



**estec**

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For the attention of Mr O. Masson

**Your ref.**            72R  
**Our ref.**            TEC-QES/HHE/171108

**Noordwijk, 24 November 2017**  
**Subject: ESCC Qualification Certificate for Connectors**

Dear Sir,

We are pleased to inform you that, based on a review of the Lot Acceptance Test Report by the ESCC Executive, your plant in Dole, France remains qualified for the supply of Connectors, Electrical, Crimp Contacts, Rectangular Receptacle and Plug, based on Type D\*MA.

Please note that, as specified in the relevant Certificate, the qualification status of the subject devices will be valid until September 2019.

If after this date, you wish to maintain the qualification status, you are required to notify your ESCC Executive Representative (ie. CNES, Toulouse) by letter, copying the ESCC Executive Secretariat (address above, Attention TEC-QES), 2 months before the actual expiry date. At the same time, you should then provide ESCC Executive Representative with the following documents:

- Certificate of Compliance.
- List of agreed changes – if any – in manufacturing processes and/or materials used.
- List of hi-rel components supplied by your above mentioned plant during the preceding period (including the identification of the procurement testing level).
- Test evidence.

Upon receipt of these items and after investigation into your customers' experience regarding delivery times and quality of components supplied for European space projects, your ESCC Executive Representative will forward to the ESCC Executive an application for extension of Qualification Approval.

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The ESCC Executive will:

- (a) if its findings are satisfactory immediately extend the qualification period by 2 years
- (b) if the situation is not satisfactory define the actions required to achieve a maintenance of qualification status.

Please be reminded that it is not permitted to mark components for space application with the ESA symbol after the qualification validity period has expired.

Yours faithfully,

A handwritten signature in blue ink, appearing to read 'B. Schade'.

B. Schade  
Head of the Product Assurance  
and Safety Department

Encl.

cc.  
J.P. Bussenot, CNES, Toulouse  
A. Pesce, ESA, TEC-QES

6.2.2 Multipin, Crimp Contacts

| CONNECTORS, ELECTRICAL, CRIMP CONTACTS,<br>RECTANGULAR RECEPTACLE AND PLUG,<br>BASED ON TYPE D*MA  |                                  |                    |                       | 72R                        |
|--|----------------------------------|--------------------|-----------------------|----------------------------|
| Procurement Specifications   | Manufacturer                     | Nature of Approval | Supervising Authority | Initial Qualification Date |
| Generic<br>ESCC 3401<br>Detail ESCC  | C&K Components<br>Dole<br>France | Qualification      | CNES                  | Feb 1981                   |
| Remarks  |                                  |                    |                       |                            |
| 3401/002, 3401/005, 3401/020, 3401/021   |                                  |                    |                       |                            |
| <p>Qualified range:</p> <p>Complete range defined in the corresponding Detail Specifications are qualified.</p> <p>Shell size: E, A, B, C, D, F</p> <p>Range of Connectors: 3401/002: Variants 01 &amp; 02</p> <p>Range of Contacts: 3401/005: variants 01 to 08<br/>3401/020 variants 01 &amp; 02<br/>3401/021: variants 01 &amp; 02</p> <p>9, 15, 25, 37 and 50 size 20* contacts for standard density layout<br/>15, 26, 44, 62, 78 and 104 size 22** contacts for high density layout</p> <p>*Accepts wire sizes :<br/>-AWG # 20 to 24 (standard bucket: variants 01 and 02) per 3401/005<br/>-AWG # 26 and 28 (reduced bucket: variants 03 and 04) per 3401/005<br/>-AWG # 18 and 20 (large bucket: variants 05 to 06) per 3401/005</p> <p>** Accepts wire sizes<br/>AWG # 22 to 26 (standard bucket: variants 07 to 08) per 3401/005</p> <p>Mounting Type: Blank: standard mounting holes; Y: floating mount; E: captive nuts</p> <p>Connector Savers; For usage with above connector range</p> <p>Gold-plated non-magnetic coating</p> <p>Operating Temperature Range (°C): -55 to +125</p> |                                  |                    |                       |                            |





**european space agency**  
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## **Certificate of Qualification No. 72R**

This is to certify that C&K Components, Dole, France has been qualified by ESA for the supply of Connectors, Electrical, Crimp Contacts, Rectangular Receptacle and Plug, based on Type D\*MA for use in ESA space programmes, according to ESCC Generic Specification 3401 and associated Detail Specifications (see QPL) as recommended by the Space Components Steering Board.

**This certificate is valid until September 2019.**

A handwritten signature in blue ink, appearing to be 'R. K. ...'.

**Head of the Product Assurance  
and Safety Department**

**Date**  
**24 November 2017**