TV µCom-10Gb+
38999 10Gb
Ethernet Connector

Description

µCom-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 µCom combines µCom-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

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- 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

*Please contact us for other plating options
✓ : RoHS compliant

- 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 µCom positioner

- µCom 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

Markets & Applications

C4ISR, Battlefield, Ground vehicles

Navy

Commercial Aerospace

Railway

Applications :
› Shipboard, In Flight Entertainment *
*µCom approved by GORE

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Due to technical progress, all information provided is subject to change without prior notice
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TV µCom-10Gb+

Data Transmission

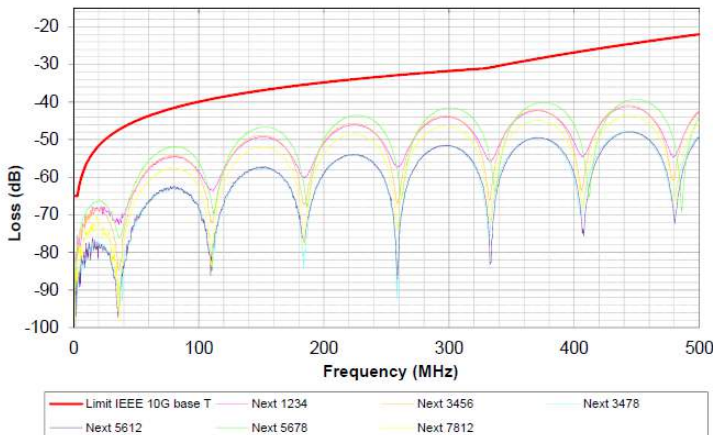**Exceeds 10Gb/s Ethernet requirement** ✓
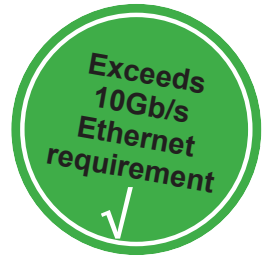
Insertion Loss (IL) :
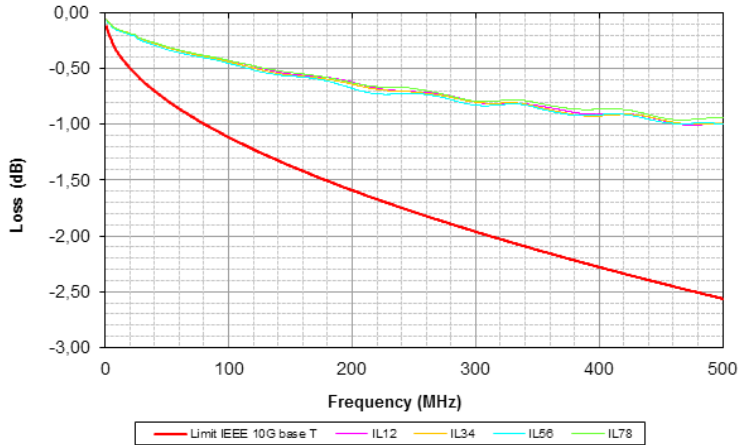
← Amphenol µCom performance

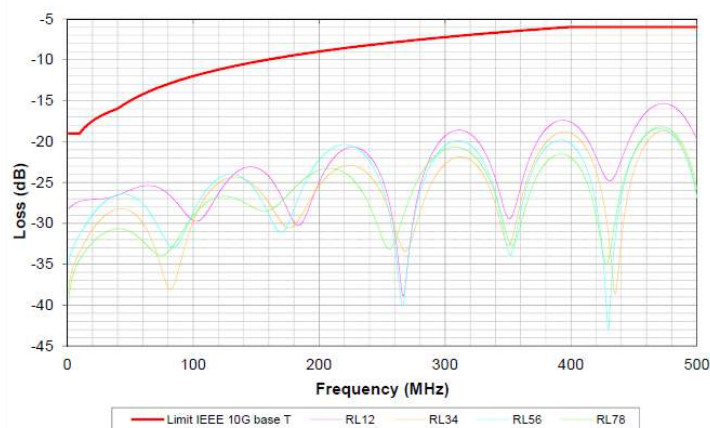← IEEE 802.3an Standard requirement

Near End crosstalk (NEXT) :

