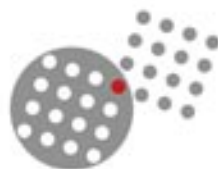


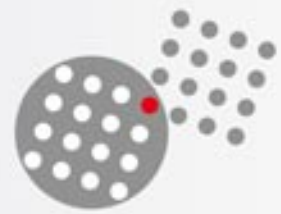


ELIO[®]

High speed
fiber optic technology



SOURIAU
Connection Technology



SOURIAU

Connectors and interconnect systems for harsh environments

The company designs, manufactures and markets high performance interconnect solutions for severe environments from industrial broadline and universal ranges to complex system with integrated functions: filtering, high speed data transmission, hermetic seal, separation mechanism, remote handling, underwater mating, ...



Industrial



Aeronautical



Equipment & system

The dedicated end markets for SOURIAU's products are aeronautical, defense-space and industrial



*Railway
Geophysics
Manufacturing environment
Instrumentation
Automation & process*



*Civil & military aircraft
Helicopter
Weapon delivery system
Avionics*



*Military marine
Communications
Satellites
Launcher & missile*

SOURIAU was established in 1917 and has been created by successive acquisitions of the industrial, aeronautical, defense and space activities of SOURIAU, JUPITER and BURNDY.

The Group's products are engineered and manufactured in the USA and Dominican Republic, Europe and Morocco, Japan and India, and sold by a worldwide sales and marketing organization, and in addition to SOURIAU's offices, a large network of licensed distributors and agents.

SOURIAU complies with most of national and international Quality Assurance Standards, production unit with ISO 14001

**Quality Certificate
Management System**

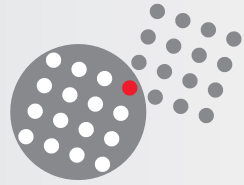
ISO 9001

**Environment Certificate
Management System**

ISO 14001

**Quality Certificate
Management System**

Aeronautic Industry : EN 9100



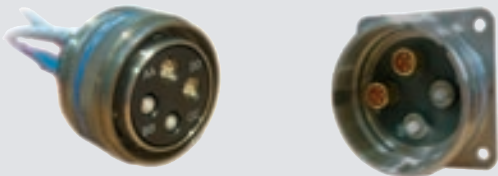
ELIO® Technology major Technical Features and Benefits

▶ **Versatility - One contact whatever the connector**

- MIL DTL 38999
- ARINC 600
- EN 3545
- EN2997

▶ **Standard electrical cavity adaptor**

- Terminus can fit in any #8 Quadrax cavity using adaptors.

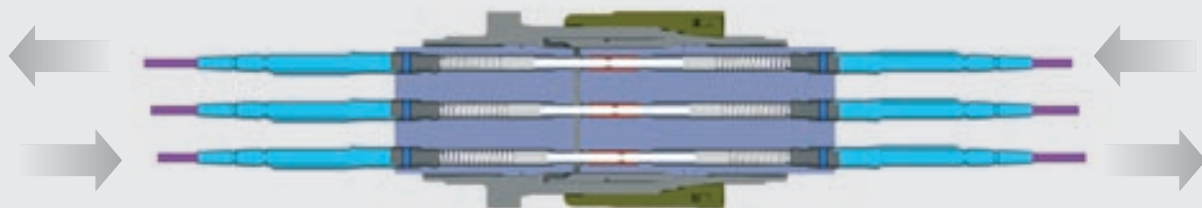


▶ **High-density version**

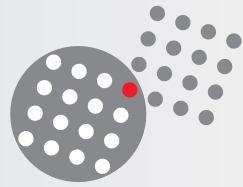
- Specific ELIO® inserts are available in standard shel for high-density.

▶ **Anti-pistoning - spring-loaded terminus**

- Pulling on one side does not affect the connection and the optical performance thanks to the spring of the termini.



When pulling on one side, the other side will move to keep the optical contact.



