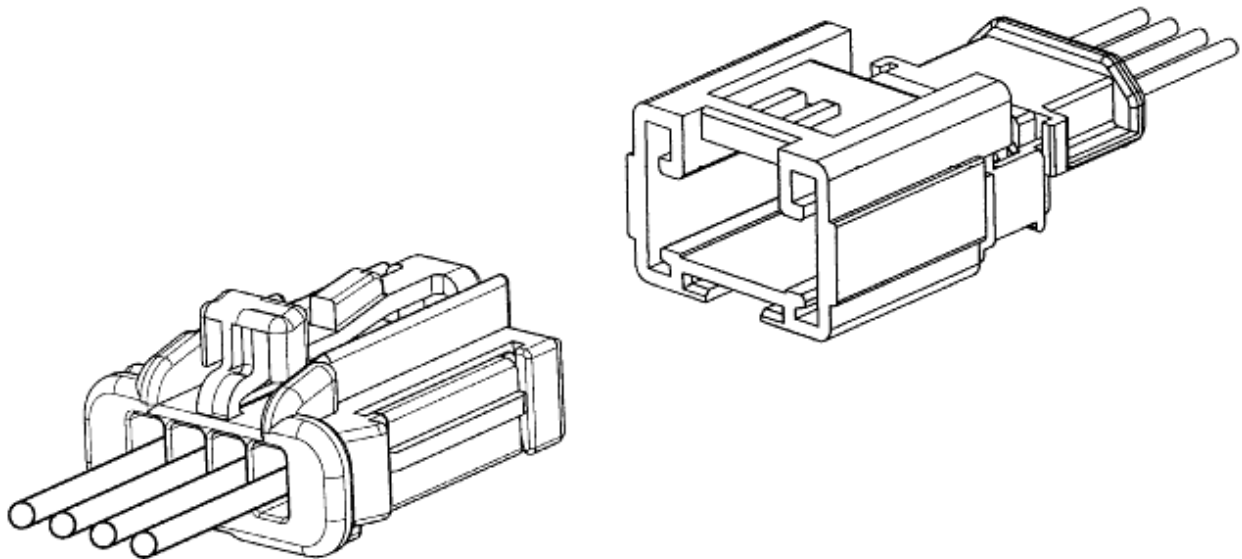




NSCC 1.5, UCC 2.8 AND HYBRID

UNSEALED INLINE CONNECTORS from 2 to 6ckt



REVISION: 2	ECR/ECN INFORMATION: EC No: G2014-0054 DATE: 2013 / 10 / 03	TITLE: NSCC 1,5mm, UCC2 2,8mm and hybrid UNSEALED INLINE CONNECTORS 2 – 6ckt	SHEET No. 1 of 6
DOCUMENT NUMBER: PS-98821-001	CREATED / REVISED BY: L. BARRETO	CHECKED BY: JL. DUCLOS	APPROVED BY: O. PLESSIS



PRODUCT SPECIFICATION

REVISION	MODIFICATION	SHEET	DATE
1	First Release	All	2013/02/14
2	Requirement of item 4 becomes "F > 35N or flap up forbidding mating into counter-part" instead of "F > 35N". Requirement of item 9 becomes "F > 80N or flap up forbidding mating into counter-part" instead of "F > 80N".	5	2013/40/03

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PRODUCT SPECIFICATION

1.0 SCOPE

This Product Specification covers the NSCC 1.5, UCC 2.8 and Hybrid UNSEALED INLINE CONNECTOR series from 2 to 6 CKT crimped with 0.35 mm² to 4 mm² ISO wires using Tin plating.

2.0 PRODUCT DESCRIPTION

2.1 PRODUCT NAME AND SERIES NUMBER(S)

PRODUCT NAME	PART or SERIES NUMBER	SALES DRAWING
NSCC RCPT CONN UNSEALD 1.5X0.8 2CKT	98817-102X	SD-98817-001
UCC RCPT CONN UNSEALD 2.8X0.8 2CKT	98819-102X	SD-98819-001
NSCC RCPT CONN UNSEALD 1.5X0.8 3CKT	98817-103X	SD-98817-002
NSCC RCPT CONN UNSEALD 4CKT	98817-104X	SD-98817-003
NSCC HYB RCPT CONN 3CKT	98821-103X	SD-98821-001
NSCC HYB RCPT CONN 6CKT	98821-106X	SD-98821-002
SICMA PIN CONN UNSEALD W/ 1.5X0.8 2CKT	98822-102X	SD-98822-004
SICMA PIN CONN UNSEALD W/ 2.8X0.8 2CKT	98824-102X	SD-98824-002
SICMA PIN CONN UNSEALD W/ 1.5X0.8 3CKT	98822-103X	SD-98822-003
SICMA PIN CONN UNSEALD W/ 1.5X0.8 4CKT	98822-104X	SD-98822-005
SICMA PIN CONN HYBRID UNSEALD W/ 6CKT	98825-106X	SD-98825-002
NSCC RCPT TERMINAL 1.5mm	98897	SD-98897-050
UCC2 RCPT TERMINAL 2.8mm	98898	SD-98898-100
SICMA 3 MALE TERMINAL 1.5mm	FCI S/N: 211CL2S	N/A
SICMA 3 MALE TERMINAL 2.8mm	FCI S/N: 211CL3S	N/A