← IEEE 802.3an Standard requirement

← Amphenol µCom performance
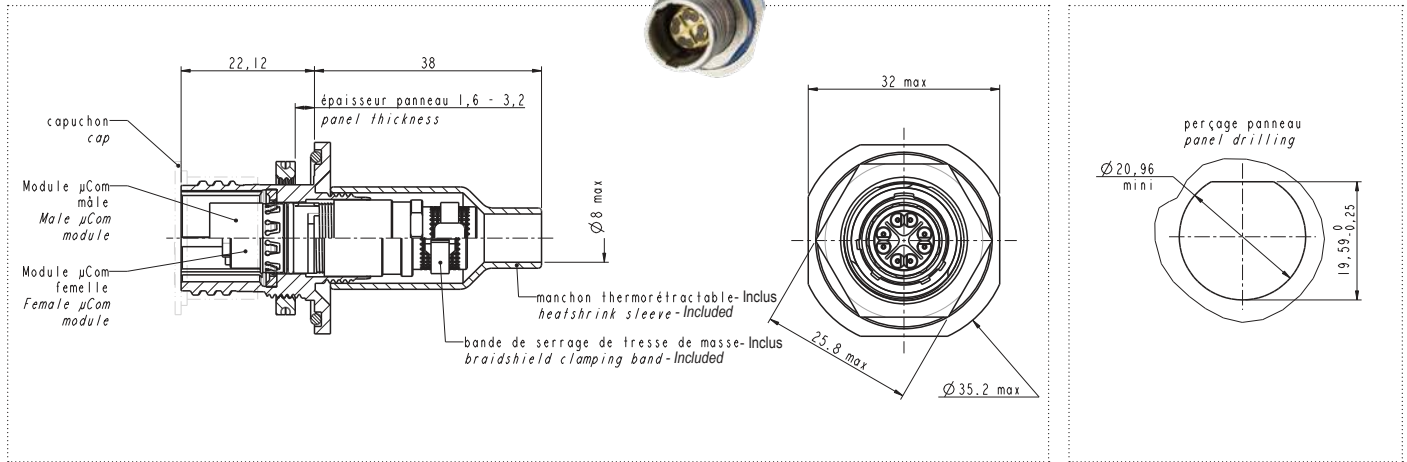
Return Loss (RL) :

