HYPERTAC

SNAPTAC Series

MICRO MINIATURE CONNECTORS

smiths
bringing technology to life

April | 2010

HyperSpring®:
Hypertac's Spring Loaded Contact

Hypertac's new HyperSpring® product combine the company's high-reliability hyperboloid contact technology, with the mechanical features of a spring-loaded contact, to produce interconnections with improved signal integrity, high reliability and current density, and proven parametric stability over time.

The key innovation in a HyperSpring® contact is that the spring itself is not used for electrical conduction: instead, this is handled by a Hypertac hyperboloid socket placed between the barrel and the plunger of a common spring-loaded contact. This means that the material used to form the spring may be chosen solely on the basis of its mechanical properties, primarily its elasticity. As a consequence it is possible to optimise the physical performance of the overall system.

HyperSpring® also produces superior electrical performance, because the electrical properties of the conducting material do not need to be balanced with its physical performance. The use of the hyperboloid contact inside the HyperSpring® guarantees all the features and benefits of Hypertac technology.

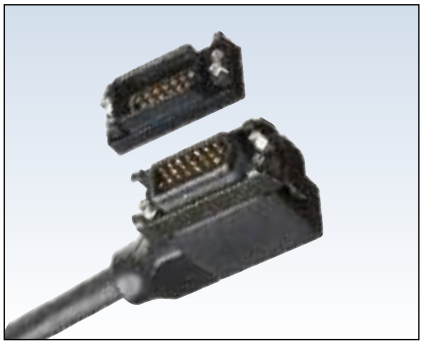
Contact Technical Characteristics

Contact Dia	0.50mm
Current Rating	3 A
Spring Force (max)	1.5 N
Contact Resistance	<15mΩ
Mating Cycles	100,000

Contact Material	
- Non functional parts	Brass plated with Au or Ni
- Spring contact element	CuBe plated with 1.27 µm Au
- Spring element	Stainless steel AISI 302 passivated
- Interface pin connection	Bronze or CuBe plated with 1.27 µm Au
- Contact terminations	Brass or Bronze plated with 1.27 µm Au

Index

SnapTac Miniature Connectors



Hypertac new generation of SnapTac® miniature connectors for high-speed data, audio and video transmission is particularly suitable for demanding, mission critical applications as those encountered in the defence, security, and military use.

Adopted in the Future Soldier project, the second generation of SnapTac® connectors now offers improved functionality and performance in extreme environments by increasing the number of features, hardware coding options, termination styles and protection measures.

Lightweight, reliable and robust, the SnapTac® connectors are based on Hypertac's HyperSpring® contact technology which combines the company's high reliability hyperboloid contact with the mechanical features of a spring-loaded contact to produce interconnections with improved signal integrity and proven mechanical and environmental stability over time.

Available geometries

SnapTac® connectors are available in both circular (7-, 13-, and 19-) and rectangular (12-, 21-, and 30-) way geometries.
The SnapTac connector plugs are available in two versions, with and without over-moulding, following requests for both turn-key solutions and easy integration into existing designs.
A 90° overmoulded version is also available for the circular connector.
The receptacle offers straight through and solder cup termination styles.
The locking mechanism is easy and fast: the circular connector range features a snap on locking, the 12 and 21 way rectangular connectors are push pull, the 30 way rectangular connector has a quick turn locking device.
7, 13 and 19 way circular extenders, with and without overmoulding, are available for applications requiring in-line connection.
Several hardware coding are available to avoid mismatching and to satisfy the customer technical needs. Additional options for rear panel mounting have been developed over the time. Please contact our sales office if you don't find in the catalogue the version that meets your requirements.

Up to 10,000 mating cycles

Tactical communication equipment must survive the rigours of hostile environments and withstand the damage of dust, sand, mood. The connectors used on handset and headset are mated and unmated thousand of times during the equipment life. SnapTac® connectors ensure higher durability and superior performance through the use of the unique Hypertac hyperboloid contact technology, offering shock and vibration immunity, low contact resistance, high current and voltage ratings, low mating forces, long life and low rate of wear.

The HyperSpring® spring loaded contacts used inside the connectors cannot be damaged or bent from mishandling. Their inherent self cleaning wiping action removes surface contamination, thus ensuring that the connector can't be damaged by the building up of surface films.

Lighter and Compact

SnapTac® connectors combine robust environmental performance with compact size and light weight, which make them ideal for lightweight, compact, wearable EMI shielded electronic systems for applications including communication, identification / recognition, and other tasks critical to military personnel. High quality data transmission is achieved through a combination of upgraded commercial Ethernet, USB, IEEE 1394 interconnect to Mil Spec performance

Waterproof and EMI protected

SnapTac® connectors are IP67 sealed according to IEC529 when mated and unmated. They incorporate full line EMI shielding and provide for high robustness throughout their lifetime.

Accessories - Dust caps

Dust caps are available to protect the connector when unmated and to ensure full EMI shielding. The metal version is supplied in the same material of the connector (aluminium, stainless steel), the rubber version is available in fluoro-polymer rubber.
Special flanges have been designed to facilitate the rectangular connector rear panel mounting.

Value Added services

Technical performance data hereby reported refer to Snaptac® connectors equipped with Hypertac cabling and overmoulding.
Custom and value added solutions are provided for customers' specific requirements including cabling, mechanical, instrumentation housing and testing. Custom solutions save valuable engineering and manufacturing time for customers and ensure the overall reliability of the final product.

Applicable documents

Base Material - Standard Specification

MIL-M-24519	Moulding Plastics, Electrical, Thermoplastic
ASTM-B-16	Free-Cutting Brass Rod, Bar and Shapes for Use in Screw Machines
ASTM-B-121	Leaded Brass Plate, Sheet, Strip, and Rolled Bar
ASTM-B-139	Standard Specification for Phosphor Bronze Rod, Bar, and Shapes
ASTM-B-196	Copper-Beryllium Alloy Rod and Bar
ASTM-B-197	Copper Beryllium Alloy Wire
ASTM-B-209	Aluminum and Aluminum-Alloy Sheet and Plate
ASTM-B-455	Standard Specification for Copper-Zinc-Lead Alloy (Leaded-Brass) Extruded Shapes
ASTM-A-582	Free-Machining Stainless Steel Bars and Heat Resisting Steel Bars, Hot Rolled or Cold Finished

Surface Treatment - Standard Specification

MIL-C-26074	Coatings, Electroless Nickel
MIL-STD-869	Standard Specification for Flame Spraying
ASTM-B-488	Electrodeposited Coatings of Gold for Engineering Uses
ASTM-A-967	Chemical Passivation Treatments for Stainless Steel Parts
QQ-N-290	Nickel Plating Electrodeposited

Test Procedures

EIA 364	Test Methods For Electrical Connectors
UL94	Test Methods For Flammability Rating
IEC 529	Degrees of protection provided by enclosures
IEC 512	Electromechanical components for electronic equipment

Circular Connector Technical Characteristics

General

Hyperspring Contact Number	7,13,19
Receptacle Contact Termination	Solder Cup, Straight PCB
Plug Contact Termination	Solder Cup
AWG Contact	28-24
Cable Diameter Range	Max 6 mm (7 ways) - Max 7.5 mm (13 ways) - Max 8.5 mm (19 ways)

Materials and Plating

Inner Insulators	Polyphenilensulfide (PPS) type GST-40F per MIL-M-24519 V0 per UL 94
Interface Insulators	NBR Rubber per CEI 2019 Black V0 per UL 94
Overmoulded	Hot melt Polyamide 6.6
Housing	*(see table 1)*
Locking Hardware	Canted coil spring: Beryllium Copper Nickel plated
EMI-Gasket	Canted coil spring: Beryllium Copper Nickel plated

Hyperspring® Contacts

Non Functional Parts	Brass as per ASTM-B-455 plated with Au as per ASTM-B-488
Spring Contact Element	CuBe as per ASTM-B-197 plated with Au as per ASTM-B-488
Spring Element	Stainless Steel AISI 302 passivated as per ASTM-A-967
Interface pin connection	Bronze as per ASTM-B-139 plated with Au as per ASTM-B-488
Plug contact terminations *(solder cups)*	Brass as per ASTM-B-455 plated Au as per ASTM-B-488
Bonding Agent	Epoxy resin
Mass data	Related to standard connectors configuration *(see table 2)*

Table 1

MATERIAL		SURFACE TREATMENT Z	N	P	B	W
Aluminium Alloy AV2024 *ASTM-B-209*	**AA***	Zn/Co on Chemical Ni Black 5 µm SAE AMS-C-26074 Class 1	Chemical Ni Matt Grey 20 µm SAE AMS-C-26074 Class 1 Grade A			
Stainless Steel AISI303 *ASTM-B-582*	**SS***			Passivation Matt Grey *as per ASTM-A-967*	Coating Oxide Black *as per MIL-DTL-13924D*	Metal Spraying Tungsten Carbide Black 1-5 µm *as per MIL-STD-869*
Stainless Steel AISI316 *ASTM-B-582*	**XS***					

Table 2

	(grams)	PLUG	RECEPTACLE	EXTENDER
C07	**AA**	4.0	4.8	4.2
	SS/XS	7.6	10.2	8.0
C13	**AA**	6.7	6.5	6.0
	SS/XS	11.4	13.5	12.0
C19	**AA**	8.4	7.1	7.0
	SS/XS	13.7	15.1	14.2

