



Rack & Panel Rectangular Connectors Selector Guide

Typical applications



Picture All Rights Reserved

Cockpit Display Units



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Landing Gear Management



© Mario Beauregard / Fotolia

Cabin: IFE & Air Conditioning



Courtesy of NORD-MICRO

Avionic Bay/Data Acquisition



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Engine Management



We Connect
THE HEART
of your
System

Avionic Bay

Cockpit

Features & Benefits

**TIME
SAVING**

Rackable Solution

Blind mate, Clearance device for better rackability.
Low insertion force.

**MAKE IT
YOURS**

Modular Solution

Front and rear release removable contacts.
Flex circuit integration and cabling.
Build your own connector matching your exact needs.

**WEIGHT
& SPACE
SAVING**

High Density Solution

Up to 800 #22 signal contacts.
Up to 56 #8 quadrax contacts.

**COST
SAVING**

Configurable Solution

Cost effective option with no removable contacts.
Grounding finger and blade with alodine plating.
Possibility to have specific population of contacts.

Technical features

Materials

	Material	Plating
Shells	Aluminum alloy	Alodine 1200 passivation
		Nickel plating
Insulator	Epoxy resin thermoset	
	Thermoplastic	
Seal & grommet	Fluorinated silicon	
Contacts	Copper alloy	Gold plated

- Endurance: 500 matings
- Insertion and extraction forces max:
 - . Shell size 1: 120N (27 lbs)
 - . Shell size 2: 267N (60 lbs)
 - . Shell size 3: 467N (105 lbs)

Electrical

- Dielectric withstanding voltage:
 - . Sea level: 1 500 Vrms
 - . 15 000 m: 500 Vrms
- Voltage rating: 500 Vac Max
- Insulation resistance: $\geq 5000 \text{ M}\Omega$
- Current ratings, continuous:

Contact	Wire gauge	Current (A)	Voltage drop max (mV)*
22	22	5	40
	24	3	30
	26	2	25
20	20	7.5	55
	22	3	40
	24	5	30
16	16	13	50
12	12	23	45

* measured over a conductor length of 150 mm

Optical

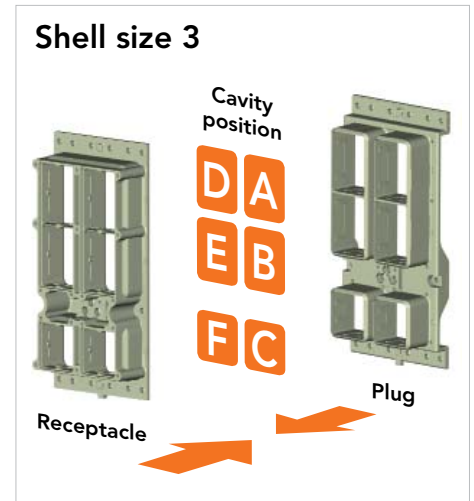
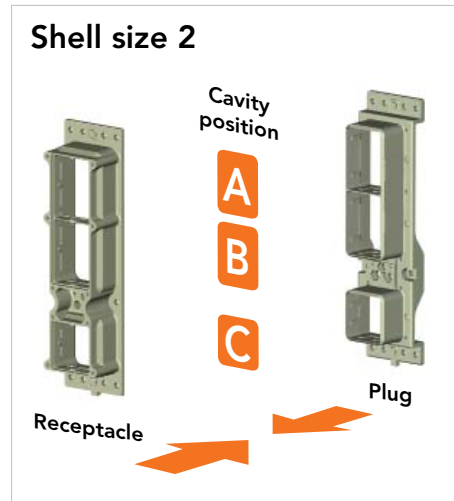
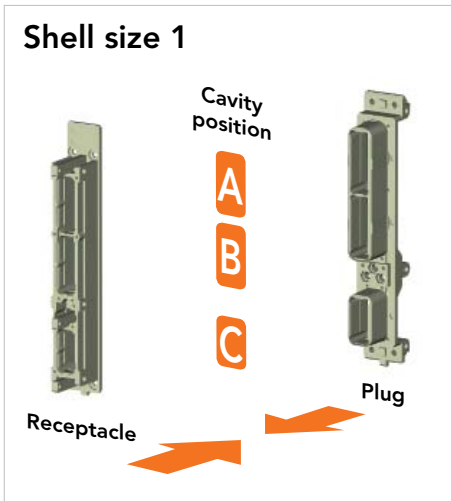
- ARINC 600 connector can integrate ELIO® fiber optic contacts in #8 quadrx cavities with the addition of ELIO® #8 adaptor

