



CMASD

## CMASD Serie

Push-Pull Connector



... Toughness and reliable high speed data transfer in small dimensions !

Catalog



## ◆ Description

BERNIER designed the CMALD line specially for harsh environments. This line presents the same appreciated characteristics than the CMA connectors in a smaller shell in which can be set up to 8 contacts. Its ergonomics and toughness enhances headsets and handsets use and its construction allows high speed data communication.

## ◆ Applications



Radios



Accessories



Intercoms



Crypted data

Push-Pull

Ergonomics

EMI RFI Protection

Stainless steel

Multi-Contacts

Watertight



Optronic devices



Weapon systems



Rugged computers



Tactical equipments



## ◆ The Right Solution for your projects

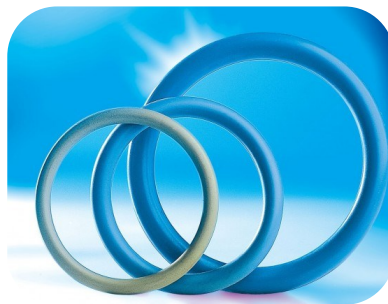
CMASD connectors are appreciated for their flexibility to fit customer specifications. Our Design team is able to propose versions answering to your needs. Reinforcements can be applied in case of use in harder climatic, ergonomic and electromagnetic conditions.

## ◆ EMC reinforcements

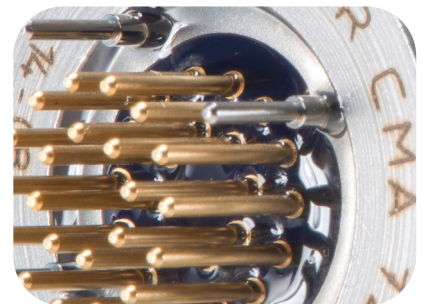
Options are available in order to reinforce the EMC specifications.



Ground ring « 360° »



Conductive Orings



Ground pin

CMASD standard receptacles are equipped with a ground ring giving a high EMC level. This function developed by Bernier brings a better continuity between the connectors shells and a protection on 360°

The receptacle Fluorosilicon Oring can be switched to a conductive version to establish a better conductivity between the connector and the panel.

One or several ground pins inserted in the connector shell can be set to link the chassis ground directly to the PCB.

## ◆ Climatic and mechanical characteristics

	CMASD
Unlocking system	Push-Pull
Operating temperature Range	-55°C to +125°C
Endurance	5 000 operations
Sealing performance	IP68 (connected and disconnected)
Corrosion resistance	Salt fog : 96 hours
Fluids resistance	Oils and Hydrocarbons

## ◆ Electrical characteristics

	08 contacts
Working voltage	60 V <sub>max</sub>
Current rating per contact	2 A <sub>max</sub>
Gauge (AWG)	26
Contact type	Solder cup / For PCB
Contact resistance	≤ 10 mOhms
Insulation resistance	>1000 MOhms under 500 V <sub>DC</sub>
Dielectric	500 V <sub>eff</sub> at 50 Hz
EMI RFI	Yes

## ◆ Material and plating

	Material	Plating
Connector shell	Stainless steel	Sandblasting or Black Chrome
Insulator	PBT	-
Contacts	Copper alloy	Gold over nickel
Ground ring	Beryllium Copper	-
Backshell shell	Aluminium alloy	Black Chrome or Black Anodizing



## ◆ Connectors

Type	Weight (Max)
CMASD 1 (Extension)	<b>g</b>
CMASD 5 (Plug)	<b>g</b>
CMASD 7 (Receptacle)	<b>g</b>