AA: Aluminium Alloy - SS/XS: Stainless Steel

Electrical Characteristics

EMI Shielding	360° shield coverage
Current Rating	3A@25°C for each contact according to IEC 512-3
Dielectric Withstanding Voltage (between contacts)	500 Vrms at sea level and 150 Vrms at 21336m according to EIA 364.20
Contact Resistance (low level)	< 15 mΩ for each contact according to EIA 364.6
Insulation Resistance	5000 MΩ @ 500V d.c. according to EIA364.21
Electrical Bonding Resistance	*(see table 3)*

Table 3

ELECTRICAL BONDING RESISTANCE VS MATERIAL/SURFACE TREATMENT				
AAZ	**AAN**	**SSP XSP**	**SSB XSB**	**SSW XSW**
500-800 mΩ	5-8 mΩ	5-8 mΩ	150-250 mΩ	20-40 mΩ

Mechanical and Environmental Characteristics

Temperature Range	-55°C +85°C
Temperature cycling	EIA364.32 Method A
Salt Spray	EIA364.26 Condition A - mated connectors
Humidity	EIA364.31 Method IV
IP Level	67 mated and unmated IEC 529
Vibration	EIA364.28 Condition III
Shock	EIA364.27 Condition G
HyperSpring® force (single contact)	Max 1.5 [N]
Connector Mating / Unmating Force	EIA364.09 *(see table 4)*

Table 4

		MATING [N]		UNMATING [N]		LIFE [#Cycle]
		Min	Max	Min	Max	
C07	**AA**	20	30	20	40	**2K**
	SS/XS					**8K**
C13	**AA**	20	30	20	40	**2K**
	SS/XS					**10K**
C19	**AA**	25	35	25	45	**2K**
	SS/XS					**10K**

AA: Aluminium Alloy - SS/XS: Stainless Steel

Technical performance data hereby reported refer to Snaptac® connectors equipped with Hypertac cabling and overmolding.

Ordering Information

ST1091	SNAPTAC	C	**	*	*	C**	CH**	***

Series

Connector type

Circular

Number of ways

07 - 13 - 19

Connector style

P	Plug
R	Receptacle rear panel mount
E	Extender in line
W	Extender rear panel mount
X	Receptacle front panel mount
Y	Plug front panel mount
Z	Plug rear panel mount

Termination style

S	Solder Cup
D	PCB Straight

Housing Coding

From C01 up to C07

Wiring Diagram (1)

From CH01 up to CHnn

Base Material & Surface Protection

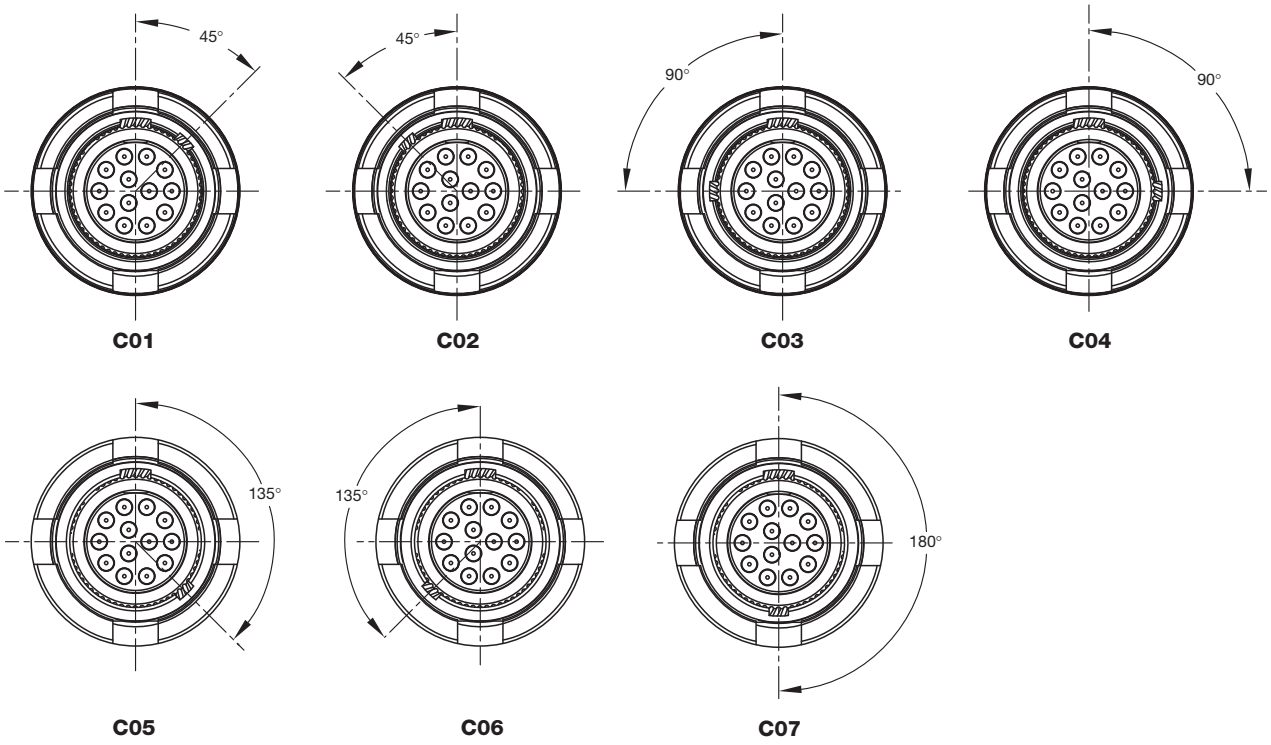
AAZ	Aluminium Alloy (AV2024)	Zinc Cobalt
AAN	Aluminium Alloy (AV2024)	Nichel
SSP	Stainless Steel AISI 303	Passivated
SSB	Stainless Steel AISI 303	Black Oxide Coating
SSW	Stainless Steel AISI 303	Black Tungsten Carbide
XSP	Stainless Steel AISI 316	Passivated
XSB	Stainless Steel AISI 316	Black Oxide Coating
XSW	Stainless Steel AISI 316	Black Tungsten Carbide

NOTES:
1. Omit in case of connector without cable harnessing
2. Connectors identification does not require empty space (eg: C13PSC01AAZ)
3. Harnessing identification does not require empty space (eg: C13PSC01CH01AAZ)
4. Harnessing is applicable only to connectors type P, E, W.
5. Straight termination contacts are applicable only to receptacle

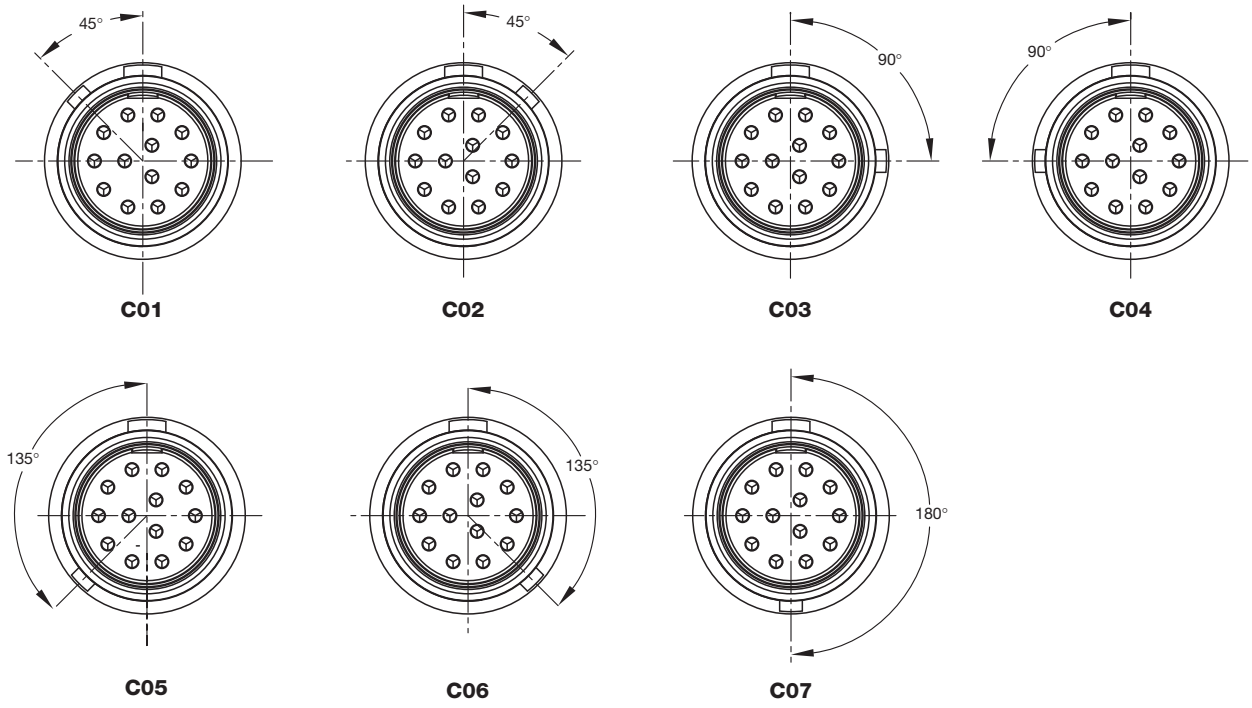
Available Coding Keys

Preferred coding keys position C01 - C04, from C05 up to C07 manufactured under specific Customer request.

