SUPERSEAL 1.0 34P WITH LEVER CONNECTOR SPECIFICATION

SUPERSEAL 1.0 34P 带拉杆连接器
产品规范

				PR:V.Tang **DATE:** 24Jan2024	TE Shanghai, China		
				CHK: C.Wan **DATE:** 24Jan2024			
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CONTENT

1. SCOPE 适用范围

1.1 Content 内容

This specification covers the performance, test and quality requirements for SUPERSEAL 1.0 34P with lever Plug and Header connector (hereinafter referred to 34P with lever).
This specification applies to the product as below, but not limited to it .

本规范适用于 SUPERSEAL 1.0 34P 带拉杆连接器 plug and header 连接器(以下简称 34P 带拉杆) 的性能，测试和质量要求。本规范适用但不仅限于以下零件号：

Structure	Part Number
34P Plug with lever	2430273-X (X=1, 2, for various coding)
34P Header	8-2388688-X (X=5, 6, for various coding) for 180 degree 8-2384723-X (X=5, 6, for various coding) for 90 degree

1.2 Qualification 鉴定

When tests are performed, the following specifications and standards shall be used. All inspections shall be performed using the applicable inspection plan and product drawing.

本测试规范依照下面的规范及标准执行。所有的检验应依照合适的检验计划及产品图纸执行。

2. APPLICABLE DOCUMENTS 适用文件

2.1 Usable document 使用文件

In the event of conflict between the requirements of this specification and the drawing, the drawing shall take precedent.
In the event of conflict between the requirement of this specification and the referenced documents, this specification shall take precedent.

在本规范的要求与图纸发生冲突时，以产品图纸为准。在本规范的要求与参考文件发生冲突时，以本规范为准。

2.2 TE specifications 泰科电子规范

109-1: General requirements for Test Specifications / 测试通用规范
108-78140

2.3 Other specifications 其他规范

ISO 16750-3 2012

3. REQUIREMENT 要求

3.1 Design and Construction 设计和结构

Products must meet the design, construction and physical dimensions specified in the applicable product drawings.

产品必须满足产品图纸上的设计，结构和尺寸要求。

3.2 Material 材料

Description of the material sees the related product drawings.

材料描述见相关产品图纸。

3.3 Test parameters and tolerances 测试参数与公差

Table 1: Test parameters and tolerances

Requirement 要求	Tolerance 公差
Ambient temperature 环境温度	23°C ± 5°C
Relative humidity 相对湿度	30% to 70%
Atmospheric pressure 大气压力	96kPa ± 10kPa

3.4 Ratings 等级

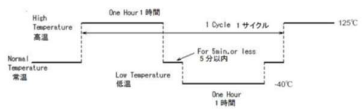
A. Operating Temperature / 工作温度: -40~125°C
B. Rated voltage / 额定工作电压: 48 VDC
C. Application / 产品应用: Engine and gear-box/transmission control unit connection etc.
发动机和变速箱控制器等信号传输连接

3.5 General Performance and Test description 通用性能和试验描述

The product is designed to meet the electrical, mechanical and environmental performance requirements specified in Para.3.6. All testes must be performed at the test condition of the TE test specification 109-1 unless otherwise specified.

