

## Car-to-Car Circular Couplers

- Proved on railway applications worldwide
- Hyperboloid socket contact capable of 100.000 mating cycles
- Signal & Power contacts
- Current rating: up to 130A
- Up to 61 removable crimp contacts
- IP 65 sealing
- 5 coding positions
- Receptacle protected by sealing cover

### Technical Characteristics

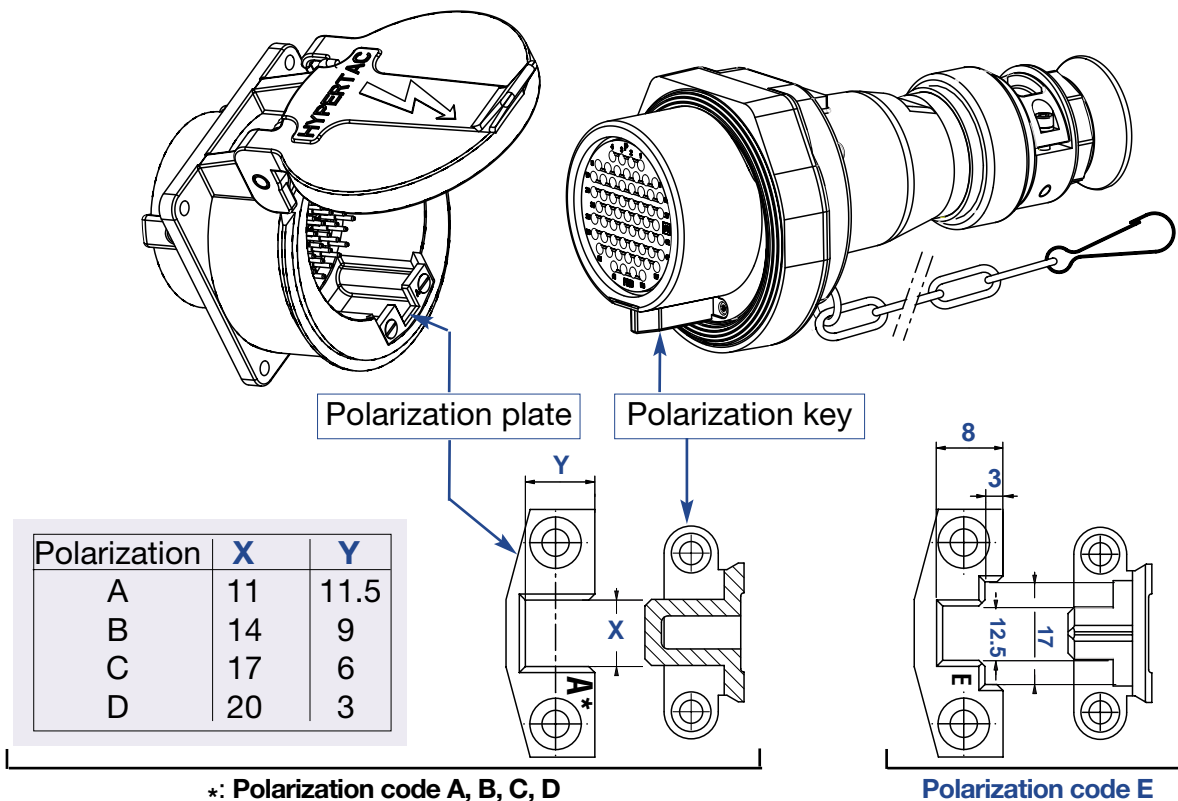
<b>MATERIALS &amp; FINISHES</b>			
<b>Contact</b>			
Pin & socket body		Brass & Au/Ni*	
Socket wires		Copper alloy & Au/Ni*	
<b>Shell</b>		Aluminium alloy	
<b>Insulator</b>		Thermoset or thermoplastic	
<b>MECHANICAL</b>			
<b>Contact retention</b>			
Ø 2mm			>90N
Ø 4mm			>140N
Ø 7mm			>150N
<b>ENVIRONMENTAL</b>			
<b>Category</b>		-55°C + 125°C; 56 days	
<b>Salt spray</b>		96h (5% NaCl)	
<b>Sealing level</b>		IP65 (when mated)	
<b>ELECTRICAL</b>			
<b>Contact</b>	<b>Ø 2mm</b>	<b>Ø 4mm</b>	<b>Ø 7mm</b>
<b>Current rating</b>	16A	30A	130A
<b>Proof voltage</b>	4000V	6500V	9000V
<b>Insulation resistance</b>		10 <sup>3</sup> MΩ	
* Finish of the 4mm socket = Ag			
* Finish of the 4mm pin = Ni			