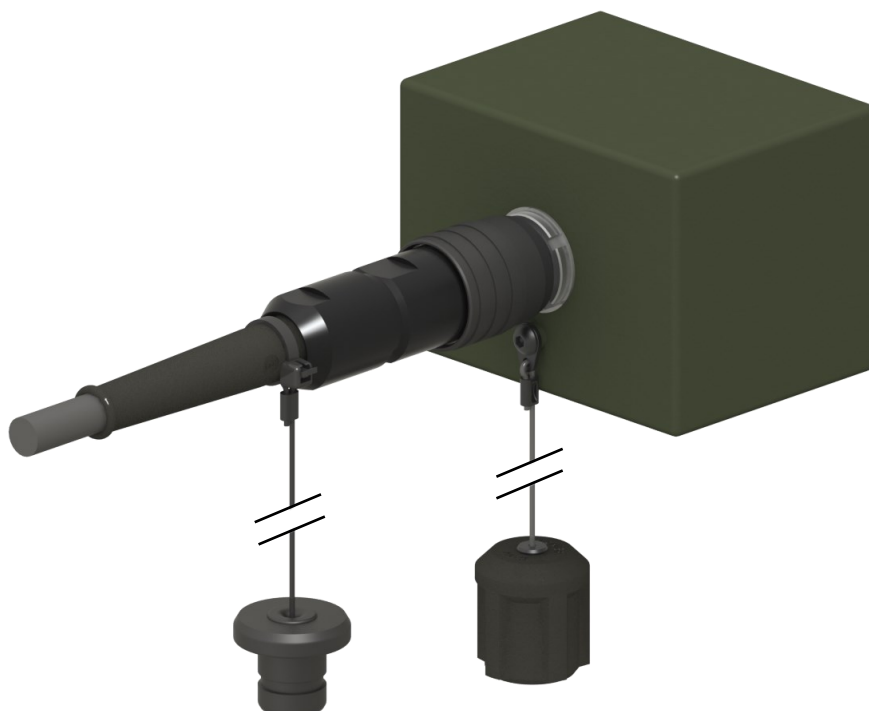
Stainless steel

## ◆ Backshell

Part number	Weight (Max)
CMASD RA86-XX	<b>g</b>

◆ **Compatibility matrix**

	Extension Type 1	Panel through-Type 3	Dummy receptacle Type 6	Receptacle Type 7	Elbow part 90°	Elbow part 105°	Straight backshell	Elbow backshell 90°	Thermo-plastic plug cap	Metallic plug cap
Plug Type 5	●	●	●	●	●	●	●	●	●	●
Panel plug Type 18	●	●	●	●	-	-	-	-	●	●
Elbow part 90°	●	●	-	-	-	-	●	-	-	-
Elbow part 105°	●	●	-	-	-	-	●	-	-	-
Straight backshell	●	●	-	-	●	●	-	-	-	-
Elbow backshell 90°	●	●	-	-	-	-	-	-	-	-
Elastomer cap	●	●	●	●	-	-	-	-	-	-
Metallic cap	●	●	●	●	-	-	-	-	-	-



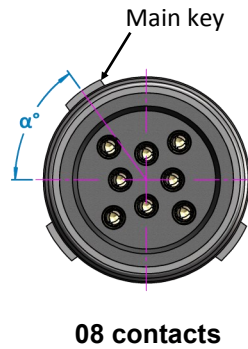
# Keyways



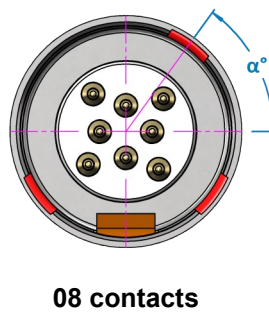
The keyways depends on the main key position. Positions of the 2 small keys, contacts and flats of the receptacle remain the same.