Receptacle mating side view

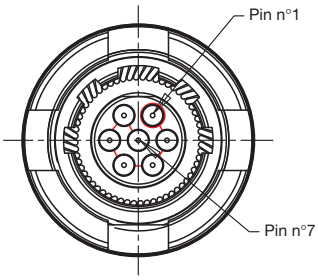


Plug mating side view

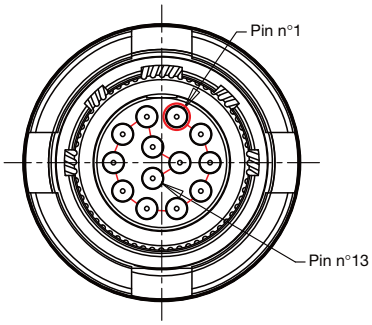


Pin Arrangement - View Mating Side

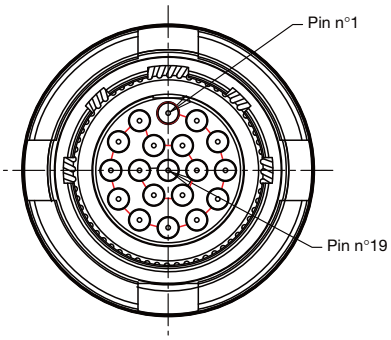
Receptacle C07R



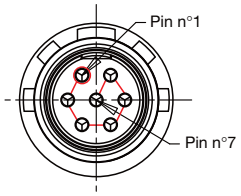
Receptacle C13R



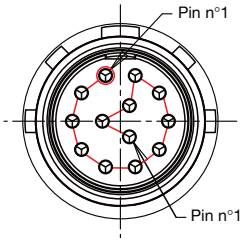
Receptacle C19R



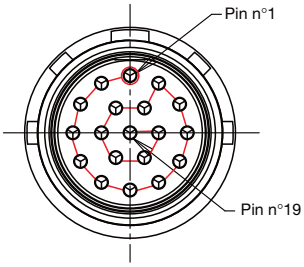
Plug C07P



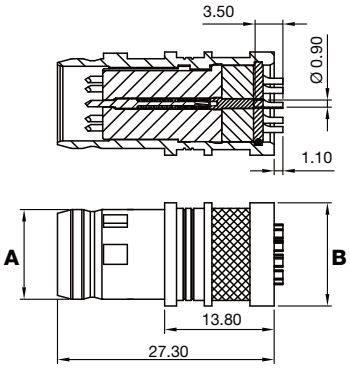
Plug C13P



Plug C19P

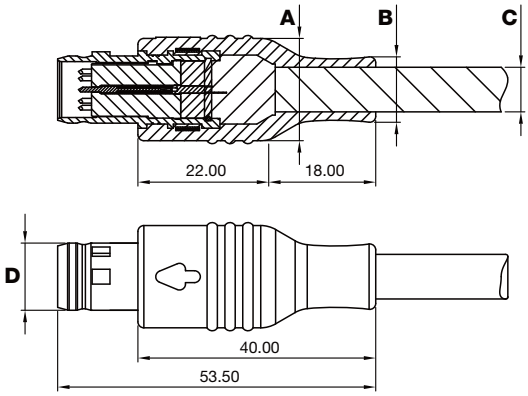


Plug - Solder Cup Termination



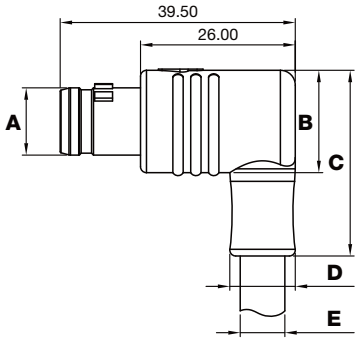
N° of ways	PN	A	B
7	C07PSC-----	Ø 8.30	Ø 10.20
13	C13PSC-----	Ø 11.30	Ø 13.00
19	C19PSC-----	Ø 12.30	Ø 14.00

Plug - Solder Cup Termination with Overmoulding and Cabling



N° of ways	PN	A	B	C	D
7	C07PSC--CH-----	Ø 14.50	Ø 9.50	Ø 6.00 max	Ø 8.30
13	C13PSC--CH-----	Ø 17.20	Ø 11.00	Ø 7.50 max	Ø 11.30
19	C19PSC--CH-----	Ø 18.20	Ø 12.00	Ø 8.50 max	Ø 12.30

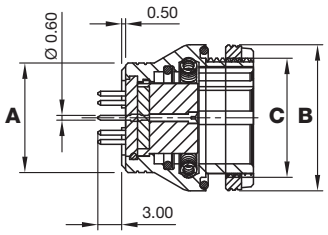
Plug - Solder Cup Termination with 90° Overmoulding and Cabling

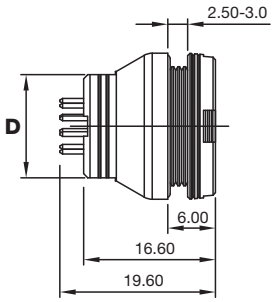


N° of ways	PN	A	B	C	D	E
7	C07PSC--CH-----	Ø 8.30	Ø 14.50	28.50	Ø 9.50	Ø 6.00 max
13	C13PSC--CH-----	Ø 11.30	Ø 17.20	31.20	Ø 11.00	Ø 7.50 max
19	C19PSC--CH-----	Ø 12.30	Ø 18.20	32.20	Ø 12.00	Ø 8.50 max

Dimensions are in mm

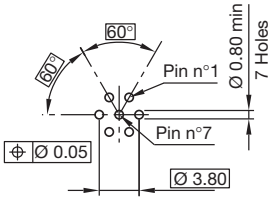
Receptacle - Straight Through Termination



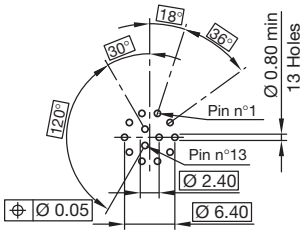


N° of ways	PN	A	B	C	D
7	C07RDC-----	Ø 11.00	Ø 15.40	M12x0.75	10.00
13	C13RDC-----	Ø 13.80	Ø 18.40	M15x0.75	13.00
19	C19RDC-----	Ø 14.80	Ø 19.40	M16x0.75	14.00

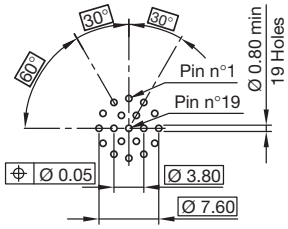
Mounting pattern - Component side



7 ways

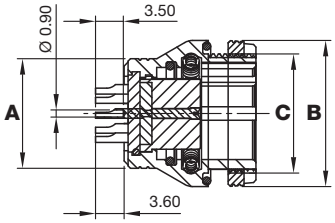


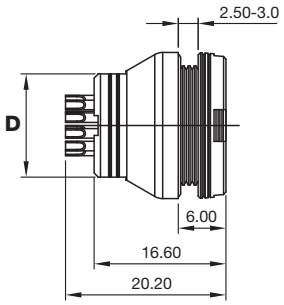
13 ways



19 ways

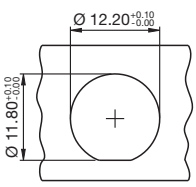
Receptacle - Solder Cup Termination



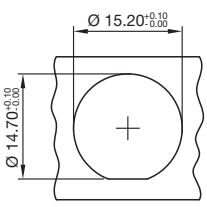


N° of ways	PN	A	B	C	D
7	C07RSC-----	Ø 11.00	Ø 15.40	M12x0.75	10.00
13	C13RSC-----	Ø 13.80	Ø 18.40	M15x0.75	13.00
19	C19RSC-----	Ø 14.80	Ø 19.40	M16x0.75	14.00

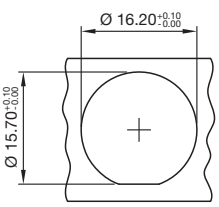
Panel Cut-out



7 ways



13 ways

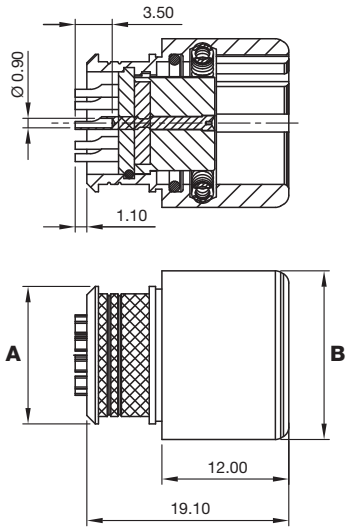


19 ways

Note: panel thickness max 3 mm

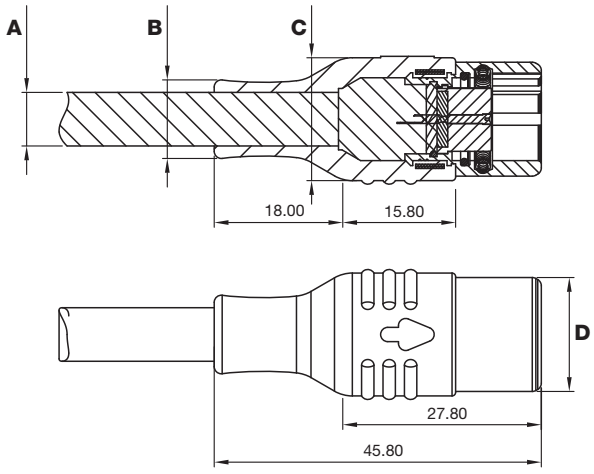
Dimensions are in mm

Extender - Solder Cup Termination



N° of ways	PN	A	B
7	C07ESC-----	Ø 10.20	Ø 13.00
13	C13ESC-----	Ø 13.00	Ø 16.00
19	C19ESC-----	Ø 14.00	Ø 17.00

