Coaxial Feedthroughs

Introduction

LewVac offer a wide range of different coaxial feedthroughs in various configurations and types.

Subminiature-D Coaxial

Miniature coaxial feedthroughs mounted within standard subminiature D-type housings. Ideal for high pin density applications.

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Current</th>
<th>Max Bakeout Temperature</th>
<th>Conductor Material</th>
<th>Impedance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grounded shield - 500VDC</td>
<td>5A</td>
<td>CF flange - 250°C</td>
<td>Gold plated Ni-Fe alloy</td>
<td>Non-constant</td>
</tr>
<tr>
<td></td>
<td></td>
<td>KF flange - 150°C</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Connector - 250°C</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

BNC

These are general purpose connectors used mostly for 50Ω or 75Ω low power instrumentation applications. BNC feedthroughs are not rated for constant impedance due to the feedthrough geometry.

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Current</th>
<th>Max Bakeout Temperature</th>
<th>Conductor Material</th>
<th>Impedance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grounded shield - 500VDC</td>
<td>3A</td>
<td>CF flange - 450°C</td>
<td>304 St.St.</td>
<td>Non-constant</td>
</tr>
<tr>
<td>Floating shield - 2.5kVDC</td>
<td></td>
<td>KF flange - 150°C</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Weldable - 450°C</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Connector - 165°C</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

MHV - Miniature High Voltage

Similar to BNC feedthroughs for use in medium power instrumentation applications. MHV will not mate with BNC.

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Current</th>
<th>Max Bakeout Temperature</th>
<th>Conductor Material</th>
<th>Impedance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grounded shield - 5kVDC</td>
<td>3A</td>
<td>CF flange - 450°C</td>
<td>304 St.St.</td>
<td>Non-constant</td>
</tr>
<tr>
<td>Floating shield - 2.5kVDC</td>
<td></td>
<td>KF flange - 150°C</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Weldable - 450°C</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Connector - 165°C</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**SHV-5 - Safe High Voltage**
Rated up to 5,000 Volts. The female pin within the connector is recessed which improves safety when the cable is disconnected.

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Current</th>
<th>Max Bakeout Temperature</th>
<th>Conductor Material</th>
<th>Impedance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grounded shield - 5kVDC</td>
<td>5A</td>
<td>CF flange - 450°C</td>
<td>Nickel</td>
<td>Non-constant</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Current</th>
<th>Max Bakeout Temperature</th>
<th>Conductor Material</th>
<th>Impedance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grounded shield - 10kVDC</td>
<td>5A</td>
<td>CF flange - 450°C</td>
<td>Nickel</td>
<td>Non-constant</td>
</tr>
</tbody>
</table>

**SHV-10 - Safe High Voltage**
Rated up to 10,000 Volts. The female pin within the connector is recessed which improves safety when the cable is disconnected. Ideally suited for high voltage pulsed DC applications.

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Current</th>
<th>Max Bakeout Temperature</th>
<th>Conductor Material</th>
<th>Impedance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grounded shield - 10kVDC</td>
<td>5A</td>
<td>CF flange - 450°C</td>
<td>Nickel</td>
<td>Non-constant</td>
</tr>
</tbody>
</table>

**SHV-20 - Safe High Voltage**
Rated up to 20,000 Volts. The female pin within the connector is recessed which improves safety when the cable is disconnected. Ideally suited for high voltage pulsed DC applications.

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Current</th>
<th>Max Bakeout Temperature</th>
<th>Conductor Material</th>
<th>Impedance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grounded shield - 20kVDC</td>
<td>15A</td>
<td>CF flange - 450°C</td>
<td>Nickel</td>
<td>Non-constant</td>
</tr>
</tbody>
</table>

**Type-N**
Impedance rated at 50Ω and suitable for use at 1GHz. Suitable for cryogenic applications.

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Current</th>
<th>Max Bakeout Temperature</th>
<th>Conductor Material</th>
<th>Impedance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grounded shield - 500VDC</td>
<td>3A</td>
<td>CF flange - 450°C</td>
<td>Nickel</td>
<td>Non-constant (50Ω)</td>
</tr>
</tbody>
</table>

**SMA - Subminiature Type-A**
Suited for use in medium and high frequency applications. Impedance rated at 50Ω and rated to 1GHz.