2.2 DIMENSIONS, MATERIALS, PLATINGS AND MARKINGS

SEE SALES DRAWING

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PRODUCT SPECIFICATION

3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS

DESCRIPTION	DOCUMENT NUMBER
Application Specification	AS-98821-001

4.0 RATINGS

4.1 VOLTAGE

Nominal Voltage: 14 Volts DC

4.2 TEMPERATURE

Operating: - 40°C to + 85°C

4.3 VIBRATION

Class 1 (3G)

5.0 PERFORMANCE

5.1 ELECTRICAL PERFORMANCE

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
1	Contact Resistance (Low Level)	Mate connectors: limiting the open circuit voltage of 20 mV and a maximum current of 100 mA.	R < 4 mΩ.
2	Insulation Resistance	Apply a voltage of 100V±15V between adjacent terminals and between terminals to ground during 60+/-5 s	R > 100 MΩ
3	Dielectric Rigidity	Apply a voltage of 1000V±50V, 50Hz applied between adjacent terminals and between terminals to ground during 60±5s.	No Breakdown

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DC-G-01250-A1



PRODUCT SPECIFICATION

5.2 MECHANICAL PERFORMANCE

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
4	Terminal/cavity insertion Force with the secondary lock in pre engaged position	Apply an axial insertion force on the terminal at a rate of 50 ± 6 mm per minute.	1.5mm: F < 5N 2.8mm: F < 8N
	Terminal/cavity insertion Force with the secondary lock in locked position		F > 35N or flap up forbidding mating into counter-part
5	Terminal/cavity retention Force with the secondary lock in pre engaged position	Axial pullout force on the terminal in the housing at a rate of 50 ± 6 mm per minute	F > 45N
	Terminal/cavity retention Force with the secondary lock in locked position		F > 100N
6	Terminal/cavity polarization	Terminal must be polarized to prevent insertion into cavity with an incorrect orientation.	F > 50N
7	Secondary lock from pre engaged to locked position with all terminal properly inserted	The force to insert the secondary lock from the preload (as shipped) position to the final position at a rate of 50 ± 6 mm per minute.	F < 40N
8	Secondary lock from locked position to pre engaged position	The force to extract the secondary lock from the final position to the preload position (as shipped) at a rate of 50 ± 6 mm per minute.	20N < F < 40N (with tool)
9	Detection of incomplete terminal insertion with the secondary lock	The force to insert the secondary lock from the preload position to the final position, when one terminal is not inserted properly, at a rate of 50 ± 6 mm per minute.	F > 80N or flap up forbidding mating into counter-part
10	Pin / Rcpt. Connector mating with one terminal incompletely inserted	Mate connector (male to female) at a rate of 50 ± 6 mm per minute.	F > 140N (W/ flap)
11	Pin / Rcpt. Connector mating / unmating Force all terminals properly locked	Mate and unmate connector (male to female) at a rate of 50 ± 6 mm per minute.	F < 60N
12	Polarization Feature Effectiveness	Connector must be polarized to prevent mating in an incorrect orientation.	F > 125N
13	Coding Feature Effectiveness	Connector must be coded to prevent mating with similar connectors.	F > 115N
14	Locking feature retention force	The force to extract the Rcpt. Conn. out of the pin conn. at a rate of 50 ± 6 mm per minute.	F > 100N

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PRODUCT SPECIFICATION

5.3 ENVIRONMENTAL PERFORMANCE

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
15	Accelerated ageing (Vibration class 1)	Test sequence: - Mechanical endurance - Contact Resistance - Contact relaxation tests (48h @ 100 °C) - Contact Resistance - Resistance to vibrations - Contact Resistance - Resistance to variable atmosphere (5x -40 to 100 °C cycle with 75% to 99% of humidity) - Contact Resistance - Mechanical endurance (20x Mating /Unmating cycle) - Contact Resistance - Check of the connectors locking device	No discontinuity greater than 1 μ s. $R_c < 4 \text{ m}\Omega$. $\Delta R_c < 5 \text{ m}\Omega^*$. No deterioration of mechanical characteristics. $F > 100\text{N}$ during 10s.
16	Endurance to temperature/humidity (Temperature class 1)	Test sequence: - Contact resistance - Insulation Resistance - Dielectric Rigidity - Mechanical endurance (20x Mating /Unmating cycle) - Resistance to thermal shocks (100x -40 to 85°C cycle) - Contact Résistance - Endurance to temperature/humidity (360 cycles @ 85°C) - Contact Resistance - Insulation Resistance - Dielectric Rigidity	$R_c < 4 \text{ m}\Omega$. $\Delta R_c < 5 \text{ m}\Omega^*$. $R_i > 100 \text{ M}\Omega$ during 60s. No breakdown. $F < 60\text{N}$. No deterioration of mechanical characteristics.

*: As connector is an unsealed connector, this performance is closely linked to the performances of terminals used during the test.

6.0 PACKAGING

Parts shall be packaged to protect against damage during handling, transit and storage.

7.0 GAGES AND FIXTURES

All applicable gages and fixtures are referenced in the appropriate control plans.

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PS-98821-001	L. BARRETO	JL. DUCLOS	O. PLESSIS