

RJF TV - Reduced Flange

Ethernet connection system for harsh environment
Smaller and Lighter



Description

Derived from standard RJF TV, Reduced Flange RJF TV is ideal for applications where small dimensions and lower weight are critical in harsh environments.

RJFTV Reduced flange receptacle is available in Cat5.e, Cat.6 and Cat6A.

With the patented RJStop system you can use a standard RJ45 cordset in a metallic plug which will protect it from shocks, dust and fluids. No hazardous on-field cabling and grounding!

Main Features

- Smaller: **41% footprint surface reduction**
- Lighter: **15% lighter than standard RJF TV receptacles**
- MIL-DTL-38999 coupling mechanism
- Mates with standard RJF TV plugs & caps
- 3 platings: Olive Drab Cadmium, Nickel, Black Zn Ni
- Cat.6 Ethernet : 1Gb up to 250 MHz
- Reduced Flange Deviation (to be added at the end of your part number):
 - **F312** with standard castle nut
 - **F311** with safety castle nut*



Main characteristics

Sealed against fluids and dust (IP68)

Shock, vibration and traction resistant

No cabling operation in field and no tools required

Mechanical coding / Polarization (4 positions)

Improved EMI protection

Tri start thread coupling mechanism (MII-DTL-38999 series III type) with anti-decoupling device - shell size 19

Mating cycles: 500 minimum

Environmental protection

Sealing: IP68 when mated with cap or potted version without cap

Salt spray:

> 48h with aluminium shell - Nickel ✓

> 500h with aluminium shell - Olive drab cadmium plating

> 500 h with aluminium shell - Black zinc nickel ✓

Fire retardant / low smoke: UL94 V0 and EN45545

Vibrations (mated conditions):

10 - 500 Hz, 10 g, 3 axes: no discontinuity > 10 nano s

Shocks: IK06: weight of 250 g drop from 40 cm [15.75 in] onto connectors (mated pair)

Temperature range: -40°C / +85°C

✓ : RoHS compliant

Data transmission

- Cat.5e : Ethernet Class D per ISO/IEC 11801 and Cat.5e connection for 10 Base-T, 100 Base-TX or 1000 Base-T up to 100 MHz networks per TIA/EIA568B.

- Cat.6 : Ethernet Class E per ISO/IEC 11801 and Cat.6 connection for 10 Base-T, 100 Base-TX or 1000 Base-T up to 250 MHz networks per TIA/EIA568B.

- Cat.6A : Ethernet Class Ea per ISO/IEC 11801 and Cat.6A connection for 10 Base-T, 100 Base-TX, 1000 Base-T, 10GBaseT up to 500 MHz per TIA/EIA568B.

Markets & Applications



C4ISR, Battlefield, Ground vehicles



Navy



Railway

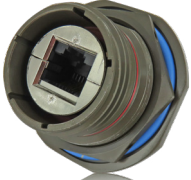
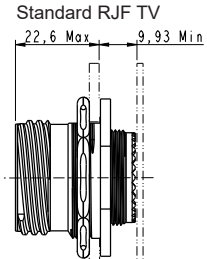
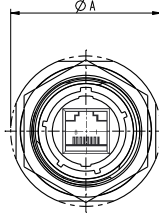
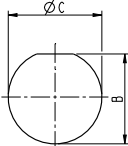

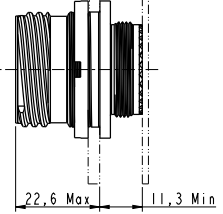
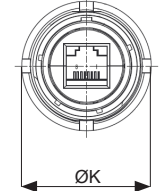
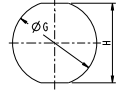


Applications :

- › Data acquisition and transmission in harsh environment, radars, shelters, battlefield communication

RJF TV - Reduced Flange

Smaller Dimensions and 15% lighter

Product	Length (mm)	Footprint (mm)	Panel dimension (mm)
Standard RJF TV 	Standard RJF TV $22,6 \text{ Max}$ $9,93 \text{ Min}$ 	Standard RJF TV $\varnothing A$ 	Standard RJF TV $\varnothing C$ 
Reduced Flange RJF TV 	Reduced Flange RJF TV $22,6 \text{ Max}$ $11,3 \text{ Min}$ 	Reduced Flange RJF TV $\varnothing K$ 	Reduced Flange RJF TV $\varnothing G$ 
	Increase of internal length by 1,37 mm	41% footprint surface reduction	

