

TV μ Com-10Gb+

38999 10Gb
Ethernet Connector



Description

μ Com-Series is a new range of connectors designed to address the latest trends of the military industry: miniaturization and high speed, with the highest resistance for use in the harshest environments. TV μ Com combines μ Com-10G+ speed with 38999 Series III size 11 shells robustness.

Main Features

- Based on MIL-DTL-38999 series III – Shell size 11
- 10Gb+: exceeds 10Gb/s Ethernet following IEEE 802.3an-2006 : 10GBase-T
- Cat.6A connector according to TIA568C.2 and ISO/IEC11801 standard
- Environmental testing based on MIL-DTL-38999 series III military specifications

- 4 pairs totally insulated throughout the connector
- Minimum cross-talk between the four pairs

- Patented special interfacial shapes
- Minimum perturbation at the interface of each pair

- 38999 size 11 shell

- Aluminium shell*:

- | | |
|--------------------|----------------------|
| Olive Drab Cadmium | ▶ salt spray: 500h |
| Nickel | ▶ salt spray: 48h ✓ |
| Black Zinc Nickel | ▶ salt spray: 500h ✓ |

- Marine bronze shell ✓ ▶ salt spray: 500h

- Machined & gold plated Solder and Crimp contacts
- Design & performance according to the innercontact of M39029/77-429#16 M39029/76- 425#16 38999 coaxial contact
- Contacts are crimped with standard crimping tool M22520/2-01 + Amphenol μ Com positioner

- μ Com contact module: machined brass
- Solder contact: max AWG24
- Crimp contact: AWG 24 to 28
- IP68 sealing mated and unmated for PCB receptacles
- 1500 Vrms Dielectric Withstanding Voltage
- Temperature range: - 55°C / + 125°C

*Please contact us for other plating options

✓ : RoHS compliant

Markets & Applications



C4ISR, Battlefield, Ground vehicles



Navy



Commercial Aerospace



Railway



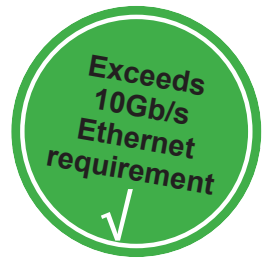
Applications:

▶ Shipboard, In Flight Entertainment *

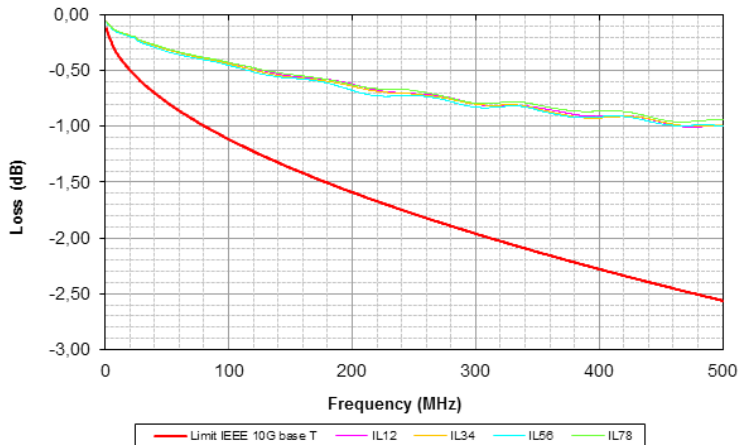
* μ Com approved by GORE

TV μ Com-10Gb+

Data Transmission



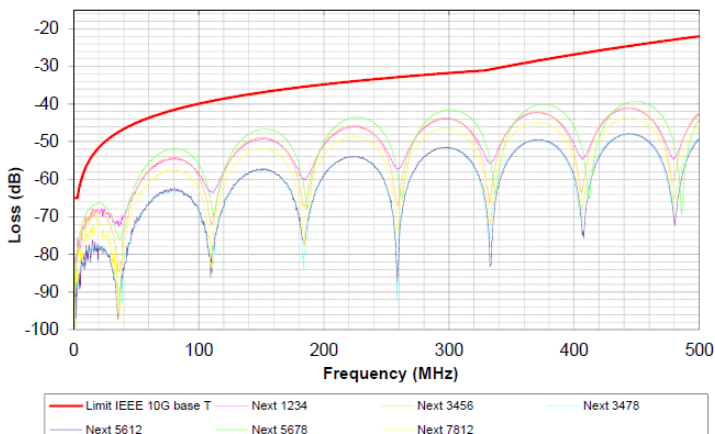
Insertion Loss (IL) :