ELIO® Technology major Technical Features and Benefits

▶ Sealed technology

- ELIO® is a sealed contact,
- No backshell is needed.

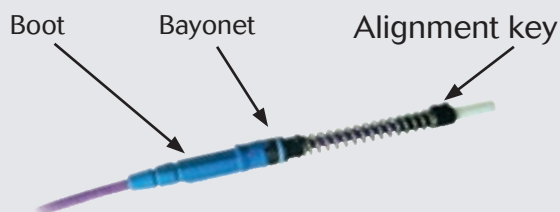
▶ Easy to clean - access form front face

- Terminus is easy to clean without removing it from the connector.



▶ Easy to install - no specific tool

- Terminus is easy to install thanks to the bayonet-boot feature,
- A standard size 12 electrical tool can be fitted on the boot for installation in high density connector.

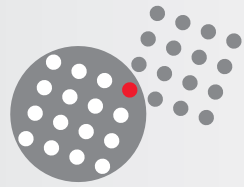


Terminus with standard electrical tool

▶ Easy to terminate - less than 5 minutes

- Terminus is hermaphroditic (same in receptacle and plug) - one termination procedure,
- ST®-like termination procedure,
- Standard ST® ferrule,
- Automatic polishing tools available.

ELIO® Contact



Today's technology for Airborn and Military equipment is more and more complex, requiring the management of an increasing flow of information at greater speeds. In response to this need, SOURIAU offers a wide range of copper and fiber optic solutions for high speed network in harsh environments. These solutions can handle data speeds from several Mbit/s up to several Gbit/s using a wide array of communication protocols (Ethernet, ATM...).

Fiber optic is the best solution when high data-rate and large bandwidth are required.

ARINC 801
EN 4531
ABS 1379

► Technical characteristics

Butt-Joint optic connector for military and aerospace on-board equipment, wherever weight saving and severe climatic or mechanical resistance are requested.

► Range of applications

Fiber optic connectors apply wherever robustness, high performance and easy maintenance are needed.

► Main applications

Marine, Aerospace, Military, Geophysics, Railways...

Ordering information

ELIO®	18S	G	L
Cable diameter			
SBN: 900 µm jacket or cable larger than 2.0 mm with 900 µm fiber - without sealing joint			
SCN: from 1.5 mm up to 1.9 mm cable - without sealing joint			
18S: for 1.8 mm cable - with sealing joint			
Fiber type			
G: 50/125 or 62.5/125 fiber (PC shape ferrule)			
D: 100/140 fiber			
J: POF 1.0 mm fiber			
Boot shape			
L: straight long			
S: straight short			
N: without boot (unsealed version only)			

► Recommended cables

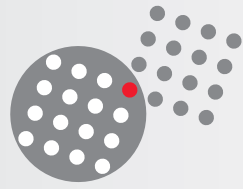
SOURIAU can offer a wide range of cables, from low cost to highly performing aeronautical cables.

MIL-DTL-38999 with ELIO® Contact

► Available inserts - table 1 (front face of male insert)

1 optical way	2 optical ways	4 optical ways	8 optical ways	24 optical ways
09-01	11-02	13-04	19-08	25-24

MIL-DTL-38999 with ELIO® Contact



ELIO® C connector

Key features

- Standard MIL-DTL-38999 Serie III composite with specific high density ELIO® insert,
- Environmental performance as per MIL-DTL-38999 and EN 3645 standard,
- Only light weight RoHS connector resisting to more than 500 hours salt spray,
- Temperature range : -65°C + 125°C

Ordering information

	8D	5	E	11	J	02	A	N
Shell type								
5: plug								
0: receptacle with 4-hole square flange fixing								
Designation								
E: ELIO® optical connector								
Shell size								
09 - 11 - 13 - 19								
Plating								
J: olive green cadmium								
M: nickel								
X: without plating								
Insert arrangement see table 1								
Male/Female insert								
A: male insert								
B: female insert with ceramic alignment sleeves								
Polarization N, A, B, C, D, E								

EN 4531
ABS 1213



Applications

Fiber optic connector for military and aerospace on-board equipment, wherever weight saving and severe climatic or mechanical resistance are requested.



