

		APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL				Page 1
Component Title: Connectors Miniature Electrical Circular Push-Pull Coupling Removable Crimp Contacts, based on type DBAS				Appl. No.		
Executive Member: CNES				Date: 28/07/2025		25U
Components (including series and families) submitted for Extension of Qualification Approval: 1						
ESCC COMPONENT NO.	VARIANTS	RANGE OF COMPONENTS	BASED ON	TEST VEHICLE / S	COMPONENT SIMILAR	
3401/008	01	Circular Multicontacts connectors.	DBAS	See Box 18		
3401/009	01 to 20	Standard contact arrangements with 3, 7, 12, 19, 27, 37 or 61 contacts in wire size AWG # 20.				
3401/012	01 to 04	Special contact arrangements with contacts size AWG 22, 20, 16, 12 and 8.				
3401/064	01 to 41	Operating Temperature Range (°C): -65 to +200				
Component Manufacturer 2		Location of Manufacturing Plant(s) 3	4			
TE Connectivity, Connecteurs Electriques Deutsch		17, rue Lavoisier 27000 Evreux France	Date of original qualification approval: Date: 03/07/1979			
			Certificate Ref No. 25			
5		6	7			
ESCC Specifications used for Maintenance of qualification testing:		Deviations to LVT testing and Detail Specification used: No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> (supply details in Box 15)	Qualification Extension Report reference and date: PVE 025-206 VA, 28/05/2025			
Generic: 3401 Issue: 5		Deviation from current Specifications: No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> (Supply details)				
Detail(s): 3401008 Issue: 7 3401009 issue 8 3401012 issue 4 3401064 issue 3						
8						
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 « Analyse des ventes VOQ 2025 » in appendix				1998		
PID changes since start of qualification 9			Current PID	Verified by: CNES	10	
None <input type="checkbox"/>			Name of Executive Representative			
Minor* <input checked="" type="checkbox"/>			Ref No: PID-025			
Major* <input type="checkbox"/> *Provide details in box: See box 14. Our current PID 025 issue "S" incorporates this change.			Issue: S	Date: 09/07/2025		
			Rev Date: 24/06/2025			
11						
Current Manufacturing facilities surveyed by:			François NOUALS	on	09/07/2025	
			(Name of Executive Representative)	(Date)		
Satisfactory:		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/> Explain			
Report Reference: 09_07_2025_Visite_CNES_VOQ 2025 – CR_V0						

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Failure Analysis, DPA, NCCS available: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (Supply data)			12
Ref. No's and purposes: 2CTEC201 "CAF 7037 MF (new formulation) outgassing" CLOSED			13
<p>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.</p> <p>Date: 28/07/2025</p> <p style="text-align: center;"> Fontaine Lya Signature Fontaine Lya Lya FONTAINE Date: 2025.07.28 (Signature of the Executive Coordinator) 15:57:29 +0200 </p>			
Continuation of Boxes above:			14
Continuation of box 9:			
<p>New Laser marking process.</p> <p>TE Evreux FRANCE will implement new process for the part number marking, for aluminum connectors. Laser marking will be used in addition of ink marking.</p> <p>Laser marking process will avoid, customer and internal Quality issue due to current ink marking process (legibility and marking erase). Laser process avoid "wet" processes: no management of peremption dates of ink, no time wasted du to curing process.</p> <p>Two marking configurations : laser marking on blue band painted (example : flange of DBAS 74, coupling ring of DBAS 76), laser marking on the aluminium nickel plated shell (example : shell of DBAS 70, DBAS 79).</p> <p>According to our Change Notification Form Nr. 2023-027 :</p> <ul style="list-style-type: none"> • The impact of the 2 laser marking configurations have been evaluated and validated : <ul style="list-style-type: none"> - laser marking on blue band painted : see tests report PVE 827-279. - laser marking on the aluminium nickel plated shell : see tests report PVE 827-280. • Potential impact identified, for which tests have been carried out : <ul style="list-style-type: none"> - decrease in the thickness of nickel on the laser marked area --> thickness measurement carried out. - physicochemical degradation of the nickel layer --> corrosion test (salt spray) carried out. •We have checked that the conditions of the corrosion test carried out according to EN2591-307 are the same as the conditions of the corrosion test required by the generic specification ESCC 3401 § 9.22. They both refer to the same IEC publication No. 68-2-11, Test Ka. • No risk identified and no test performed for following characteristics : <ul style="list-style-type: none"> - permanence of marking performance is necessarily improved since the laser marking is a permanent etching process. - outgassing performances are necessarily improved (outgassing decreased) since the ink is no longer present on the products. - the electrical mated shell conductivity performances are necessarily unchanged since the marked area is not functional with regard to the electrical conductivity. <p>Application of the laser marking :</p> <ul style="list-style-type: none"> • From date code 23-01 on large products only (because our laser is equipped with a 2-axis marking table, without the possibility of rotating the connector around its axis, and the information to be marked on ESCC-qualified connectors is extensive. For these reasons: laser marking of small connectors is impossible due to lack of available space. Only large connectors can be laser marked, on multiple lines). • The marking process used is traced. 			

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Continuation of Boxes above:

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Continuation of box 9:

New passivation process without chromium VI.

Passivation of stainless steels is the process of forming a thin layer of chromium oxide on their surface. This layer acts as a protective barrier against corrosion, improving durability and resistance to aggressive environments. Passivation is a natural phenomenon but can be chemically accelerated in many industries to prevent deterioration of stainless-steel components.