← Amphenol μ Com performance

← IEEE 802.3an Standard requirement

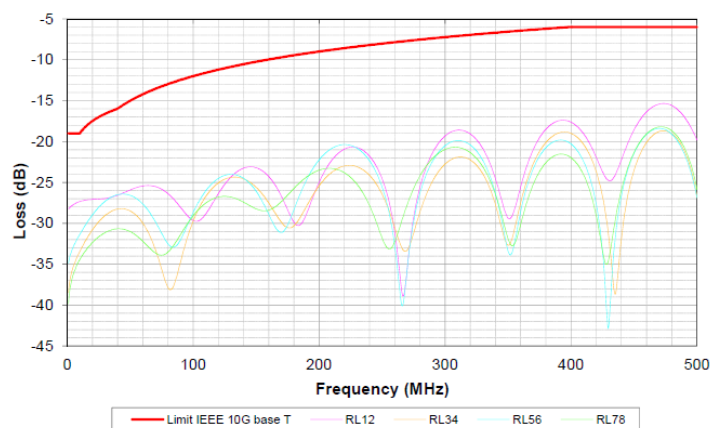
Near End crosstalk (NEXT) :



← IEEE 802.3an Standard requirement

← Amphenol μ Com performance

Return Loss (RL) :

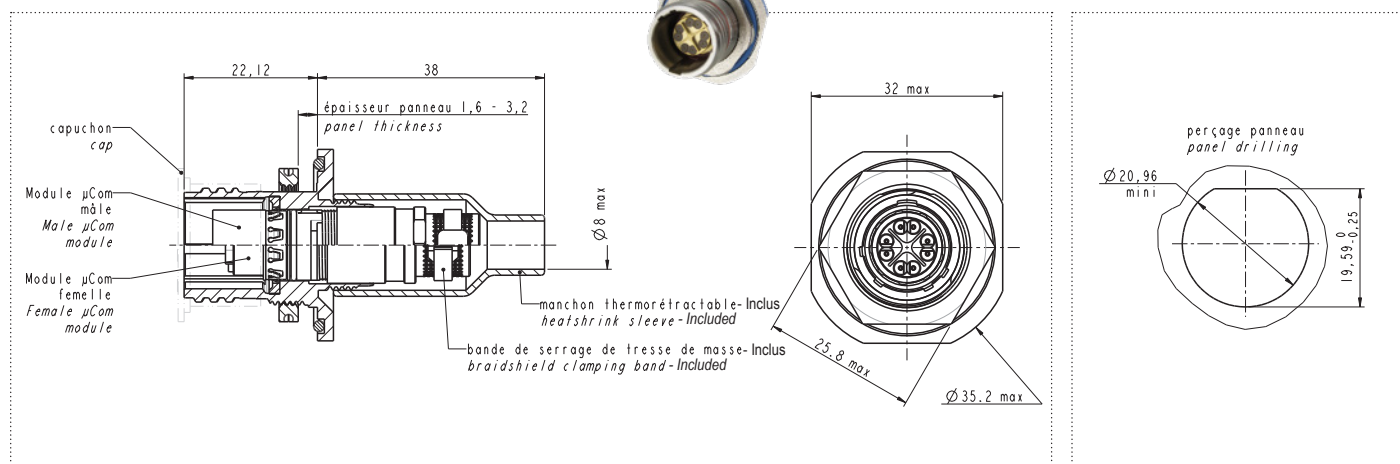


← IEEE 802.3an Standard requirement

← Amphenol μ Com performance

TV µCom-10Gb+

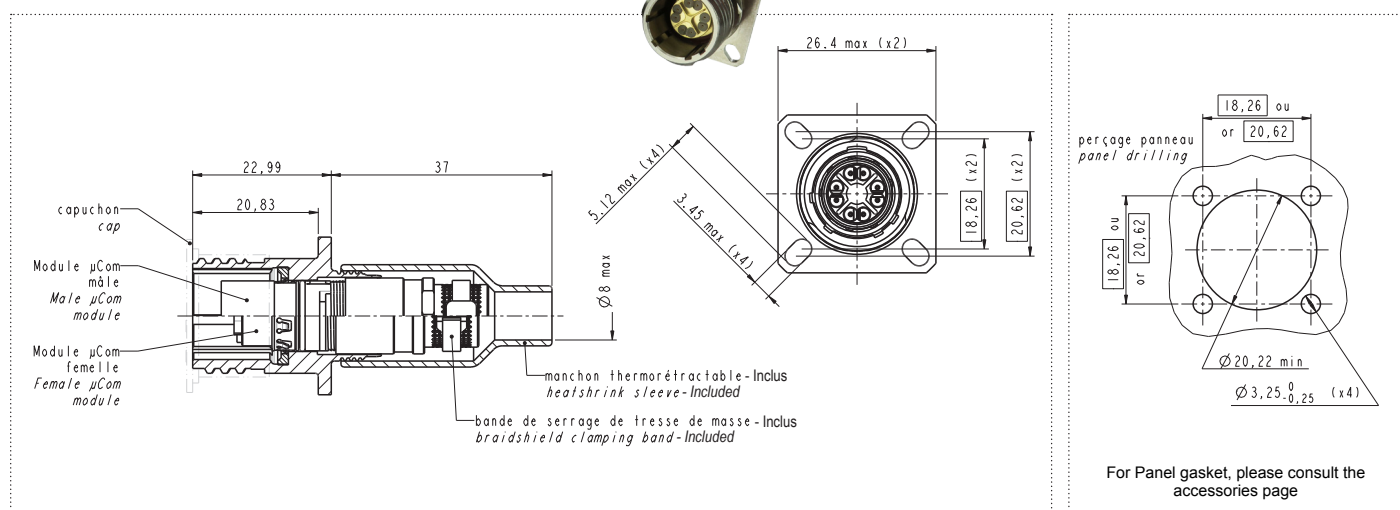
Standard Receptacles TV07



TV07 UCOM X X -11 X

Panel Drilling

TVP00



TVP00 UCOM X X -11 X

Panel Drilling

How to order standard receptacles

Series	TV	07	UCOM	C	W	-11	S
Shell type							
07: Jam nut receptacle							
P00: Square flange receptacle							
UCOM							
Contacts termination							
C: Crimp							
S: Solder							
Shell material and finish*							
W: Aluminium shell - Olive drab cadmium plating							
F: Aluminium shell - Nickel plating ✓							
ZN: Aluminium shell - Black zinc nickel plating ✓							