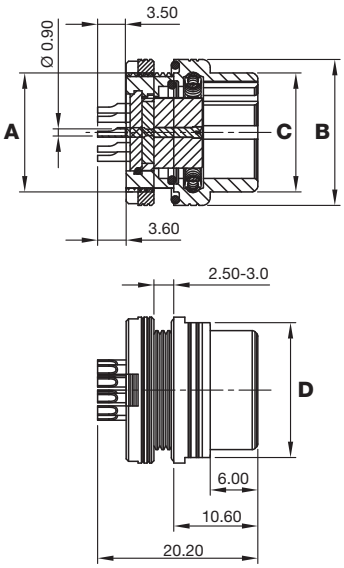
Extender with Overmoulding and Cabling



N° of ways	PN	A	B	C	D
7	C07ESC--CH-----	Ø 6.00 max	Ø 9.50	Ø 14.50	Ø 13.00
13	C13ESC--CH-----	Ø 7.50 max	Ø 11.00	Ø 17.20	Ø 16.00
19	C19ESC--CH-----	Ø 8.50 max	Ø 12.00	Ø 18.20	Ø 17.00

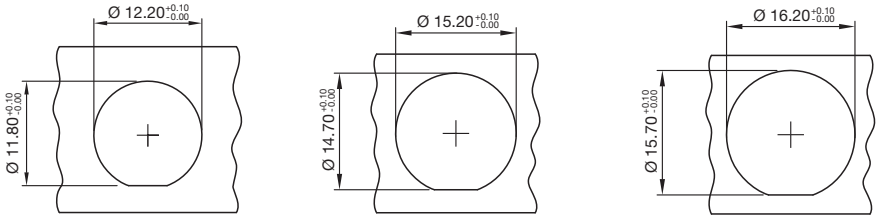
Dimensions are in mm

Receptacle - Front Panel Mounting with Solder Cup Termination



N° of ways	PN	A	B	C	D
7	C07XSC-----	M12x0.75	Ø 15.40	Ø 12.00	14.00
13	C13XSC-----	M15x0.75	Ø 18.40	Ø 15.00	17.00
19	C19XSC-----	M16x0.75	Ø 19.40	Ø 16.00	18.00

Panel Cut-out



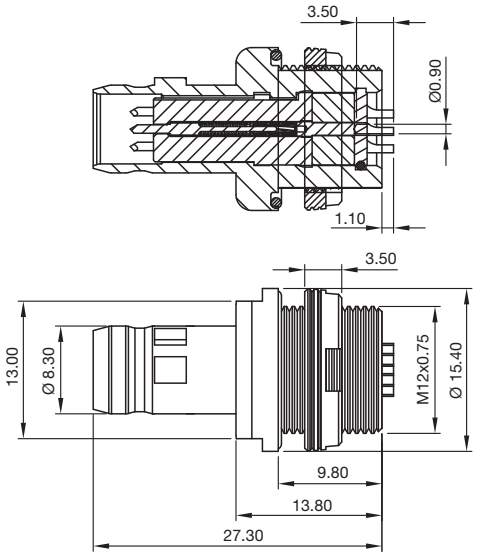
7 ways 13 ways 19 ways

Note: panel thickness max 3 mm

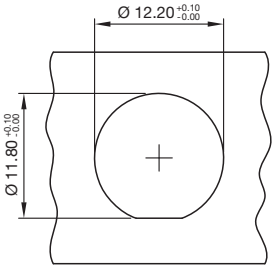
Dimensions are in mm

Other Available options

7 Ways Plug - Front Panel Mounting with Solder Cup Termination



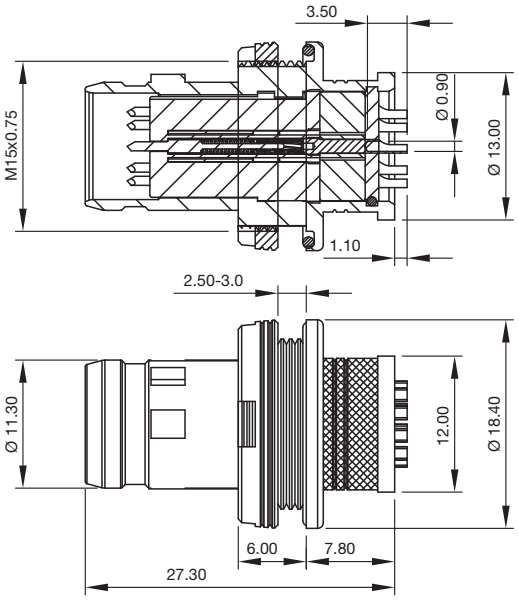
Ref. C07YSC-----



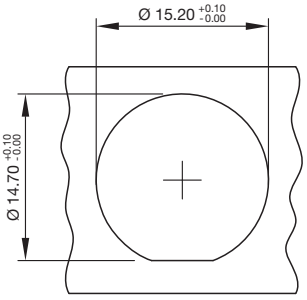
Panel cut out

Note: for 13 and 19 ways connector details please contact our sales office.

13 Ways Plug - Rear Panel Mounting with Solder Cup Termination



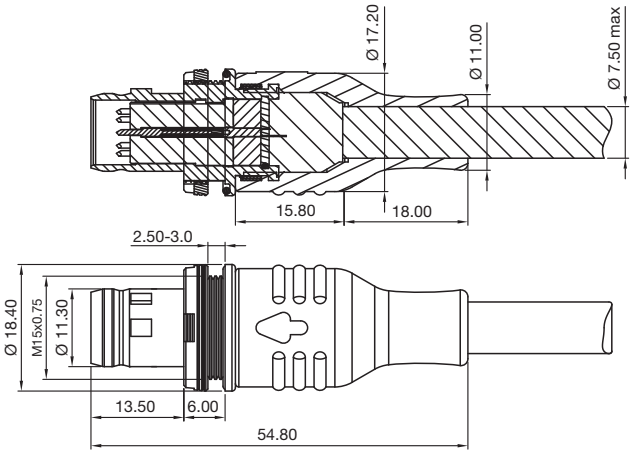
Ref. C13ZSC-----



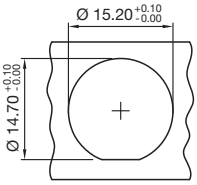
Panel cut out
panel thickness max 3 mm

Note: for 7 and 19 ways connector details please contact our sales office.

13 Ways Plug - Rear Panel Mounting with Overmoulding and Cabling



Ref. C13ZSC--CH-----



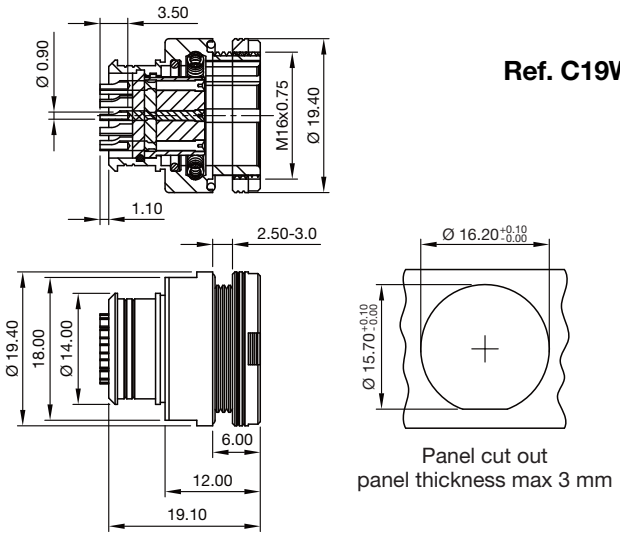
Panel cut out
panel thickness max 3 mm

Note: for 7 and 19 ways connector details please contact our sales office.

Dimensions are in mm

Other Available options

19 Ways Extender - Rear Panel Mounting with Solder Cup Termination

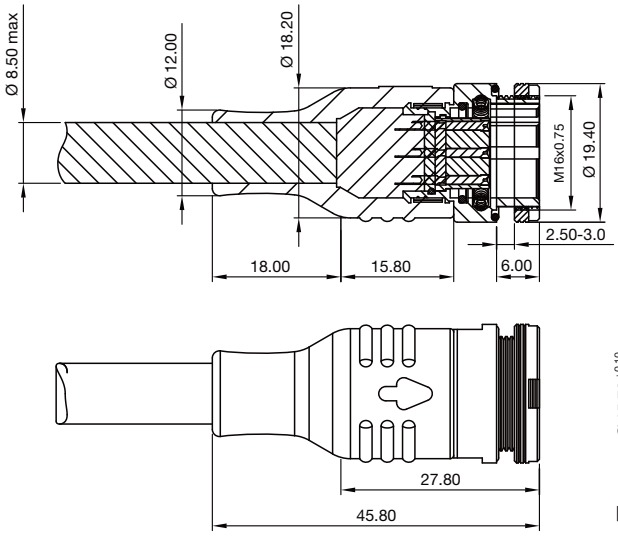


Ref. C19WSC-----

Panel cut out
panel thickness max 3 mm

Note: for 7 and 13 ways connector details please contact our sales office.

19 Ways Extender - Rear Panel Mounting with Overmoulding and Cabling



Ref. C19WSC--CH-----

Panel cut out
panel thickness max 3 mm

Note: for 7 and 13 ways connector details please contact our sales office.

