



AEROSPACE STANDARD

AS5405™/1

Issued 2018-09
Reaffirmed 2024-10

Superseding MA5405/1

Mechanical Splice, Fiber Optic, Crimp and Cleave, for Aerospace Simplex Cable

RATIONALE

Fiber optic cable design characteristics are uniquely related to various aerospace vehicle applications. As a result, splices are necessarily constructed for specific cable types. Evaluation of each splice performance shall be with the cable type for which it was intended. Typically, mechanical fiber optic splices have unique assembly instructions. Splices that are qualified to the same detail specification must be assembled using the same procedure and tools. All assembly instructions shall be presented and documented in accordance with this specification.

AS5405/1 has been reaffirmed to comply with the SAE Five-Year Review policy.

1. SCOPE

This specification includes detailed requirements for a fiber optic cable splice compliant with AS5405.

2. APPLICABLE DOCUMENTS

The following publications form a part of this document to the extent specified herein. The latest issue of SAE publications shall apply. The applicable issue of other publications shall be the issue in effect on the date of the purchase order. In the event of conflict between the text of this document and references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

2.1 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.

AS5405 Mechanical Splice for Aerospace Fiber Optic Cables

2.2 U.S. Government Publications

Copies of these documents are available online at <http://quicksearch.dla.mil>.

MIL-DTL-23053 Detail Specification: Insulation Sleeving, Electrical, Heat Shrinkable, General Specification for

3. SAFETY

Applicable.

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Documents

Standard, visit Sharing Hub

4. TECHNICAL REQUIREMENTS

The following detailed specifications refer to AS5405 requirements, Section 4:

4.1 Design and Marking

AS5405/1-00x per Figure 1, and manufacturer identification per AIR1351, shall be on the splice and/or its packaging.

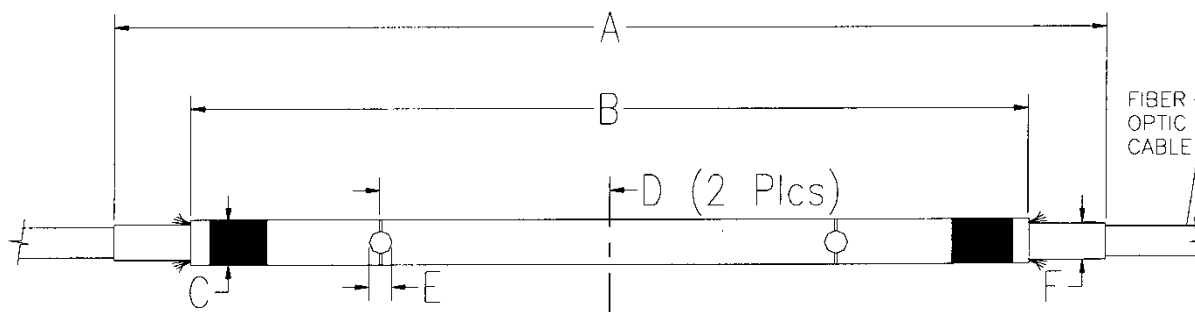


Figure 1

Table 1 - Dimensions (mm/in) (see Figure 1)

Part Number	A	B	C	D	E	F
MA5405A/1-001	82.6 ± 0.8	69.9 ± 0.4	3.76 ± 0.05	19.05 ± 0.025	1.91 ± 0.13	2.97 ± 0.025
	3.250 ± 0.032	2.750 ± 0.015	0.148 ± 0.002	0.750 ± 0.001	0.075 ± 0.005	0.117 ± 0.001
MA5405A/1-002	TBD	TBD	TBD	TBD	TBD	TBD
	TBD	TBD	TBD	TBD	TBD	TBD

4.2 Condition of Listing

Applicable

4.3 Visual and Mechanical Examination

4.3.1 Materials

The following materials shall be included in the splice:

- Stainless steel
- Heat shrink sleeve compliant with MIL-DTL-23053
- Other materials as specified in the manufacturer's documentation

No adhesives or cure cycle(s) are used. No liquid or gel materials are handled by the installer.

4.3.2 Design and Dimensions

Design, dimensions, and markings shall be as specified in Figure 1.

4.4 Assembly Instructions

Applicable, except for the following:

Piece part numbers are optional because no part can be replaced after assembly.