B: Marine bronze shell ✓							
Shell size							
11							
Type of contact							
P: Male µCom module							
S: Female µCom module							

Examples: TV 07 UCOM C W -11 S; TV P00 UCOM S W -11 S

✓ : RoHS compliant

* Please contact us for other plating options

TV µCom-10Gb+

How to order stand off receptacles

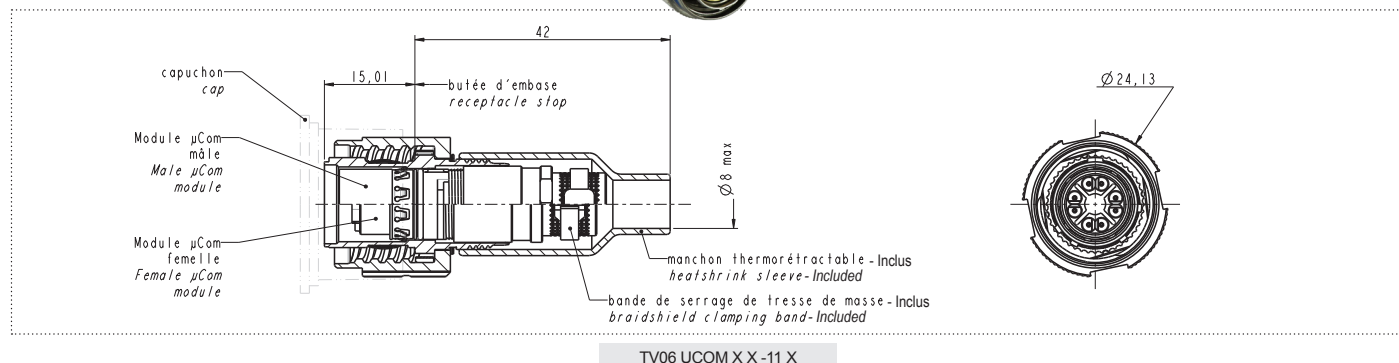
Series	TV	07	UCOM	CI	W	-11	S	F459
Shell type 07: Jam nut receptacle P00: Square flange receptacle								
UCOM								
Contacts termination CI: PCB Tail								
Shell material and finish* W: Aluminium shell - Olive drab cadmium plating F: Aluminium shell - Nickel plating ZN: Aluminium shell - Black zinc nickel plating B: Marine bronze shell								
Shell size 11								
Type of contact S: Female µCom module								
Deviation F459: Stand off F059: Stand off Reduced Flange for Jam Nut receptacle only								