		Keyways				
		N	W	X	Y	Z
Angle $\alpha$	08 contacts	◦	◦	◦	◦	◦

## Receptacle - Extension Front view



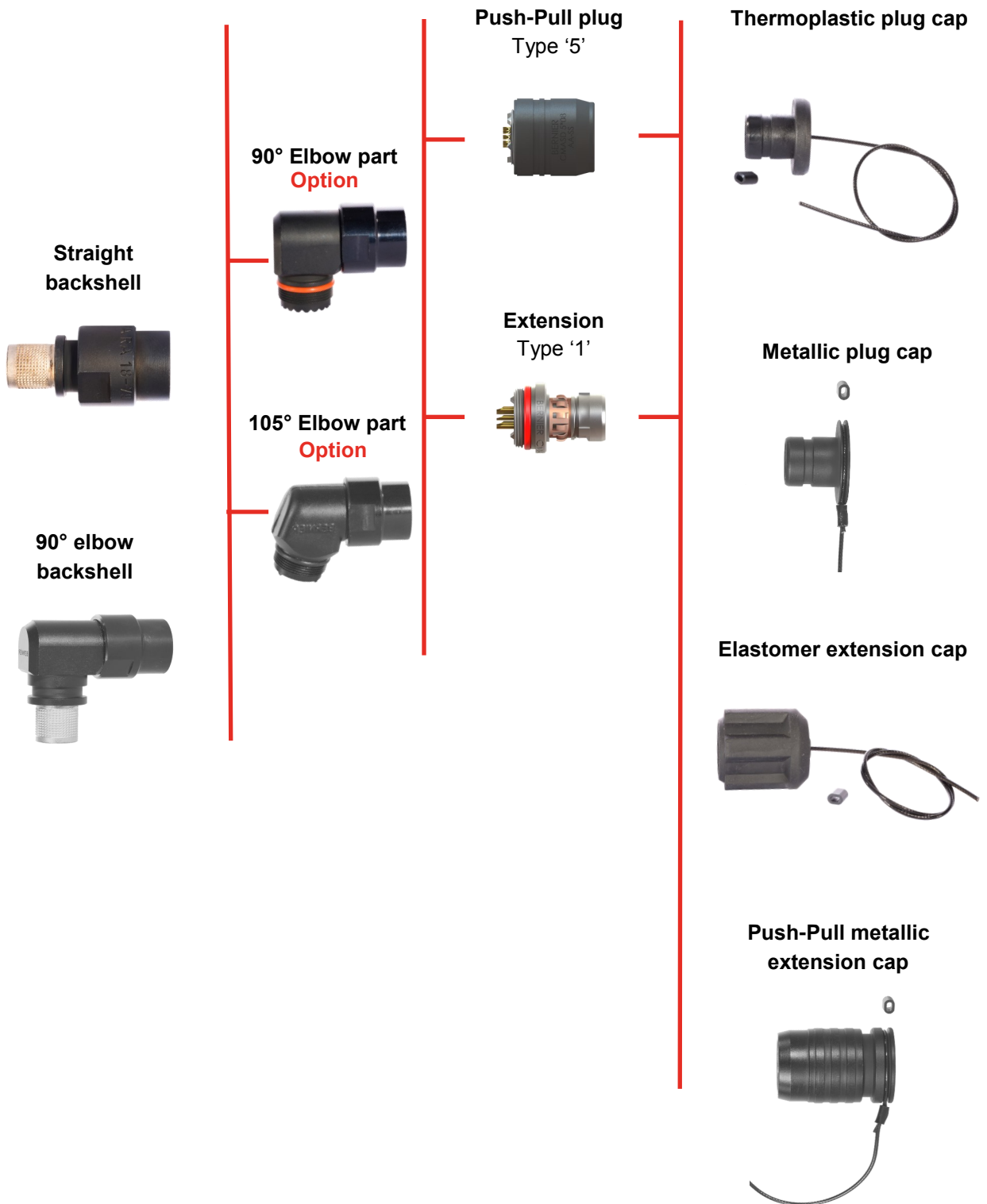
## Plug Front view





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◆ Items mounted on cable



A backshell (necessary for cable assembling) must be ordered at the same time than a connector and the reverse



◆ **Items mounted on panel**



**Rear panel mounting**

**Receptacle**  
Type 7

**Panel through \***  
Type 3



**Front panel mounting**

**Push-Pull panel plug**  
Type 18

\* can accept backshell (See items mounted on cable)



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CMASD

## ◆ Connectors

Description	Code	CMASD	B	7	N	08	Y1	PM	JC
<b>Serie</b>	CMASD	↑							
<b>Aspect :</b> 'Nothing mentioned' : Sandblasted Black version (By default for type 5)	B		↑						
<b>Connector type :</b> Extension Panel through Plug Dummy receptacle Receptacle Panel plug	1 3 5 6 7 18			↑					
<b>Keyways</b>	N, W, X, Y, Z				↑				
<b>Number of contacts</b>	08					↑			
<b>Contacts :</b> 'Nothing mentionned' : Solder cup For PCB Type 7	H1						↑		
<b>Ground pin</b> 1 Ground pin 4 Ground pins	PM PM4S							↑	
<b>Panel Oring :</b> 'Nothing mentionned' : Fluorosilicon Oring Fluorosilicon charged Ni/Graph Oring Fluorosilicon charged Ag/Al Oring	JC JC1								↑

◆ **Elbow parts for types 1, 3, 5**

Description	Code	CMASD	RA8
Serie	CMASD	↑	↑
Elbow part	RA8, RA82	↑	↑

◆ **Backshells for types 1, 3, 5**

Description	Code	CMASD	RAXX	-XX
Serie	CMASD	↑	↑	↑
Backshell	RAXX	↑	↑	↑
Outer diameter	See chapter « Elbow parts and backshells »	↑	↑	↑

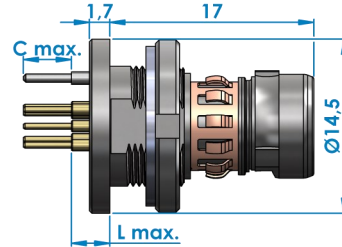
◆ **Caps**

Description	Code	CMASD	BA	XX	MC	-	200	ST
Serie	CMASD	↑	↑	↑	↑	↑	↑	↑
Caps	BA	↑	↑	↑	↑	↑	↑	↑
Cap type	See chapter « caps »	↑	↑	↑	↑	↑	↑	↑
Type of fixing : Black covered stainless steel micro-cable	MC	↑	↑	↑	↑	↑	↑	↑
Fixing length (mm)	See chapter « caps »	↑	↑	↑	↑	↑	↑	↑
Termination	See chapter « caps »	↑	↑	↑	↑	↑	↑	↑

