
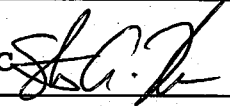

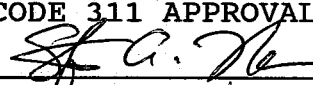
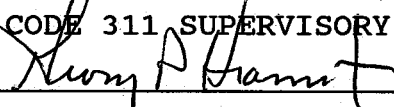


| REVISIONS | | | |
|-----------|-----------------------------|--------|---|
| SYMBOL | DESCRIPTION | DATE | APPROVAL |
| B | Drawing revised and redrawn | 9/5/91 |  |

SHEET REVISION STATUS

| | | | | | | | | | | | | | | | | | | | | |
|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| SH | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| REV | B | A | B | | | | | | | | | | | | | | | | | |
| SH | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| REV | | | | | | | | | | | | | | | | | | | | |

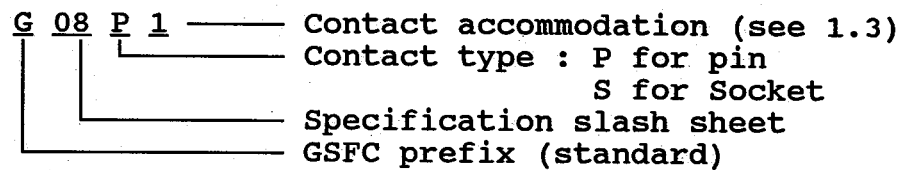
| | | |
|--|----------------|---|
| ORIGINATOR S.A. Naus/GSFC  | DATE 9/5/91 | FSC: 5935 CONTACTS, ELECTRICAL, POWER, CRIMP STYLE, REAR REMOVABLE, SIZE 22D |
| APPROVED  W.B. Thomas III/GSFC | 9-5-91 | |
| CODE 311 APPROVAL  | 9/5/91 | |
| CODE 311 SUPERVISORY APVL  | 9/5/91 | |
| ADDITIONAL APPROVAL | | S-311-P-4/08 |

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
 GODDARD SPACE FLIGHT CENTER
 GREENBELT, MARYLAND 20771

CAGE CODE: 25306 PAGE 1 OF 3

1. SCOPE.

- 1.1 Purpose. This specification delineates the requirements for rear insertable and rear removable contacts for use with electrical connectors as specified in GSFC S-311-P-4/07.
- 1.2 Contact-type designation. Contacts shall be of the following designation, and shall be ordered by their designation type only.



- 1.3 Contact accommodation. The contact accommodation shall be selected from Table I.

Table I - Contact Accommodation

| Contact Style | Designator | Wire size or cable type |
|------------------|------------|-------------------------|
| Power (Size 22D) | 1 | AWG 22-24-26-28 * |

*MIL-W-16878, Type E

2. APPLICABLE DOCUMENTS

The applicable documents, of the issue in effect on date of invitation for bid or request for proposal, form a part of this specification to the extent specified herein.

Military Specifications and Standards

MIL-C-39029 Contacts, Electrical Connector, General Specification for

Other Publications

NASA, Goddard Space Flight Center

S-311-P-4 Connector, Electrical, Rectangular, For Space Flight Use, General Specification For

S-311-P-4/07 Connector, Electrical, Rectangular, For Space Flight Use, Detail Specification For

3. REQUIREMENTS

3.1 General. The contacts shall meet all requirements of MIL-C-39029 and the requirements of the specification.

3.2 Materials, design and construction.

3.2.1 Pin contacts. The pin contact shall be in accordance with M39029/58-360, except that contact underplating shall be copper in accordance with MIL-C-14550.

3.2.2 Socket contact. The socket contact shall be in accordance with M39029/57-354, except that contact underplating shall be copper in accordance with MIL-C-14550.