← IEEE 802.3an Standard requirement

← Amphenol µCom performance

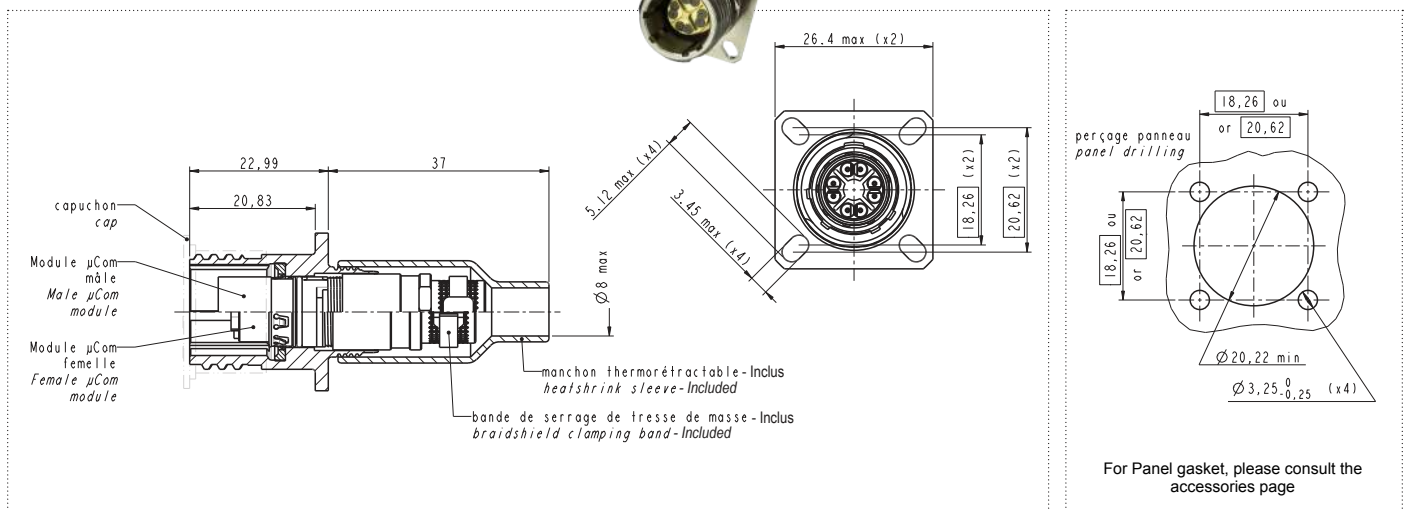**Amphenol** SOCAPEX

TV µCom-10Gb+

Standard Receptacles
TV07

| 22,12 | 38 |

épaisseur panneau 1,6 - 3,2
panel thickness

capuchon
cap

Module µCom
mâle
Male µCom module

Module µCom
femelle
Female µCom module

Ø 8 max

manchon thermorétractable- Inclus
heatshrink sleeve - Included

bande de serrage de tresse de masse- Inclus
braidshield clamping band - Included

32 max

25.8 max

Ø 35.2 max

perçage panneau
panel drilling

Ø 20,96
mini

19,59 $^{0}_{-0,25}$

| TV07 UCOM X X -11 X | | Panel Drilling |

TVP00

| 22,99 | 37 |
| 20,83 | |

capuchon
cap

Module µCom
mâle
Male µCom module

Module µCom
femelle
Female µCom module

Ø 8 max

manchon thermorétractable- Inclus
heatshrink sleeve - Included

bande de serrage de tresse de masse - Inclus
braidshield clamping band - Included

26.4 max (x2)

5,12 max (x4)

3,45 max (x4)

18,26 (x2)

20,62 (x2)

perçage panneau
panel drilling

18,26 ou
or 20,62

18,26 ou
or 20,62

Ø 20,22 min

Ø 3,25 $^{0}_{-0,25}$ (x4)