Environmental

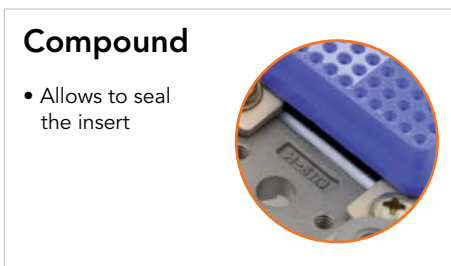
- Temperature rating: -65°C to +125°C
- Fluid resistance:
 - . Hydraulic to MIL-H 5606
 - . Lubricating to MIL-L 23699
 - . Isopropyl alcohol
- Resistance to salt spray:
 - . 48 hours (MIL-STD-202 method 101)

For more information and details, please consult "ARINC 600 Series" catalog on www.souriau.com

Shell types & Cavity overview



Sealing level



Plating & Grounding

Alodine plating

Standard polarization

- Without specific grounding



or Ground finger

- Cost effective solution



or Ground blade

- Cost effective solution



Nickel plating

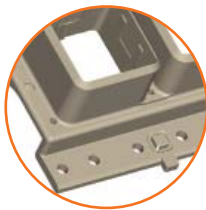
Standard polarization

- Ground spring mandatory on the plug



Mounting style

Standard mounting



Float mounting

- with eyelet or threaded inserts



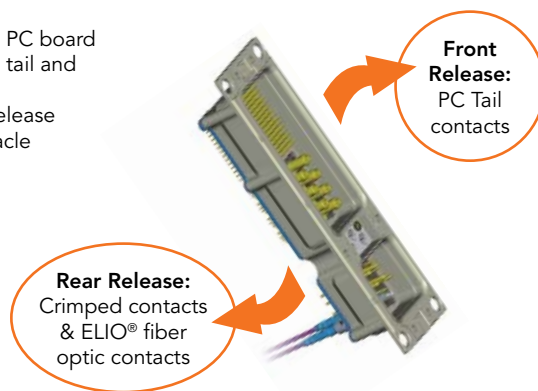
Self-locking threaded inserts



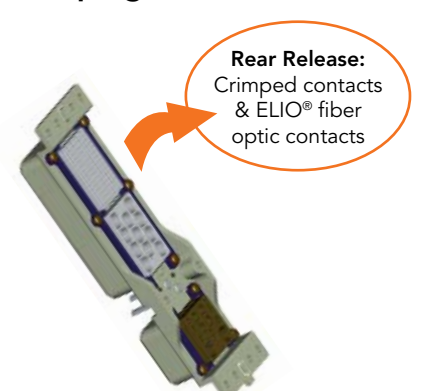
Contacts release

Equipment receptacle

- Only receptacles are used with PC board with PC tail contacts or mix PC tail and crimped contacts
- Possibility to mix rear & front release inserts within the same receptacle



Rack plug



Insert Layouts

Contact types: **S** Signal **P** Power **C** Coax **T** Triax **Q** Quadrax or Twinax **E** ELIO® Fiber Optic