### ORDERING INFORMATION

SERIES	FTH	---	--	20	1	-	-
LAYOUT							
047	4 contacts Ø7						
194	19 contacts Ø4						
402	40 contacts Ø2						
612	61 contacts Ø2						
PART / POLARITY / PLATING							
12	Female plug						
23	Male receptacle						
CRIMP CONTACT TERMINATION							
CABLE CLAMP Ø36.6 to Ø39.2mm (plug only)							
RETAINING CHAIN							
-	Without chain (plug & receptacle)						
1	With chain (plug only)						
POLARIZATION*							
A	B	C	D	E			

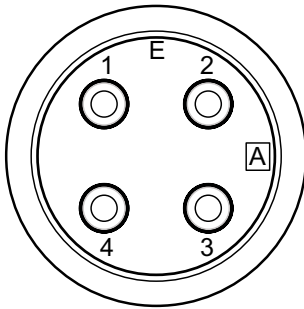
\*See below "Polarization overview"

### Polarization overview

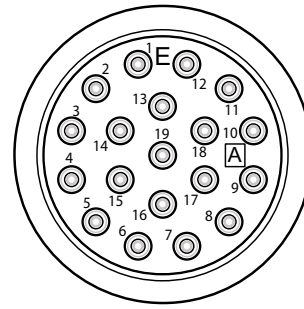


**Layouts**

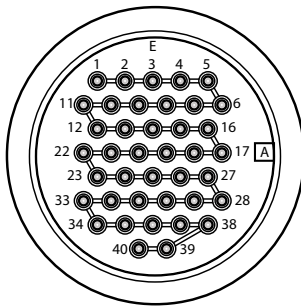
**Receptacle mating side view**



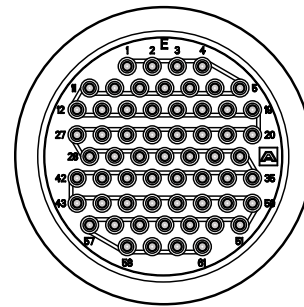
