

## ABOUT CONNECTOR

RJ45 connectors provides ethernet connectivity in harsh environment applications and are designed to meet the requirements of high speed data connections (which can be used to transmit 1G Base-T Ethernet), where reliability, environmental sealing and full ruggedness is required.

### Convenience:

- No assembly tooling required.
- Fast, secure coupling.
- RJ45 connectors supplied as kit.
- Insert orientations available, 4 total configurations with shell.



**TECHNICAL INFORMATION****Mechanical:**

- Bayonet coupling (“Audible & Visual” coupling signal).
- RJ45 cordset retention in the plug: 80N Max in the axis.
- RJ45 female retention in the receptacle: 40N Max in the axis.
- Minimum of 500 mating cycles.
- Vibrations: 10-500Hz, 10g, 3 axes: no discontinuity >10 nano s.
- Shocks: IK06 ► weight of 250 g drop from 40cm [15.75 in] onto connectors (mated pair).

**Environmental:**

- Temperature range: -40°C / +85°C.
- Fire retardant / Low smoke: UL94 V0.
- Humidity: 21 days, 43°C, 98% humidity .
- Sealed to IP 68 for fluid and dust laden environments.
- Salt spray requirement, refer page 6.

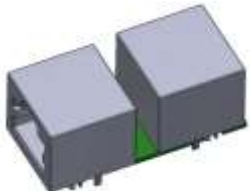

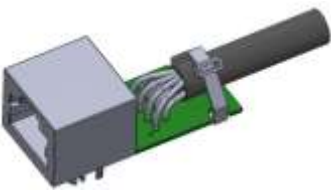

**Data transmission:**

- 10 Base-T, 100 Base-T, and 1G Base-T Ethernet.
- High performance connectivity, up to 100 MHz.

**RJ45 connector details:**

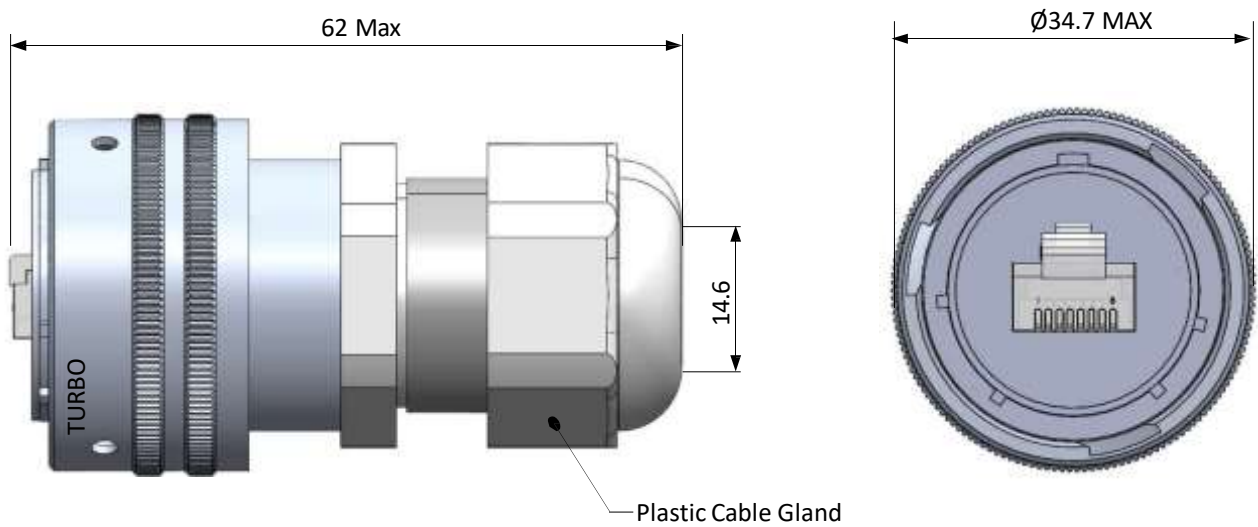
- **Contacts** : Phosphor Bronze, Gold over Nickel.
- **Shielding** : Nickel-plated brass.
- **Body** : PBT UL 94V-0.
- **PCB** : FR4, UL 94V-0 (PCB termination only).
- **Voltage** : 125 VAC RMS.
- **Current Rating** : 1.5 amp.
- **Insulation resistance** : 500MΩ Min @500V DC
- **Dielectric strength** : 1000 VAC RHM 60Hz, 1min
- **Impedance** : 100±15 Ohm

## TYPE OF PCB CONNECTOR

Type	Model	Description
1		PCB + 2 Female RJ45 connectors
2		PCB + RJ45 female connector + RJ45 male cordset
3		PCB + RJ45 female connector + RJ45 male cordset open end
4		PCB + RJ45 female + Open PCB with 8 tinned holes for cable soldering

