



## A complete backshell range insuring ELIO® high performance in harnessing

Souriau has developed a dedicated backshell range for 38999 Series III to accomodate the specific physical properties of the ELIO® optical terminus.

**4 types available**



Adapted to multi-fiber cable and single fiber assemblies.

**Easy harnessing**



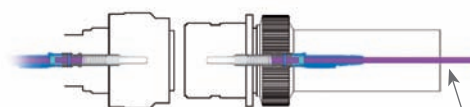
Cabling chamber adapted to the ELIO® technology.

**Insurance of high performances**

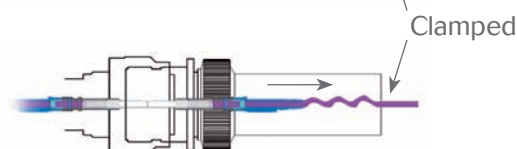


Accommodates movement of cable during mating.

Unmated:



Mated:



**Souriau global offering**



Accessories and harnessing also available.

# 38999 Series III

## ELIO® Fiber Optic Backshell Range



### Backshells

- The ELIO® contact has a specific mating sequence: the cable moves back during the mating. To avoid the ELIO® mating sequence to be disturbed and to ensure the best optical performances, Souriau has developed a dedicated backshell range for MIL-DTL-38999 Series III/ EN3645 ELIO® connectors.
- There are 4 types of backshell available compatible with standard electrical MIL-DTL-38999 Series III/EN3645 rear interface.



**Type 1:** Adaptor for use with a standard 38999 Series III/EN3645 backshell. Caution is necessary in the choice of the standard backshell: it must allow enough room to accommodate the push back of the cable during the connector mating.



**Type 3:** Backshell with cable gland suitable for tactical cables only. Adapted to sealed and high mechanical retention applications. See table p.26 for dimension code depending on the shell size and the cable diameter.



**Type 2:** Backshell for straight or right angled heat shrink boot (not supplied), suitable for tactical cables or protection tubes for example. Adapted to sealed and low mechanical retention applications.



**Type 4:** Backshell derived from Type 3 without the cable gland. Suitable to adapt specific male threaded adaptors (not supplied) for ANAMET or PMA tubes for example. See table p.26 for the size of the female thread depending on the shell size.

## Ordering information

	8DABE	3	A	F	13	F	01
<b>Type:</b> 1: Adaptor for standard 38999 Series III/EN3645 backshell (standard backshell not supplied) 2: Backshell for straight or right angled heat shrink boot (heat shrink boot not supplied) 3: Backshell with cable gland. See table p.26 for dimension code. 4: Backshell for specific male threaded adaptor for PMA or ANAMET tubes for example (not supplied). See table p.26 for thread dimensions							
<b>Angle:</b> A: Straight For other angle, please consult us.							
<b>Coupling ring:</b> F: Non self locking type For other system, please consult us.							
<b>Shell size: 09, 11, 13, 19, 25</b>							
<b>Material &amp; Plating:</b> W: Aluminum plated with Olive drab cadmium over electroless nickel - Salt spray 500 hours F: Aluminum plated with Electroless nickel A: Aluminum black anodized - Salt spray 500 hours B: Bronze							
<b>Dimension code:</b> 01: Only for Type 3, see table p.26 No digit for other types.							

