



AEROSPACE STANDARD

AS6479™/2

Issued 2015-07
Reaffirmed 2020-01

Splicer, Fusion, Fiber Optic, Aerospace Non-Explosion-Proof (Type II)

RATIONALE

Type II fusion splicers are designed for difficult and hazardous environments characteristic of aerospace, but specifically excluding potentially flammable or explosive atmospheres.

1. SCOPE

This detail specification defines fiber optic fusion splicers acceptable for the installation and repair of a wide range of optical fibers and cables with virtually no insertion loss, particularly in aerospace applications, but not in flammable or explosive atmospheres (Type II). The requirements for acquiring the splicer described herein shall consist of this specification and the latest issue of AS6479.

2. REFERENCES

2.1 Applicable Documents

The following publications are cited in this specification in addition to those cited in AS6479. The latest issue of all SAE publications shall apply except in cases in which referring documents call out specific versions. In the event of conflict between these documents and this standard, the contents of this standard shall govern.

2.1.1 SAE Publications

Available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 877-606-7323 (inside USA and Canada) or +1 724-776-4970 (outside USA), www.sae.org.

AS6479 Splicer, Fusion, Fiber Optic, Aerospace

3. CONFIGURATION

Representative diagrams of this Type II fusion splicer are detailed in Figures 1 through 4.

4. REQUIREMENTS

In the following sections, reference is made to each detailed requirement of AS6479. If the original language applies as-written in this detail specification, the reference is described as "applicable." If there is any deviation or alternative specification, it is described in detail.

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Documents
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4.1 General

All provisions of 4.1 of the general standard are applicable to this detail specification to the extent detailed below.

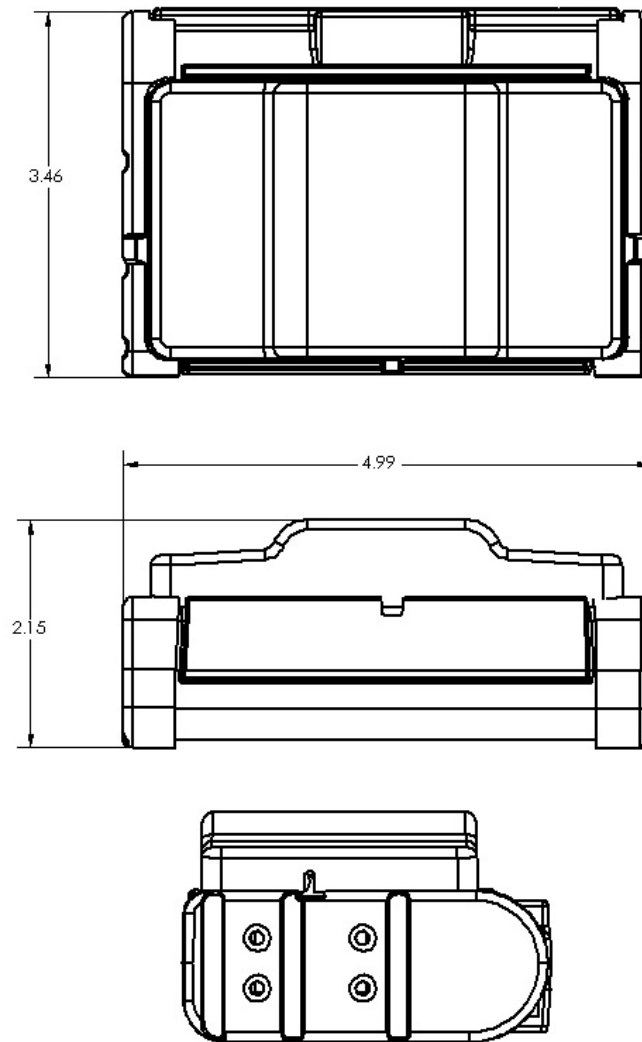


Figure 1 - Fusion splicer

4.2 Splicing Capabilities

4.2.1 Types of Fibers

Applicable.

4.2.2 Core Size Range

The fusion splicer shall be capable of making low-loss splices on silica fibers with core sizes from 5.8 to 200 μm . However, no one version of this device need splice all fiber core sizes, or core sizes larger than 100 μm may be aligned manually, not automatically, or may require special fiber holders.

4.2.3 Silica Cladding Size Range

The fusion splicer shall be capable of making low-loss splices on silica fibers with cladding diameters from 125 to 230 μm . However, no one version of this device need splice all fiber cladding sizes, or cladding diameters larger than 140 μm may be aligned manually, not automatically, or may require special fiber holders.