ELIO® Minium connector

Key features

- Standard MIL-DTL-38999 Serie III aluminium shell with specific high density ELIO® insert,
- Environmental performance as per MIL-DTL-38999 and EN 3645 standard,
- Light and robust connector
- Temperature range : -65°C + 125°C

Ordering information

	8D	5	E	11	W	02	A	N
Shell type								
5: plug								
0: receptacle with 4-hole square flange fixing								
7: receptacle with single hole jam nut fixing								
Designation								
E: ELIO® optical connector								
Shell size								
09 - 11 - 13 - 19 - 25								
Plating								
W: olive green cadmium								
F: nickel								
Insert arrangement see table 1								
Male/Female insert								
A: male insert								
B: female insert with ceramic alignment sleeves								
Polarization N, A, B, C, D, E								

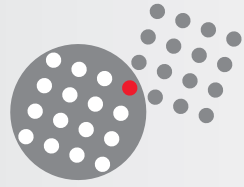


Applications

Fiber optic connector for all military and aeronautical wherever severe vibration or mechanical resistance are requested.



MIL-DTL-38999 with ELIO® Contact



ELIO® Steel connector

Key features

- Standard MIL-DTL-38999 Serie III stainless steel class K or S shell with specific high density ELIO® insert,
- Very robust connector
- Environmental performance as per MIL-DTL-38999 and EN 3645 standard,
- Temperature range : -65°C + 125°C

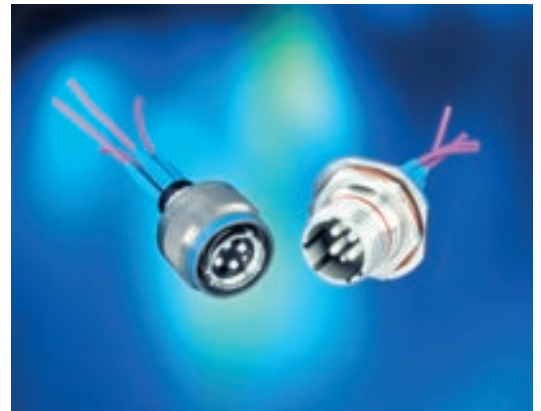
Ordering information

	8D	5	E	11	K	02	A	N
Shell type								
5: plug								
0: receptacle with 4-hole square flange fixing								
7: receptacle with single hole jam nut fixing								
Designation								
E: ELIO® optical connector								
Shell size								
09 - 11 - 13 - 19 - 25								
Plating								
K: stainless steel								
S: stainless steel nickel plated								
Insert arrangement see table 1								
Male/Female insert								
A: male insert								
B: female insert with ceramic alignment sleeves								
Polarization N, A, B, C, D, E								



Applications

Fiber optic connector for all industrial, military and aerospace purposes wherever robustness and high temperature resistance are requested.



ELIO® Bronze connector

Key features

- Standard MIL-DTL-38999 Serie III bronze shell with specific high density ELIO® insert,
- Very robust connector
- Environmental performance as per MIL-DTL-38999
- Temperature range : -65°C + 125°C