Concerned passivated stainless-steel components of qualified DBAS connector :

Qualified variant	Component	Stainless steel type	Material specification
Connectors DBAS 70, 71, 74, 76, 78, 79	Insert sub assembly retaining clip	Austenitic	020.5.03
Connectors DBAS 79	Front and rear « TRUARC » retaining ring	PH15.7 Mo (austenitic)	UNS15700 (standard)
	Coil spring	Austenitic	020.5.03
Accessories 006-0908 & 0910	Nut retaining clip on accessory shell	Austenitic	020.5.03
	Lock washer for screw of accessory cable clamp	Austenitic	020.5.03

Here at TE Connectivity, this reaction is accelerated by a bath containing potassium dichromate, a mandatory step in the treatment process for stainless steel parts. However, the bath contains hexavalent chromium (Cr VI), which will be banned in September 2024 by REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals) under the RoHS (Restriction of Hazardous Substances) directive. Chromium VI is being phased out due to its toxicity and the fact that it is recognized as a carcinogen when exposed by inhalation.

According to our **Change Notification Form Nr. 2025-006** :

- The solution chosen by TE-Evreux for the chromium VI-free passivation of austenitic stainless steels corresponds to method 1, type 6 (Low-temperature nitric acid) of AMS 2700-E.
- The impact of replacing our current chromium VI passivation solution with the new chromium VI-free passivation solution, has been evaluated and validated, through comparative analysis (see **Test Report PVE 827-293 VA issue "b"**).
- Our passivation specification STD 660.5.01 is changed, to integrate method 1 type 6 according to AMS2700E by "nitric treatment" process according to ASTM A967.
- Application of the chromium VI-free passivation process in production since September 2024.

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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: 30 October 2025

A. Zadeh : Head of the Avionics and EEE Division



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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:

Level 1 lot acceptance test (Environmental and mechanical subgroup)

Receptacle + accessory	Code date	Plug + accessory	Code date	Qty
340100801B-DBAS 70-61-0 PN + 006-0909-61-A499 SCC	25-03A	340100801B-DBAS 79-61-0 SN + 006-0909-61-A499 SCC	24-49A	1
340100801B-DBAS 70-37-0 PN + 006-0909-20 A499 SCC	25-03A	340100801B-DBAS 79-37-0 SN 1A + 340106406B 006-0909-20 A499	25-07A (connector) 24-50A (accessory)	1
340100801B-DBAS 74-37-924 SN 1A + 340106413B 006-0910-20 A499	25-03A (connector) 25-04A (accessory)	340100801B-DBAS 79G-37-924 PN + 340106420B 006-0908-20 A499	25-05A (connector) 24-48A (accessory)	1

Level 2 lot acceptance test (Endurance subgroups)

Receptacle + accessory	Code date	Plug + accessory	Code date	Qty
340100801B-DBAS 70-61-0 PN + 006-0909-61-A499 SCC	25-03A	340100801B-DBAS 79-61-0 SN + 006-0909-61-A499 SCC	24-49A	1
340100801B-DBAS 74-37-924 SN 1A + 340106413B 006-0910-20 A499	25-03A (connector) 25-04A (accessory)	340100801B-DBAS 79G-37-924 PN + 340106420B 006-0908-20 A499	25-05A (connector) 24-48A (accessory)	1

Detail Specification reference: 3401/008

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	2507	3	0	
	Climatic Sequence	<input checked="" type="checkbox"/>	ESCC 3401 Para. 9.13	2507	3	0	
	Permanence of Marking	<input checked="" type="checkbox"/>	ESCC 24800	2507	3	0	
	Corrosion	<input checked="" type="checkbox"/>	IEC Publication No. 68-2-11	2507	3	0	
	Seal Test	<input type="checkbox"/>	ESCC 3401 Para. 9.9				NA (applicable to hermetic connector only)
	Plating Thickness	<input checked="" type="checkbox"/>	ESCC 3401 Para. 5.2.3	2511	20	0	
Endurance Subgroups	Wiring	<input checked="" type="checkbox"/>	ESCC 3401 Para. 9.10	2505	2	0	
	Rapid change of Temperature	<input checked="" type="checkbox"/>	ESCC 3401 Para. 9.16	2505	2	0	
	Contact Retention	<input type="checkbox"/>	ESCC 3401 Para. 9.17				NA (applicable to non-removable contacts only)
	Maintenance Ageing	<input checked="" type="checkbox"/>	ESCC 3401 Para. 9.27	2505	2	0	
	Endurance	<input checked="" type="checkbox"/>	ESCC 3401 Para. 9.18	2505	2	0	
	Seal Test	<input type="checkbox"/>	ESCC 3401 Para. 9.9				NA (applicable to hermetic connector only)
	Joint Strength	<input checked="" type="checkbox"/>	ESCC 3401 Para. 9.15	2505	10	0	
	Engage/Separ. Forces	<input checked="" type="checkbox"/>	ESCC 3401 Para. 9.28	2505	10	0	
	Oversize Pin Exclusion	<input checked="" type="checkbox"/>	ESCC 3401 Para. 9.29	2505	10	0	
Additional Tests	Probe Damage	<input checked="" type="checkbox"/>	IEC Publication No. 512-8	2505	10	0	
		<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.