3.3 Performance. The contacts shall meet the performance requirements of MIL-C-39029 and as specified herein.

3.3.1 Residual magnetism. When tested in accordance with 4.2.1 the residual magnetism shall not exceed a gamma level greater than one-tenth (1/10) times the number of contacts. The contacts shall be grouped into quantities not to exceed 500 per group. This test shall only be performed when contacts are procured separate for the connectors as specified in S-311-P-4/07.

3.4 Part marking. The individual contacts may, at the option of the manufacturer, be marked with a manufacturer's part number. Contacts shall not be marked with BIN code color bands as specified in MIL-C-39029.

4. QUALITY ASSURANCE PROVISIONS

4.1 The Quality Assurance Provisions of MIL-C-39029 except where modified herein shall be met.


4.2 Test Methods.

4.2.1 Residual magnetism. The residual magnetism test shall be performed in accordance with S-311-P-4.

5. PACKAGING. The packaging requirement shall be in accordance with S-311-P-4.

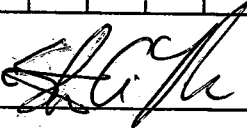



6. NOTES. None.

REVISIONS

| SYMBOL | DESCRIPTION | DATE | APPROVAL |
|--------|---------------------|--------|---|
| C | Revised and Redrawn | 6/6/91 |  |

SHEET REVISION STATUS

| | | | | | | | | | | | | | | | | | | | | |
|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| SH | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| REV | C | B | C | | | | | | | | | | | | | | | | | |
| SH | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| REV | | | | | | | | | | | | | | | | | | | | |

| | | |
|--|----------------|---|
| ORIGINATOR S.A. Naus/GSFC  | DATE 6/3/91 | FSC: 5935 |
| APPROVED W.B. Thomas/GSFC  | 6-3-91 | CONNECTORS, ELECTRICAL, RECTANGULAR, SUBMINIATURE, RACK AND PANEL, DETAILED SPECIFICATION FOR |
| CODE 311 APPROVAL  | 6/3/91 | |
| CODE 311 SUPERVISORY APVL  | 6/5/91 | |
| ADDITIONAL APPROVAL | | S-311-P-4/07 |

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
 GODDARD SPACE FLIGHT CENTER
 GREENBELT, MARYLAND 20771

CAGE CODE: 25306

The requirements for acquiring the product described herein shall consist of this specification and Goddard Space Flight Center Parts Branch Specification S-311-P-4.

REQUIREMENTS: The connectors shall conform to the design standards (MS number) indicated in Table I.