For Panel gasket, please consult the
accessories page

| 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

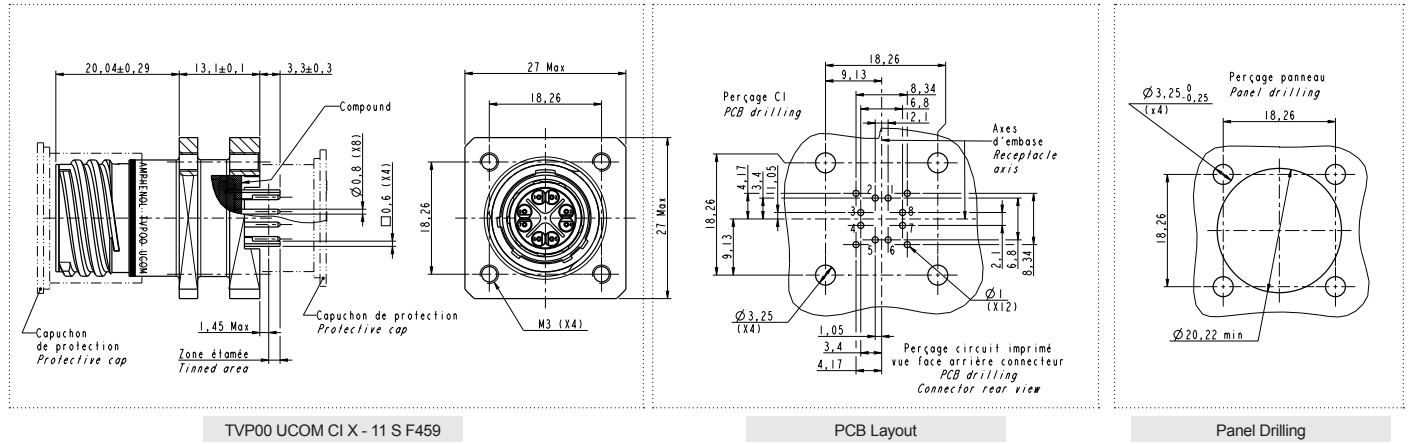✓ : RoHS compliant

* Please contact us for other plating options

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TV µCom-10Gb+

Stand off Receptacles

TV07 F459

TV07 UCOM CI X - 11 S F459

PCB Layout

Panel Drilling

TVP00 F459

TVP00 UCOM CI X - 11 S F459

PCB Layout

Panel Drilling
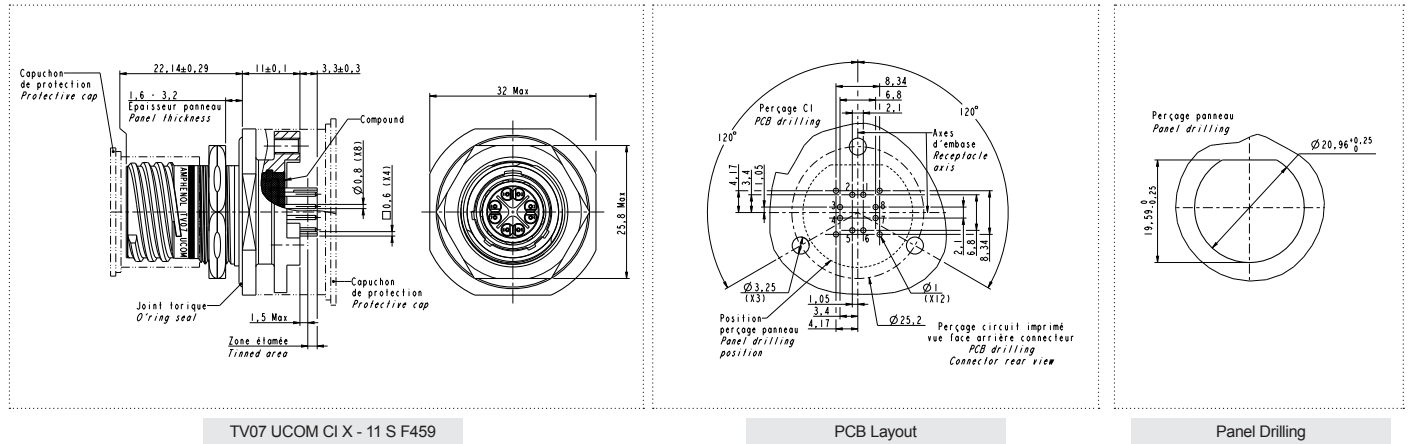
Stand off Reduced Flange Receptacle
TV07 F059