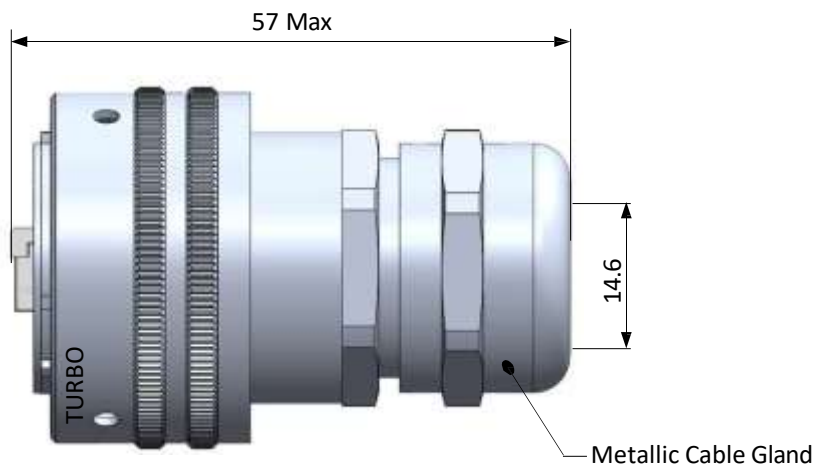
## PLUG WITH PLASTIC GLAND

Part Number: [TBRJ-B-P-X](#)



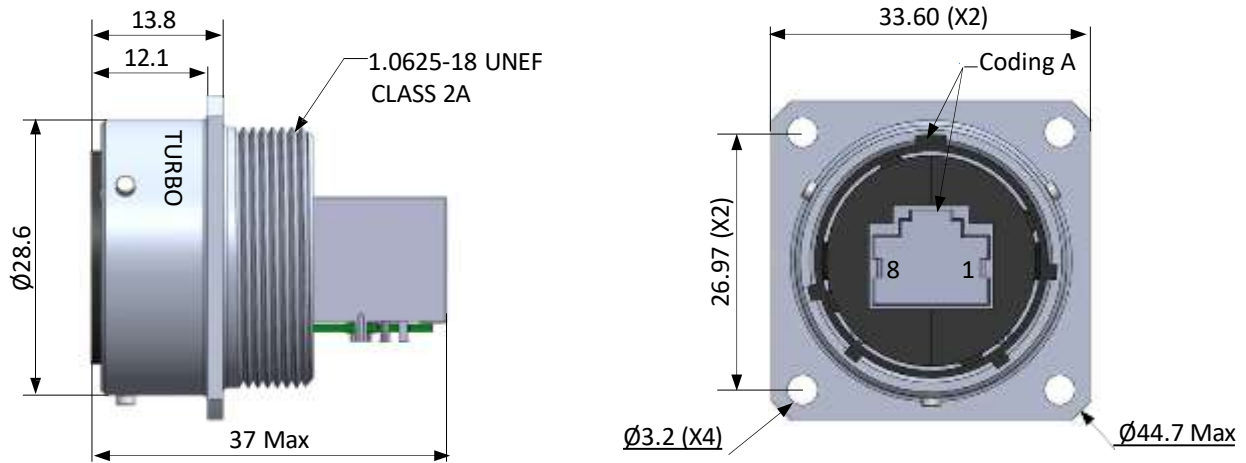
## PLUG WITH METALLIC GLAND

Part Number: [TBRJ-B-PM-X](#)