Footprint Saving

41% footprint surface reduction:

Shell Size	RJF TV standard diameter $\varnothing A \text{ max}$ (mm)	RJF TV Reduced Flange diameter $\varnothing K \text{ max}$ (mm)	Footprint surface reduction Reduced Flange vs standard
19	49,5	38,1	41%

Panel Dimension

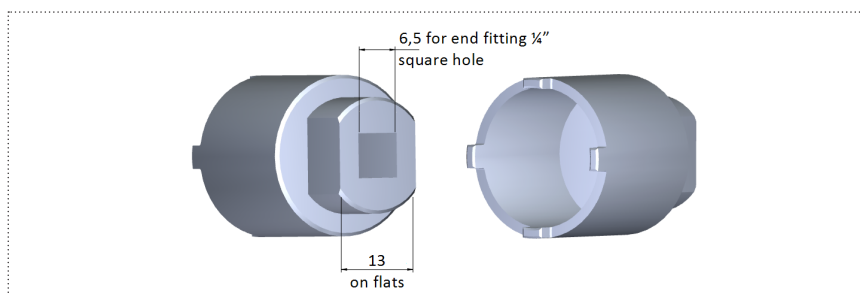
Size	RJF TV Standard		RJF TV Reduced Flange	
	$B \begin{smallmatrix} 0 \\ -0,25 \end{smallmatrix}$ (mm)	$\varnothing C \begin{smallmatrix} +0,25 \\ 0 \end{smallmatrix}$ (mm)	$\varnothing G \begin{smallmatrix} +0,1 \\ 0 \end{smallmatrix}$ (mm)	$H \begin{smallmatrix} +0,1 \\ 0 \end{smallmatrix}$ (mm)
19	33,91	35,18	33	31,9

Tools

Need of a specific tool for castle nut:

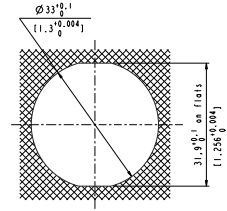
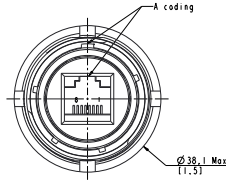
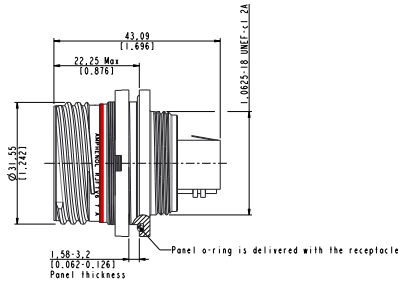
Size	Tool Part Number
19	809686

Max torque value: 10.7 N.m



RJF TV - Reduced Flange

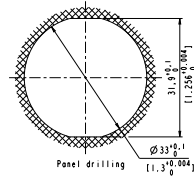
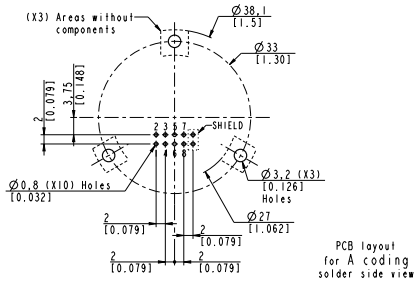
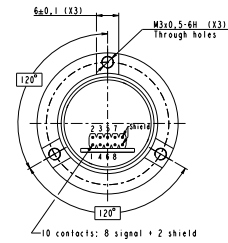
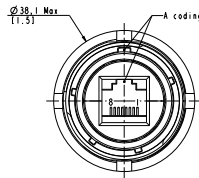
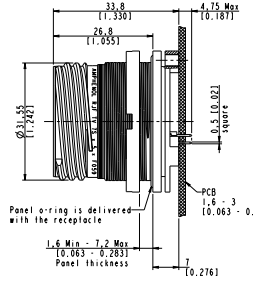
RJFTV and RJFTV6 reduced flange receptacle