Dimensions are in mm

Accessories - Dust Cap

Ordering Information

ST1091	SNAPTAC	C	**	C*	***	***

Series

Connector type

Circular

Number of ways

07 - 13 - 19

Dust Cap Type

CP	Dust Cap for Plug
CR	Dust Cap for Receptacle

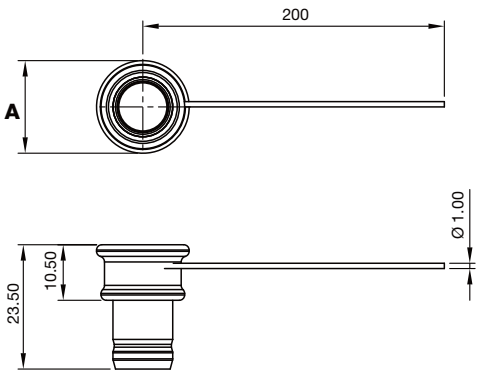
Dust Cap Version

MET	Metallic Cap
RUB	Rubber Cap

Base Material & Surface Protection

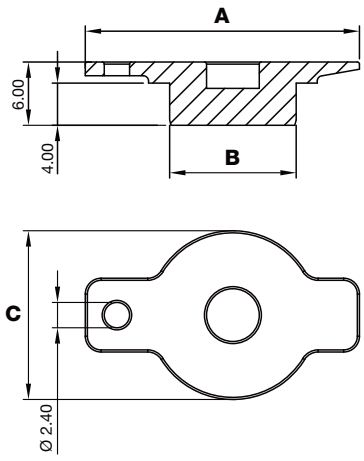
AAZ	Aluminium Alloy (AV2024)	Zinc Cobalt
AAN	Aluminium Alloy (AV2024)	Nichel
SSP	Stainless Steel AISI 303	Passivated
SSB	Stainless Steel AISI 303	Black Oxide Coating
SSW	Stainless Steel AISI 303	Black Tungsten Carbide
XSP	Stainless Steel AISI 316	Passivated
XSB	Stainless Steel AISI 316	Black Oxide Coating
XSW	Stainless Steel AISI 316	Black Tungsten Carbide
FPR	Fluoro Polymer Rubber	

Dust Cap - Metal Version



N° of ways	PN	A
7	C07CRMET---	Ø 15.00
13	C13CRMET---	Ø 17.50
19	C19CRMET---	Ø 18.50

Dust Cap - Rubber Version



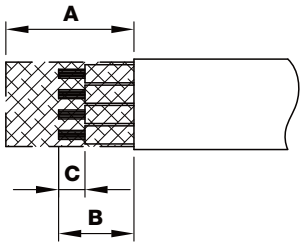
N° of ways	PN	A	B	C
7	C07CRRUBFPR	23.00	Ø 9.00	Ø 13.00
13	C13CRRUBFPR	26.00	Ø 12.00	Ø 16.00
19	C19CRRUBFPR	27.00	Ø 13.00	Ø 17.00

Dimensions are in mm

Cable Preparation

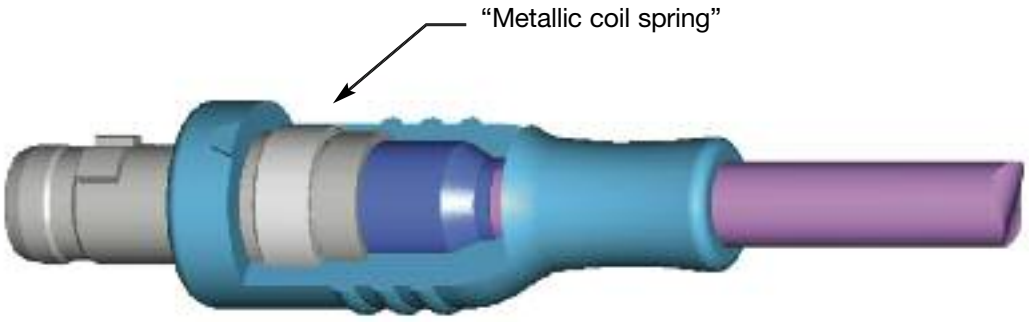
See below the stripping lengths for braid shield (A) and single wire (B & C).

	Plug (ref. P)	Extender (ref. E)
A	17	13
B	10	10
C	3.5	3.5



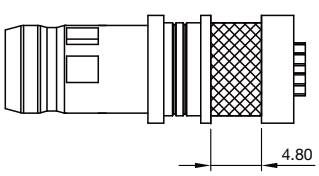
EMI/EMC Protection

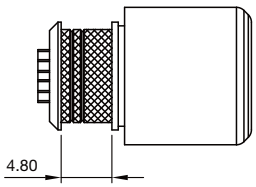
Plug (ref. P), extender in line (ref. E) and extender rear panel mounting (ref. W) of this specification are designed to be supplied with assembled cables.
The electrical continuity between metal shell and cable shield is granted by a specific metallic coil spring (Zetalock) for cable braid as showed in the picture.



Connector Size	Internal Reference
C07	M1035 / ZETALOCK HE-045
C13	M1036 / ZETALOCK HE-041
C19	M1036 / ZETALOCK HE-041

See below the knurled area for braid shield connection





Dimensions are in mm

Rectangular Connector Technical Characteristics

General

Hyperspring® Contact Number	12, 21, 30
Receptacle Contact Termination	Solder Cup, Straight PCB
Plug Contact Termination	Solder Cup
AWG Contact	30-24
Cable Diameter Range	Max 8 mm

Materials and Plating

Inner Insulators	Polyphenilensulfide (PPS) type GST-40F per MIL-M-24519 V0 per UL 94
Interface Insulators	NBR Rubber per CEI 2019 Black V0 per UL 94
Overmoulded	Hot melt Polyamide 6.6
Housing	*(see table 1)*
Locking Hardware	Stainless Steel AISI 3xx • Passivated as per ASTM-A-967 • Coating Oxide Black as per MIL-DTL-13924D • Metal Spraying Tungsten Carbide Black as per MIL-STD-869
EMI-Gasket	Conductive Silicon

Hyperspring® Contacts

Non Functional Parts	Brass as per ASTM-B-455 plated with Au as per ASTM-B-488
Spring Contact Element	CuBe as per ASTM-B-197 plated with Au as per ASTM-B-488
Spring Element	Stainless Steel AISI 302 passivated as per ASTM-A-967
Interface pin connection	Bronze as per ASTM-B-139 plated with Au as per ASTM-B-488
Plug contact terminations (solder cups)	Brass as per ASTM-B-455 plated Au as per ASTM-B-488
Bonding Agent	Epoxy resin
Mass data	Related to standard connectors configuration *(see table 2)*

Table 1

MATERIAL		SURFACE TREATMENT Z	N
Aluminium Alloy AV2024 *ASTM-B-209*	**AA***	Zn/Co on Chemical Ni Black 5 µm SAE AMS-C-26074 Class 1	Chemical Ni Matt Grey 20 µm SAE AMS-C-26074 Class 1 Grade A

Table 2

(grams)	PLUG	PLUG (front panel mount)	RECEPTACLE
R12	16	na	5.5
R21	23	na	7.5
R30	38	18	7.5

Dimensions are in mm

Electrical Characteristics

EMI Shielding	360° shield coverage
Current Rating	3A@25°C for each contact according to IEC 512-3
Dielectric Withstanding Voltage (between contacts)	500 Vrms at sea level and 150Vrms at 21336m according to EIA364.20
Contact Resistance (low level)	< 15mΩ for each contact according to EIA364.6
Insulation Resistance	5000 MΩ @ 500V d.c. according to EIA364.21

Mechanical and Environmental Characteristics

Temperature Range	-55°C +85°C
Temperature Cycling	EIA364.32 Method A
Salt Spray	EIA364.26 Condition A - mated connectors
Humidity	EIA364.31 Method IV
IP Level	67 mated and unmated according to IEC529
Vibration	EIA364.28 Condition III
Shock	EIA364.27 Condition G
Hyperspring® force (single contact)	Max 1.5 [N]
Connector Mating Force	Max 60 [N] (12ways) – Max 70 [N] (21ways) - Max 80 [N] (30ways)

Technical performance data hereby reported refer to Snaptac® connectors equipped with Hypertac cabling and overmolding.

Ordering Information

ST1089	SNAPTAC	R	**	*	*	C**	CH**	***

Series

SNAPTAC

Connector type

R — Rectangular

Number of ways

** — 12 - 21 - 30

Connector style

P	Plug
R	Receptacle front panel mount
Y	Plug front panel mount *(only 30 ways)*

Termination style

S	Solder Cup
D	PCB Straight *(lenght = 3.15 [mm])*
L	PCB Straight *(lenght = 14 [mm])*

Housing Coding

* — From C00 up to C16 *(only for 12 & 21 ways)*
(preferred coding keys C01 - C06 - C11 - C16)

Wiring Diagram (1)

CH** — From CH01 up to CHnn

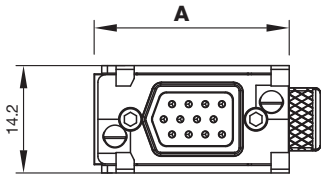
Base Material & Surface Protection

AAZ	Aluminium Alloy (AV2024)	Zinc Cobalt
AAN	Aluminium Alloy (AV2024)	Nichel

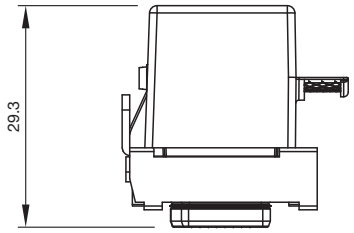
NOTES:
1. Omit in case of connector without cable harnessing
2. Connectors identification does not require empty space (eg: R12PSC01AAZ)
3. Harnessing identification does not require empty space (eg: R12PSC01CH01AAZ)
4. Harnessing is applicable only to connectors type P
5. Straight termination contacts are applicable only to R&Y