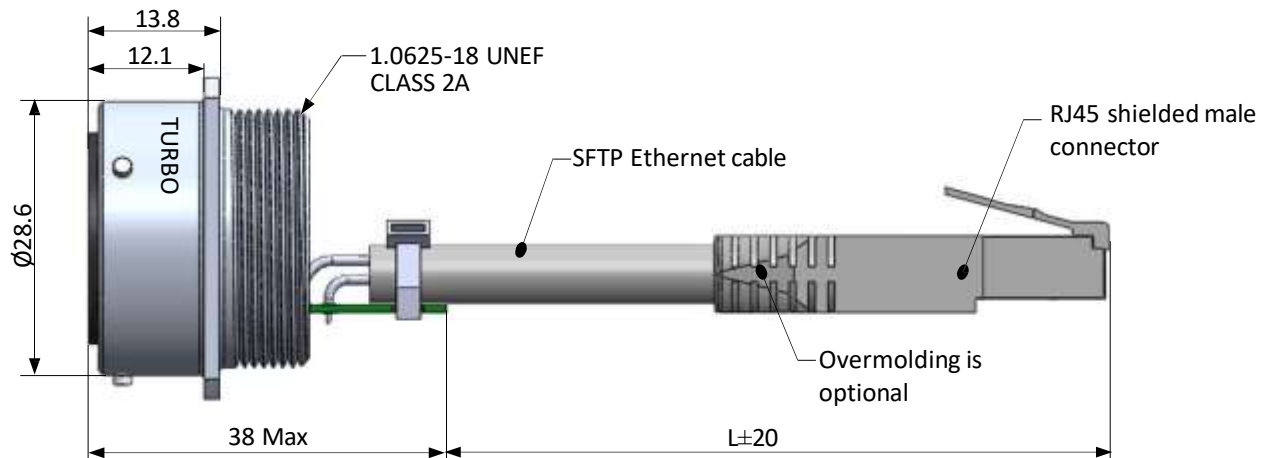


## SQUARE FLANGE RECEPTACLE

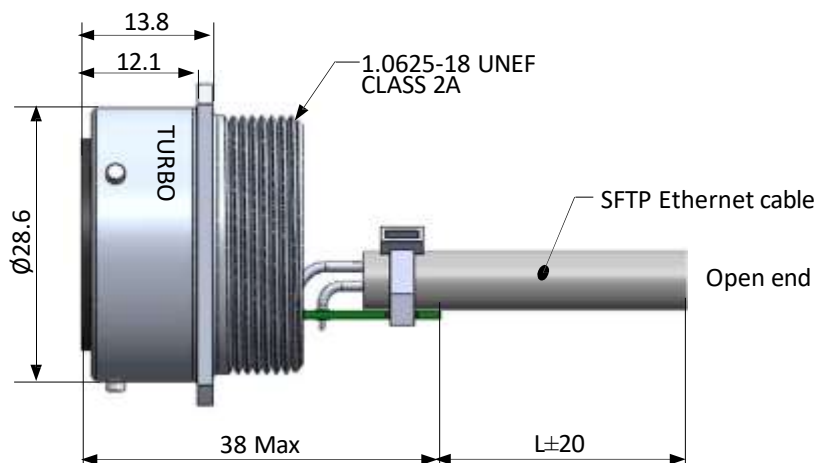
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### Part Number: TBRJ-B-SF-2-L-X

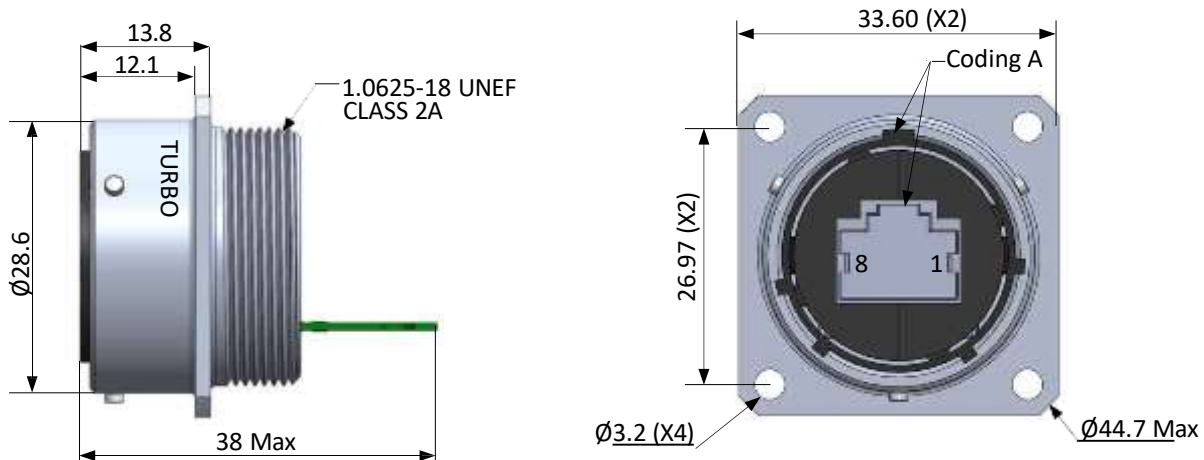


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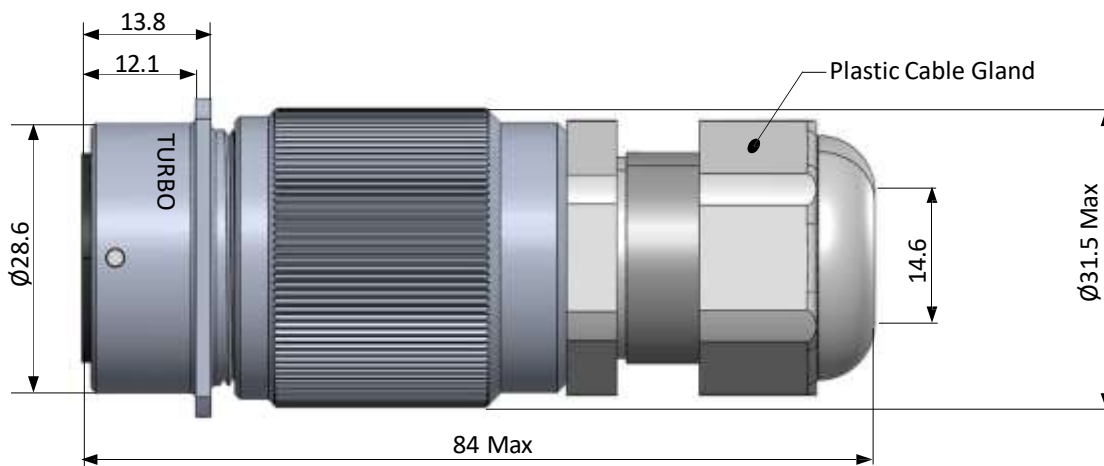