Example: TV07UCOMCIF-11SF459

✓: RoHS compliant

* Please contact us for other plating options

Plug TV06



How to order plugs

Series	TV	06	UCOM	C	W	-11	P
Shell type 06: Plug							
UCOM							
Contacts termination C: Crimp S: Solder							
Shell material and finish* W: Aluminium shell - Olive drab cadmium plating F: Aluminium shell - Nickel plating ZN: Aluminium shell - Black zinc nickel plating B: Marine bronze shell							
Shell size 11							
Type of contact P: Male µCom module S: Female µCom module							

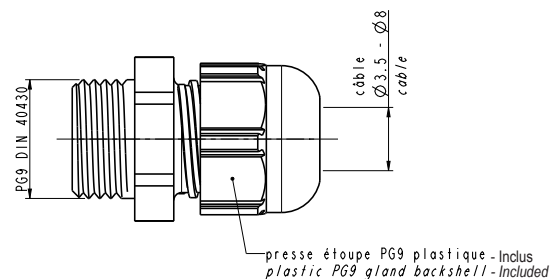
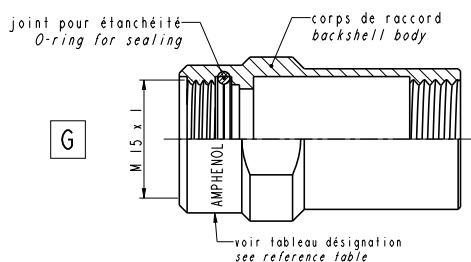
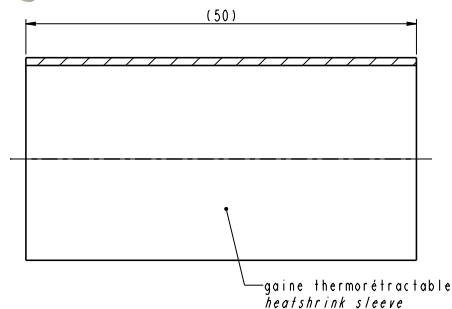
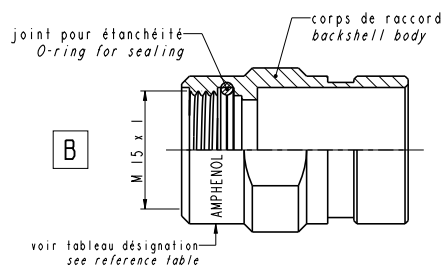
Examples: TV 06 UCOM C F -11 P; TV 06 UCOM S ZN -11 P

* Please contact us for other plating options

✓: RoHS compliant

TV µCom-10Gb+

Special Backshells



TV UCOM X X

How to order - Special Backshells

Series	TV UCOM	W	B
Shell material and finish* W: Aluminium shell - Olive drab cadmium plating F: Aluminium shell - Nickel plating ✓ ZN: Aluminium shell - Black zinc nickel plating ✓ B: Marine bronze shell ✓			
Backshell type B: Backshell for heatshrink sleeve G: Backshell for PG gland			

✓: RoHS compliant

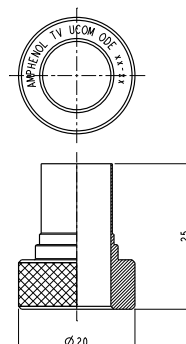
* Please contact us for other plating options

TV μ Com-10Gb+

Accessories

Removal tool

Part number: **TV UCOM ODE**



Spares

Crimp Pin

Part number: **31073**



Crimp Socket

Part number: **31074**



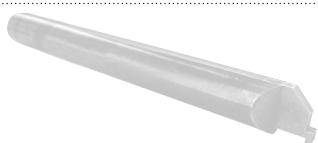
Panel Gasket for TVP00

Part number: **JE11**

(thickness: 0,8 mm [.031])