Shell size 1







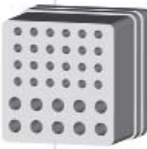








Cavity A & B		Cavity C	
	60 pts 60 #22		Dummy Insert
S		P C	

Shell size 2 & 3

Cavity A, B, D & E					
	150 pts 150 #22		126 pts 120 #22 6 #16		121 pts 110 #22 6 #20 5 #16
S		S P		S P	
	118Q2 118 #22 2 #8		71 pts 70 #22 1 #1		71 pts rev. 70 #22 1 #1
S Q E		S C		S C	
	60 pts 60 #20		47T2 47 #20 2 #8		28 pts 10 #22 10 #16 8 #8
P		P T		S P T	
	24 pts 24 #12		C12T6 12 #12 6 #8		Q11 11 #8
P		C T		Q E	
	Q11 mixte 11 #8		Q10 10 #8		TCAS 4 #1
Q E		Q E		C	
	C2 2 #1		C2 rev. 2 #1		Dummy Insert
C		C			
					Harpooned Contact 150pts
				NEW	

Shell size 2 & 3

Cavity C & F

 <p>100 pts 100 #22</p> <p>S</p>	 <p>85 pts 80 #22 4 #20 1 #16</p> <p>S P</p>	 <p>68Q2 68 #22 2 #8</p> <p>S Q E</p>	 <p>62Q2 60 #22 2 #16 2 #8</p> <p>S P Q E</p>	 <p>62T2 60 #22 2 #16 2 #8</p> <p>S P T</p>
 <p>59 pts 50 #22 5 #16 4 #12</p> <p>S P NEW</p>	 <p>34 pts 24 #20 10 #16</p> <p>P</p>	 <p>20T4 20 #20 4 #8</p> <p>P T</p>	 <p>20Q4 20 #20 4 #8</p> <p>P Q E</p>	 <p>11C2 4 #20 3 #16 4 #12 2 #5</p> <p>P C</p>
 <p>11Q2 4 #20 3 #16 4 #12 2 #8</p> <p>P Q E</p>	 <p>11T2 4 #20 3 #16 4 #12 2 #8</p> <p>P T</p>	 <p>Q6 6 #8</p> <p>Q E</p>	 <p>Dummy Insert</p>	 <p>Harpooned Contact 100pts</p> <p>NEW</p>

Contacts type

Crimped contacts

- S** • **Signal #22**
Standard, Standard with selective plating, Chromel, Alumel
- P** • **Power #20, #16, #12**
Standard and small barrel
- C** • **Coax #8, #5, #1**

Cable #8	RG 400 / U		
Cable #5	RG 58 C/U	RG 188 A/U	KX 21A
	RG 142 B/U	RG 195 A/U	KX 22A
	RG 141 A/U	RG 196 A/U	KX 23
	RG 174 A/U	RG 233 / U	5021K1011
	RG 178 B/U	RG 316 / U	NSA 935359 WB
Cable #1	RG 180 B/U	RG 400 / BU	
	RG 141 A/U	RG 214 / U	Ficela 1703/3
	RG 142 B/U	RG 225 / U	Filotex 50MTKT
	KX 23	RG 393 / U	RG 400 / BU
Cable #1 for TCAS	Filotex E0406WD		
	Filotex 50MFCFB GORES39214		

- T** • **Triax #8**
For cable EN3375-004, MIL-C-17176
- Q** • **Quadrax #8 and Twinax #8**

PC tail contacts

- S**
P • **Signal #22 and Power #20, #16, #12, #8**
0.15 inch (3.81 mm)
0.25 inch (6.35 mm)
0.375 inch (9.52 mm)
0.5 inch (12.7 mm)
Gold or tin plated
- T** • **Triax #8**
With PC tail L = 0.25 inch (6.35 mm)
- Q** • **Quadrax #8**
With PC tail L = 0.25 inch (6.35 mm)
Gold or tin plated

- E** • **ELIO® fiber optic with #8 adaptor**

- | | |
|--|---|
| <ul style="list-style-type: none"> • Wire wrap #22
0.25 inch (6.35 mm)
0.375 inch (9.52 mm)
0.5 inch (12.7 mm) | <ul style="list-style-type: none"> • Cavity reducer
#5 to #12, rear and front release
#8 to #12, rear release
#8 to #16, rear release |
|--|---|

- **Filler plug** for sealed version only
#22, #20, #16, #12, #8 and #5 available
- **Dummy contact** for all sizes

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Your local contact



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