RJF TV 7 1 X F312
Receptacle CAT5e

Panel Drilling

RJF TV6 7 X 1 X F312
Receptacle CAT6



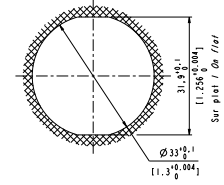
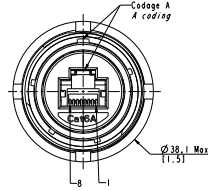
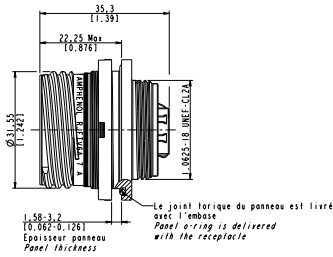
RJF TV 7S X 5 X F059
Receptacle CAT5e

Panel Drilling

RJF TV6 7S X 5 X F059
Receptacle CAT6

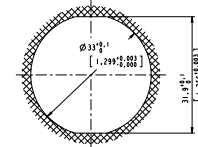
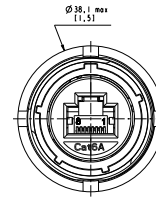
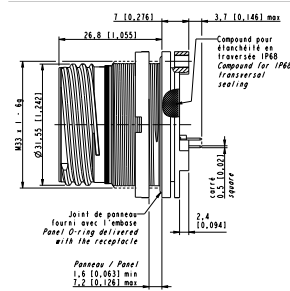
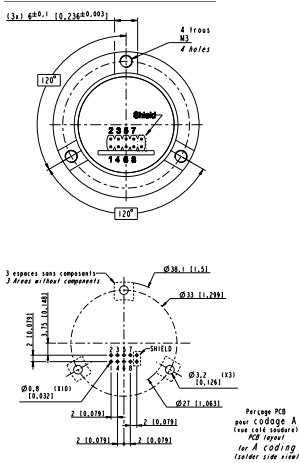
RJF TV - Reduced Flange