产品应能满足段落 3.6 中的电气，机械和环境等性能要求。所有试验均需按照 TE 规范 109-1 中的测试条件进行，除非另有说明。

3.6 Tests requirement and method summary 测试要求及方法

Para.	Test Item	Requirements	Method
3.6.1	External Appearance inspect	There shall be no detrimental crack, rust, play, scratch, deformation and etc.	Visual and touch feeling inspection.
3.6.2	Terminal – Connector inserting force & retention force	Inserting force 30N max. Retention force 58.8N Min, Primary + Second lock	Apply axial load to terminal, Test speed = 50 mm / min
3.6.3	Connector to connector Mating /Unmating force (with lever)	Mating /Unmating force 75N Max.	Apply axial load to lever, Test speed = 50 mm / min
3.6.4	Connector Retention Force	98N Min.	Apply axial load to coupled connectors to disengage the male and female connectors with lever and latch in final lock position. Test speed = 50 mm / min
3.6.5	Seal Ability	Initial: 98kPa or more After Durability Test: 48kPa or more	Seal Ability is measured with compressed air fed into the water-proof section of the connector. Before runnig the test, the tip of the wire is soldered and then sealed with adhesives.
3.6.6	High Temperature Exposure	No corrosion, discoloration, cracks, etc.	The connector is kept in a thermostatic chamber for 1000 hours and then taken out to be exposed to the normal temperature until it cools off to the temperature. The chamber temperature is set at 125℃.
3.6.7	Thermal Shock	No corrosion, discoloration, cracks, etc.	The connector is placed in a thermostatic chamber and given with 200cycles of heating/cooling process in the heating/cooling pattern shown in Fig below and then is taken out of the chamber to be left in the normal temperature for more than 2hours. -40-125°C 

3.6.8	High Pressure Spray (with Backshell)	No evidence of water or florescent dye shall be present in the interior of either mated connector(with Backshell)	acc. To USCAR-2 5.6.7 High pressure spray Water pressure: 8000~10000KPa Water temperature: 80+/-5℃
3.6.9	Dry Circuit Resistance	Initial: 5mΩ max. Final:10mΩ max	To feeding open voltage of 20±5mV and short circuit current of 10±0.5mA to the mated connector, measurement is taken at the point 75mm apart from the crimped barrel when temperature of the mated contact has saturated and then Dry Circuit Resistance by the wire is subtracted.
3.6.10	Vibration	There shall be no loss of electrical continuity	ISO16750-3, 4.1.2.6 Test VI
3.6.11	CPA Engage/disengage force	Record value	1.The force to engage the CPA from Pre-lock to its lock position 2.The force to engage the CPA from lock to its Pre-position 3.The force to complete removal from Pre-position

3.7 Test sequence 试验顺序

Test or examination	Test Group						
	1	2	3	4	5	6	7
3.6.1 External Appearance inspect	1,	1,	1,5	1,5	1,3	1,5	1,3
3.6.2 Terminal –Connector inserting force & retention force	2						
3.6.3 Connector to connector Mating /Unmating force (with lever)		2					
3.6.4 Connector Retention Force		3					
3.6.5 Seal Ability			2,4	2,4			
3.6.6 High Temperature Exposure			3				
3.6.7 Thermal Shock				3			
3.6.8 High Pressure Spray (with backshell)					2		
3.6.9 Dry Circuit Resistance						2,4	
3.6.10 Vibration						3	
3.6.11 CPA Engage/disengage force							2

4. QUALITY 质量

4.1 Qualification test 鉴定

Samples must be in accordance with drawings and be taken in a random way in the production in progress.

样件必须与产品图纸一致，并且是生产过程中随机选取的。

4.2 Requalification test 重新鉴定

If changes significantly affecting form, fit, or function are made to the product or to the manufacturing process, product assurance shall coordinate requalification testing, consisting of all or part of the original testing sequence as determined by product engineering.

如果产品或者制造过程中有显著影响外观，装配和功能的设变，质保需要协调按照原先工程部定义的测试顺序，重新验证全部或者部分测试项目。

4.3 Acceptance 验收

Acceptance is based on verification that the product meets the requirements of section 3.6. Failures attributed to equipment, test setup, or operator deficiencies shall not disqualify the product. When product failure occurs, corrective action shall be taken and samples resubmitted for qualification. Testing to confirm corrective action is required before resubmitted.

以符合第 3.6 节的要求验收。归咎于测试设备，样件安装或者操作员的失误的失效不应判定产品不合格。当产品失效发生时，需要有纠正措施以及重新提交样件进行验证。在重新验证前，需确认已有纠正措施。

4.4 Quality conformance inspection 质量合格检验

The applicable TE Connectivity quality inspection plan will specify the sampling acceptable quality level to be used. Dimensional and functional requirements shall be in accordance with the applicable product drawing and this specification

TE Connectivity 的质量检验计划将指定适用的质量标准。尺寸和功能要求，应按照适用的产品图纸和本规范。