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Current</th>
<th>Max Bakeout Temperature</th>
<th>Conductor Material</th>
<th>Impedance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grounded shield - 700VDC</td>
<td>1A</td>
<td>CF flange - 450°C</td>
<td>304 Bl.St.</td>
<td>50Ω</td>
</tr>
</tbody>
</table>

**High Frequency SMA**
Similar to the standard SMA, but with increased frequency rating up to 8GHz.

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Current</th>
<th>Max Bakeout Temperature</th>
<th>Conductor Material</th>
<th>Impedance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grounded shield - 700VDC</td>
<td>5A</td>
<td>CF flange - 450°C</td>
<td>304 Bl.St.</td>
<td>50Ω</td>
</tr>
</tbody>
</table>

**Microdot®**
The smallest coaxial feedthrough with threaded connector, widely used in thin film instrumentation applications.

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Current</th>
<th>Max Bakeout Temperature</th>
<th>Conductor Material</th>
<th>Impedance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grounded shield - 500VDC</td>
<td>2A</td>
<td>CF flange - 450°C</td>
<td>Hoëdtemum</td>
<td>Non-constant</td>
</tr>
</tbody>
</table>

**Between Series**
As the name suggests, these feedthroughs adapt from one type of connector at one end to an alternative connector type at the other.
Coaxial hermetic subminiature D feedthroughs with coaxial pin and shield are available in 1, 3 and 5 pin configurations mounted on standard D9, D15 and D25 shell sizes, respectively. The coaxial shield floats with respect to ground providing a secondary electrical path. The single pin coaxial feedthrough also includes four non-shielded instrumentation pins for added connection capability. Gold plated pins and shields are in a straight through pin-to-pin design and are hermetically sealed and electrically insulated in a stainless steel shell using the latest in glass-ceramic bonding technology.

Ultrahigh vacuum cable assemblies with PEEK connectors and Kapton® insulated 50 Ohm coaxial cables are available to meet the demands of UHV environments. The connection accessories must be purchased separately. Vacuum side cable assemblies, individual connectors and other accessories are detailed overleaf.

Custom subminiature D coaxial feedthrough products are available upon request.

**Features:**
- 1, 3 & 5 pin configurations.
- Floating shield design.
- High temperature rated to 250°C.
- In-vacuum connectors & cables available.
- Air side connectors available.
- Custom versions available on request

**Specifications:**

<table>
<thead>
<tr>
<th>Voltage</th>
<th>500VDC max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current</td>
<td>5A max @ 20°C</td>
</tr>
<tr>
<td>Impedance</td>
<td>Non-constant</td>
</tr>
</tbody>
</table>

**Material**
- Flange: 304 St.St.
- Shell: 304 St.St.
- Pin: Gold plated Ni-Fe alloy
- Shield: Gold plated Ni-Fe alloy
- Insulation: Glass ceramic
- Subminiature D: PEEK
- BNC: Nickel plated brass & PEEK
- SMA: Gold plated brass & PEEK
- User end St.St., Gold plated BeCu & PEEK

**Temperature Range**
- CF flanged feedthrough: -200°C to 250°C
- KF/LF flanged feedthrough: -20°C to 150°C
- Vacuum side connector: -200°C to 250°C
- Air side connector: -20°C to 80°C
- Max Thermal Gradient: 25°C / minute

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1. - Please see section introduction for safety information. Stated electrical ratings are maximum test values. Feedthroughs are intended for instrumentation applications carrying low level signal voltages and currents.
2. - Assembly rating is reduced to that of the lowest rated component.
3. - PEEK is a polyetheretherketone thermoplastic.
Subminiature D Coaxial In-Vacuum Cables & Connectors

**UHV Connectors, Contacts & Tools**

UHV subminiature D connectors are made of PEEK and do not include contacts, which must be ordered separately. Symmetric female socket connectors mate directly onto the vacuum or air side of subminiature D feedthroughs shown on the previous page. The five contact connector is asymmetric and will mate only on the vacuum side of the flange.