## SQUARE FLANGE RECEPTACLE

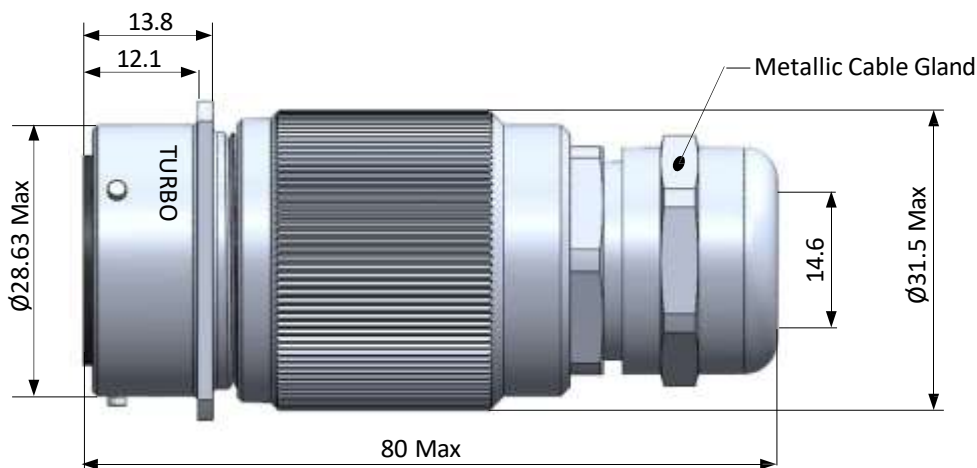
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**Part Number: TBRJ-B-SF-BK-1-X**