4 contacts Ø7mm



19 contacts Ø4mm



40 contacts Ø2mm

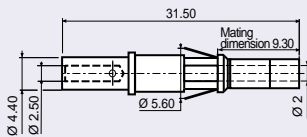


61 contacts Ø2mm

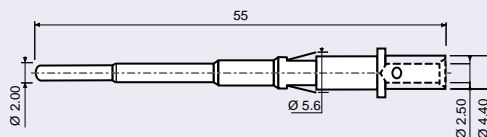
**Contacts**

**SOCKET Ø 2mm**

**PIN Ø 2mm**



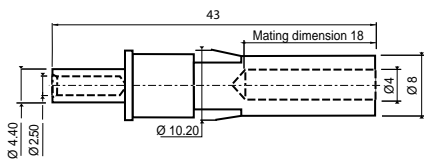
Ref: 0200472-20RN1



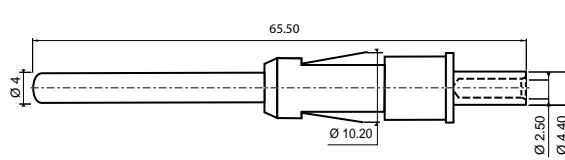
Ref: 0200801-20ROR

**SOCKET Ø 4mm**

**PIN Ø 4mm**



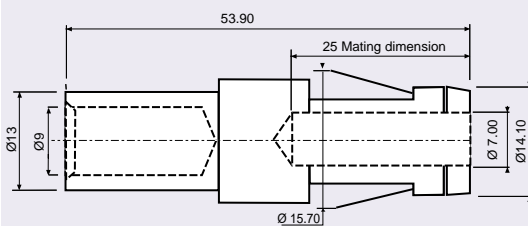
Ref: 0400432-20RE0



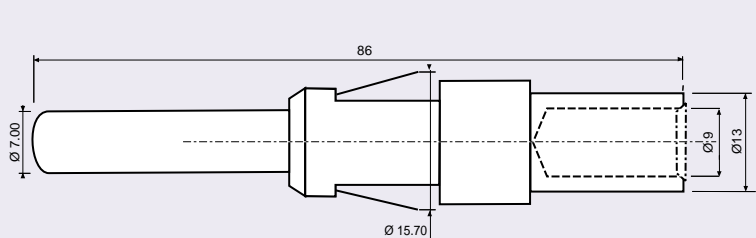
Ref: 0400571-20ROR

**SOCKET Ø 7mm**

**PIN Ø 7mm**



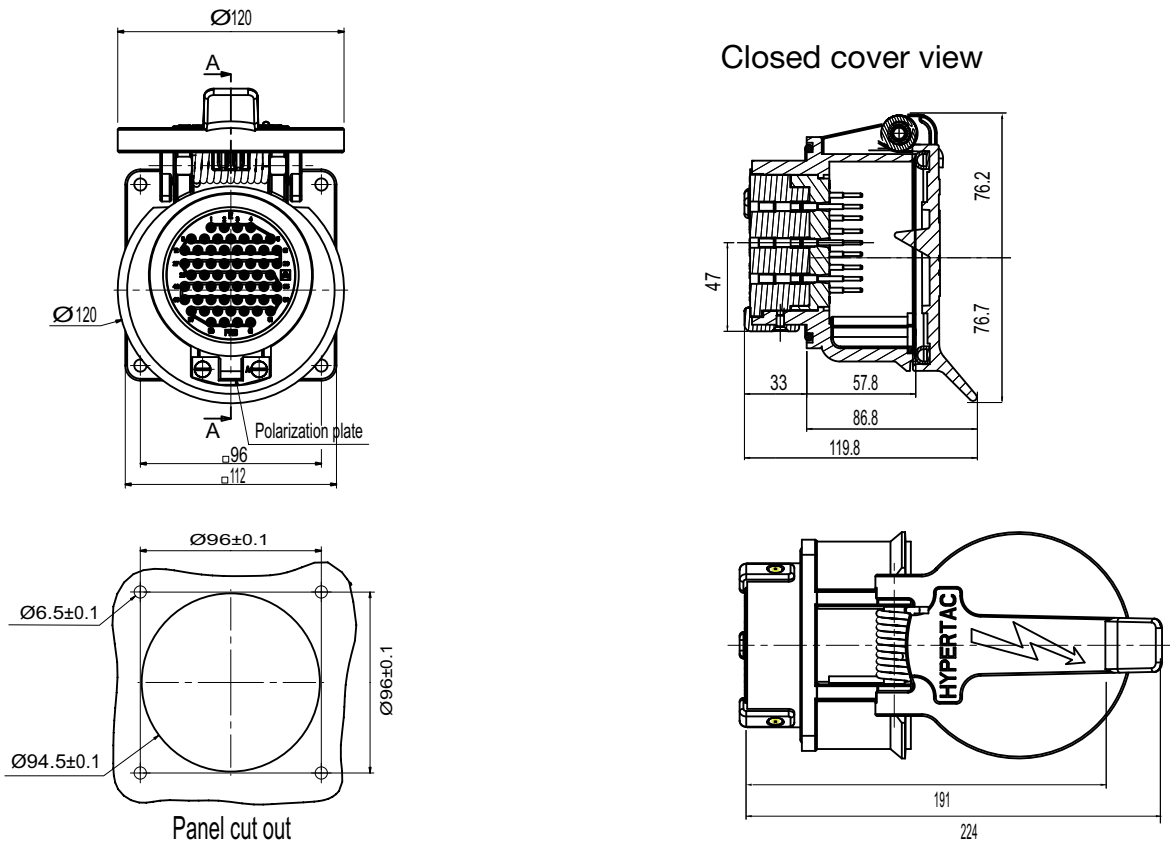
Ref: 0700322-22NG1



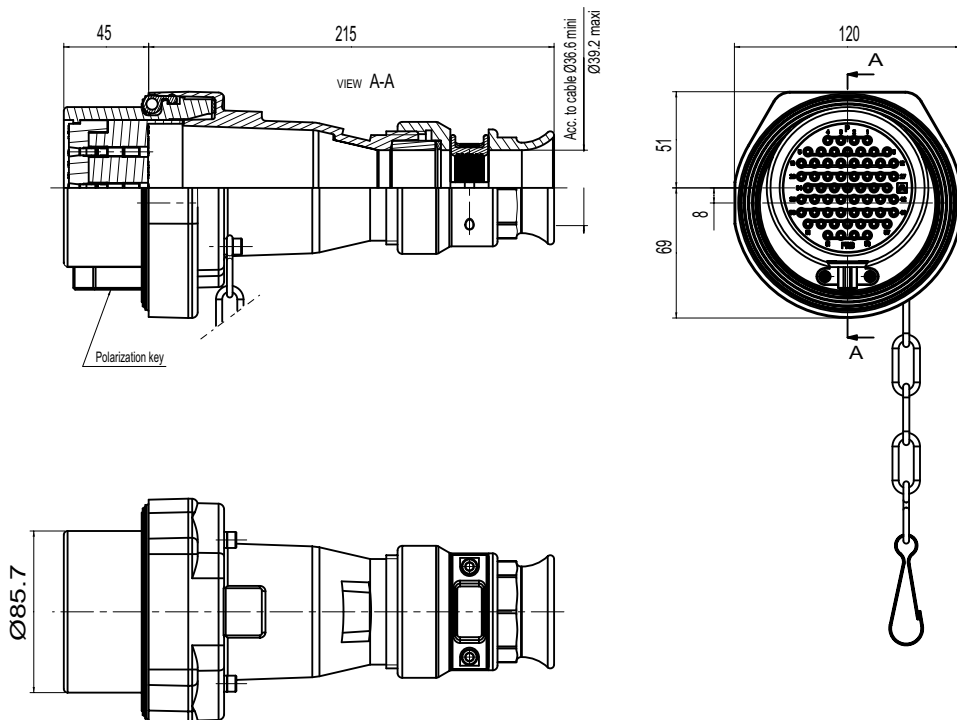
Ref: 0700321-22ROG

Dimensions are in mm

**Receptacle dimensions**



**Plug dimensions**



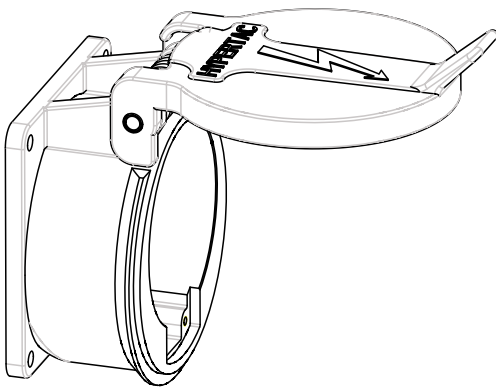
