

MMCMD

MINIATURE
BREAK-AWAY
CONNECTOR
COMPACT
LOW PROFILE
20 CONTACTS

**High-speed data
transmission** in a robust,
ergonomic medium-sized
dimensions !



MMCMD Miniature Connector with Medium Dimension and 20 contacts.

BREAK-AWAY | COMPACT | LOW PROFILE | STAINLESS STEEL | ROBUST | WATERTIGHT | EMI RFI PROTECTION



BERNIER

TECHNICAL DATA / MMCMD

MATERIALS AND FINISH

Body	Sandblasted stainless steel
Contacts & ground pin	Copper alloy with gold over nickel plating
Insulator	Thermoplastique

CLIMATIC AND MECHANICAL CHARACTERISTICS

Temperature range	-55°C +125°C.
Watertightness	IP68 20m during 2h
Salt spray	96h
Mechanical endurance	5 000 operations

ELECTRICAL SPECIFICATIONS

Working voltage	28 V _{max}
Rating current signal contact	1 A
Rating current power contact	5 A
Contact resistance	≤20 mΩ
Insulation	> 100 MΩ à 100VDC
Dielectric rigidity	500 Veff at 50 Hz.

Solderability according J-STD-002 test A1

WEIGHTS / MMCMD



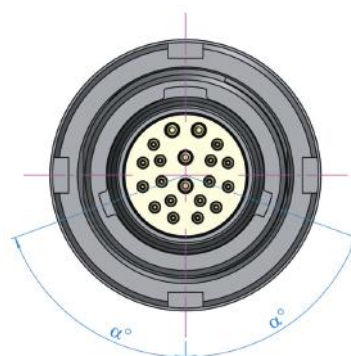
Connectors	Weight
Plugs MMCMD	5 g
Receptacles MMCMD	8 g
Panel plugs MMCMD	12 g

Backshells	Weight
Straight backshell on knurling	6 g

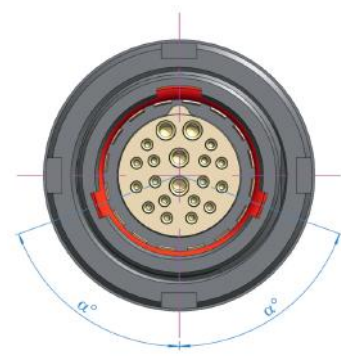
KEYWAYS

Keyway	Angle A	Color
K	70°	Orange
N	62°	Red
W	54°	White
X	46°	Green
Y	38°	Yellow
Z	30°	Blue