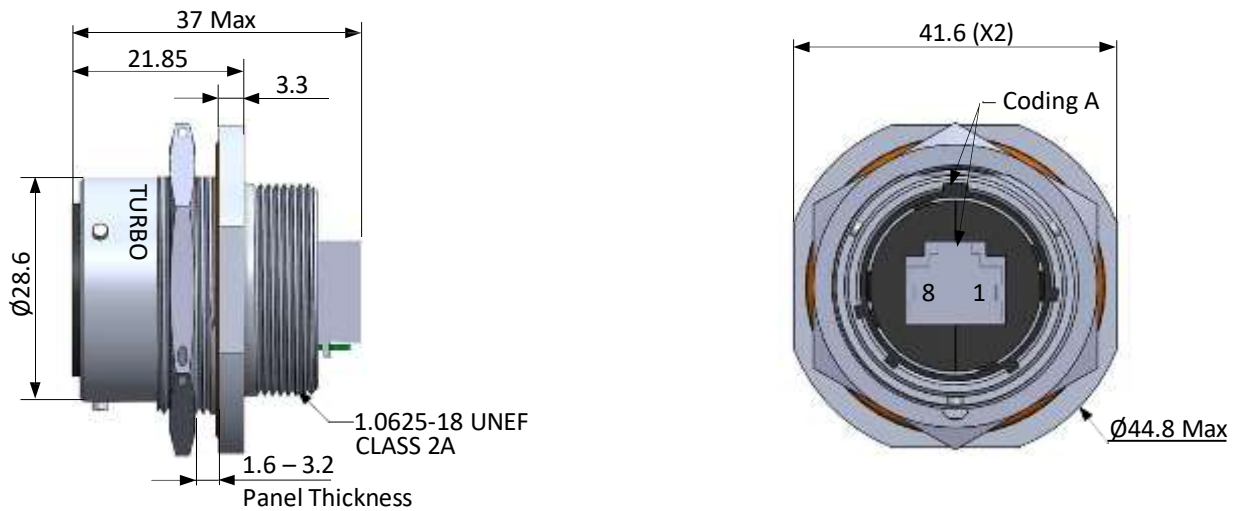


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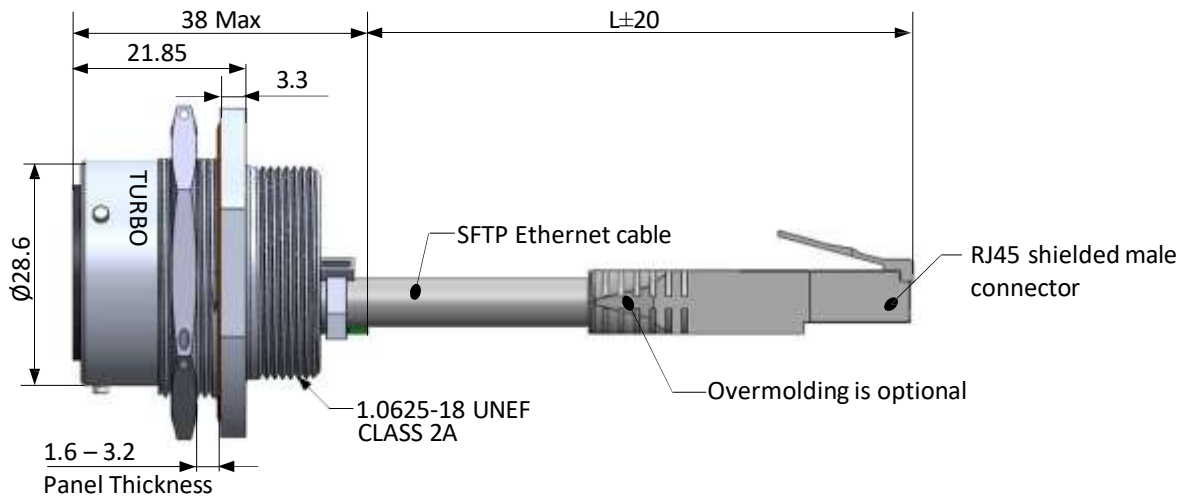


## JAMNUT RECEPTACLE

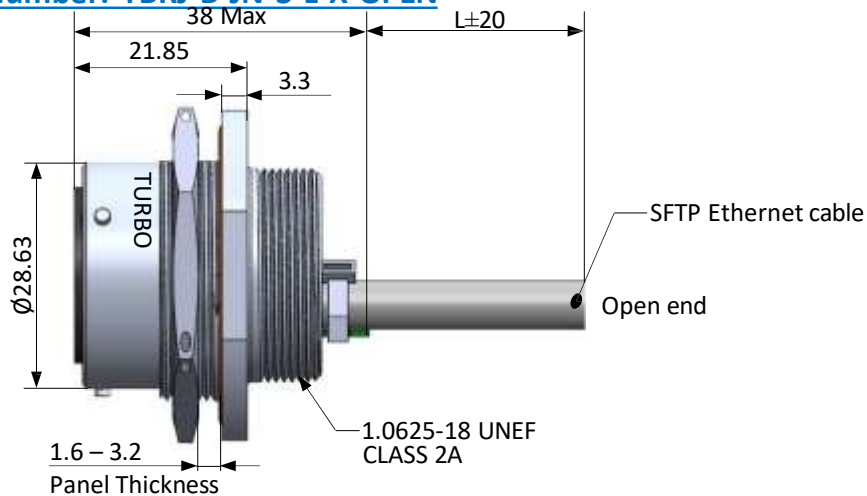
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### Part Number: TBRJ-B-JN-2-L-X