Tools



- Insertion tool for crimp contacts
Part number: **31056**

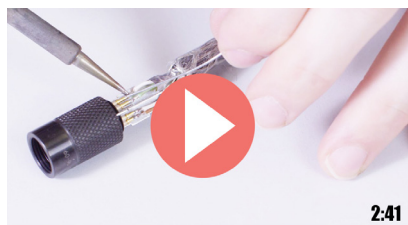


- Contact positioner for
M22520/2-01 crimping tool
Part number: **31095**

Nota: the cabling instructions are available upon demand (ref. N00-040190-00).

Watch our videos

Assembly Solder Version



2:41

<http://opn.to/a/LJYuV>

Scan
& discover !



Assembly Crimp Version



3:32

<http://opn.to/a/6ud5l>

Scan
& discover !



TV µCom-10Gb+ - STANDARD METALLIC CAPS

Description

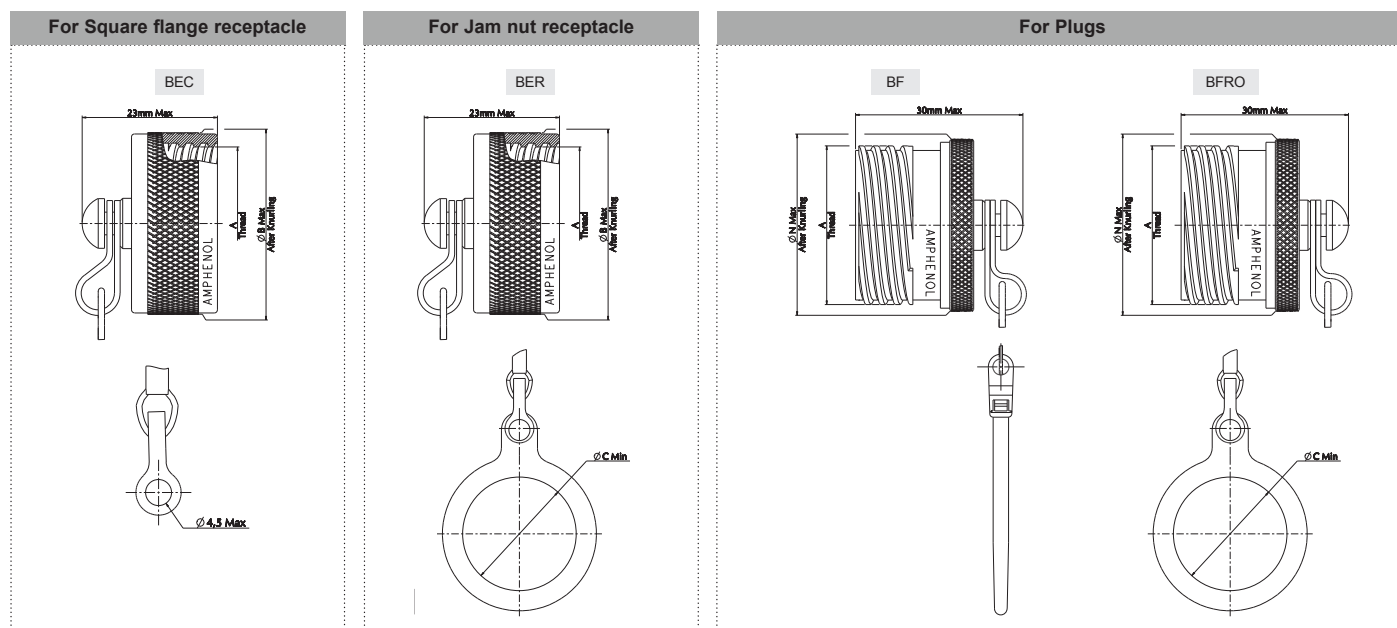
The largest range of protective caps with IP68 protection level.