Plugs



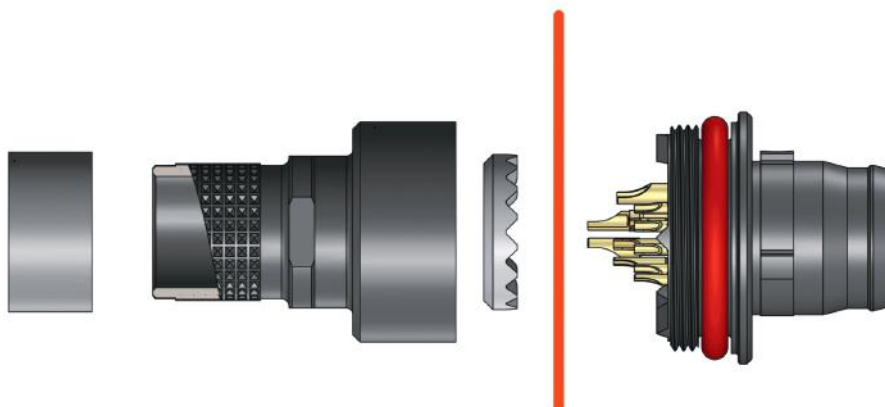
Receptacles



ITEMS MOUNTED ON CABLE

STRAIGHT BACKSHELL ON KNURLING

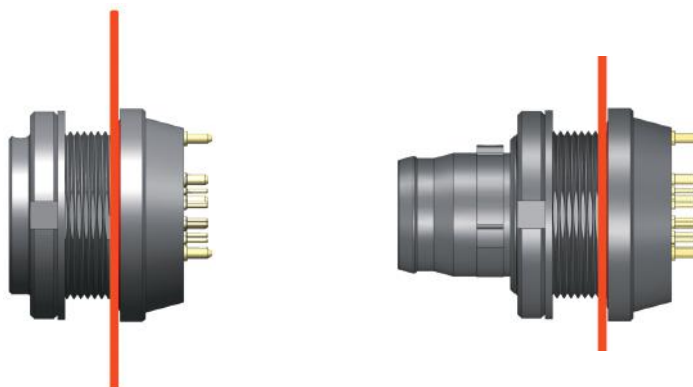
PLUG TYPE 5



ITEMS MOUNTED ON PANEL

RECEPTACLE TYPE 7

PANEL PLUG TYPE 4



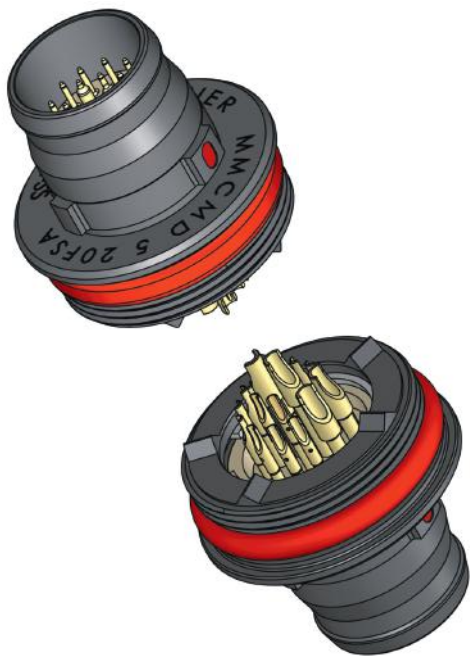
PLUGS (TYPE 5) / MMCMD

PART NUMBERS: MMCMD 5 X 20 FS A

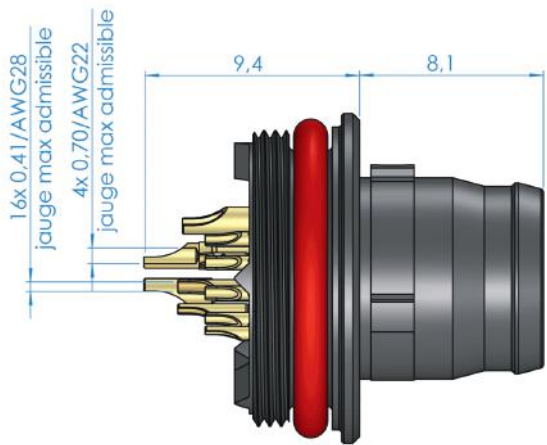
Description	Code
Series	MMC
Locking system	Break-away
Type of connector:	
Plug	5
Keyways	K, N, W, X, Y, Z, T
Number of contacts	20
Contacts type:	
Solder cup	FS
Material:	
Stainless steel	A

PLUGS (TYPE 5) / MMCMD

■ PLUGS WITH SOLDER CUP



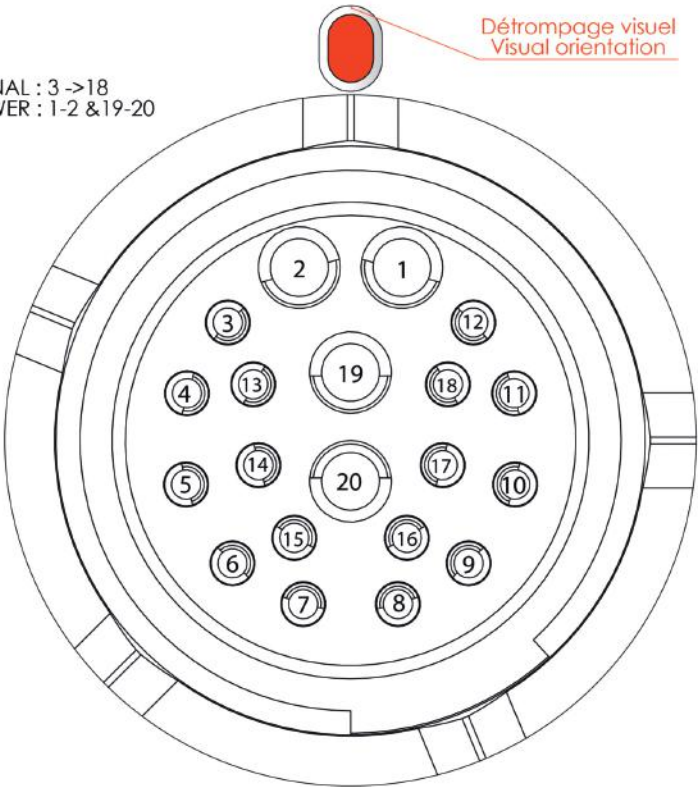
Ex : MMCSD 5N20FSA



Part number	Number of contacts	ØA	L max
MMC 5 x 20 FS A	20	AWG 22 x 4 AWG28 x 16	17,5

