



APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL

Component Title: CONNECTORS, ELECTRICAL, RECTANGULAR, REMOVABLE CRIMP CONTACTS, BASED ON TYPE D*MA
 Executive Member: CNES Date: 03/11/2023

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Components (including series and families) submitted for Extension of Qualification Approval:

ESCC COMPONENT NO.	VARIANTS	RANGE OF COMPONENTS	BASED ON	TEST VEHICLE / S	COMPONENT SIMILAR
3401/002	01	Connectors Shell size : E, A, B, C, D, Standard density layout : 9, 15, 25,37, 50 size 20 contacts Mounting Type: Blank: standard mounting holes; Y: floating mount; E: captive nuts Accepts wire sizes: -AWG # 20 to 24 (standard bucket:variants 01 and 02) per 3401/005 -AWG # 26 and 28 (reduced bucket:variants 03 and 04) per 3401/005 AWG # 18 and 20 (large bucket:variants 05 to 06) per 3401/005,	D*MA	See test report	D*M
3401/002	02	Connectors Shell size : E, A, B, C, D, F High density layout : 15, 26, 44, 62,78, 104 size 22 contacts Mounting Type: Blank: standard mounting holes; Y: floating mount; E: captive nuts Accepts wire sizes : AWG # 22 to 26 (standard bucket: variants 07 to 08) per 3401/005			
3401/005	01 to 08	Contacts			
3401/020	01	Connector Savers Shell size : E, A, B, C, D, Standard density layout : 9, 15, 25,37, 50 size 20 contacts			
3401/020	02	Connector Savers Shell size : E, A, B, C, D, F High density layout : 15, 26, 44, 62,78, 104 size 22 contacts			
3401/021	01 and 02	Contacts Savers			
3401/097	01 and 02 (4 ways)	Space Splice			

Component Manufacturer C&K Connect	2	Location of Manufacturing Plant(s) 2 rue Berthollet 39105 DOLE Cedex France	3	Date of original qualification approval: Date: 12/02/1981 Certificate Ref No. 72	4
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ESCC Specifications used for Maintenance of qualification testing: Generic: 3401 Issue: 5 Detail(s): 3401/002 Issue: 13 3401/005 Issue: 10 3401/020 Issue: 9 3401/021 Issue: 5 3401/097 Issue: 1	5	Deviations to LVT testing and Detail Specification used: No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> (supply details in Box 15) Deviation from current Specifications: No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> (Supply details)	6	Qualification Extension Report reference and date: PV D230153C 24/03/2023 (connectors test report) PV D230151C 24/03/2023 (contacts test report)	7
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Summary of procurement or equivalent test results during current validity period in support of this application (those to ESCC listed first)				
Project Name	Testing Level	LAT	Date code	Quantity Delivered
See file ventes 2021_2022_2023.xls				
PID changes since start of qualification		9	Current PID Verified by:	10
None	<input type="checkbox"/>		Nouals François, CNES	
Minor*	<input checked="" type="checkbox"/>		Name of Executive Representative	
Major*	<input type="checkbox"/>		Ref No: CS-FR009	
*Provide details in box:			Issue: 2 rev R	Date: 15/09/2023
			Rev Date: 01/09/2023	
Current Manufacturing facilities surveyed by: Nouals François, CNES & D. Lacombe, ESA				on 09/07/2024
(Name of Executive Representative)				(Date)
Satisfactory:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Explain	
Report Reference:	DTN-QE-CQ-2024.0009638			
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Non compliance to ESCC requirements:

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No.:	Specification	Paragraph	Non compliance

Additional tasks required to achieve full compliance for ESCC qualification or rationale for acceptability of noncompliance:

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Executive Manager Disposition

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Application Approval: Yes No

Action / Remarks:

Date:

B. Schade: Head of the Product Assurance and Safety Department



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Failure Analysis, DPA, NCCS available: Yes No (supply data)

Ref. No's and purposes: 1CCNK401

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The undersigned hereby certifies on behalf of the ESCC Executive - that the above information is correct; - that the appropriate documentation has been evaluated; - that full compliance to all ESCC requirements is evidence (except as stated in box 15;) - that the reports and data are available at the ESCC Executive and therefore applies on behalf of CNES as the responsible Executive Member for ESCC qualification status to be extended to the component(s) listed herein.

Date: 03/11/2023

Gianandrea Quadri
G. QUADRI CNES
(Signature of the Executive Coordinator)

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Continuation of Boxes above:



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ANNEX 1: LIST OF TESTS DONE TO SUPPORT EXTENSION OF QUALIFICATION

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Tests conducted in compliance with:

- ESCC 3401 generic specification; Chart V (for ESCC/QPL parts);
- Or PID-TFD (for ESCC/QML parts)

Tests vehicle identification/description:

DBMAY25PNMB, DAMA26PNMB, DABMA26PSNMB, DEMA15SNMB,	Environmental and Mechanical Sub-Group
DDMA50PNMB	Endurance Sub-Group