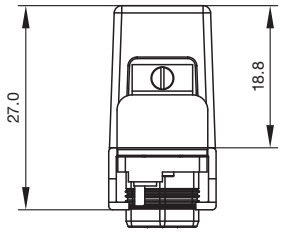
Dimensions are in mm

Plug - Solder Cup Termination

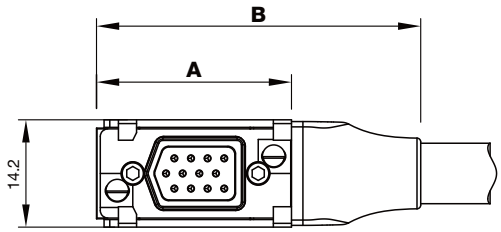


N° of ways	PN	A
12	R12PSC-----	25.8
21	R21PSC-----	32.4

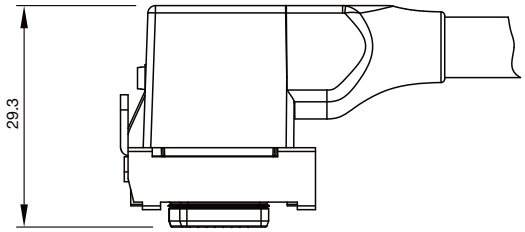


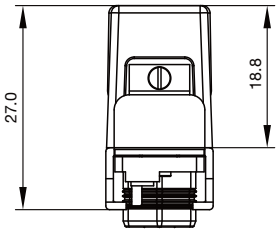


Plug with Overmoulding and Cabling



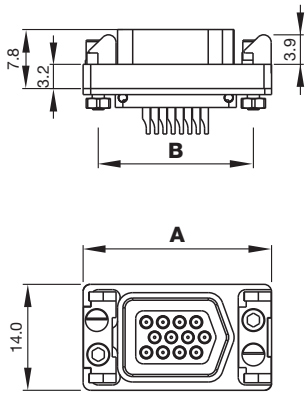
N° of ways	PN	A	B
12	R12PSC--CH-----	25.8	42,9
21	R21PSC--CH-----	32.4	49.6





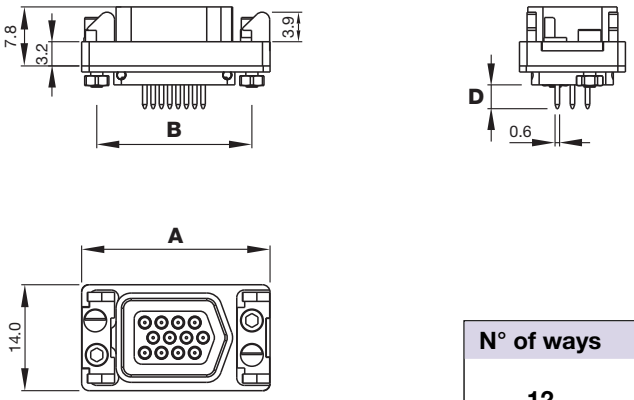
Dimensions are in mm

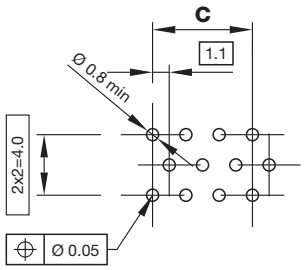
Receptacle - Solder Cup Termination



N° of ways	PN	A	B
12	R12RSC-----	24.9	20.5
21	R21RSC-----	31.5	27.1

Receptacle - Straight Through Termination



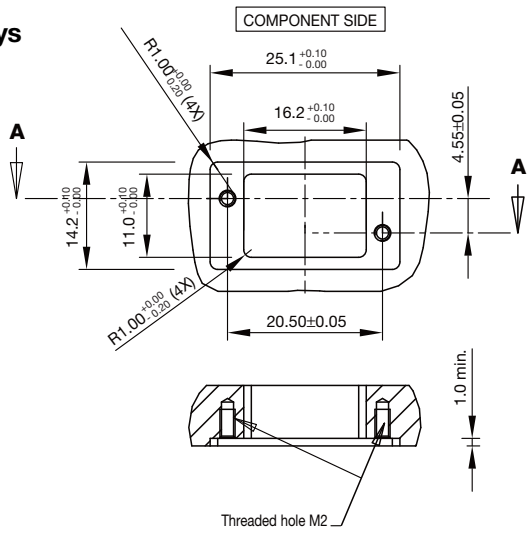


Mounting pattern - Component side

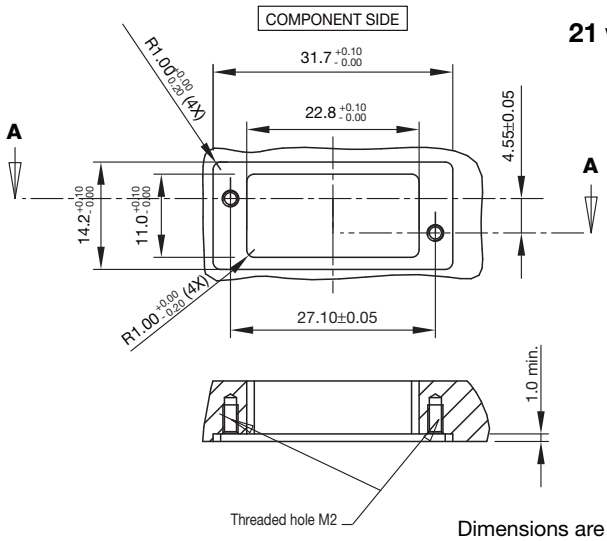
N° of ways	PN	A	B	C	D
12	R12RDC----- R12RLC-----	24.9	20.5	6.6	3.15 14
21	R21RDC----- R21RLC-----	31.5	27.1	13.2	3.15 14