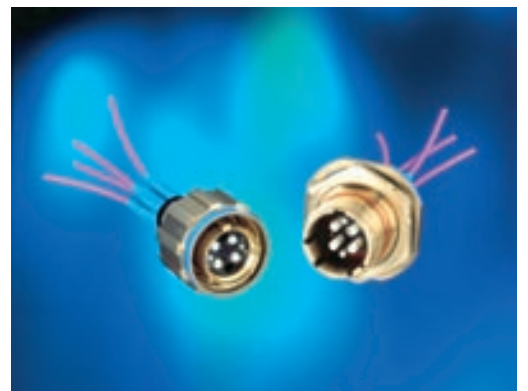
Ordering information

	JVS E	6	A	11	02	A	N
Shell type							
6: plug							
0: receptacle with 4-hole square flange fixing							
7: receptacle with single hole jam nut fixing							
Material							
A: bronze							
Shell size							
09 - 11 - 13 - 19 - 25							
Insert arrangement see table 1							
Male/Female insert							
A: male insert							
B: female insert with ceramic alignment sleeves							
Polarization N, A, B, C, D, E							

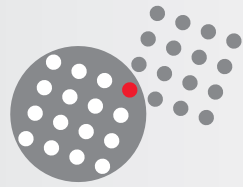


Applications

Fiber optic connector for all military and aeronautical wherever sever vibration or mechanical resistance are requested.



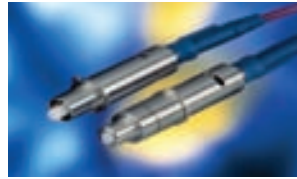
Other connectors with ELIO® Contact



ELIO® 8 adaptor: version for Quadrax # 8 cavity

Key features

- ELIO® 8 is an adaptor to enable the ELIO® contact to fit any size 8 Quadrax cavities of ARINC 404/600, EN2997, EN3545 and EN3646 connectors. Therefore, any layout including size 8 Quadrax cavities can be implemented with the ELIO® fiber optic contact.
- Possibility to mix optical and electrical signals in the same insert,
- Temperature range -65°C + 125°C
- Designed to comply with ELIO® contact optical performances,



Insert proposals of ARINC 600

Cavity A, B, D, E of ARINC 600 size 2 and 3

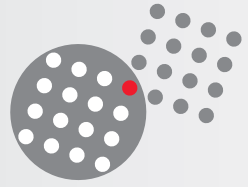
I - Q11* 11 cavities #8	I - Q10* 10 cavities #8	I - 118Q2 118 cavities #22 2 cavities #8	I - C12Q6* 12 cavities #12 6 cavities #8	* Grounded metal insert

Cavity C,F of ARINC 600 size 2 and 3

II - Q6* 6 cavities #8	II - 68Q2 68 cavities #22 2 cavities #8	II - 11Q2 4 cavities #20 3 cavities #16 4 cavities #12 2 cavities #8	II - 62Q2 60 cavities #22 2 cavities #16 2 cavities #8	II - 20Q4 20 cavities #20 4 cavities #8

Ordering information of ELIO® adaptor

MALE INSERT		FEMALE INSERT	
ELIO-AQOP 	ARINC 404 ARINC 600	ELIO-AQOS 	ARINC 404 ARINC 600 EN 2997 EN 3646
ELIO-AQ4P 	EN 2997 EN 3545 EN 3646	ELIO-AQOS 	EN 3545
ELIO-AQ1P 	ARINC 404 ARINC 600 front release	ELIO-AQES 	



ELIO[®] 600 connector: high density ARINC 600

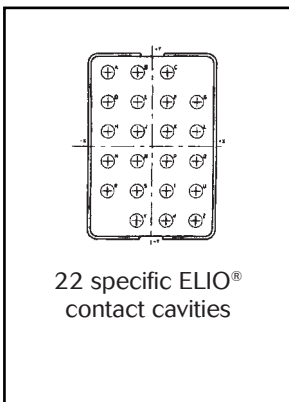
▶ Key features

- Standard ARINC 600 shell,
- High fiber optic density thanks to specific ELIO[®] cavities
- Designed to comply with ELIO[®] contact optical performances
- Environmental performance as per MIL-DTL-1344 standard,
Temperature range -65°C + 125°C