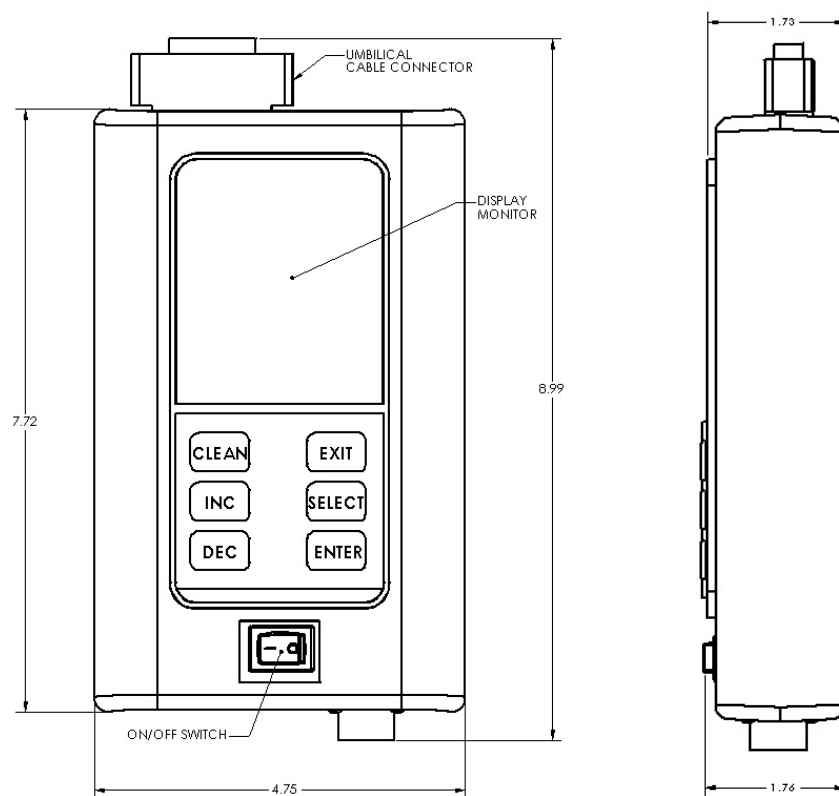


Figure 2 - Controller top and side views

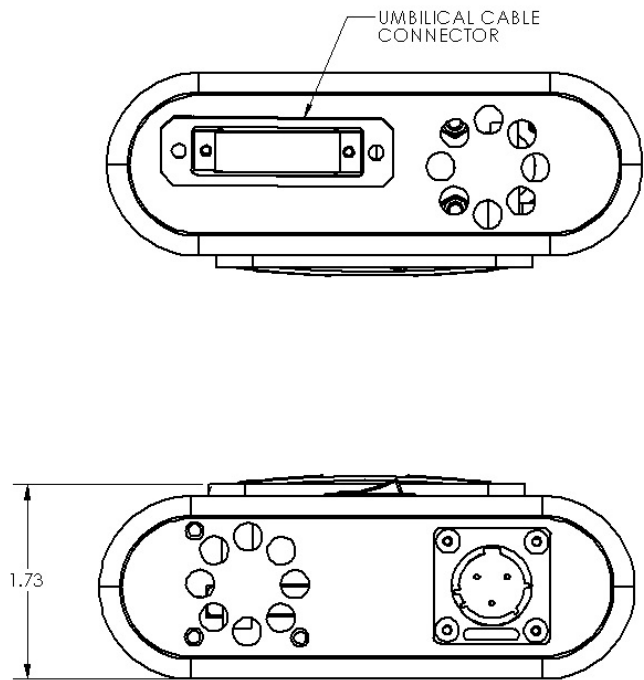


Figure 3 - Controller, end views

- NOTES
- 1. DIMENSIONS REFERENCE EXCEPT AS NOTED.
 - 2. SOCKET CONNECTOR INTERFACE IAW M8531354-F.
 - 3. PLUG CONNECTOR INTERFACE IAW M8531353-F.
 - 4. PERFORMANCE CHARACTERISTICS IAW WITH MIL-DTL-43513.
 - 5. MARK ITEM 18 AS FOLLOWS:
- HEAD END
- 6. VOLTAGE RATING: +600 V AC
 - 7. TEMPERATURE RATING: -55°C TO +125°C

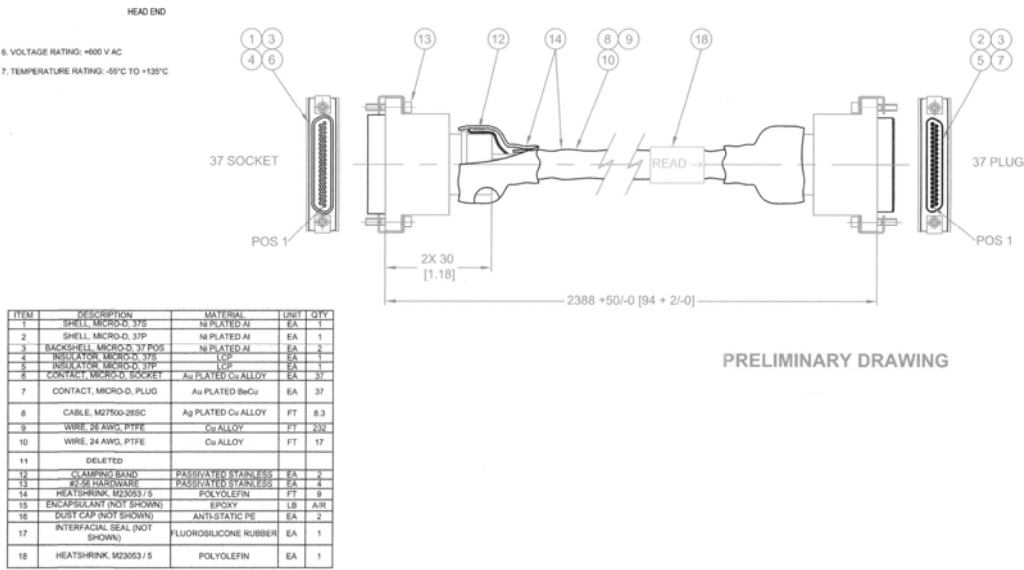


Figure 4 - Umbilical cable