Panel Cut-out

12 ways

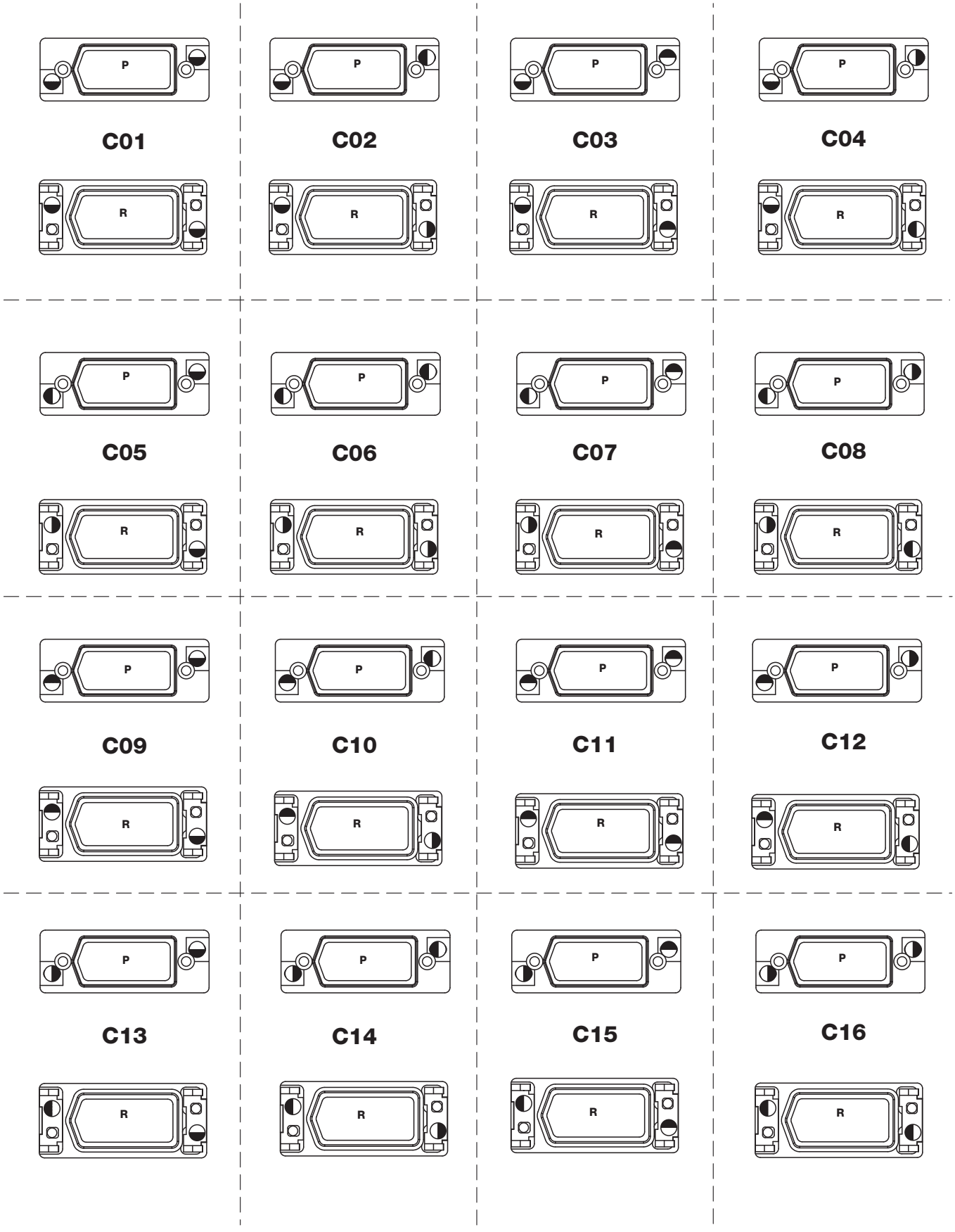


21 ways



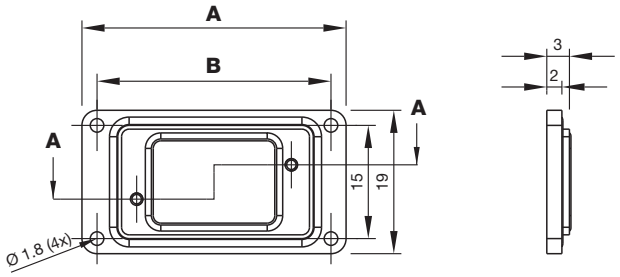
Dimensions are in mm

Available Coding Keys for 12 and 21 ways

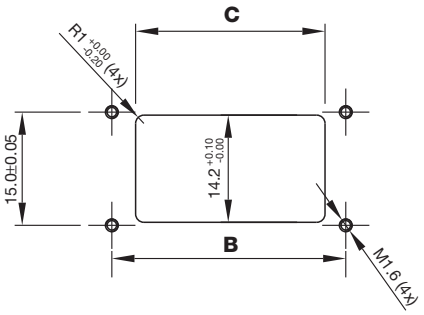


Accessories

Flange for Rear Panel Mounting



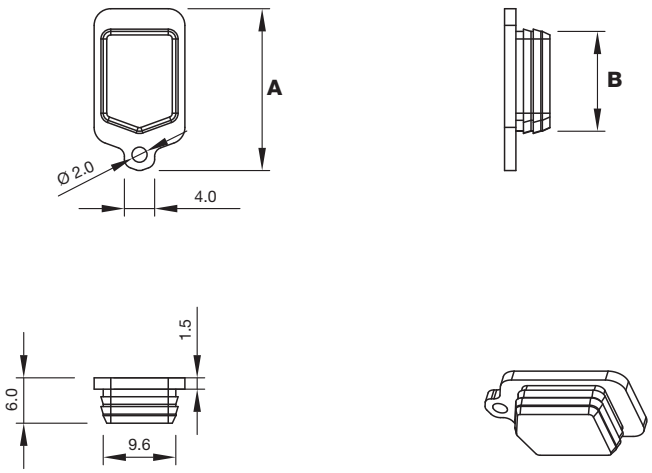
N° of ways	A	B
12	35	31
21	41.6	37.6



Panel cut out

N° of ways	B	C
12	31 +0.10 -0.00	25.1 +0.10 -0.00
21	37.6 ±0.05	31.7 ±0.05

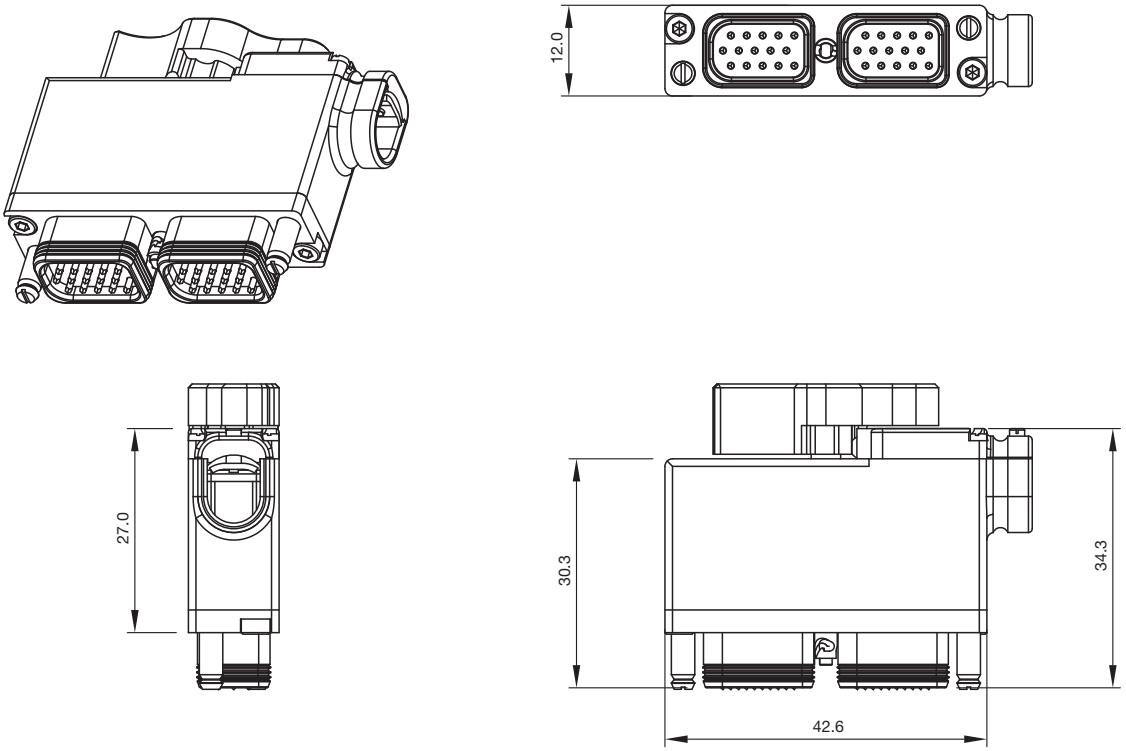
Dust Cap



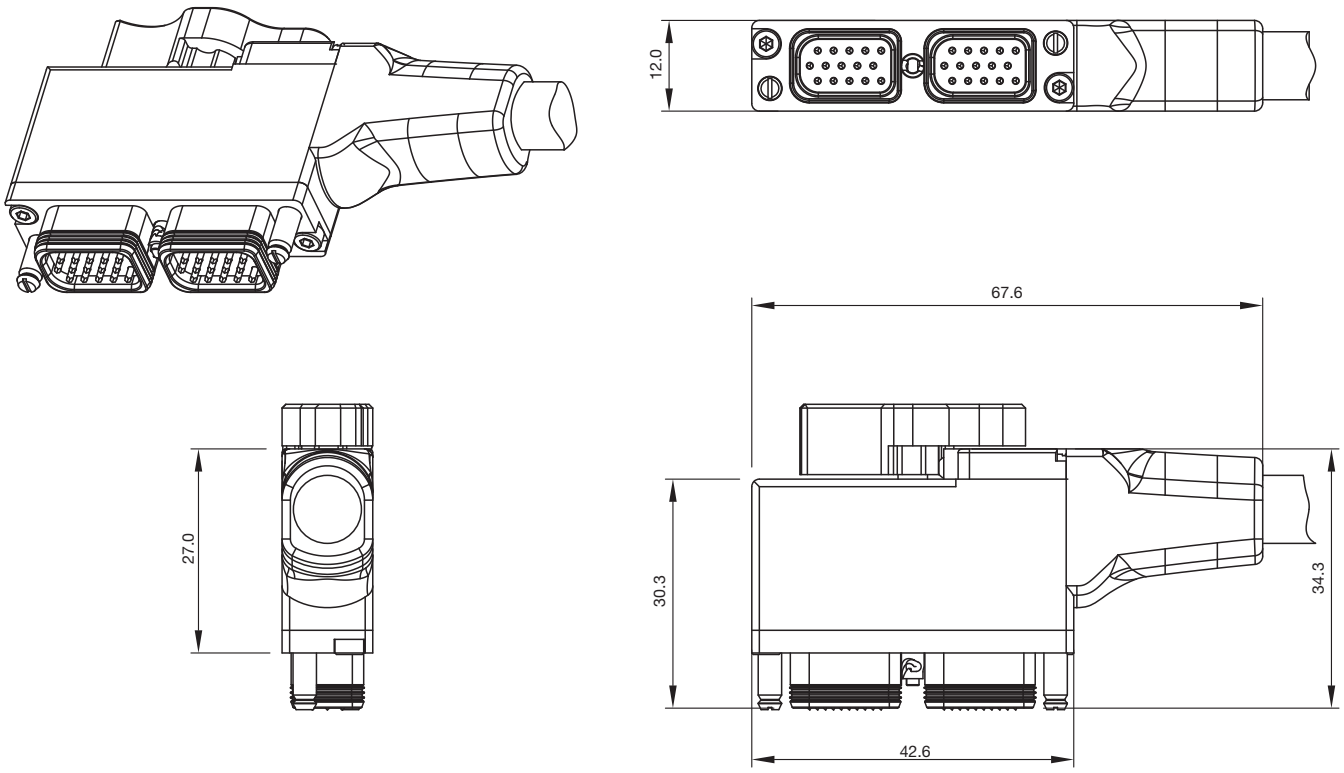
N° of ways	A	B
12	21.4	13.2
21	28	19.8

Dimensions are in mm

