



APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL

Component Title: **CONNECTORS, ELECTRICAL, RECTANGULAR, REMOVABLE CRIMP CONTACTS BASED ON TYPE D*MA**
 Executive Member: **CNES** Date: 29/07/2022

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

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ESCC COMPONENT NO.	VARIANTS	RANGE OF COMPONENTS	BASED ON	TEST VEHICLE / S	COMPONENT SIMILAR
3401/002	01 & 02	Complete range as defined in the Detail Specifications except high density 104 contacts arrangement are qualified Range of Contacts: - 9, 15, 25, 37 and 50 contacts size 20 for standard contact arrangements - 15, 26, 44, 62, 78 contacts size 22 for high density contact arrangements Gold-plated non-magnetic coating Operating Temperature Range (°C): -55 to +125	D*MA	3401 002 02B DBMA 3401 002 02B DAMA 3401 002 01B DCMA 3401 002 01B DCMA	
3401/005	01 to 08	Contacts: variants 01 & 02: standard bucket for wire sizes AWG # 20 to 24 variants 03 & 04: reduced bucket for wire sizes AWG # 26 and 28 variants 05 & 06: large bucket for wire sizes AWG # 18 and 20 variants 07 & 08: high density standard buckets for wire sizes AWG # 22, 24 and 26		340100501B 340100502B 340100503B 340100504B 340100505B 340100506B 340100507B 340100508B	
3401/020	01 & 02	Connector Savers - For usage with above connector range		3401 020 01B DCBMA 3401 020 02B DABMA	
3401/021	01 & 02	Contacts - For usage with above connector saver range			

Component Manufacturer SOURIAU	2	Location of Manufacturing Plant(s) 3 Rue du Vallon 94440 Marolles en Brie France	3	Date of original qualification approval: Date: 05/08/1988 Certificate Ref No. 156	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 10 3401/020 9 3401/021 5	5	Deviations to LVT testing and Detail Specification used: No <input type="checkbox"/> Yes <input checked="" 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 8949-21-068, Issue A, 06/06/22 GP-PV 22097S Issue A, 19/07/22	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

PID changes since start of qualification None <input type="checkbox"/> Minor* <input checked="" type="checkbox"/> Major* <input type="checkbox"/> *Provide details in box:	9	Current PID Verified by: <u>Nouals François, CNES</u> Name of Executive Representative Ref No: ZQU 92 M 153 Issue: V Date: 26/07/2022 Rev Date: 01/04/2022	10
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Current Manufacturing facilities surveyed by: <u>François NOUALS, CNES</u> on <u>12/07/2022</u> (Name of Executive Representative) (Date)	
Satisfactory: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Explain	
Report Reference: <u>CRIM : Visite Souriau du 12 Juillet 2022</u>	



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

Ref. No's and purposes:

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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: 29/07/2022

G. QUADRI
(Signature of the Executive Coordinator)

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Continuation of Boxes above:



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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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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:

Tableau 1 – Echantillonnage

Serie	Références	Brochage	Répartition			
			LAT 1	LAT 2	Screw Lock	Raccords
D*M	3401 001 01B DEM 9PNMB OL3	Connecteurs Taille E 9#20	1 couple	1 couple	3401 022 01BNMB	/
	3401 001 01B DEM 9SNMB				3401 072 01BNMB	3401 072 05BNMB
	3401 001 01B DBM 9W4PNMB	Connecteurs Taille B 4#8 & 5#20	1 couple	1 couple	3401 022 01BNMB	3401 072 48BNMB
	3401 001 01B DBM 9W4SNMB				3401 072 01BNMB	3401 072 53BNMB
	3401 001 01B DCM 21WA4PNMB	Connecteurs Taille C 4#8 & 17#20	1 couple	1 couple	3401 022 48B	3401 072 08BNMB
	3401 001 01B DCM 21WA4SNMB				3401 022 03BNMB	3401 072 54BNMB
	3401 001 01B DBM 25PNMB 1A7N	Connecteurs Taille B 25#20	1 couple	1 couple	3401 022 01BNMB	/
3401 001 01B DBM 25SNMB Z				3401 022 65BNMB	/	
D*BMA	3401 001 02B DAM 26PNMB OL3	Connecteurs Taille A 26# 22	1 couple	1 couple	3401 022 01BNMB	/
	3401 001 02B DAM 26SNMB 1CON				3401 022 65BNMB	/
D*BMA	3401 020 01B DCBMA 37PSNMBFO	Savers Taille C 37#20	1	1	3401 022 06BNMB	/
	3401 020 02B DABMA 26PSNMBFO	Savers Taille A 26#22	1	1	3401 022 55BNMB	/
D*MA	3401 002 01B DCMAG 37PNMBFO	Connecteurs Taille C 37#20	1 couple	1 couple	3401 022 01BNMB	/
	3401 002 01B DCMAG 37SNMBFO				3401 022 03BNMB	/
	3401 002 01B DDMA 50PNMBFO	Connecteurs Taille D 50#20	1 couple	1 couple	3401 022 01BNMB	3401 072 60BNMB
	3401 002 01B DDMA 50SNMBFO				3401 072 02BNMB	3401 072 55BNMB
	3401 002 02B DAMA 26PNMBFO	Connecteurs Taille B 26#22	1 couple	1 couple	3401 022 01BNMB	3401 072 37BNMB
	3401 002 02B DAMA 26SNMBFO				3401 022 65BNMB	3401 072 42BNMB
	3401 002 02B DBMAG 44PNMBFO	Connecteurs Taille B 44#22	1 couple	1 couple	3401 022 66BNMB	/
3401 002 02B DBMAG 44SNMBFO				3401 022 01BNMB	/	

3401 005 01B	Broche #20 Fût normal	10
3401 005 02B	Douille #20 Fût normal	10
3401 005 03B	Broche #20 Fût réduit	10
3401 005 04B	Douille #20 Fût réduit	10
3401 005 05B	Broche #20 Fût expansé	10
3401 005 06B	Douille #20 Fût expansé	10
3401 005 07B	Broche #22	10
3401 005 08B	Douille #22	10

Detail Specification reference: 3401/002, 3401/005, 3401/020, 3401/021

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	2108	8		
	Climatic Sequence	<input checked="" type="checkbox"/>	ESCC 3401 Para. 9.13	2108	8		
	Permanence of Marking	<input checked="" type="checkbox"/>	ESCC 24800	2108	8		
	Corrosion	<input checked="" type="checkbox"/>	IEC Publication No. 68-2-11	2108	8		
	Seal Test	<input type="checkbox"/>	ESCC 3401 Para. 9.9		0		NA
	Plating Thickness	<input checked="" type="checkbox"/>	ESCC 3401 Para. 5.2.3	2108	8		
Endurance Subgroups	Wiring	<input checked="" type="checkbox"/>	ESCC 3401 Para. 9.10	2108	8		
	Rapid change of Temperature	<input checked="" type="checkbox"/>	ESCC 3401 Para. 9.16	2108	8		
	Contact Retention	<input checked="" type="checkbox"/>	ESCC 3401 Para. 9.17	2108	8		
	Maintenance Ageing	<input checked="" type="checkbox"/>	ESCC 3401 Para. 9.27	2108	8		
	Endurance	<input checked="" type="checkbox"/>	ESCC 3401 Para. 9.18	2108	8		
	Seal Test	<input type="checkbox"/>	ESCC 3401 Para. 9.9		0		NA
	Joint Strength	<input checked="" type="checkbox"/>	ESCC 3401 Para. 9.15	2108	8	1	Voir PV GP-PV 22097S Issue A, 19/07/22 nota 1
	Engage/Separ. Forces	<input checked="" type="checkbox"/>	ESCC 3401 Para. 9.28	2108	8		
	Oversize Pin Exclusion	<input checked="" type="checkbox"/>	ESCC 3401 Para. 9.29	2108	8		
	Probe Damage	<input checked="" type="checkbox"/>	IEC Publication No. 512-8	2108	8		
Additional Tests		<input type="checkbox"/>					
		<input type="checkbox"/>					
		<input type="checkbox"/>					

Nota 1 :

Gauges 26 and 28 (these ones are not include in the qualification range) have been applied during the joint strength. A new Test has been performed successfully with the gauges in the range of the ESCC qualification perimeter.



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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.