TV07 UCOM CI X - 11 S F059

PCB Layout

Panel Drilling

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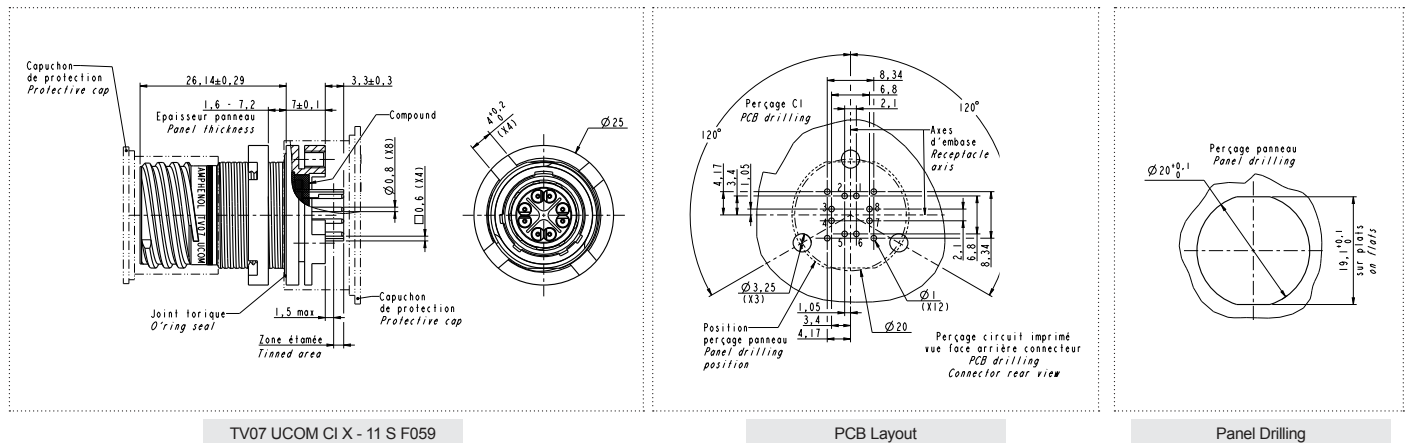
TV µCom-10Gb+

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
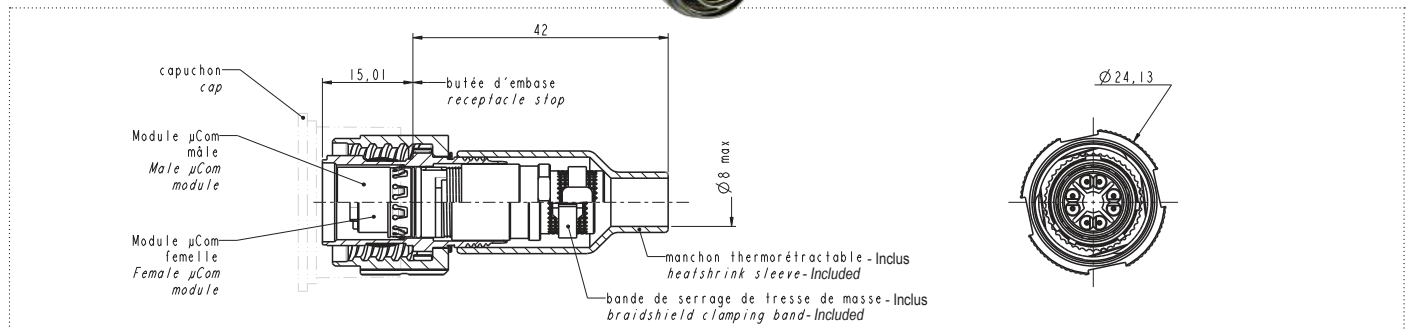
TV06 UCOM X X -11 X

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

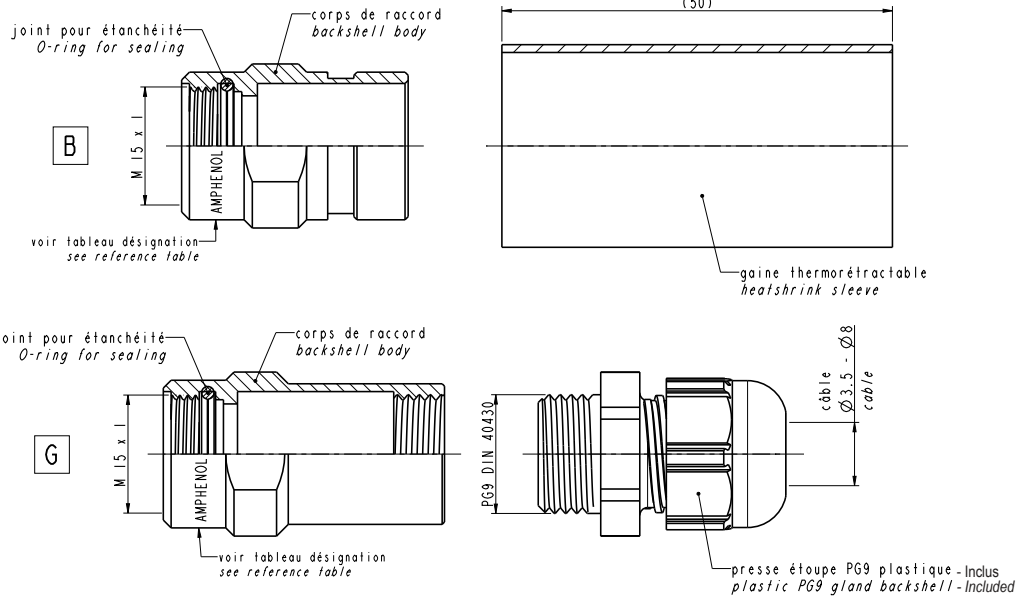* Please contact us for other plating options