### Part Number: TBRJ-B-JN-3-L-X-OPEN

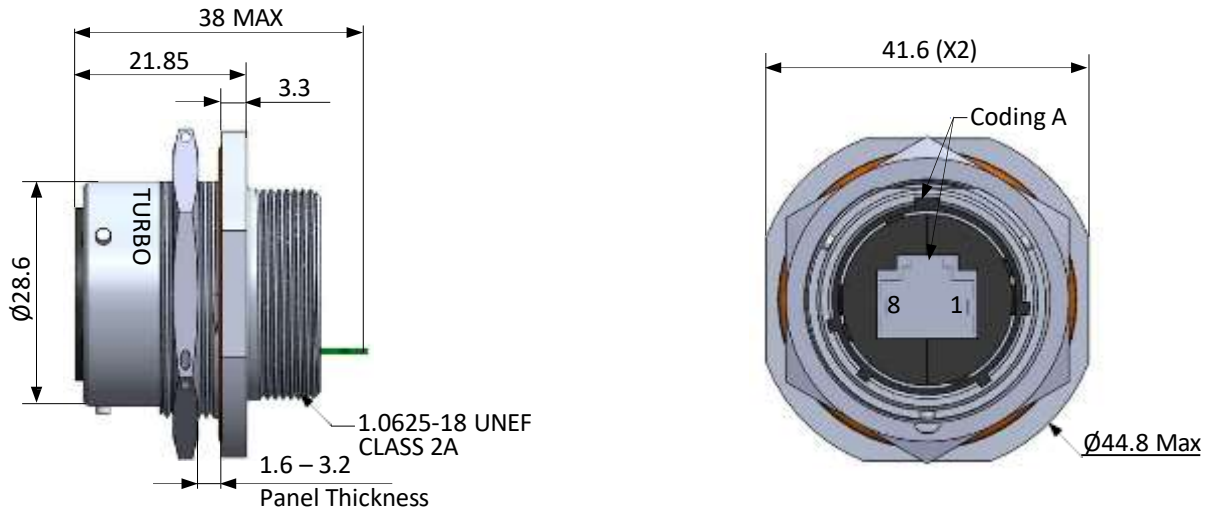


Turbo

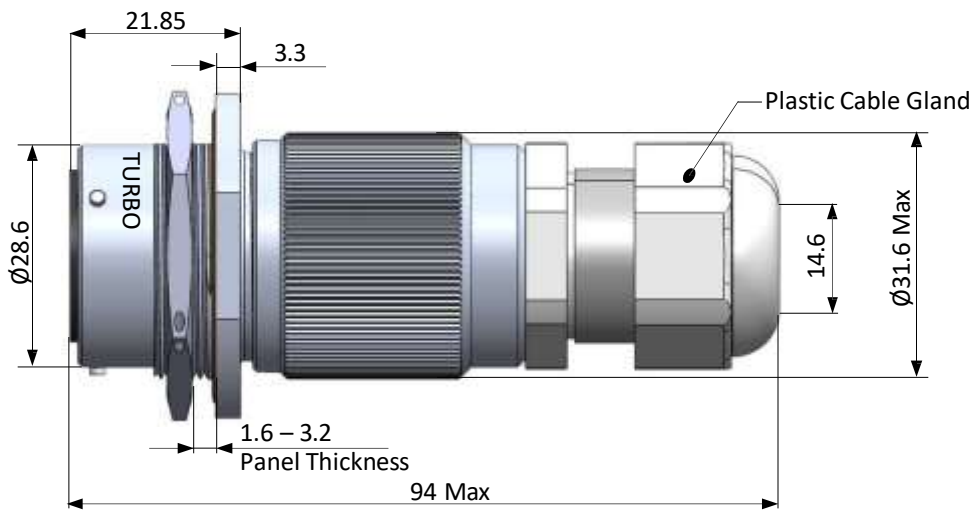
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## JAMNUT RECEPTACLE

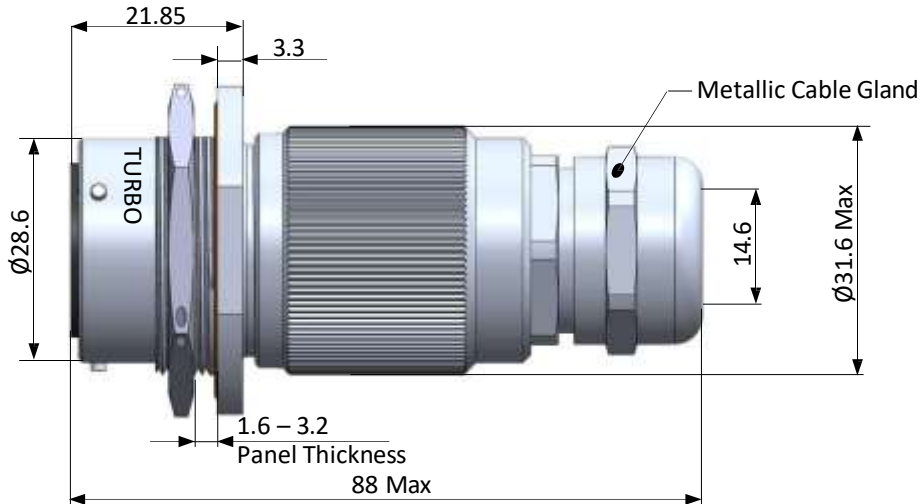
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### Part Number: TBRJ-B-JN-BK-1-X



### Part Number: TBRJ-B-JN-BKM-1-X

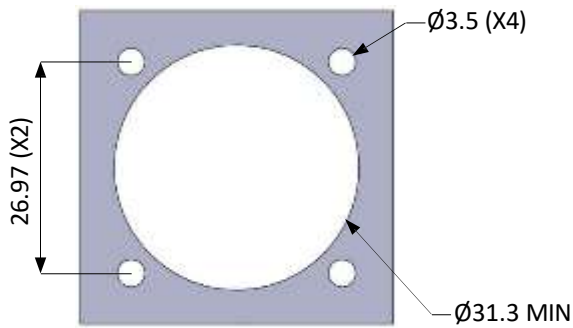


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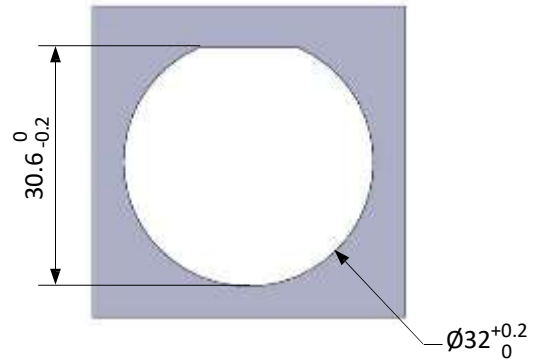
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## PANEL DRILLING

