



SPACE SPLICE SERIES

Wire Connecting Solution

ESCC 3401/097

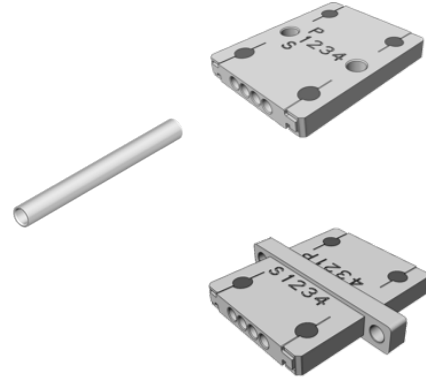
With removable D*MA crimp contacts ESCC 3401/005

Features and Benefits

- Replacement of manual splices by standard solution
- Compliant with ESA/ESCC specifications
- Easy to use
- Removable D*MA crimp type contacts standard
- Compact format and designed to accept the most popular cable gauges
- Non-outgassing
- Low residual magnetism
- High radiation and temperature resistance (PEEK material)

Typical Applications

- Space equipment
- Satellites harnesses and payloads
- Avionics/ Military



Specification

- High performance wires to wires connectors ESA qualified, for space applications.
- Compliant to ESCC specifications 3401/097 Connectors and 3401/005 Removable Crimp Contacts.
- Suitable for use in Space, and high performance military/aerospace applications: Board to Board, Board to Cable or Cable to Cable applications.
- Removable contacts (D*MA technology).
- Cable sizes: AWG20, AWG22, AWG24, AWG26 and AWG28.
- 1 way and 4 ways connections available.
- 4 ways variants:
 - Radial fixing mount (Stackable)
 - Axial fixing for panel mount

Electrical & Mechanical Characteristics

| CHARACTERISTIC | SPECIFICATION |
|--------------------------------------|-------------------------|
| Working Voltage - 1 way (sea level) | 300 Vrms |
| Working Voltage - 4 ways (sea level) | 250 Vrms |
| Rated Current | 7.5 A |
| Contact Resistance | 5 mΩ (rated current) |
| Insulation Resistance at 500 V DC | 50 MΩ min |
| Voltage Proof - 1 way | 1250 Vrms /2.0mA |
| Voltage Proof - 4 ways | 1000 Vrms /2.0mA |
| Residual Magnetism Level (NMB) | <200 Gama |
| Temperature Range | -55/+125 °C |
| Radiation Resistance | >1x10 ⁶ Rads |
| Contact Retention Force | 40 N max |

Quality Level

- ESA / ESCC: code 3401 (Flying model).
- Qualification reviewed every 2 years.

Process Contact and Cable Insertion

- Cables crimping onto contacts with standard D*MA Crimping tool M22520/2-01 and locator M22520/2-08 (to be ordered separately).
- Wires cable installed by the end user.

Test Retention

- A dedicated tool is available to make the retention test of each contacts in the connectors.

Process Contact and Cable Extraction

- A dedicated tool M81969/39-01 is available to remove the contacts from the connectors (1 extract tool delivered per bag).

Packaging

- Space Splice 1 way: 50 pcs per bag. One extract tool M81969/39-01 delivered per bag.
- Space Splice 4 ways: Individual packaging. One extract tool M81969/39-01 delivered per bag.
- Traceability associated as per ESA/ESCC specifications.

MATERIALS & FINISHES

| COMPONENT | MATERIAL | FINISH |
|-----------------|------------------------|-----------------------------------|
| Insulator | PEEK | UL-94-V0, natural color |
| Retention Clip | Beryllium Copper Alloy | Raw material |
| Socket Contacts | Copper Alloy | 1.27 µm Gold over Copper underlay |
| Pin Contacts | Copper Alloy | 1.27 µm Gold over Copper underlay |

SPACE SPLICE 1 WAY

Wire to Wire Connection

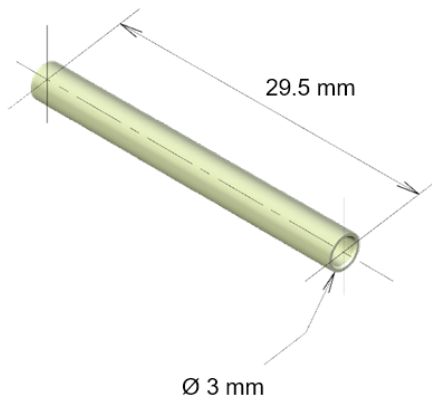


PART NUMBER - DESCRIPTION

Part Number: **C115366-2776C**

ESA/ESCC Description: **340109701B**

DIMENSIONS & WEIGHT

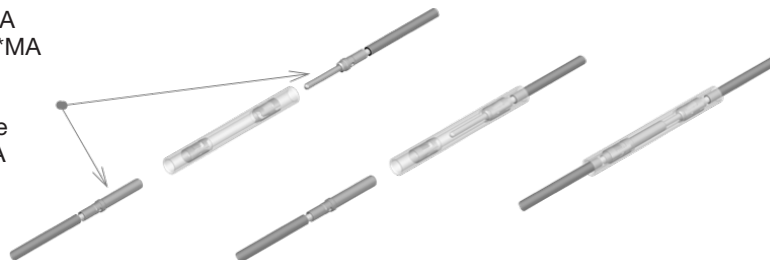


Mass: 0.2 gr

USE EXPLANATION

Wires to wires connecting solution

- To crimp pin and Socket D*MA contacts with wires (such as D*MA connectors)
- Insert the contacts into Space Splice (manually or using D*MA insertion tool)