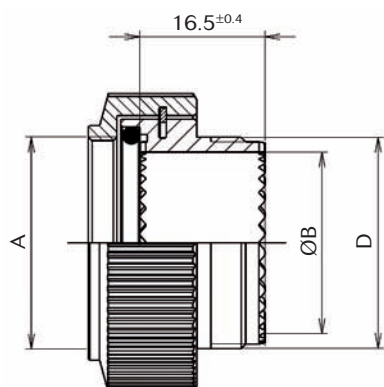
# 38999 Series III

## ELIO® Fiber Optic Backshell Range



### Backshell dimensions

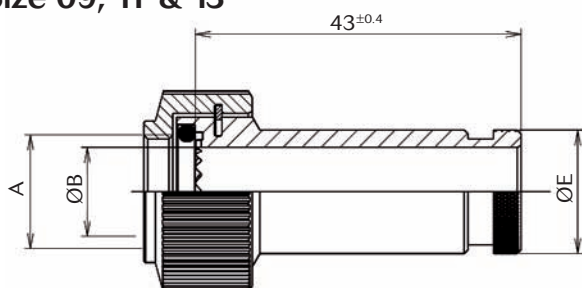
#### Backshell Type 1



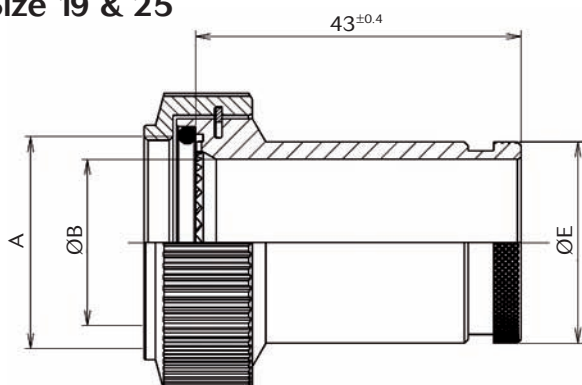
	Thread A	ØB <sup>±0.25</sup>	Thread D
Size 09	M12x1	8.7	M12x1
Size 11	M15x1	11.7	M15x1
Size 13	M18x1	14.7	M18x1
Size 19	M28x1	24.0	M28x1
Size 25	M37x1	33.2	M37x1

#### Backshell Type 2

##### Size 09, 11 & 13



##### Size 19 & 25



	Thread A	ØB <sup>±0.25</sup>	ØE <sup>±0.2</sup>
Size 09	M12x1	8.7	16.7
Size 11	M15x1	11.7	19.7
Size 13	M18x1	14.7	22.7
Size 19	M28x1	22.0	26.6
Size 25	M37x1	32.2	36.8

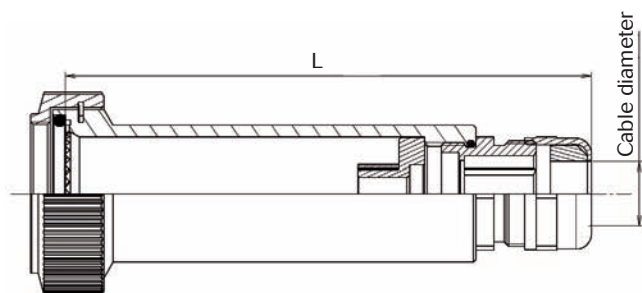
All dimensions are in millimeters.

# 38999 Series III

## ELIO® Fiber Optic Backshell Range



### Backshell Type 3

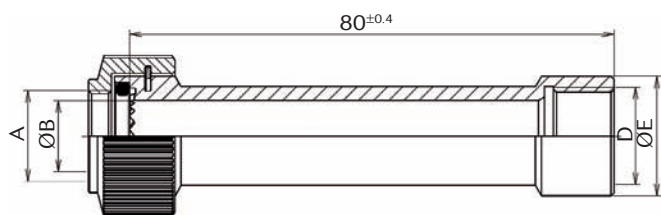


Cable diameter	Shell size / Thread									
	Bt 09 M12x1.5		Bt 11 M16x1.5		Bt 13 M16x1.5		Bt 19 M20x1.5		Bt 25	
	DC	L	DC	L	DC	L	DC	L	DC	L
3mm to 6mm	00	100	00	100	00	100	00	103	00	107
5mm to 8mm			01	100	01	100	01	103	01	107
6mm to 10mm							02	101	02	105
8mm to 12mm							03	102	03	106
9.5mm to 12mm									04	103
11.5mm to 18mm									05	109

