



SolderSleeve Device for Space Applications

LOW OUTGASSING AND RESISTANCE TO EXTREME TEMPERATURES FOR SATELLITES IN LOW EARTH ORBIT (LEO) CONSTELLATIONS



Description

TE Connectivity (TE)'s SolderSleeve device for space is our response to support the critical requirements of the space industry. This product is designed and developed for applications within this vertical market (including LEO satellites) which require low outgassing and resistance to extreme temperatures. SolderSleeve device for space helps provide reduced size, weight and power (SWaP) and environmentally protected shield termination on cables as well as insulation, protection and strain relief. This product can be used for splicing wires as well as shield terminations.

The space industry also demands solutions which have minimal to zero levels of foreign object damage (FOD) in key applications. The use of flux free solder leaves no traces of particles post installation and the sealing rings helps ensure that the installation remains intact.

SolderSleeve device for space can be used for silver plated cables. In addition, standard tools such as the heat gun and reflector will work and follow the RCPS-100-70.

CONVENIENT

- Heat shrinkable technology for one-step shield results in easy inspection

FAST

- Transparent insulation sleeve saves time during installation

RUGGED

- Provides strain relief with ratings of up to 150°C

EASY

- Minimal tools required to achieve connection, insulation and protection

RELIABLE

- Inhouse design and quality controlled process offers reliability and traceability

SPECIFICATIONS

- **Electrical:** Millivolt drop < 4.0 mV
- **Mechanical:** Tensile strength of 15 lbs
Vibration up to 15 g

APPLICATIONS

- Small, nano and cube satellites for LEO constellations
- Launch pads

QUALIFICATIONS

- Tested and qualified for low outgassing parameters which are consistent with TE specification 108-160024, ASTM E-595 (ECSS-Q-ST-70-02C) and RT-1404

TOOLING

- Standard TE offered tooling for installation



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Product Name	Part Number	Product Dimension					Cable Dimension					
		L ± 1.75 (L ± 0.07)	ØA Min	ØB Min	C ± 1.5 (C ± 0.06)	H Min	ØE Max	ØF Min	ØG Min	ØD Max	J ± 0.5 (J ± 0.02)	
S01-6-R	EM7793-000	22.0 (0.866)	4.445 (0.175)	3.10 (0.120)	7.0 (0.275)	6.00 (0.236)	3.00 (0.118)	1.40 (0.055)	0.75 (0.030)	2.65 (0.105)	7.5 (0.295)	
S01-7-R	EM7794-000	23.0 (0.906)	5.918 (0.233)	4.95 (0.194)	7.0 (0.275)	6.00 (0.236)	4.90 (0.193)	2.15 (0.085)	1.25 (0.050)	4.30 (0.170)	7.5 (0.295)	
S01-8-R	EM7795-000	24.0 (0.945)	7.214 (0.284)	6.32 (0.248)	7.0 (0.275)	6.00 (0.236)	6.30 (0.248)	3.30 (0.130)	1.80 (0.070)	5.95 (0.235)	7.5 (0.295)	

mm (inches)



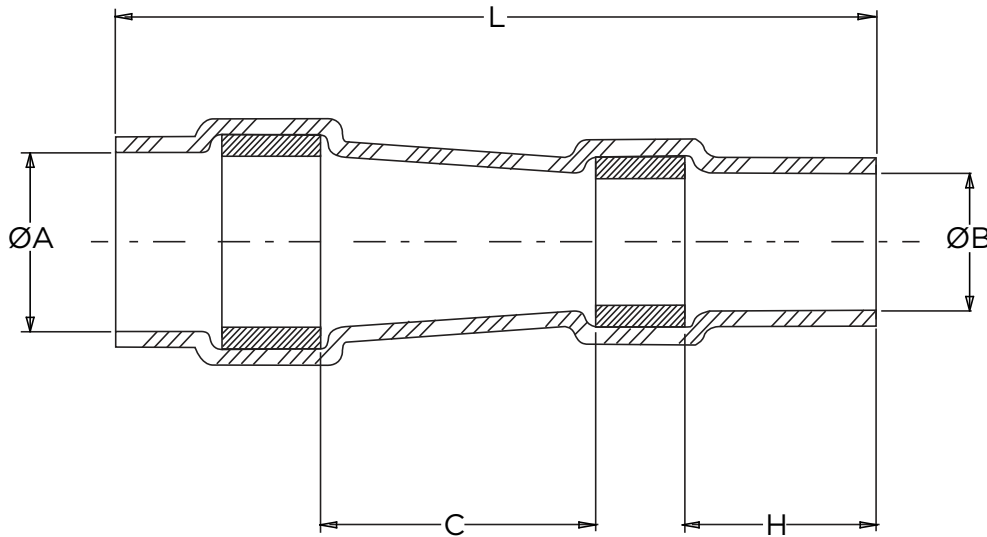
S01-6-R



S01-7-R



S01-8-R



MATERIALS

Insulation Sleeve: Heat-shrinkable, transparent blue, radiation cross-linked polyvinylidene fluoride

Barrier Ring: Thermoplastics

Solder Preform without Flux:

Solder: Type Sn63 per ANSI-J-STD-006

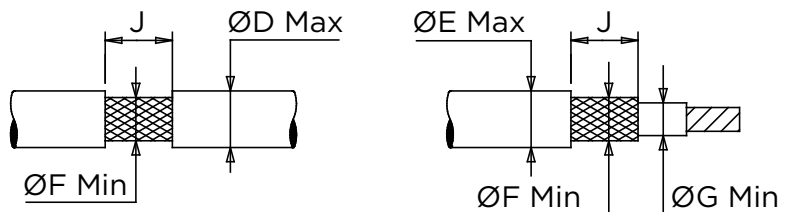
Flux: None

Application

1. These parts are designed to provide shield termination on cables meeting the following criteria:

Dimensions: Per table. **Jacket Rating:** 150°C. **Shield Plating:** Silver. **Jacket Material:** Polyimide Insulated Cables.

2. For assembly information, refer to TE's Raychem document RCPS-100-70.



For best results, prepare the cable as shown above

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QUALITY STARTS WITH THE RIGHT APPLICATION TOOLING

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TE Connectivity
Aerospace, Defense & Marine
2900 Fulling Mill Road
Middletown, PA 17057