**Features:**
- Kapton® insulated wires.
- PEEK connectors one end, user defined connector other end.
- UHV compatible.
- Custom lengths available.

**Specifications:**
- Voltage: 500VDC max
- Current: 5A
- Material:
  - Conductors: Silver plated copper
  - Insulation: Type F Kapton® film
- In-vacuum connector: PEEK
- Temperature Range: -75°C to 250°C
- Kapton® Properties:
  - Dielectric constant: 2.9
  - Dielectric strength: 80kV/mm
  - Dissipation factor, 1MHz: 0.002
  - Initial tear: 13.4kg/mm
  - Elongation: 150%
  - Moisture absorption: 0.4% @ 50% RH
  - Radiation resistance: 10⁰ Rads

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**UHV Cable Assemblies**

Connector to cable leads are single instrumentation or 50 Ohm coaxial, Kapton® insulated coaxial cables. The single coaxial connector assembly also includes four Kapton® insulated wires. The single coaxial connector and Kapton® with UHV compatible PEEK subminiature D UHV Cable Assemblies are not required.

Applications where subminiature D connectors are fitted with PEEK connectors one end and a user specified connector at the other. We offer SMA male, BNC male or user end female terminations.

Contact to cable leads are single instrumentation or 50 Ohm coaxial, Kapton® insulated coaxial cables terminated one end with gold plated female sockets that mate with feedthroughs shown on the previous page. Opposite ends have no termination. These leads are ideally suited for applications where subminiature D connectors are not required.
Subminiature D Coaxial Air Side Cables & Connectors

**Features:**
- PVC insulated wires.
- Composite connectors on one end, user defined connector on other end.
- Custom lengths available.

**Specifications:**
- **Voltage:** 500VDC max
- **Current:** 5A

**Material**
- **Conductors:** Silver plated copper.
- **Insulation:** PVC
- **Connector:** Composite

**Temperature Range:** To 80°C

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**Air Service Cable Assemblies**

**Subminiature D coaxial connector to cable assemblies** are pre-wired with 2.5m long RG174/U coaxial cables and are non-terminated at one end. The single coaxial D connector to cable assemblies also includes a 2.5m long, conductor data cable with 4.6mm diameter PVC cable jacket and aluminium-mylar foil shielding with a 24AWG tinned copper drain wire. The individual conductors are PVC insulated 24AWG, 7 x 0.2mm stranded, tinned copper wires.

**Air Service Cable Assemblies; Coaxial D to Male BNC or Male SMA**

Subminiature D coaxial connector to BNC or SMA connector assemblies are pre-wired with 150mm long RG174/U coaxial cables and terminated with male BNC or SMA connectors. The single coaxial connector to BNC or SMA connector assemblies also include a 2.5m long, conductor data cable with 4.6mm diameter PVC cable jacket and aluminium-mylar foil shielding with a 24AWG tinned copper drain wire. The individual conductors are PVC insulated 24AWG, 7 x 0.2mm stranded, tinned copper wires.

**Connector size**

<table>
<thead>
<tr>
<th>Connections</th>
<th>Length shackle mm</th>
<th>Connector size</th>
<th>Part Code</th>
<th>Price £</th>
<th>Price €</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Coax / 4 Instr</td>
<td>35.6 x 19.1 x 53.3</td>
<td>D25-CX4-4I-ACONF</td>
<td>£34</td>
<td>€39</td>
<td></td>
</tr>
<tr>
<td>3 Coax</td>
<td>43.2 x 19.1 x 53.4</td>
<td>D15-CX3-4I-ACONF</td>
<td>£30</td>
<td>€35</td>
<td></td>
</tr>
<tr>
<td>5 Coax</td>
<td>58.4 x 19.1 x 53.9</td>
<td>D25-CX5-4I-ACONF</td>
<td>£212</td>
<td>€254</td>
<td></td>
</tr>
</tbody>
</table>

