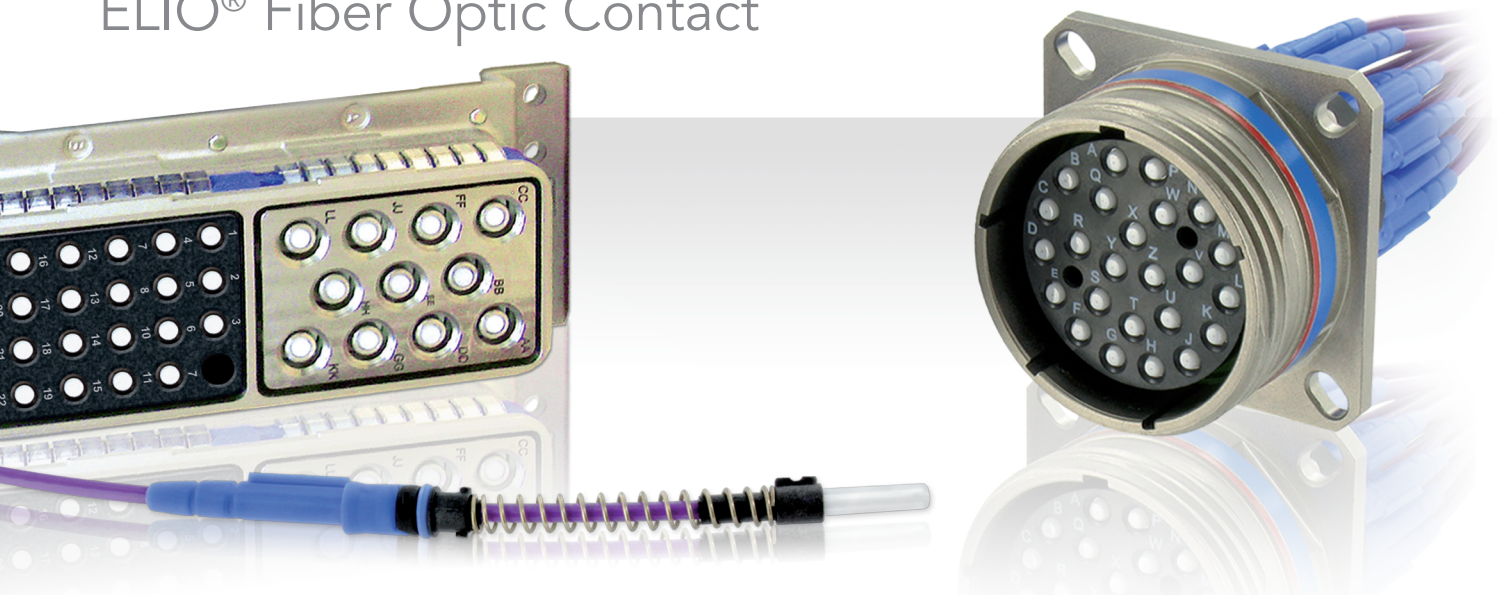


# 8D Series & ARINC 600 Series ELIO® Fiber Optic Contact



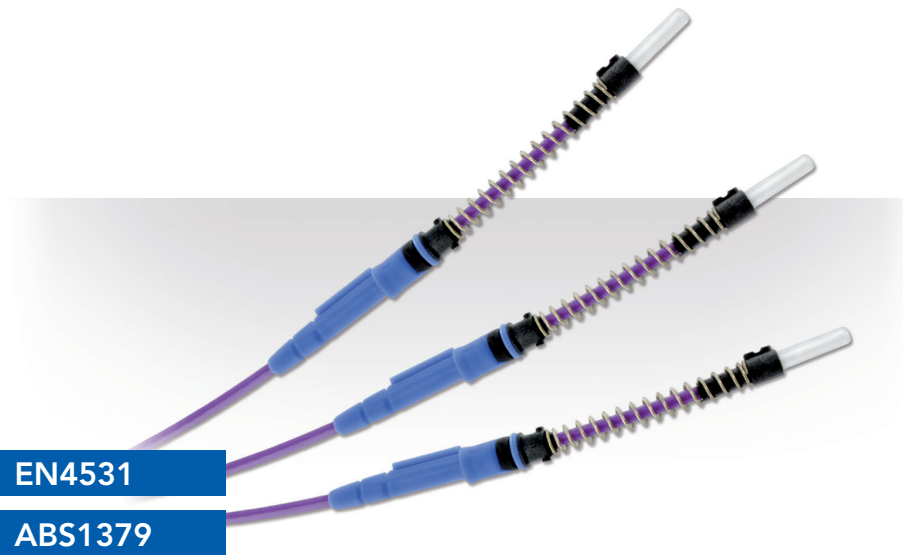
## High Value for Money Solution

**Robust connection withstanding the most severe vibrations with excellent optical performances (0.1 dB typical MM).**

- A qualified technology** ■ Flight proven ARINC 801 and EN4531 qualified. Airbus qualified fiber optic technology: ABS1379, ABS1213.
- User friendly** ■ Easy cleaning of the contact, no part to remove. No tool needed for insertion/extraction. Sealed contact without backshell (IP67).
- Standard size 8 cavities with adaptors** ■ Hybrid optical/electrical layouts in 38999 and ARINC 600. Intermateable with Electro Optic Conversion in a Quadrax contact packaging.

## Description

- Robust 2.5mm ferrule
- Quick bayonet locking system. No tool needed
- Boot seal for sealing and bending restriction
- Compatible with tight and loose structure cable



## Technical features

### Mechanical

- **Endurance:**  
Minimum 500 mating/unmating operations
- **Shock:**  
300 g, 3 ms as per EN 2591-6402 method A
- **Vibration:**  
In MIL-DTL-38999 Series III/EN3645 connectors:  
- Sine 5Hz to 3000Hz as per EN2591-6403 method A  
- Random as per EN2591-6403 method B
- **Cable cyclic flexing\*:**  
100 cycles, load 40N as per EN2591-609