30 Ways Plug - Solder Cup Termination

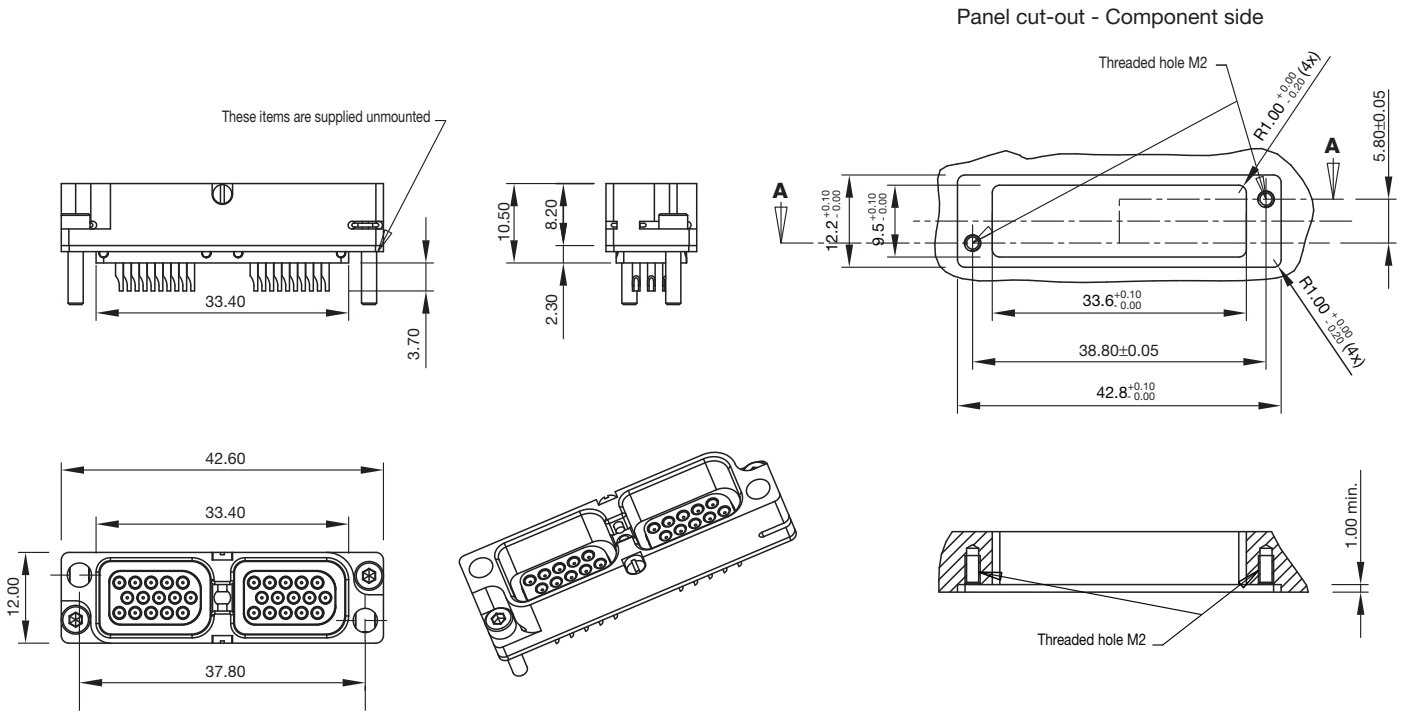


30 Ways Plug with Overmoulding and Cabling

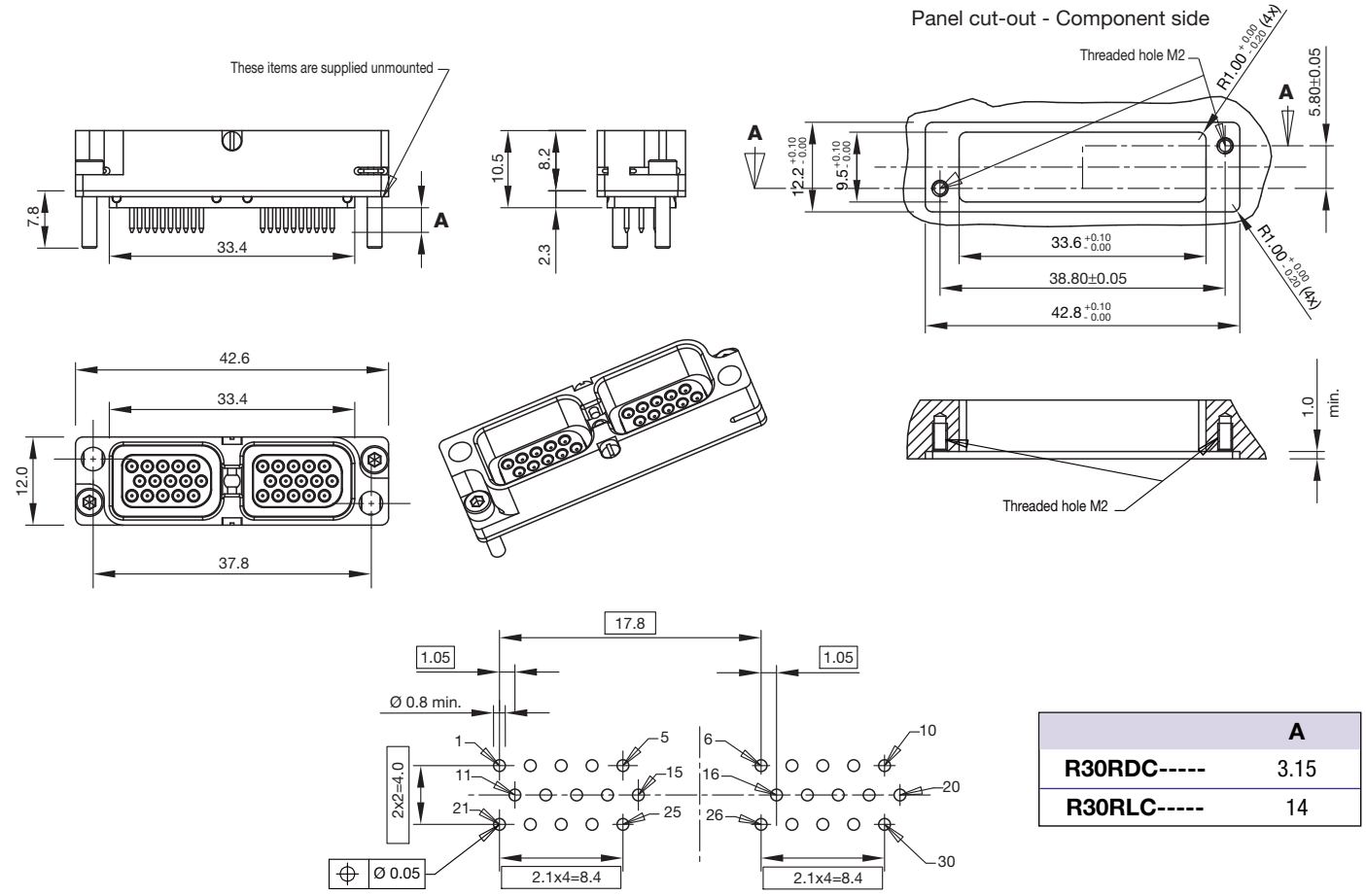


Dimensions are in mm

30 Ways Receptacle - Solder Cup Termination



30 Ways Receptacle - Straight Through Termination

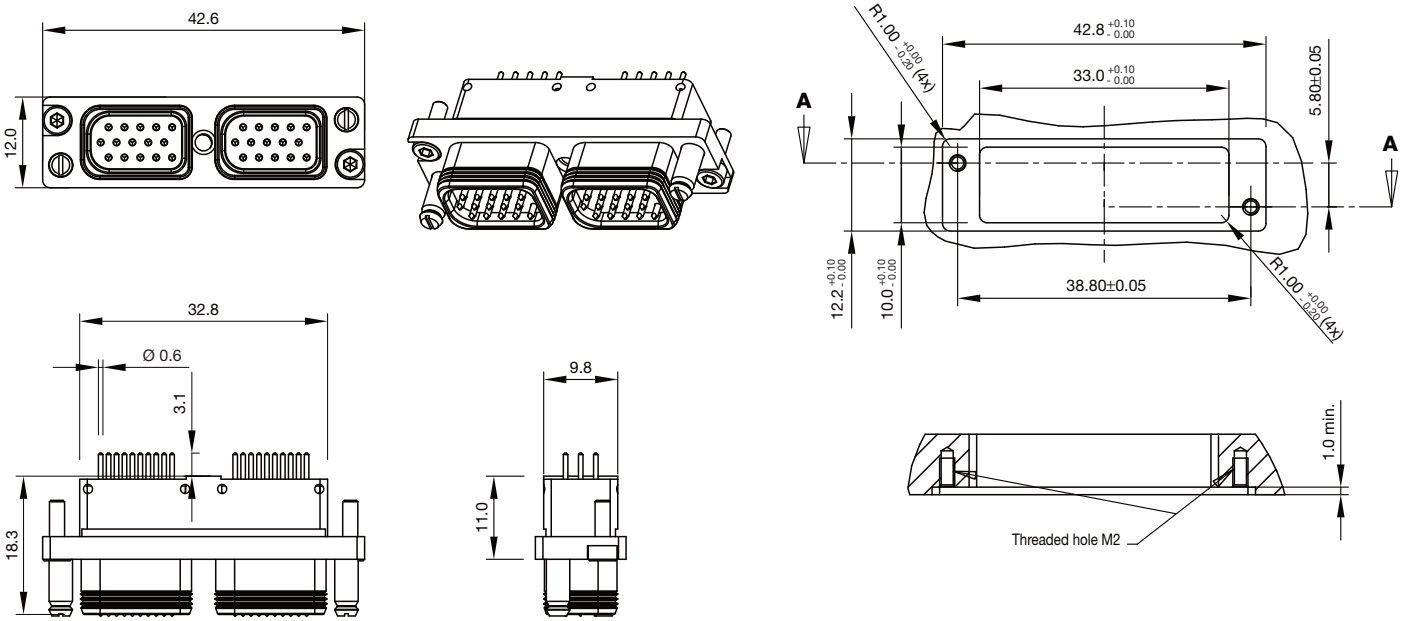


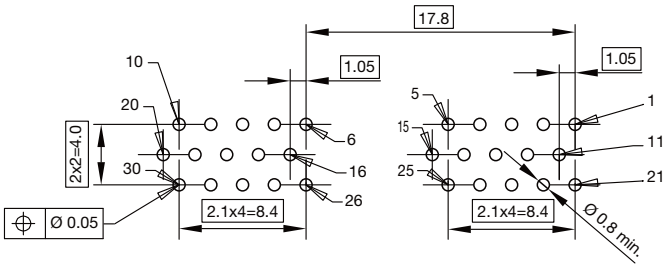
Mounting Pattern - Component side

	A
R30RDC-----	3.15
R30RLC-----	14

Dimensions are in mm

30 Ways Plug - Front Panel Mount





Mounting Pattern - Component side

Dimensions are in mm

Disclaimer

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