### Square Flange Receptacle



### JamNut Receptacle

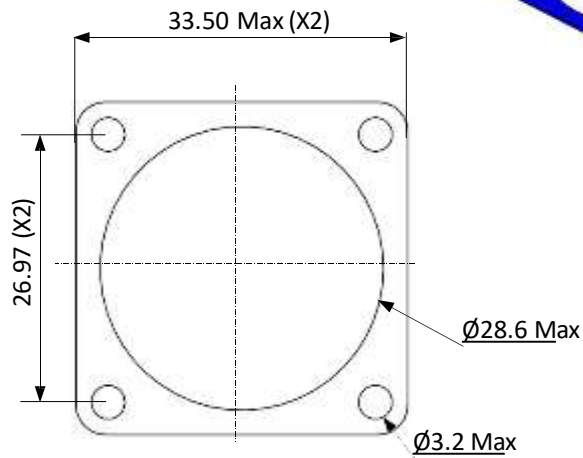


## INSERT ORIENTATIONS

Coding Identification	Receptacle	Plug
A	Major key	Major key
B	Major key	Major key
C	Major key	Major key
D	Major key	Major key

**PANEL SEAL**

- Part number: TBPS-18
- Thickness: 0.7
- Color: Blue

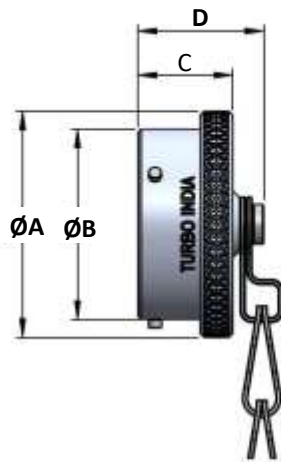


**RECOMMENDED TORQUE VALUE**

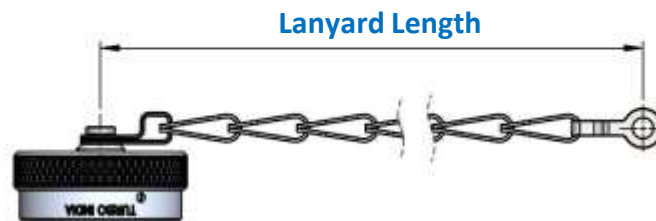
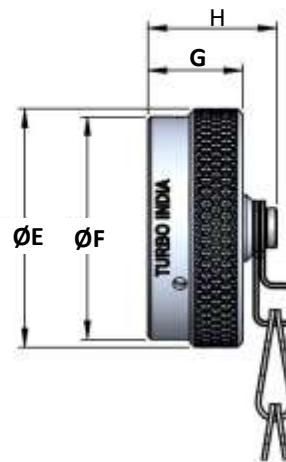
<p><b>Backshell to Receptacle</b></p>		<p>Plastic body: 4.5 – 5.5Nm</p>
<p><b>Plastic Cable Gland</b></p>		<p>Plastic body: 3Nm Plastic gland: 5Nm</p>
<p><b>Metallic Cable Gland</b></p>		<p>Metallic body: 7.5Nm Metallic gland: 5Nm</p>

## PROTECTIVE COVER

TBRJ52 - PLUG COVER

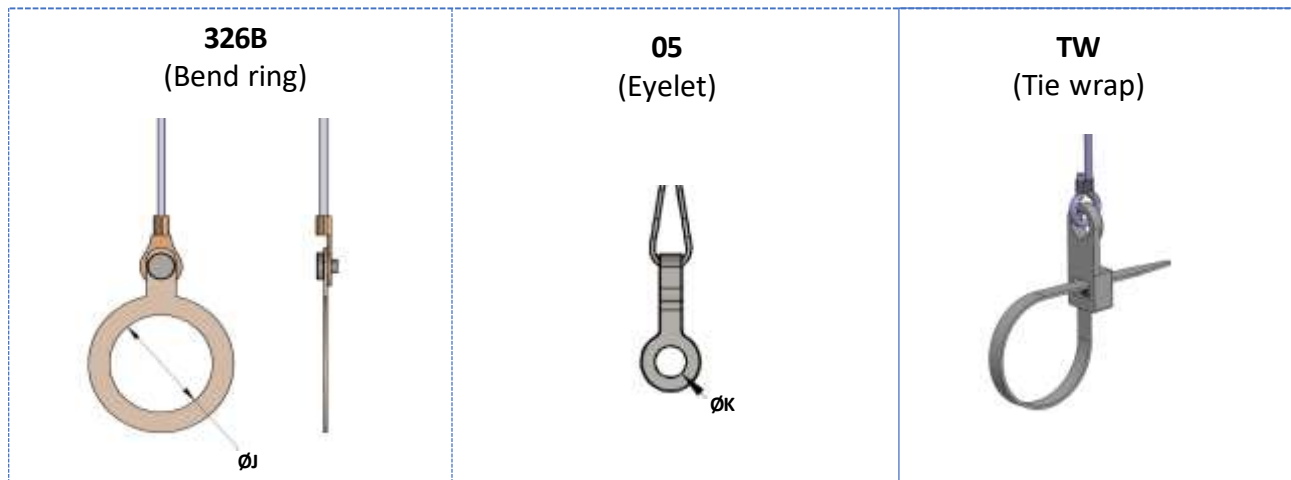


TBRJ53 - RECEPTACLE COVER



Dimensions									
ØA Max	ØB Max	C Max	D Max	ØE Max	ØF Max	G MAX	H MAX	ØJ MIN	ØK MIN
34.92	28.58	14.27	19.84	34.92	32.42	14.27	21.44	32.60	4.25