- **Cable pulling\*:** 111N
- **Cable torsion\*:**  
100 cycles, load 40N as per EN2591-611

### Environmental

- **Salt spray:**  
See the connector standard
- **Temperature range\*:**  
- 65°C to +125°C (1000 hours)
- **Rapid temperature change:**  
10 cycles - 65°C / +150°C (30min/30min)
- **Air leakage:**  
Max leakage 16 cm<sup>3</sup>/h, 2 hours, 40kPa differential pressure
- **Damp heat and low temperature:**  
5 cycles of 48h -65°C/+70°C with stage at 40°C with 95% of humidity as per EN2591- 6303 method A

### Optical

- **Insertion Loss (IL):**  
0.1dB typical  
< 0.3dB over 95% of the samples as per EN2591-601,  
< 0.7dB maximum on 100% of the samples after tests
- **Return Loss (RL):**  
> 21dB before and after tests as per EN2591-605

### Resistance to fluids as per MIL-DTL-38999/EN3645 standard

- **Fuel:** JP5
- **Mineral Hydraulic fluid:**  
MIL-PRF-5606 ( NATO H-515)
- **Synthetic hydraulic fluid:**  
AS1241 (Skydrol 500B4, LD4)
- **Mineral lubricant:**  
MIL-PRF-7870 (NATO O-142)
- **Synthetic lubricant:**  
MIL-PRF-23699 (NATO O-156),  
MIL-PRF-7808 ( NATO O-148)
- **Cleaning fluid:**  
MIL-PRF-87937 diluted, Propanol, white spirit, Azeotrope R113 + Methanol
- **De-icing fluid:**  
AMS 1424 ( NATO S-742)
- **Extinguishing fluid:**  
Chlorobromethane
- **Cooling fluid:**  
Coolanol