Main features

- Compatible with Plugs, Jam nut (Standard and Reduced Flange) and Square Flange receptacles
- IP 68 (permanent sealing)
- Protection again dust, water and moisture
- EMI function
- Nylon cord, stainless steel rope or metallic chain



Overall dimensions

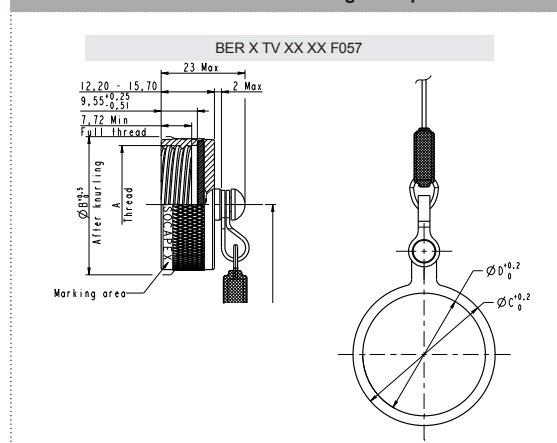


Lanyard (Attachment) Length

Cap type	Metallic chain length	Nylon cord length	Stainless steel rope length
BEC/BER for receptacle		127 (+13,-7)	
BF for plug		160±5	

Size	A thread 0.1P-0.3L-TS Class 2A (External) Class 2B (Internal) (inch)	ØB Max (After Knurling)	ØC Min	ØN Max
11	.7500	22,60	21,97	20,50

For Jam nut Reduced Flange receptacle



Size	A Thread	Ø B +0,5 0	Ø C +0,2 0	Ø D +0,2 0
11	0.750-2B-0.1P-0.3L-TS	22,60	25,5	20,5

TV μ Com-10Gb+ - METALLIC SELF-CLOSING CAPS

Description

High end protection with metallic self-closing function.

Main features

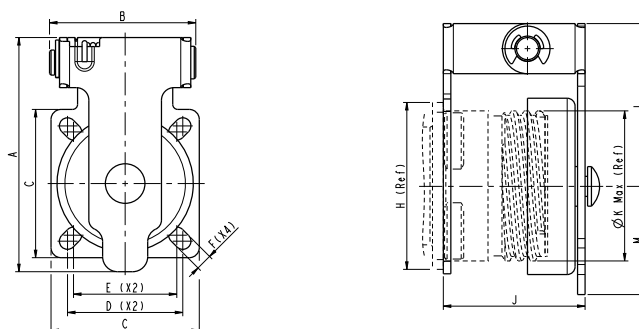
- **Compatible with Square flange receptacles**
- Material: Aluminum
- Platings: Olive drab cadmium, Black zinc nickel, Electroless nickel and Black electrophoresis
- IP67 (1m, 1 hour sealing)
- Protection against dust, water and moisture
- EMI function
- Fast self-closing function
- Space and weight saving: no need for Dummy receptacle
- No noise from pending cap



NEW

Overall dimensions

For Square flange receptacle



Size	A	B	C	D	E	F	H	J	ØK Max	L	M	N	ØP Min	ØQ ± 0,13
11	43,0	27,2	27,2	20,62	18,26	3,25	26,19	31,2	19,05	27,0	16,0	20,62	15,88	3,25

