 - Fax. +39.02.3570765 - +39.02.3570774
Email: Info@cpeitalia.it
www.cpeitalia.it

CPE ITALIA SPA (Production Plant)
Via Torre Lupara Zona Industriale - 81050 PASTORANO (CE) - Italy
3000 S.M.
Email: rocco@cpeitalia.it

CPE ITALIA SPA (Local office for central & southern Italy)
Via Montenero, 21 - Guidonia Montecelio - 00012 ROMA – Italy
www.cpeitalia.it

CPE East Europe
Str. Aleea Crinului, 11 - Slatioara - Romania
4000 S.M.
Email: sciarra@cpeitalia.it

CPE Electronica México
Carretera Apizaco-Tlaxco, Lote 1, Manzana 4, Ciudad Industrial Xicohtencatl 3
2000 S.M.
C.P. 90250, Tlaxco, Tlaxcala
Email: mario.anas@cpemexico.mx

Zhenjiang CPE Electronics Co. Ltd.
Xindingmao ind. Park in new district
1800 S.M.
212000 Zhenjiang city China

CPE do Brasil
Rua Inaja, 698 - BR83.324.050 Vila E. Perneta -
2500 S.M.
Curitiba (Pinhais-PR) - Brasil
Email contact: vendas@cpedobrasil.com.br

Wuxi CPE Electronics Co. Ltd
No.503 Nan Hu Da Dao Nan Chang District, Wuxi City, Jiangsu Province
4500 S.M.
214124 Wuxi City - P.R. China
Email contact: info@cpeitalia.cn

Branch Offices
BANGALORE – INDIA
(Mr. Sanjay – Email contact: Sanjay.Joshi@cpeitalia.it)
HYDERABAD – INDIA
(Mr. Mohan - Email contact: mohan@rohan-enterprises.com)
TEXAS - U.S.A.
(Mr. Swinger - Email contact: jeff@cpe-nar.com)

ED.05/2021v.0-updated

www.cpeitalia.it - info@cpeitalia.it