✔: RoHS compliant

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TV µCom-10Gb+

Special Backshells

B

joint pour étanchéité
O-ring for sealing

corps de raccord
backshell body

M 15 x 1

AMPHENOL

voir tableau désignation
see reference table

(50)

gaine thermorétractable
heatshrink sleeve

G

joint pour étanchéité
O-ring for sealing

corps de raccord
backshell body

M 15 x 1

AMPHENOL

voir tableau désignation
see reference table

PG9 DIN 40430

câble
Ø 3.5 - Ø 8
cable

presse étoupe PG9 plastique - Inclus
plastic PG9 gland backshell - Included

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

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Accessories

Removal tool

Part number: **TV UCOM ODE**
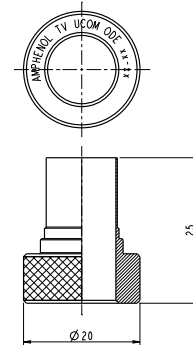
Spares

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

Scan
& discover !

http://opn.to/a/LJYuV

Assembly Crimp Version

Scan
& discover !

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

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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
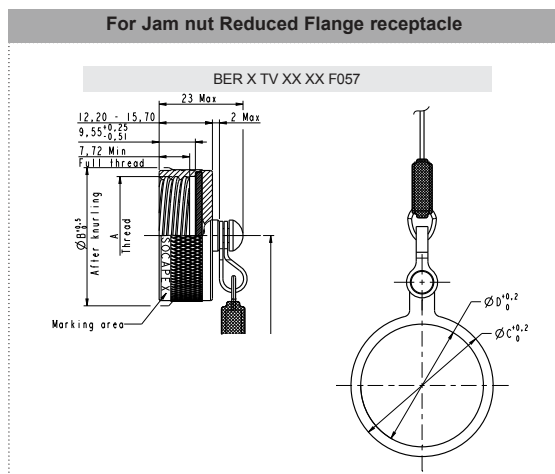- EMI function
- Nylon cord, stainless steel rope or metallic chain

