

REVISIONS			
SYMBOL	DESCRIPTION	DATE	APPROVAL
B	Revise and redrawn	9/5/91	<i>S.A. Naus</i>
C	Revised per RN-166	07/08/2010	JS

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	C	C	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 <i>S.A. Naus</i>	DATE 9/5/91	FSC: 5935 CONTACTS, ELECTRICAL, CRIMP STYLE, SIZE 20
APPROVED <i>W.B. Thomas</i> W.B. Thomas/GSFC	9-5-91	
CODE 311 APPROVAL <i>S.A. Naus</i>	9/5/91	
CODE 311 SUPERVISORY/APVL <i>W.B. Thomas</i>	9/5/91	
ADDITIONAL APPROVAL		S-311-P-4/10

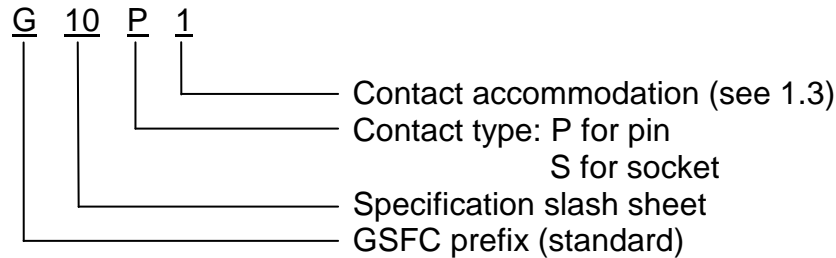
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
 GODDARD SPACE FLIGHT CENTER
 GREENBELT, MARYLAND 20771

CAGE CODE: 25306 PAGE 1 OF 4

1.0 **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-4/09.

1.2 **Connector-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.

Contact Style	Designator	Wire Size
Size 20 pins & 2-tine sockets	1	AWG#20-22-24 19-strands
Size 20 socket, band spring	2	

2.0 **APPLICABLE DOCUMENTS**

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

Industry Specifications and Standards

SAE-AS39029 Contacts, Electrical Connector, General Specification For

Other Publications – Goddard Space Flight Center

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

S-311-P-4/09 Connector, Electrical Rectangular, For Space Flight Use,
Detail Specification For

3.0 **REQUIREMENTS**

3.1 General The contacts shall meet all the requirements of SAE-AS39029 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 SAE-AS39029/64-369, except the contact underplating shall be copper in accordance with SAE-AMS-2418.

3.2.2 Socket contact The G10S1 and G10S2 socket contacts shall be in accordance with SAE-AS39029/63-368, except contact underplating shall be in accordance with SAE-AMS-2418.

3.3 Performance The contacts shall meet the performance requirements of SAE-AS39029 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 from the connectors as specified in S-311-P-4/09.

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 SAE-AS39029.

4.0 **QUALITY ASSURANCE PROVISIONS**

4.1 The Quality Assurance Provisions of SAE-AS39029 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.

4.2.2 **Contact Engagement** Individual G10S2 socket contacts shall be 100 percent inspected prior to shipment for retention:

- a. The sockets shall be pre-conditioned by inserting a maximum diameter gage pin, per SAE-AS31971, one time into the socket.
- b. A minimum gage pin diameter, per SAE-AS31971, with a 40 gram mass attached, shall be inserted one time into the socket. Sockets failing to retain the minimum gage pin shall be rejected.

4.2.3 **Reports** For each lot of the G10S2 sockets, the supplier shall maintain material traceability, plating tests and socket retention pass/fail results for a period of 7 years. Data shall be made available upon request by the GSFC parts engineering activity.

5.0 **PACKAGING**

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

6.0 **NOTES** None