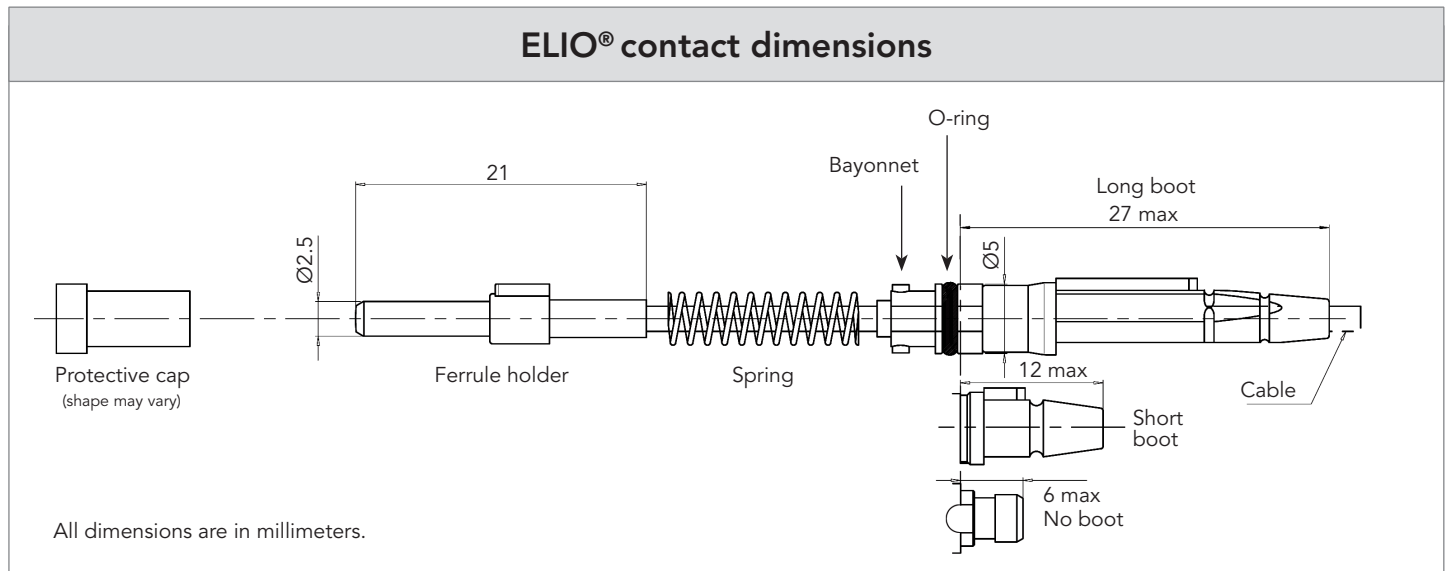
\* With multimode EN4641-100 cable and following the cabling process described in the "Technical Bulletin N°204 - ELIO® assembly wiring instructions" and the maintenance procedure in the document "Technical Bulletin N°170 - Fiber optics installation and maintenance procedure".

## Ordering information

ELIO	09N	G	L	A
<b>Cable external diameter &amp; Contact sealing:</b>				
09N: 0.9 <sup>±0.1</sup> mm. Non waterproof				
18N: from 1.5mm to 1.9mm. Non waterproof				
18W: 1.8 <sup>±0.1</sup> mm. Waterproof				
20N: from 1.7mm to 2.1mm. Non waterproof				
20W: 2.0 <sup>±0.1</sup> mm. Waterproof				
<b>Fibre type:</b>				
G: ELIO® Multimode fibre, 125 micrometers cladding				
<b>Boot type:</b>				
L: Long boot				
S: Short boot				
N: No boot (non waterproof version only)				
<b>Contact version index</b>				



Note: For ABS1379/EN4531 cross reference, please consult us.



## Recommended cables

Souriau can offer a wide range of cables in its assemblies, from low cost to high performance aeronautical cables. ELIO® contact is compatible with singlemode and multimode cable, with tactical and breakout cable. ELIO® contact is suitable with loose and tight structure cable.

See Souriau "ELIO® Fiber Optic Technology» catalog.

## #8 Adaptors, Accessories & Tooling

See Souriau "ELIO® Fiber Optic Technology» catalog.

For further information contact us at [technical.emear@souriau.com](mailto:technical.emear@souriau.com) (Europe - Asia - Africa)  
[technical.americas@souriau.com](mailto:technical.americas@souriau.com) (North America)  
 or visit our web site [www.souriau.com](http://www.souriau.com)