TV μ Com-10Gb+ - SILICONE CAPS

Description

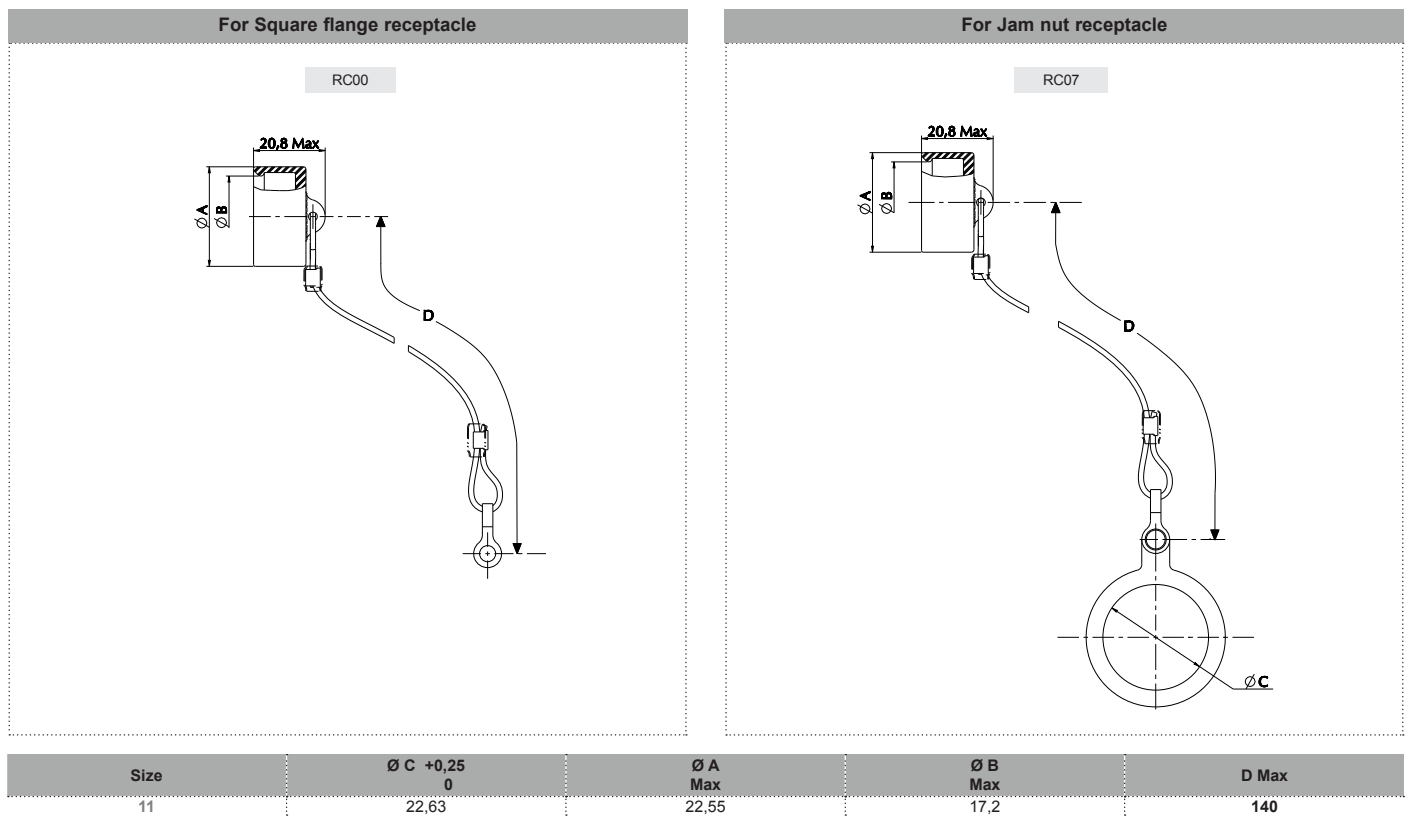
Silicone protective caps against dust and water.

Main features

- Compatible with Jam nut and Square flange receptacles
- IP67 (1m, 1 hour sealing)
- Protection against dust and water
- Silicone 200°C
- Nylon cord
- No noise (rubber material)



Overall dimensions



HOW TO ORDER - CAPS

Protective Caps - Standard Metallic Caps

Standard Metallic Caps	B	EC	N	TV	W	11
Protection cap type EC: For square flange receptacle ER: For jam nut receptacle F: For plug						
Wire type Blank for metallic chain N: Nylon cord R: Jacketed stainless steel rope RO: Jacketed stainless steel rope with washer end (only for plug)						
Connector type						
Material and finish W: Olive drab cadmium plated on aluminum (175°C) ZN: Black zinc nickel plated on aluminum (175°C) ✓ F: Electroless nickel plated on aluminum (200°C) ✓ B: Marine bronze (200°C) ✓ Z: Green zinc cobalt plated on aluminum (175°C) ✓						
Corresponding connector shell size 11						
Deviation F057 for jam nut Reduced Flange receptacle only Blank for others						

Protective Caps - Metallic Self-Closing Caps/Square Flange Receptacles only

Metallic Self-Closing Caps	TV	-	SCC	11	F
Protection cap type Blank for square flange receptacle					
SCC Self-closing type					
Shell size 11					
Material and finish W : Olive drab cadmium on aluminum (175°C) ZN : Black zinc nickel on aluminum (175°C) ✓ F : Electroless nickel on aluminum (200°C) ✓ B : Black electrophoresis on aluminum (125°C)					

Protective Caps - Silicone Caps/Receptacles only

Rubber Caps	RC	00	N	TV	11
Protection cap type 00: For square flange receptacle 07: For jam nut receptacle					
Wire type N: Nylon cord					
Connector type					
Shell size 11					

✓: RoHS compliant

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