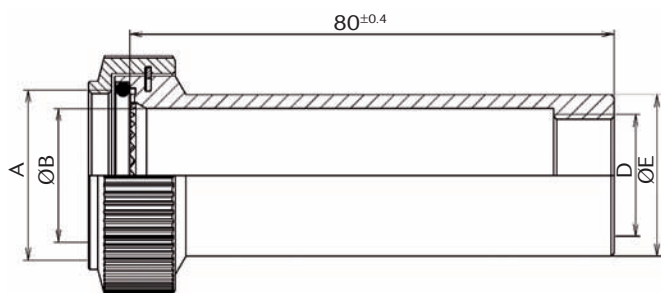
DC = Dimension Code

### Backshell Type 4

#### Size 09, 11 & 13



#### Size 19 & 25



	Thread A	ØB $\pm 0.25$	Thread D	ØE $\pm 0.2$
Size 09	M12x1	8.7	M12x1.5	16.7
Size 11	M15x1	11.7	M16x1.5	19.7
Size 13	M18x1	14.7	M16x1.5	22.7
Size 19	M28x1	22.0	M20x1.5	26.6
Size 25	M37x1	32.2	M25x1.5	36.8

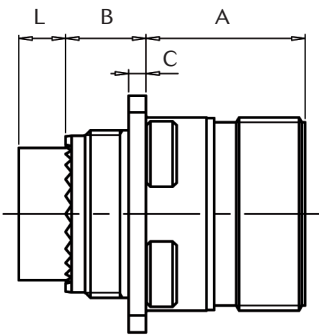
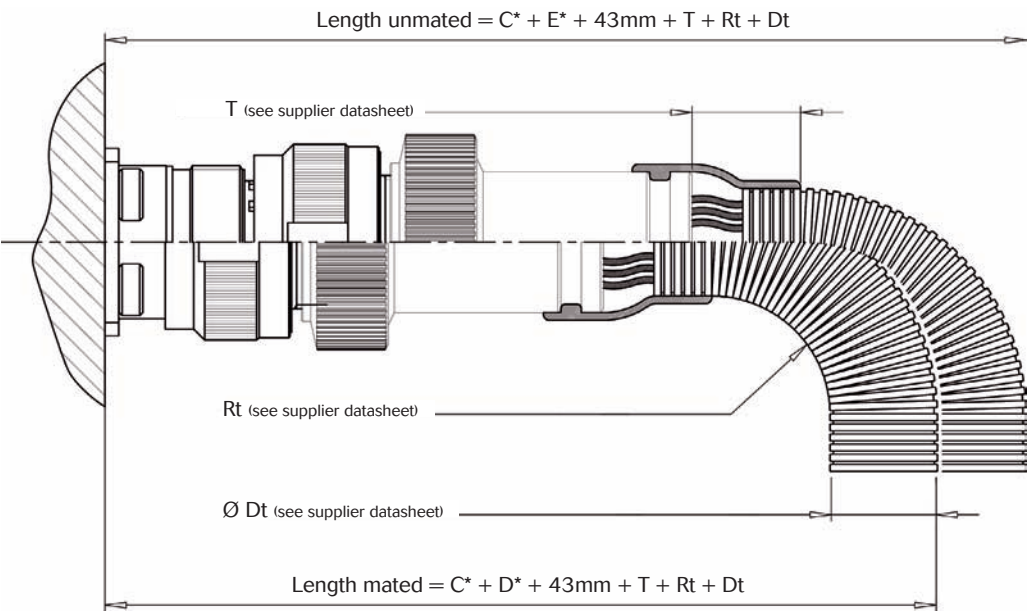
All dimensions are in millimeters.