◆ Type 7 with contacts for PCB



Contact type	L max	C max
H1	3.2	4



Ex: CMA 7N08PM

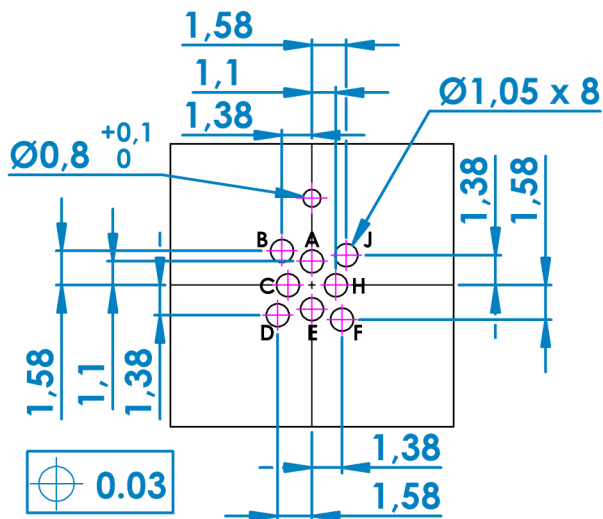
◆ Type 6 for plug fixing, for all plug



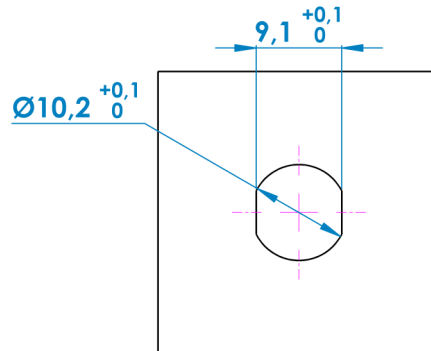
◆ Watertight shutter for CMA Type 7 panel cut



◆ PCB holing, welding side, through pins



◆ Panel cut

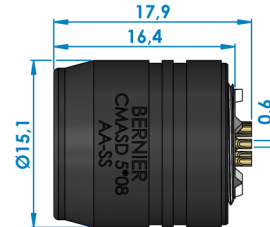


Front view side — Maximum panel thickness for CMASD receptacles : 3.5mm

◆ Type 5 Push-Pull with solder cup contacts



Number of contacts	Size AWG gauge
08	AWG 26

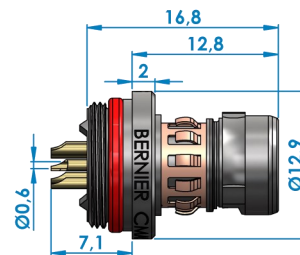


Ex: CMASD 5N08

◆ Type 1 with solder cup contacts



Number of contacts	Size AWG gauge
08	AWG 26



Ex: CMASD 1N08



◆ Elbow part with a 105° angle



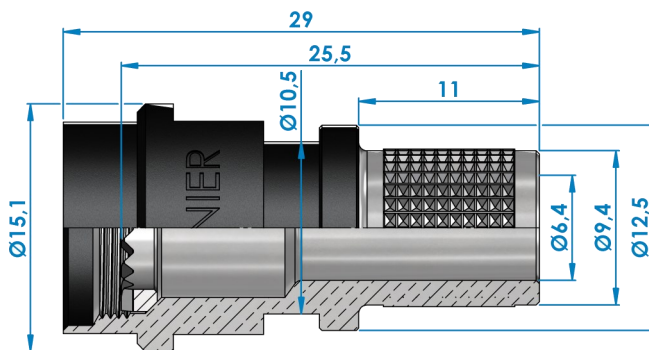
◆ Elbow part with a 90° angle



◆ Straight backshell with knurling



CMASD RA88-64



Other sizes possible, please contact us.

Backshell for cable assembling with metallic collar and heat-shrink boot (not included)

◆ 90° Elbow backshells with knurling



◆ Thermo-plastic caps for plugs



◆ Elastomer and metallic cap for receptacle types 3, 6 and 7



◆ Elastomer and metallic cap for extensions



◆ Terminations

Some terminations can accept several lanyards

Plastic clamp



Ferule



Metallic ring



Eyelet for M3 screw



Crimped eyelet for M3 screw



90° crimped eyelet for M3 screw



**CMA Serie**  
Push-Pull / Quick-Releaseable Connector

... For an optimum data transfer in harsh environments !

Catalog

Revised 23-JUNE-2016  
www.bernier.tm.fr

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Push-Pull Connector

... Toughness and reliable high speed data transfer in small dimensions !

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