## ATTACHMENT OPTIONS



## LANYARD OPTIONS



→ Stainless steel sash chain

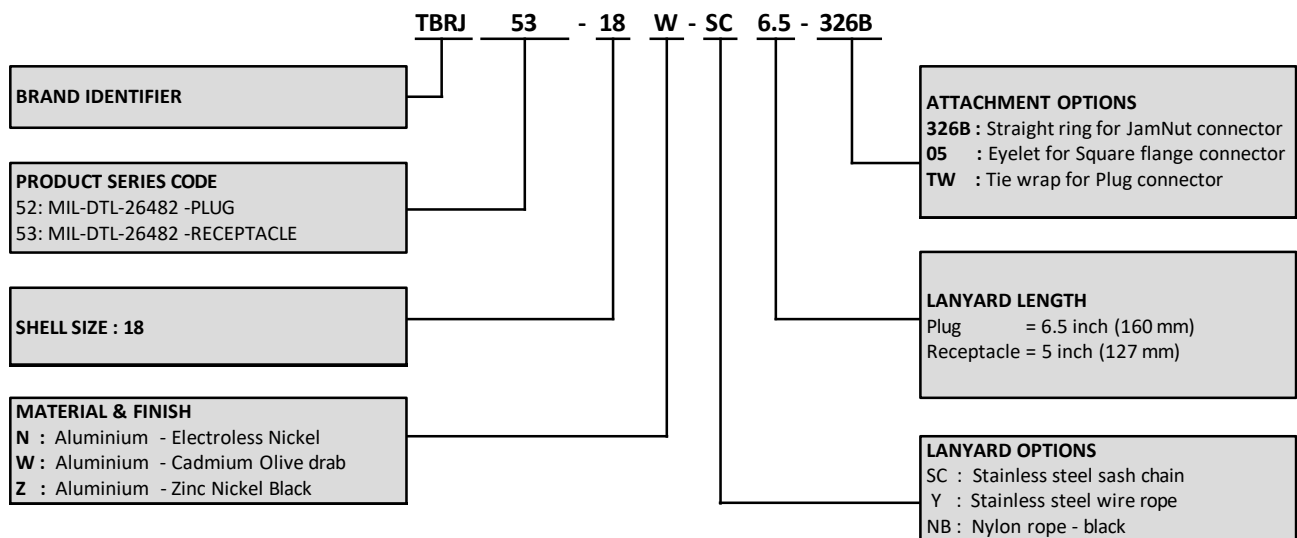


→ Stainless steel wire rope, Teflon jacket



→ Nylon rope - black

## ORDERING INFORMATION



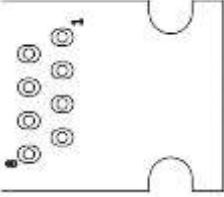

### Ex:

TBRJ52-18-N-NB-6.5-TW → Plug cap with nylon rope with Tie wrap.

TBRJ53-18-N-NB-5-326B → JamNut receptacle cap with nylon rope with bend ring.

## WIRING DIAGRAM

Cat.5e per TIA/EIA 568B and ClassD per ISO/IEC 11801

PCB Pin Number	T568B Pair	RJ45 Male Pin Number	T568B Pair Color	RJ45 Male
	1	1	White/Orange	
	2	2	Orange	
	3	3	White/Green	
	4	4	Blue	
	5	5	White/Blue	
	6	6	Green	
	7	7	White/Brown	
	8	8	Brown	

## MATERIAL AND FINISH

Turbo Code	Material	Finish	Appearance	Process	RoHS Compliant	Salt Spray Hours
N	ALUMINIUM	ELECTROLESS NICKEL	BRIGHT METAL	AMS-C-26074 Class 4 Grade A; ASTM-B-733, SC 2, Type IV, Conductive -65 to +200°C	YES	96
W	ALUMINIUM	CADMIUM	OLIVE DRAB GREEN	AMS-QQ-P-416 Type II Class 2 over electroless nickel, Conductive -65 to +175°C	NO	500
Z	ALUMINIUM	ZINC NICKEL	BLACK	ASTM B841 Grade 5 over electroless nickel, Conductive -65 to +175°C	NO	500

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