# 38999 Series III

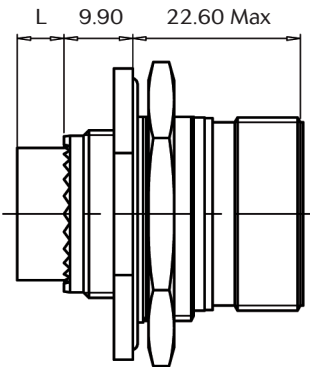
## ELIO® Fiber Optic Backshell Range



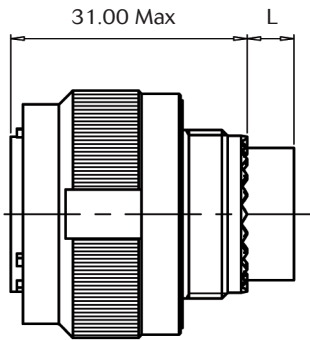
### Total length with backshell



Type 0  
Square Flange Receptacle



Type 7  
Jam Nut Receptacle



Type 5  
Plug

	A		B		C	
	Shell size 09 to 19	Shell size 25	Shell size 09 to 19	Shell size 25	Shell size 09 to 19	Shell size 25
Receptacle Type 0-7 Metal	20.90 Max	20.10 Max	10.60 Max	11.40 Max	2.50 Max	3.20 Max
Receptacle Type 0-7 Composite	20.90 Max	20.90 Max	10.60 Max	10.60 Max	2.50 Max	2.50 Max

L	
Male insulator	Female insulator
4 Max	6.60 Max

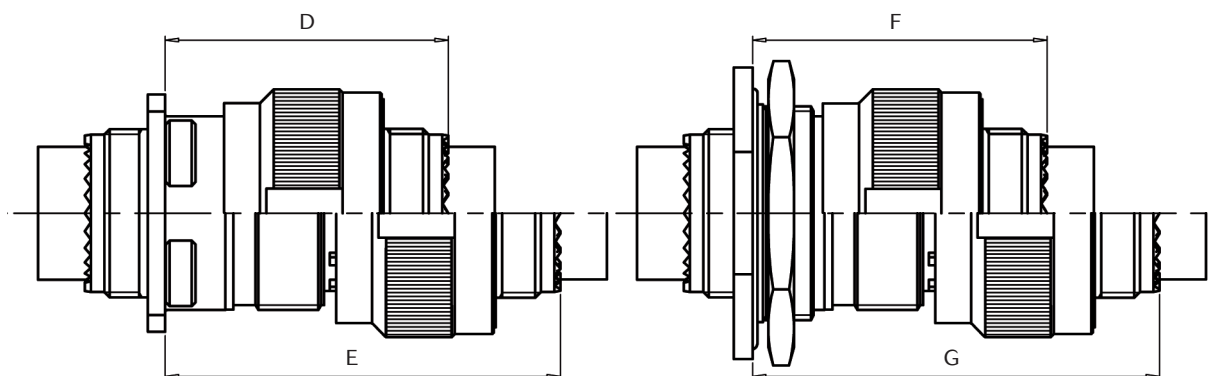
\* See pages 5 & 6  
All dimensions are in millimeters.

# 38999 Series III

## ELIO® Fiber Optic Backshell Range



**Total length with backshell**



	D		E		F		G	
	Shell size 09 to 19	Shell size 25	Shell size 09 to 19	Shell size 25	Shell size 09 to 11	Shell size 13 to 25	Shell size 09 to 11	Shell size 13 to 25
Plug + Receptacle Type 0 - 7 Metal	37.00 Max	36.00 Max	52.30 Max	51.30 Max	38.30 Max	38.50 Max	53.60 Max	53.80 Max
Plug + Receptacle Type 0 Composite	37.00 Max	36.00 Max	52.30 Max	51.30 Max	N/A	N/A	N/A	N/A

All dimensions are in millimeters.

For further information contact us at [contactmilaero@souriau.com](mailto:contactmilaero@souriau.com)  
or visit our web site [www.souriau.com](http://www.souriau.com)