

# BOA SERIES

## HEAVY DUTY CIRCULAR CONNECTORS



Specifically designed for the compact size and the advanced technical features of the Eurobalise system, the BOA series ensures a perfect transmission and a reliable signal integrity utilizing either Hypertac® Hyperboloid or Tortac® contact.

- *IP 67 according to IEC 529 when mated*
- *Available colored plug & jumper versions on request*
- *Anti-tampering screws*
- *Vibration tests compliant to EIA 364.28, test cond. III*
- *Compliant to VG95234, MIL-C-5015, MIL-C-26482*
- *Custom solutions*

# TECHNOLOGIES

## HYPERTAC®

Low insertion/ extraction forces

Long contact life: up to 100,000 insertion/extraction cycles

Higher current ratings

Immunity to shock & vibration

Low cost of ownership and low power consumption

Reliability under harsh environmental conditions



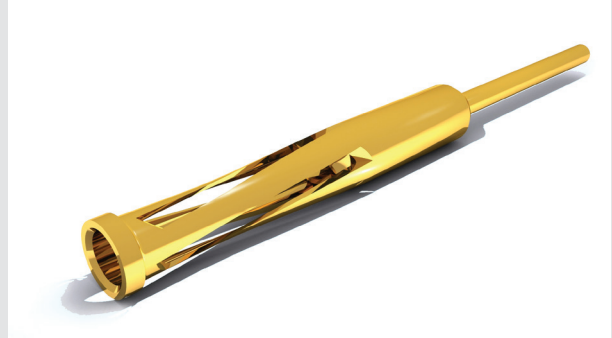
## TORTAC®

Higher density with same mechanical and electrical properties of Hyperboloid contact

Single piece design that allows FEA instead of “trail & error” approach for new designs

High reliability, high resistance to salt spray

High signal speed thanks to the contact geometry



# BOA SERIES

## TECHNICAL CHARACTERISTICS

### SPECIFICATIONS

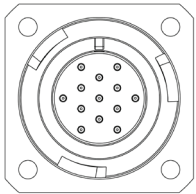
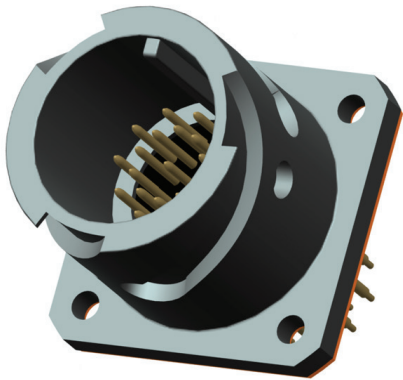
- ▶ **Number of Contacts:** from 7 to 37 with same shell size
- ▶ **Contact technology:** Hyperboloid or Tortac®
- ▶ **Receptacle contact termination:** Straight PCB, Solder cup
- ▶ **Plug contact termination:** Solder cup, Dip solder
- ▶ **Contact Dia:** 1 mm
- ▶ **Current Rating:** 5A @ 25 C° for each contact according to IEC 512-3
- ▶ **Contact Resistance:** < 5 mΩ for each contact according to EIA 364
- ▶ **Connector body:** Aluminium alloy
- ▶ **Connector life:** 5000 mating cycles according to EIA 364.09

### FEATURES

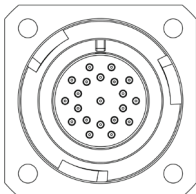
- ▶ Special plating to resist contamination under harsh environmental conditions along railway tracks
- ▶ Advanced contact technologies depending on the number of ways
- ▶ Bayonet locking system for easy maintenance and download/upload of new information into the balise
- ▶ Perfect transmission of data between the rail track and train borne equipment
- ▶ Anti-tampering system to avoid sabotages
- ▶ Colored plug versions: red, black, green, orange, yellow depending on the function