Overall dimensions

For Square flange receptacle	For Jam nut receptacle	For Plugs	
BEC	BER	BF	BFRO
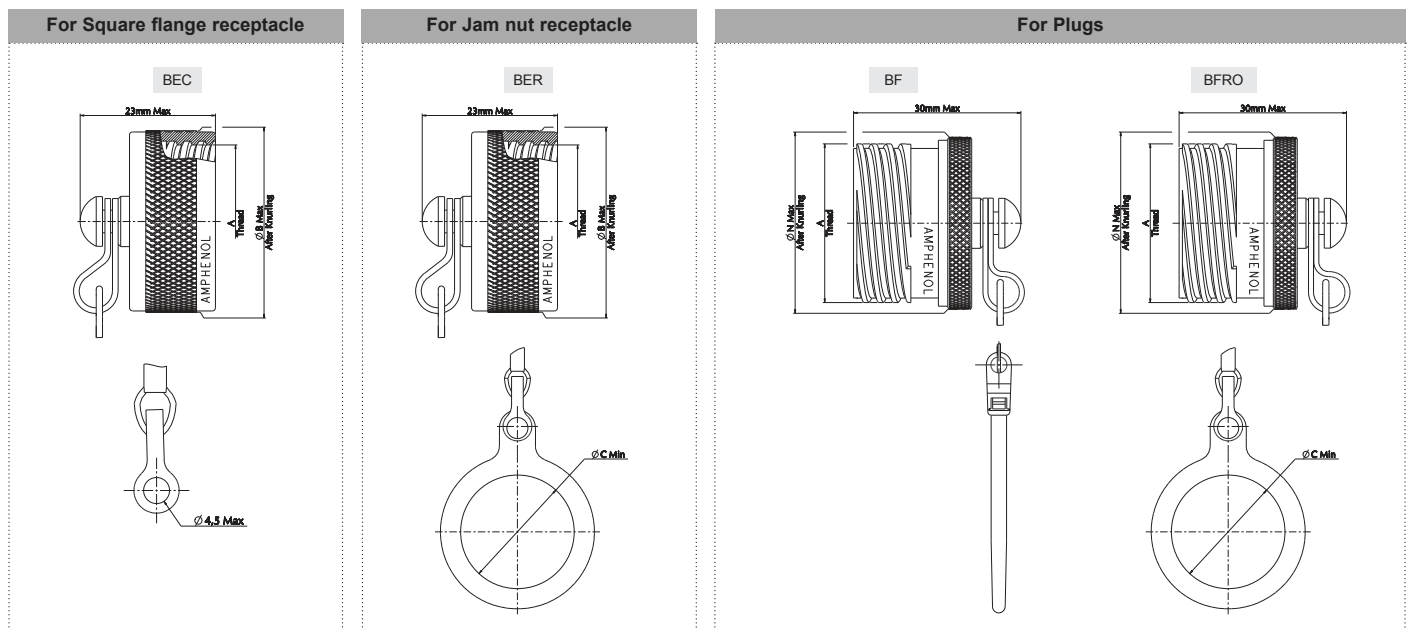
Lanyard (Attachment) Length

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

BER X TV XX XX F057

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

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# TV µCom-10Gb+ - METALLIC SELF-CLOSING CAPS

NEW

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
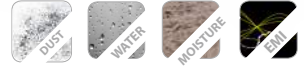
Overall dimensions

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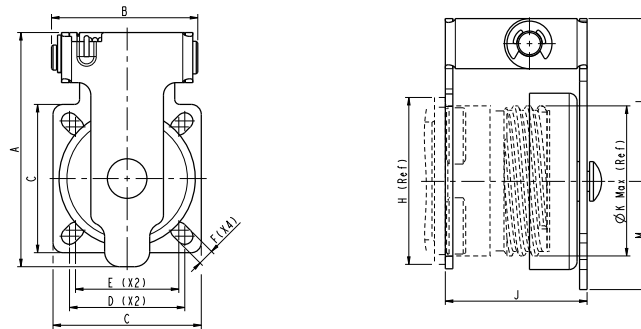
Size	A	B	C	D	E	F	H	J	ØK Max	L	M	N	ØP Min	ØQ ± 0,13
11	43,0	27,2	27,2	20,62	18,26	3,25	26,19	31,2	19,05	27,0	16,0	20,62	15,88	3,25