RJFTV6A reduced flange receptacles



RJF TV6A 7 X 1 X F312
Receptacle CAT6A

Panel Drilling



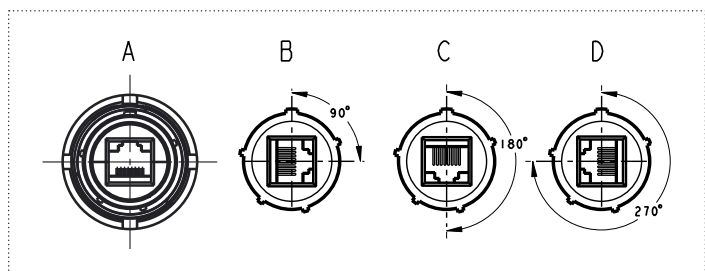
RJF TV6A 7S X 5 X F059
Receptacle CAT6A

Panel Drilling

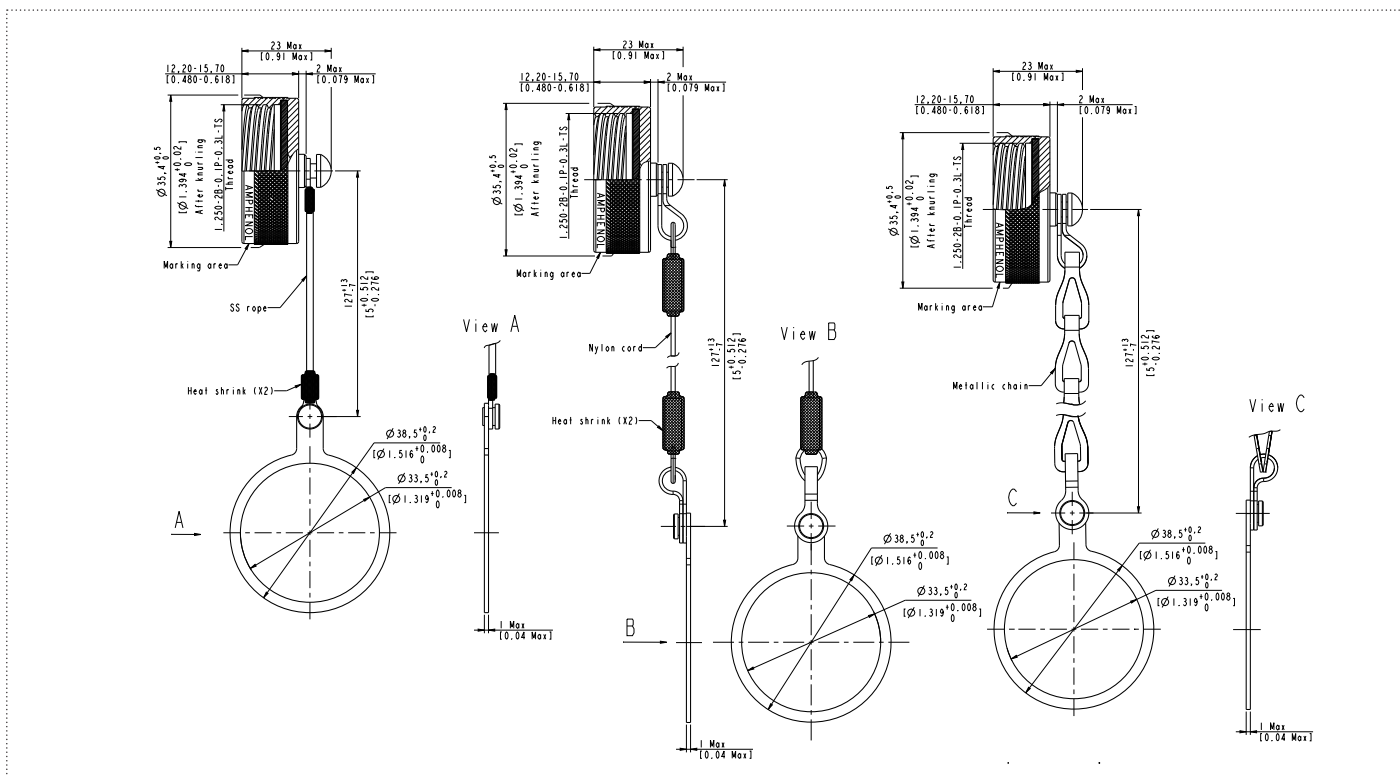
RJF TV - Reduced Flange

Coding

To be specified in the part number: A,B,C, or D.



Metallic cap for reduced flange receptacle



RJF TVC 7 MR XX F057
RJF TVC 7 BMR XX F057
With S.S rope

RJF TVC 7 XX F057
With nylon rope

RJF TVC 7 M F057
With metallic chain

RJF TV - Reduced Flange

How to order reduced flange receptacle

Series	RJF TV	7	A	1	ZN	F312
Blank: Cat.5e 6: Cat.6 6A: Cat.6A Shell type 7: Jam nut receptacle (mandatory for F312 and F311) 7S: Transversally sealed jam nut receptacle (mandatory for F059 and F058) Coding (avoid the coding for Cat.5e in F312 version) A, B, C or D Back termination 1: Female RJ45 5: PC tails (mandatory for F059 and F058) Shells material & Finish (inserts are metallized) N: Aluminium shell - nickel plating ✓ G: Aluminium shell - olive drab cadmium plating ZN: Aluminium shell - black zinc nickel plating ✓ Deviation F312: Reduced Flange F311: Reduced Flange with safety castle nut F059: Reduced flange Stand-off version F058: Reduced Flange Stand-off version with safety castle nut						

Examples: RJFTV7SA5GF059 ; RJFTV67B1GF311

✓ : RoHS compliant

How to order metallic cap for reduced flange receptacle

Series	RJF TVC	7	M	ZN	F057
Connector type 7: Jam nut receptacle Wire type: Blank: Nylon cord M: Metallic chain MR: S.S rope - Transparent (white) teflon jacket BMR: S.S rope - Black teflon jacket Finish N: Nickel ✓ G: Olive drab cadmium ZN: Black zinc nickel ✓ Deviation F057: Protective cap for reduced flange "TV07" connectors (F058, F059, F311, F312)					

Examples: USBFTVC7NF057 ; USBFTVC7MRZNF057

✓ : RoHS compliant

Watch our video

Rugged RJ45 Plug Assembly



Scan
& discover !



<http://opn.to/a/sTCF4>



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