TABLE I. DESIGN STANDARDS 1/

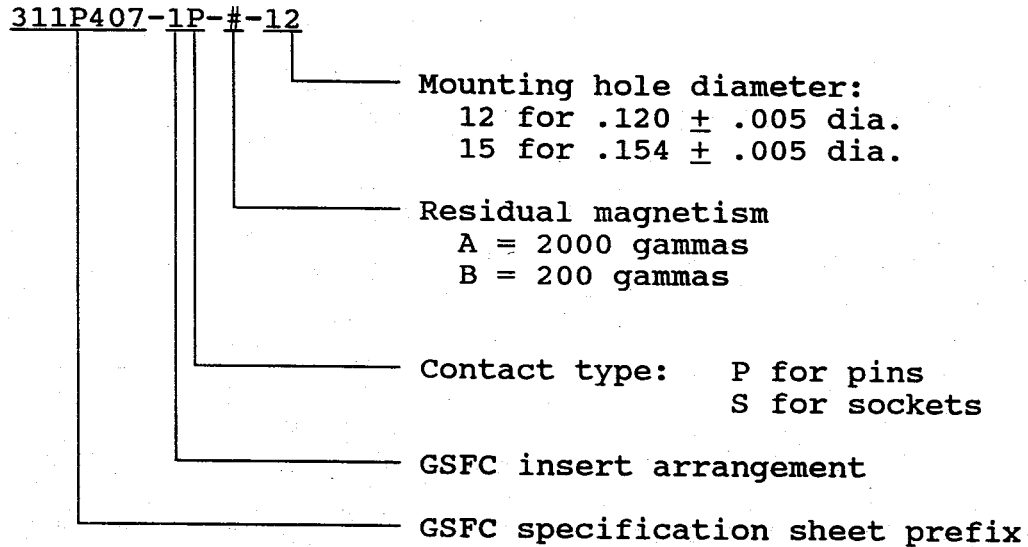
| Connector-type Designation 2/ | Shell size | Shell MS number | GSFC insert number | Insert MS number 3/ | Contact Part Number 4/ |
|-------------------------------|------------|-----------------|--------------------|---------------------|------------------------|
| 311P407-1P-B-12 | 1 | MS18271-1 | -1 | MS18273-2 | G08P1 |
| 311P407-1P-B-15 | 1 | MS18271-1* | -1 | MS18273-2 | G08P1 |
| 311P407-2P-B-12 | 2 | MS18271-2 | -2 | MS18274-2 | G08P1 |
| 311P407-2P-B-15 | 2 | MS18271-2* | -2 | MS18274-2 | G08P1 |
| 311P407-3P-B-12 | 3 | MS18271-3 | -3 | MS18275-2 | G08P1 |
| 311P407-3P-B-15 | 3 | MS18271-3* | -3 | MS18275-2 | G08P1 |
| 311P407-4P-B-12 | 4 | MS18271-4 | -4 | MS18276-2 | G08P1 |
| 311P407-4P-B-15 | 4 | MS18271-4* | -4 | MS18276-2 | G08P1 |
| 311P407-5P-B-12 | 5 | MS18271-5 | -5 | MS18277-2 | G08P1 |
| 311P407-5P-B-15 | 5 | MS18271-5* | -5 | MS18277-2 | G08P1 |
| 311P407-6P-B-12 | 6 | MS18271-6 | -6 | MS14004-1 | G08P1 |
| 311P407-6P-B-15 | 6 | MS18271-6* | -6 | MS14004-1 | G08P1 |
| 311P407-1S-B-12 | 1 | MS18270-1 | -1 | MS18273-2 | G08S1 |
| 311P407-1S-B-15 | 1 | MS18270-1* | -1 | MS18273-2 | G08S1 |
| 311P407-2S-B-12 | 2 | MS18270-2 | -2 | MS18274-2 | G08S1 |
| 311P407-2S-B-15 | 2 | MS18270-2* | -2 | MS18274-2 | G08S1 |
| 311P407-3S-B-12 | 3 | MS18270-3 | -3 | MS18275-2 | G08S1 |
| 311P407-3S-B-15 | 3 | MS18270-3* | -3 | MS18275-2 | G08S1 |
| 311P407-4S-B-12 | 4 | MS18270-4 | -4 | MS18276-2 | G08S1 |
| 311P407-4S-B-15 | 4 | MS18270-4* | -4 | MS18276-2 | G08S1 |
| 311P407-5S-B-12 | 5 | MS18270-5 | -5 | MS18277-2 | G08S1 |
| 311P407-5S-B-15 | 5 | MS18270-5* | -5 | MS18277-2 | G08S1 |
| 311P407-6S-B-12 | 6 | MS18270-6 | -6 | MS14004-1 | G08S1 |
| 311P407-6S-B-15 | 6 | MS18270-6* | -6 | MS14004-1 | G08S1 |

See footnotes at end of table

FOOTNOTES:

- 1/ These connector designated as P (for Pins) shall mate with the corresponding connector designated as S (for Sockets).
- 2/ Connectors consist of the following type designation:

Connector-type designation example:



- 3/ MS numbers identified with an asterick (*) shall have shell design and dimension in accordance with the MS number listed except that the mounting holes shall be $0.154 \pm .005$ in diameter.
- 4/ The contacts specified herein are found on GSFC S-311-P-4/8 specification. The contact insertion/extraction tool applicable to these connector is MS81969/1-04. Contacts are not supplied with connectors specified herein and must be procured separately.