Dimensions are in mm

**Tooling**

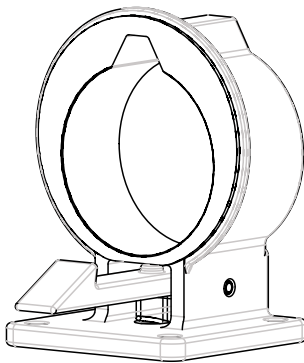
Contact part number	Crimp tool	AWG	Wire section( mm=)	Tool turret	Selector position	Extraction tool
0200472-20RN1 0200801-20ROR ]	ASTRO TOOL TGV 515	16	1.34	ASTRO TOOL TGV 509	3	SD-0200000002
		15	1.50		3	
		14	1.91		4	
		14	2.00		4	
		13	2.50		4	
0400432-20RE0 0400571-20ROR ]	AMP 49935	16	1.34		12/10	SD-0400000001
		13	2.50		12/10	
0700322-22NG1 0700321-20ROG ]	HYPERTAC S_097 & S_098 & S_099 & S_100		36		12/10	SD-0700000002

**Accessories**

**Storage receptacle**



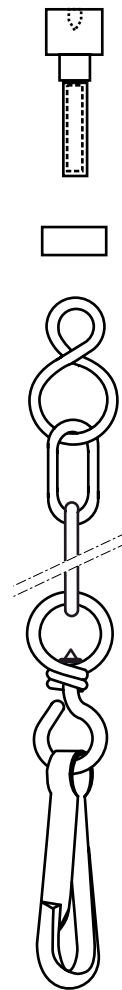
Ref: FTR0000400



Ref: FTR7031880102

**Retaining Chain**

(Length = 215mm)



Ref: FT\_301

Dimensions are in mm