IMPLANTATION USB3.2 GEN 2x2	
1	POWER
2	POWER
3	RX1-
4	RX1+
5	D+
6	RX2-
7	RX2+
8	TX2+
9	TX2-
10	V CONN
11	TX1-
12	TX1+
13	GND RX1
14	D-
15	GND RX2
16	GND TX2
17	CC
18	GND TX1
19	VBUS
20	GND

SIGNAL : 3 ->18
POWER : 1-2 &19-20



BACKSHELLS / MMCMD

■ STRAIGHT BACKSHELL ON KNURLING

MMCMD RA87-xx

Straight backshell on knurling MMCMD RA87-XX, requiring crimping of the metal ring and heatshrink tubing or overmolding (not supplied). It can mate on all plugs, cable extensions and panel trough BERNIER MMCMD line.

■ MATERIALS AND FINISH

Shell and tightening ring	Stainless steel
Toothed ring	Aluminum alloy nickel-plated
Weight	7 g max
Locking torque	6N.m

■ EXAMPLES OF PART NUMBERS



MMCMD RA87-52



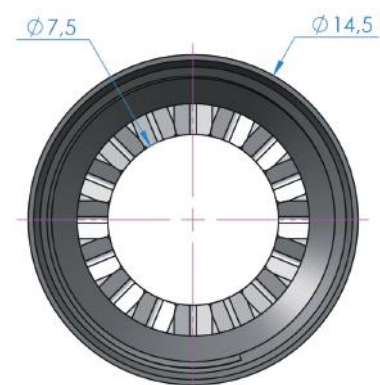
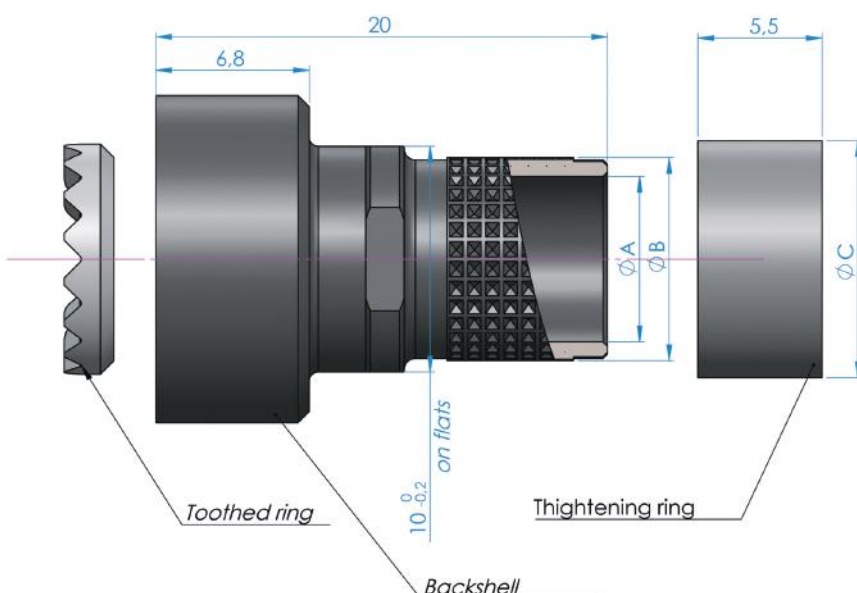
MMCMD RA87-64



MMCMD RA87-75

MMCMD RA87-xx

Part numbers	ØA	ØB	ØC
MMCMD RA87-52	5,2	6,7	8,2
MMCMD RA87-64	6,4	7,9	9,4
MMCMD RA87-75	7,5	9,0	10,5