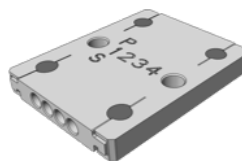


- For insertion of contacts wired with AWG26/28 (without shrinkable tube), the use of insertion tool is mandatory
- If different wire sizes are used on each contact side, insert contact with smallest wire size first to perform retention test by pushing

SPACE SPLICE 4 WAYS

Radial Fixing Variant

Stackable

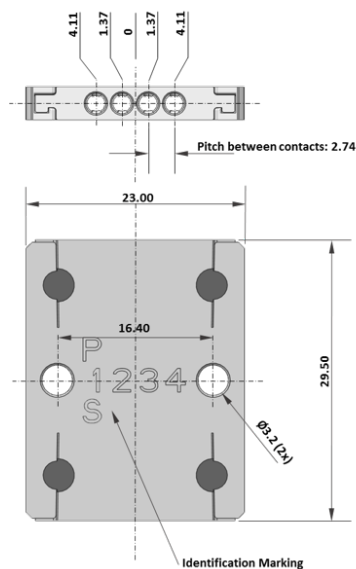


PART NUMBER - DESCRIPTION

Part Number: **C115366-3014C**

ESA/ESCC Description: **340109702B 04RA3014**

DIMENSIONS & WEIGHT



Mass: 3.5 gr

USE EXPLANATION

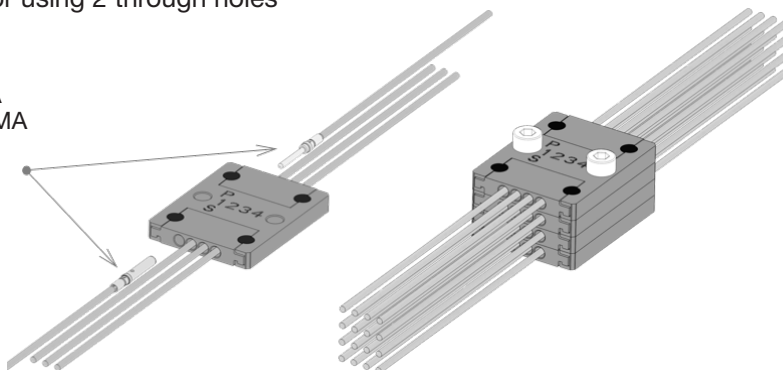
Wires to wires connecting solution

Floating or possibility of fixing the insulator using 2 through holes

Possibility of Stacking Products

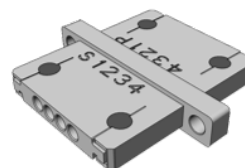
- To crimp pin and Socket D*MA contacts with wires (such as D*MA connectors)

- Insert the contacts into Space Splice (manually or using D*MA insertion tool)



- For insertion of contacts wired with AWG26/28 (without shrinkable tube), the use of insertion tool is mandatory
- If different wire sizes are used on each contact side, insert contact with smallest wire size first to perform retention test by pushing