# SOME POSSIBLE CONFIGURATIONS

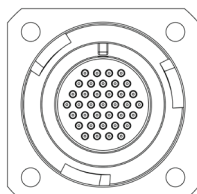
## RECEPTACLE



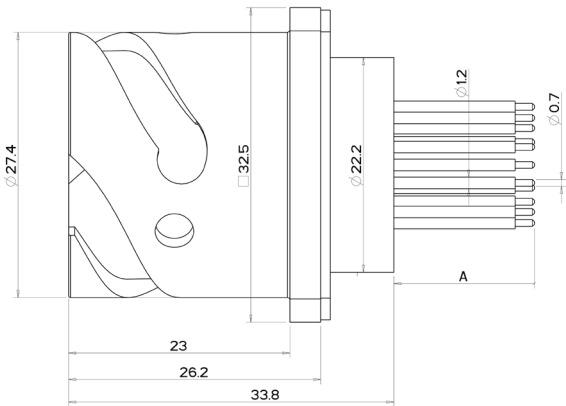
13 ways



21 ways

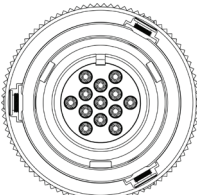
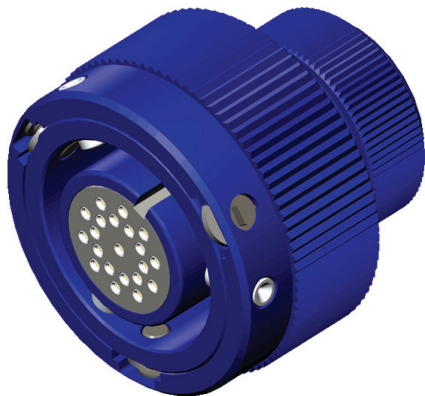


37 ways

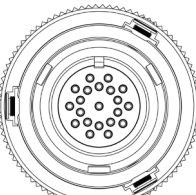


	C[mm]	L[mm]
A	3.55	14.6

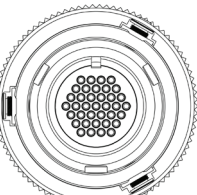
## JUMPER & PLUG



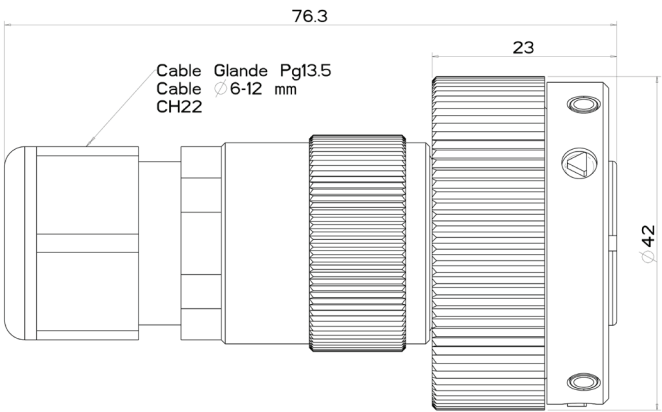
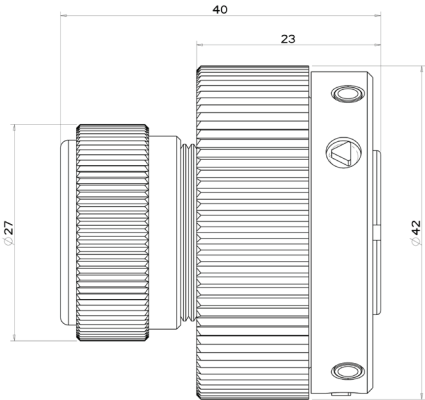
13 ways



21 ways



37 ways



# HOW TO ORDER

S	T	1	0	9	7	C	-	B	A	L	I	S	E	*	*	*	*	C	*	*	C	H	*	*
1						2								3			4	5	6			7		

## 1 ▸ SPECIFICATION [Fixed]

## 2 ▸ SERIES [Fixed]

## 3 ▸ NUMBER OF WAYS\*

FROM **07** TO **37**

## 4 ▸ CONNECTOR TYPE

- R** RECEPTACLE PANEL MOUNTING
- J** JUMPERED & OVERMOULDED PLUG
- P** PLUG
- DC** DUST CAP FOR RECEPTACLE

## 5 ▸ TERMINATION STYLE - OMIT IF NOT APPLICABLE

- S** SOLDER CUP
- D** PCB STRAIGHT (L= 3.55 MM)
- L** PCB STRAIGHT (L= 13.00 MM)
- NOT APPLICABLE

## 6 ▸ HOUSING - COLOUR CODE - OMIT IF NOT APPLICABLE

- C00** RED
- C01** YELLOW
- C02** ORANGE
- C03** GREEN
- C04** BLUE
- C05** BLACK
- NOT APPLICABLE

## 7 ▸ WIRING DIAGRAM - OMIT IF NOT APPLICABLE

FROM **CH01** TO **CHnn**

*\*from 7 to 13 ways use hyperboloid contacts, >13 ways are equipped with Tortac® contacts*

smiths connectors