

Component Title:

CONNECTORS, ELECTRICAL, RECTANGULAR, NON-REMOVABLE SOLDER BUCKET, PCB AND WIRE-WRAP CONTACTS AND REMOVABLE COAXIAL AND POWER CONTACTS BASED ON TYPE D\*M

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Appl. No.

Executive Member: CNES Date: 29/07/2022 155Q 1 Components (including series and families) submitted for Extension of Qualification Approval: **ESCC** BASED COMPONENT VARIANTS RANGE OF COMPONENTS COMPONENT NO. VEHICLE / S ON SIMILAR 3401/001 01 & 02 Range of Contacts: Size 20: 9, 15, 25, D\*M 3401 001 02B DAM 37 and 50 contacts. Size 22: 15, 26, 44, 3401 001 01B DCM 62, 78 contacts. - Coaxial 3401 001 01B DBM and power contacts and arrangement 3401 001 01B DEM Mounting Type: blank: standard mounting holes Y: floating E: captive mount nuts. Gold-plated non-magnetic coating Operating Temperature Range (°C): -55 to +125 Complete range as defined in detailed specification is qualified except : - High density 104 contacts arrangement 3401/022 01 to 16 & 44 to 57 3401 022 01,03,06, & 65 to 80 53,65,66,73 3401/072 01 to 65 3401 072 01, 02 05 08, 37, 42 48 53, 54, 55, 60 Contacts Coaxial Crimp-type and Solder-3401/004 01 to 20 3401 004 de 05 a 08 Type for 3401/001 Contacts Power Crimp-Type and Solder Type for 3401/001 and 3401/002 3401/040 01 to 12 3401 0040 03,04, 09 10 Connectors Component Manufacturer 2 Location of Manufacturing Plant(s) 3 4 SOURIAU 3 Rue du Vallon Date of original qualification approval: 94440 Marolles en Brie Date: 05/08/1988 France Certificate Ref No. 155 5 6 7 ESCC Specifications used for Deviations to LVT testing and Detail Specification used: Qualification Extension Report Maintenance of qualification testing: reference and date: 3401 Issue: PV 8949-21-068, Issue A, 08/06/22 (supply details in Box 15) No  $\boxtimes$ Yes Detail(s): 3401/001 11 Issue: Deviation from current Specifications: 3401/022 No Yes ☐ (Supply details) 3401/072 10 Summary of procurement or equivalent test results during current validity period in support of this application (those to ESCC listed first) 8 Project Name Testing Level LAT Date code **Quantity Delivered** See Synthèse Historique ventes SubD in appendix Current PID Verified by: PID changes since start of qualification 9 F. Nouals CNES 10 None Name of Excutive Representative Ref No: ZQU 92 M 153 Minor\*  $\boxtimes$ Major\* \*Provide details in box: Issue: Date: 12/07/2022 Rev Date: 01/04/2022 11 Current Manufacturing facilities surveyed by: François NOUALS 26/07/2022 (Name of Executive Representative) (Date) Satisfactory: Yes Explain  $\boxtimes$ No CRIM : Visite Souriau du 12 Report Reference: Juillet 2022

# APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL Page 2 CONNECTORS, ELECTRICAL, RECTANGULAR, NON-REMOVABLE SOLDER BUCKET, PCB AND WIRE-WRAP CONTACTS AND REMOVABLE COAXIAL AND POWER CONTACTS BASED ON TYPE D\*M Component title: Appl. No. Executive Member: CNES Date: 29/07/2022 155Q 12 Failure Analysis, DPA, NCCS available: (Supply data) Yes No $\times$ Ref. No's and purposes: 13 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. Gjornovale Gale Date: 29/07/2022 G. QUADRI (Signature of the Executive Coordinator) Continuation of Boxes above: 14

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6034	Page !	-		1
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		Excedite Member.	ONLO	Duto. Editificate		155Q
Non com	pliance to ESCC requirements:					15
No.:	Specification		Paragraph	Non comp	iance	
Additiona noncomp	al tasks required to achieve full co diance:	ompliance for ESCC qua	lification or rationale for acceptability	of		16
Evenutive	e Manager Disposition					
					J	17
		No 🗆				
Action / R	Remarks:					
				101		
				1011		
Date				5.6/		
Date:				B. Schade: Head of the Product	Assurance	
				and Safety Department	Assulance	