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TV µCom-10Gb+ - SILICONE CAPS
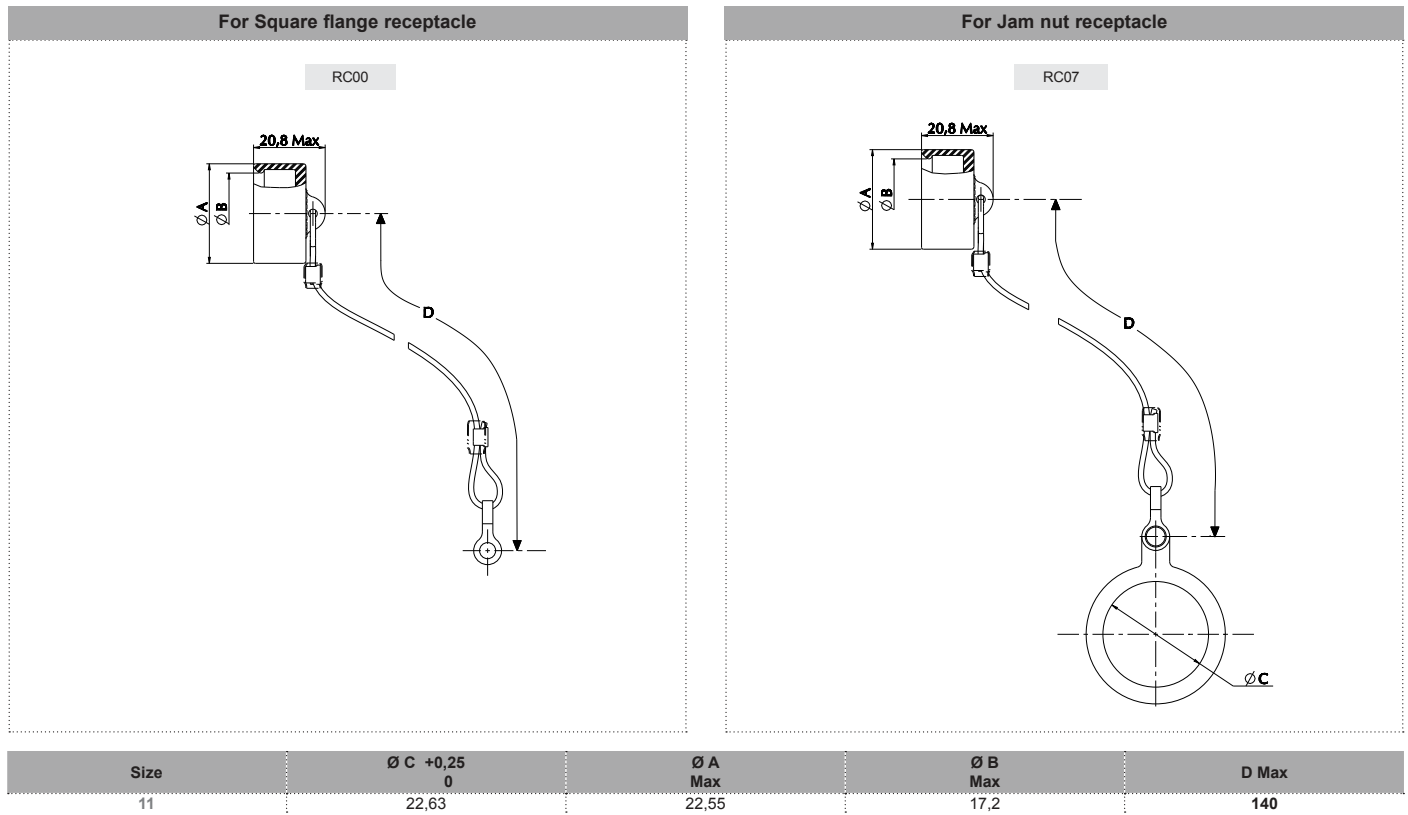
Description

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)

NEW

DUST   WATER

Overall dimensions

For Square flange receptacle	For Jam nut receptacle
RC00	RC07

Size	Ø C +0,25 / 0	Ø A Max	Ø B Max	D Max
11	22,63	22,55	17,2	**140**

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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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Amphenol Military Interconnections

Discover our new INTERACTIVE APP app featuring Amphenol large products range for Military applications.
Find the right product for your Soldiers Equipment, Ground Vehicles, Military Aircraft, Navy, Helicopers, Missiles and UAVs.
Available on our booth & on our website https://www.amphenol-socapex.com/en/military-avionics-cp10114-me46-151.aspx

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