SPACE SPLICE 4 WAYS Axial Fixing Variant Panel Mount

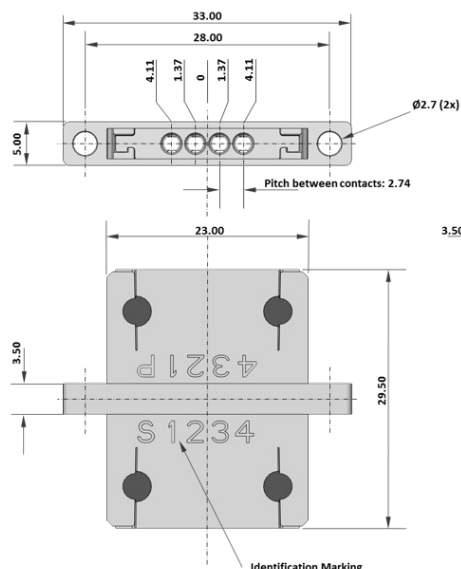


PART NUMBER - DESCRIPTION

Part Number: **C115366-3015C**

ESA/ESCC Description: **340109702B 04AA3015**

DIMENSIONS & WEIGHT

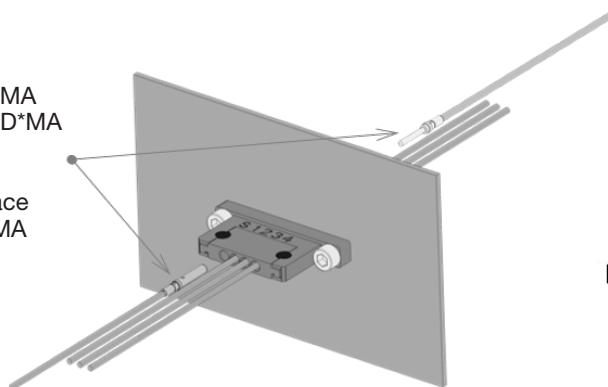


Mass: 4 gr

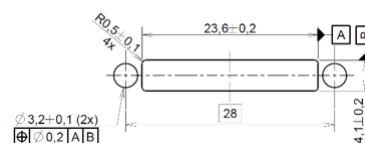
USE EXPLANATION

Wires to wires connecting solution
Use to pass through panels

- To crimp pin and Socket D*MA contacts with wires (such as D*MA connectors)
- Insert the contacts into Space Splice (manually or using D*MA insertion tool)

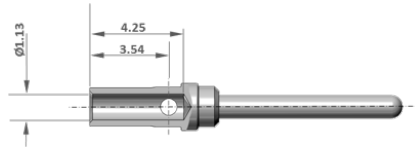


Panel Cut-Out Profile



- For insertion of contacts wired with AWG26/28 (without shrinkable tube), the use of insertion tool is mandatory
- If different wire sizes are used on each contact side, insert contact with smallest wire size first to perform retention test by pushing

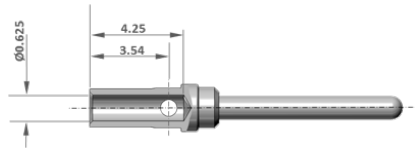
D*MA Contact Pin - Size 20/20 (wire size AWG20, AWG22, AWG24)



C&K Part Number: **C330-8996-101H**

ESA/ESCC Description: **340100501B**

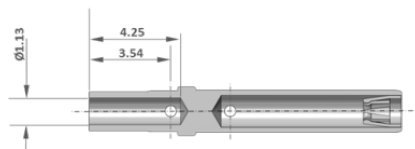
D*MA Contact Pin - Size 20/26 (wire size AWG26, AWG28)



C&K Part Number: **C330-8997-101H**

ESA/ESCC Description: **340100503B**

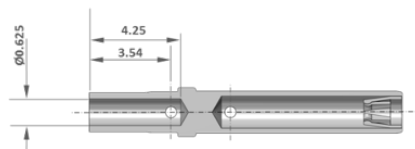
D*MA Contact Socket - Size 20/20 (wire size AWG20, AWG22, AWG24)



C&K Part Number: **C031-8996-101H**

ESA/ESCC Description: **340100502B**





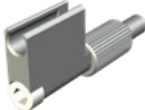
D*MA Contact Socket - Size 20/26 (wire size AWG26, AWG28)



C&K Part Number: **C031-8997-101H**

ESA/ESCC Description: **340100504B**

ACCESSORIES

| Crimping Tool | | DESCRIPTION | C&K PART NUMBER |
|---|--|---|-----------------|
|  | | M22520/2-01 | C995-0001-584 |
| Locator | | DESCRIPTION | C&K PART NUMBER |
|  | | M22520/2-08 | C995-0001-604 |
| Insertion / Extraction Tool | | DESCRIPTION | C&K PART NUMBER |
|  | | M81969/39-01 | C980-2000-426 |
| All Space Splice: Contact Probe for Retention Tool - Push Test | | DESCRIPTION | C&K PART NUMBER |
|  <p>← 6-32 UNC-2A Compatible with OCETA OCE8</p> | | <p>Push test recommended value: All wire size: 20N max</p> <p>SPLICE-TOOL-RETENTION-01</p> | C115366-2852 |
| Space Splice 1 way only: Contact Probe for Retention Tool - Pull Test | | DESCRIPTION | C&K PART NUMBER |
|  <p>← 6-32 UNC-2A Compatible with OCETA OCE8</p> | | <p>Pull test recommended value: AWG20, 22, 24, 26: 20N max AWG28: 10N max</p> <p>SPLICE-TOOL-RETENTION-02</p> | C115366-2853 |

HDS ESCC Space Splice - July 2021



Dimensions shown in: mm
Specifications and dimensions subject to change

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[C&K Aerospace:](#)

[C330-8996-101H](#) [C031-8997-101H](#) [C330-8997-101H](#) [SPLICETOOLRETENTION02](#) [C115366-2852](#) [C115366-2853](#)
[C031-8996-101H](#) [C995-0001-584](#) [C995-0001-604](#) [C115366-2776C](#) [C115366-3014C](#) [C115366-3015C](#) [C980-2000-](#)
[426](#)