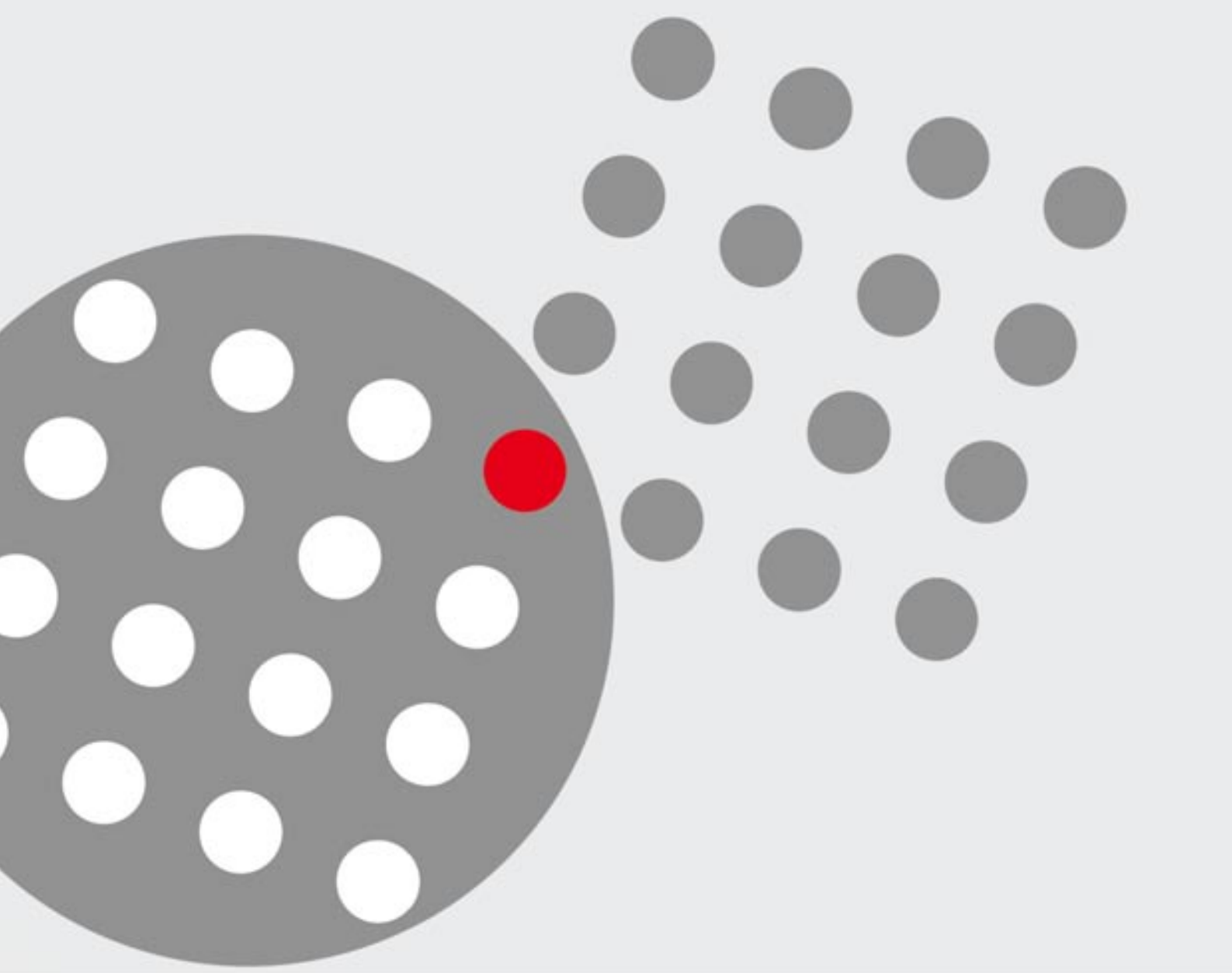


▶ Insert proposal

Cavity A, B, D, E of ARINC 600 shell size 2 and 3



▶ Other: please consult us



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