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

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

Série	Références		Répartition				
Selle	References	Brochage	LAT 1	LAT 2	Screw Lock	Raccords	
	3401 001 01B DEM 9PNMB OL3	Connecteurs Taille E 9#20	1 acualo	4 counto	3401 022 01BNMB	- 1	
	3401 001 01B DEM 9SNMB	Cormectedis Tame E 5420	1 couple	1 couple	3401 072 01BNMB	3401 072 05BNM	
	3401 001 01B DBM 9W4PNMB	Connecteurs Taille B 4#8 & 5#20	1 couple	1 couple	3401 022 01BNMB	3401 072 48BNM	
	3401 001 01B DBM 9W4SNMB	Connecteurs Tallie B 4#6 & 5#20			3401 072 01BNMB	3401 072 53BNM	
D.W	3401 001 01B DCM 21WA4PNMB	Connecteurs Taille C 4#8 & 17#20	t a sounds	1 couple	3401 022 48B	3401 072 08BNM	
U 141	3401 001 01B DCM 21WA4SNMB	Cormediate fame C 440 & 17420	1 couple		3401 022 03BNMB	3401 072 54BNM	
	3401 001 01B DBM 25PNMB 1A7N	Connecteurs Taille B 25#20	1 couple	1 couple	3401 022 01BNMB	1	
	3401 001 01B DBM 25SNMB Z	Cormected's Talle B 23#20			3401 022 65BNMB	1	
	3401 001 02B DAM 26PNMB OL3	Connecteurs Taille A 26# 22	1 couple	1 couple	3401 022 01BNMB	1	
	3401 001 02B DAM 26SNMB 1CON	Cormected a Tame A 20# 22			3401 022 65BNMB	- /	
	3401 020 01B DCBMA 37PSNMBFO	Savers Taille C 37#20	1	1	3401 022 06BNMB	1	
D*BMA					3401 022 55BNMB	- 1	
	3401 020 02B DABMA 26PSNMBFO	Savers Taille A 26#22	1	1	3401 022 48B	1	
		00V013 Tallie A 20=22			3401 022 73B	J	
	3401 002 01B DCMAG 37PNMBFO	Connecteurs Taille C 37#20	1 couple	1 couple	3401 022 01BNMB	/	
	3401 002 01B DCMAG 37SNMBFO	Connected a Tame C 37 H20			3401 022 03BNMB	- J-	
	3401 002 01B DDMA 50PNMBFO	Connecteurs Taitle D 50#20	1 couple	1 couple	3401 022 01BNMB	3401 072 60BNN	
D'MA	3401 002 01B DDMA 50SNMBFO	Cormected a Tame D 30#20			3401 072 02BNMB	3401 072 55BNN	
	3401 002 02B DAMA 26PNMBFO	Connecteurs Taille B 26#22	1 couple	1 couple	3401 022 01BNMB	3401 072 37BNN	
	3401 002 02B DAMA 26SNMBFO	OUT INSOIGNIE TOMA D'EUTEZ			3401 022 65BNMB	3401 072 42BNN	
	3401 002 02B DBMAG 44PNMBFO	Connecteurs Taille B 44#22	1 couple	1 couple	3401 022 66BNMB	1	
	3401 002 02B DBMAG 445NMBFO	001110010010 10116 D 44122	, couple	1 COUDIO	3401 022 01BNMB	1	

340100405B	Contact Coaxial Mâle #8 Droit à Souder	10
340100406B	Contact Coaxial Femelle #8 Droit à Souder	10
340100407B	Contact Coaxial Måle #8 90° å Souder	10
340100408B	Contact Coaxial Femelle #8 90° à Souder	10
340104003B	Contact de Puissance Mâle #8 à Souder AWG 12	10
340104004B	Contact de Puissance Femelle #8 à Souder AWG 13	10
340104009B	Contact de Puissance Mâle #8 à Sertir AWG 10	10
340104010B	Contact de Puissance Femelle #8 à Sertir AWG 10	10

Detail Specification reference:

3401/001, , 3401/004, 3401/022, 3401/040, 3401/072.

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	⋈	ESCC 3401 Para. 9.10	2108	8		
	Climatic Sequence	⊠	ESCC 3401 Para. 9.13	2108	8		
	Permanence of Marking	⊠	ESCC 24800	2108	8		
	Corrosion	×	IEC Publication No. 68-2-11	2108	8		
	Seal Test		ESCC 3401 Para. 9.9		0		NA
	Plating Thickness	⊠	ESCC 3401 Para. 5.2.3	2108	8		
Endurance Subgroups	Wiring	$\boxtimes$	ESCC 3401 Para. 9.10	2108	8		
	Rapid change of Temperature	×	ESCC 3401 Para. 9.16	2108	8		
	Contact Retention		ESCC 3401 Para. 9.17	2108	8		
	Maintenance Ageing		ESCC 3401 Para. 9.27		0		NA
	Endurance	⊠	ESCC 3401 Para. 9.18	2108	8		
	Seal Test		ESCC 3401 Para. 9.9		0		NA
	Joint Stength		ESCC 3401 Para. 9.15				NA
	Engage/Separ. Forces	×	ESCC 3401 Para. 9.28	2108	8		
	Oversize Pin Exclusion	⊠	ESCC 3401 Para. 9.29	2108	8		
	Probe Damage	⊠	IEC Publication No. 512-8	2108	8		



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CNES Date: 29/07/2022 Executive Member:

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# NOTES ON THE COMPLETION OF THE ADDITION FORM FOR ESCHOLIAL ISLICATION EXTENSION ADDROVAL

	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.