RECEPTACLES (TYPE 7) / MMCMD

PART NUMBERS: **MMCMD L 7 X 20 P2 PM A**

Description	Code
Series	MMC
Locking system Break-away	L
Type de connector : Receptacle	7
Keyways	K, N, W, X, Y, Z, T
Number of contacts	20
Type of contacts : For PCB	P2
Ground pin Type 7 only	PM PM3 (recommended)
Material: Stainless steel	A

RECEPTACLES WITH CONTACTS FOR PCB / REAR MOUNTING

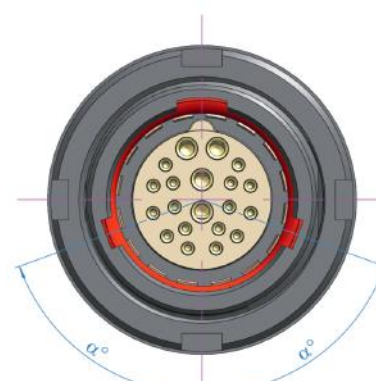
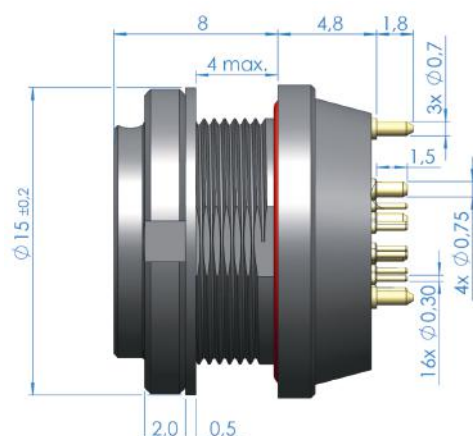
Receptacle for panel MMCMD L7*20P*PM to be brazed on PCB. It is designed with break-away system and mates on all male connectors of the BERNIER MMCSD line for version K, N, W, X, Y, Z, 12 contacts. Releasable system and ground continuity by spring. The Oring, washer and nut are to be ordered unassembled.

Receptacle (type 7) MMCMD L 7 x 20 P2 xx A

Part numbers	Keyways	Angle α	Color coding	Number of contacts
MMCMD L 7 K 20 P2 xx A	K	70°	Orange	20
MMCMD L 7 N 20 P2 xx A	N	62°	Red	20
MMCMD L 7 W 20 P2 xx A	W	54°	White	20
MMCMD L 7 X 20 P2 xx A	X	46°	Green	20
MMCMD L 7 Y 20 P2 xx A	Y	38°	White	20
MMCMD L 7 Z 20 P2 xx A	Z	30°	Blue	20



The Oring, washer and nut are delivered unassembled.



Ex : MMCMD L7N20P2PM3A

MMCS D

MMCS D



MMCS D



MMCS D

MMCS DMMCS D

PANEL PLUG (TYPE 4) / MMCMD

PART NUMBERS: **MMCMD 4 X 20 P2 PM A**

Description	Code
Series	MMC
Locking system Break-away	4
Type of connector : (types 4) Panel plug	
Keyways	K, N, W, X, Y, Z, T
Number of contacts	20
Type of contacts : For PCB	P2
Ground pin Type 7 only	PM PM3 (recommended)
Material: Stainless steel	A