Detail Specification reference: 3401/002 and 3401/020

Chart V	Test	Tick when done	Conditions	Date Code	Tested Qty	No. of Rejects	Comments if not performed. Comments on Rejection
Environmental and Mechanical Subgroup	Wiring	<input checked="" type="checkbox"/>	ESCC 3401 Para. 9.10	2302	3	0	
	Climatic Sequence	<input checked="" type="checkbox"/>	ESCC 3401 Para. 9.13	2302	4	0	
	Permanence of Marking	<input checked="" type="checkbox"/>	ESCC 24800	2302	4	0	
	Corrosion	<input checked="" type="checkbox"/>	IEC Publication No. 68-2-11	2302	4	0	
	Seal Test	<input type="checkbox"/>	ESCC 3401 Para. 9.9				Not applicable
	Plating Thickness	<input checked="" type="checkbox"/>	ESCC 3401 Para. 5.2.3	2302	4	0	In batches traceability
Endurance Subgroups	Wiring	<input checked="" type="checkbox"/>	ESCC 3401 Para. 9.10	2302	1	0	
	Rapid change of Temperature	<input checked="" type="checkbox"/>	ESCC 3401 Para. 9.16	2302	1	0	
	Contact Retention	<input checked="" type="checkbox"/>	ESCC 3401 Para. 9.17	2302	10 cts		
	Maintenance Ageing	<input checked="" type="checkbox"/>	ESCC 3401 Para. 9.27	2302	10 cts	0	
	Endurance	<input checked="" type="checkbox"/>	ESCC 3401 Para. 9.18	2302	1	0	
	Seal Test	<input type="checkbox"/>	ESCC 3401 Para. 9.9	2302			Not applicable
	Joint Strength	<input checked="" type="checkbox"/>	ESCC 3401 Para. 9.15	2302	10 cts	0	
	Engage/Separ. Forces	<input checked="" type="checkbox"/>	ESCC 3401 Para. 9.28	2302	20 cts	0	
	Oversize Pin Exclusion	<input checked="" type="checkbox"/>	ESCC 3401 Para. 9.29	2302	20cts	0	
	Probe Damage	<input checked="" type="checkbox"/>	IEC Publication No. 512-8	2302	20 cts	0	
Additional Tests		<input type="checkbox"/>					
		<input type="checkbox"/>					
		<input type="checkbox"/>					



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NOTES ON THE COMPLETION OF THE APPLICATION FORM FOR ESCC QUALIFICATION EXTENSION APPROVAL

ENTRIES

- Form heading shall indicate: - the title of the component as given in its detail specification or the name of the series, family; - the Executive Member; - the entering date; - the certificate number and its sequential suffix.
- Box 1 shall provide details given in the table; in particular there shall be listed: - the variants or range of variants; - the range of components (the ESCC code is recommended to indicate the values or values range, the tolerance, the voltage, etc); the designation given in the detail specification as 'base on'; - under Test Vehicle enter either an ESCC code or the specific characteristic capable of identifying the component tested (e.g., voltage of coil for a relay); - under component similar enter a cross if relevant.
- Box 2; 3 and 4 As per QPL entry; otherwise, an explanation of the changes must be supplied.
- Box 5 Will show the ESCC Generic and Detail specifications, including issue number and revision letter, current at the time the tests reported were performed. If the specifications are different from those current on the date of the application, see Box 6.
- Box 6 Will show the deviations from the Generic and Detail Specifications listed in Box 5, in particular deviations from testing. In case of deviations this must be listed in Box 15. In case the referenced specification in Box 5 have currently a different issue and/or revision indicate also whether the test data deviates or not from such current documents.
- Box 7 Must reference the report(s) supplied in support of the application.
- Box 8 Should provide the details of procurement to the full ESCC System, documentation of all of which should already have been delivered to the ESCC Executive under the terms of the relevant Generic Specification. An appropriate table has been drawn in this box.
- Box 9 If the PID evolved after the Original Qualification or after the last Extension of Qualification, adequate details of such evolution shall be provided together with the reasons for the changes. Major changes shall be clearly marked.
- Box 10 Identify the current PID issue status, date and actual date of verification. The date of verification of the current PID should be arranged as close as possible to the required date of extension.
- Box 11 This box can be completed only after a physical visit to the plant to confirm that no unexplained changes occurred and that the practices, procedures, material, etc. used in manufacturing the components are as described in the PID. This survey shall be carried out in accordance with the requirements of ESCC Basic Specification No. 20200 and its findings shall be recorded.
- Box 12 Provide details of, or reference to, any Destructive Physical Analysis (DPA) and Failure Analysis reports as well as any Nonconformance(s) (NCCS) occurred during the qualification validity period, stating if established corrective action have produced satisfactory results.
- Box 13 Enter only the name of the Executive Member (i.e., CNES, DLR, ESTEC, etc.) and the signature of the responsible Executive Coordinator.
- Box 14 To be used when there is a need to expand any of the boxes from 1 through 12. Identify box affected and reference the Box 14 in the relevant Box. Box 14 can be broken into 14a, 14b, etc. if several boxes have to be expanded.
- Box 15 Fill in Table as requested.
- Box 16 Any additional action deemed necessary by the Executive Member to bring the submitted data to a standard likely to be accepted by the ESCC Executive should be listed herein or the reason(s) to accept the noncompliance.
- Box 17 All Executive Manager recommendations on the application itself, special conditions or restrictions, modifications of the QPL or QML entry, letters to the manufacturer, etc. shall be entered clearly in Box 19, signed by the representative for ESA, and dated.
- Box 18 Fill in Table as requested.
- Box 19 Confidential Details of PID changes including those of a confidential nature, shall be provided.
- Box 20 State noncompliance with reference to specification(s) and paragraph(s). To simplify reference in Box 16 each nonconformance shall be sequentially numbered. If relevant state 'None'.
- Box 21 Any additional action deemed necessary by the Executive Member to bring the submitted data to a standard likely to be accepted by the ESCC Executive should be listed herein or the reason(s) to accept the noncompliance.
- Box 22 Additional Comments.