MMCMD

■ PANEL PLUG WITH CONTACTS FOR PCB / REAR MOUNTING

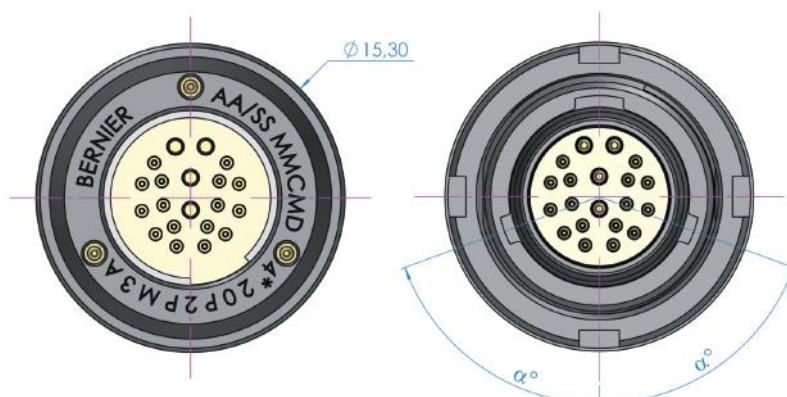
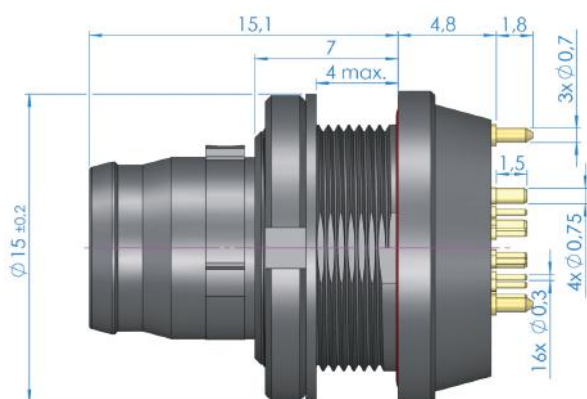
Plug receptacle for panel MMCMD 4*20P*PM to be brazed on PCB. It is designed with break-away system and mates on all female connectors of the BERNIER MMCMD line for version K, N, W, X, Y, Z, 20 contacts. Releasable system and ground continuity by spring. The Oring, washer and nut are to be ordered unassembled.

Panel plug (type 4) MMCMD 4 x 20 P2 xx A

Part numbers	Keyways	Angle α	Color coding	Number of contacts
MMCMD 4 K 20 P2 xx A	K	70°	Orange	20
MMCMD 4 N 20 P2 xx A	N	62°	Red	20
MMCMD 4 W 20 P2 xx A	W	54°	White	20
MMCMD 4 X 20 P2 xx A	X	46°	Green	20
MMCMD 4 Y 20 P2 xx A	Y	38°	Yellow	20
MMCMD 4 Z 20 P2 xx A	Z	30°	Blue	20



The Oring, washer and nut are delivered unassembled.



Ex : MMCMD 4N20P2PM3A

MMCS D

MMCS D



MMCS D



MMCS D

MMCS DMMCS D

TOOLS

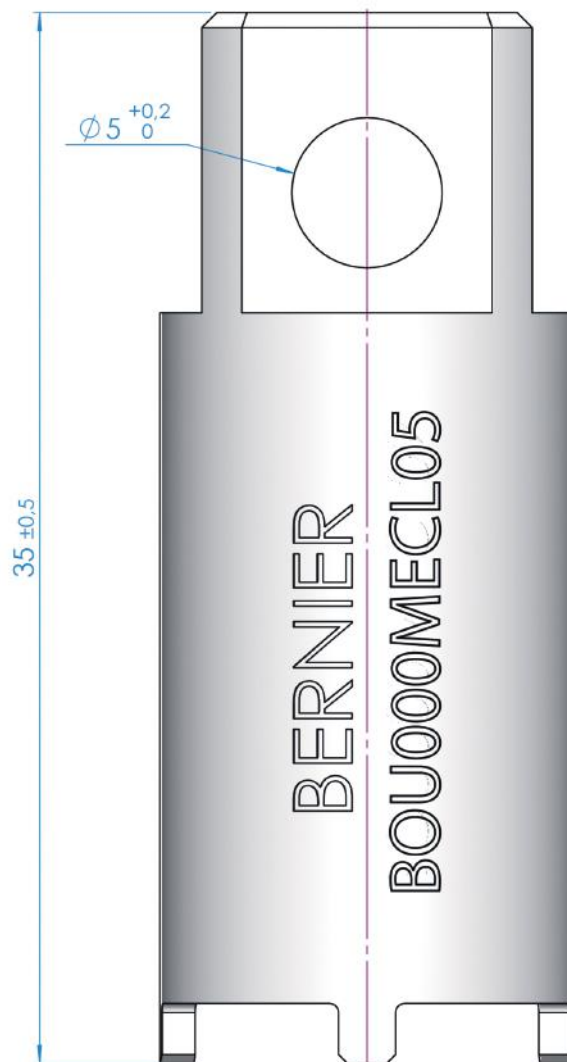
■ TIGHTENING TOOLS FOR MMCMD PANEL PLUG TYPE 4 NUT

Part number: **BOU000MECL05**

Material : Nickel plated hardened steel

Tightening torque : 9 N.m max

MMCMD





BERNIER

4, avenue Concordet
91240 Saint-Michel-sur-Orge
France
Tél. +33 1 60 84 21 40