**Wiring of coaxial socket**

- **Sleeve**
- **PEEK Sleeve Cable Adapter (not used with 5.1 dia cable)**
- **Internal Socket**
- **Body Socket**

**Connector details are included in Section 9 of this catalogue.**

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**Air Service Connectors, Contacts & Tools**

**Components in this section are sold as the most basic components. Connectors do not include contacts which must be purchased separately. Connectors are made of a composite material.**

**Tools**
- **Crimp tool for D pins - HV & coax inner pin DCT1**
- **Crimp tool for coax sockets outer shell DCT2**
- **Pin insertion/extraction tool for HV pins DPE-PIN**

**Features:**
- Please see section introduction for safety information.
- Stated electrical ratings are maximum test values. Feedthroughs are intended for instrumentation applications carrying low level signal voltages and currents.
- Assembly rating is reduced to that of the lowest rated component.

**Specifications:**
- **Voltage:** 500VDC max
- **Current:** 5A

**Material**
- **Conductors:** Silver plated copper.
- **Insulation:** PVC
- **Connector:** Composite

**Temperature Range:** To 80°C
500 Volts, 3 Amps, BNC Grounded Shield Single Ended

Specifications:

Voltage\(^1\) 500VDC max
Current\(^2\) 3A max
Impedance Non constant

Material
Flange 304 St.St.
Shell 304 St.St.
Pin 304 St.St.
Insulation Alumina ceramic

Temperature Range\(^2\)
CF flanged feedthrough -200°C to 450°C
KF flanged feedthrough -20°C to 150°C
Weldable feedthrough -200°C to 450°C
Air side connector -65°C to 165°C

Features:

- Shielded conductor.
- Industry standard bayonet connector.
- Air side connector included.
- In-vacuum connectors & cables available.
- Custom versions available on request.

\(^1\) Please see section introduction for safety information.
\(^2\) Assembly rating is reduced to that of the lowest rated component.

500 Ohm Kapton\(^\circledR\) gnd shd coax UHV cable AF500-1M/N/C L=500mm CC-50GS-AF500-500 £130 €150
500 Ohm Kapton\(^\circledR\) gnd shd coax UHV cable AF500-1M/N/C L=1000mm CC-50GS-AF500-1000 £137 €158

Power push-on connector BeCu 2.4mm 150°C air 200°C vacuum 10/PK FHP-BECU-2.4-CON £34 €40
Power in-line connector BeCu 3.1mm 150°C air 400°C vacuum 10/PK FHP-BECU-3IL-CON £36 €42

Connector details are included in Section 9 of this catalogue.
500 Volts, 3 Amps, BNC Grounded Shield Double Ended

**Specifications:**
- **Voltage:** 500VDC max
- **Current:** 3A max
- **Impedance:** Non constant

**Material**
- Flange: 304 St.St.
- Shell: 304 St.St.
- Pin: 304 St.St.
- Insulation: Alumina ceramic

**Temperature Range**
- CF flanged feedthrough: -200°C to 450°C
- KF flanged feedthrough: -20°C to 150°C
- Weldable feedthrough: -200°C to 450°C
- Air side connector: -65°C to 165°C

**Features:**
- Shielded conductor.
- Industry standard bayonet connector.
- Air side connector included.
- In-vacuum connectors & cables available.
- Custom versions available on request.
- 4GHz, 50Ω version available, please call sales office for details.

---

**CF Flange Mounted**

<table>
<thead>
<tr>
<th>No.</th>
<th>Flange</th>
<th>A</th>
<th>B</th>
<th>CC</th>
<th>Part Code</th>
<th>Price £</th>
<th>Price €</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DN16CF</td>
<td>54.3</td>
<td>20.1</td>
<td>-</td>
<td>FH-BNC-D-16CF</td>
<td>£185</td>
<td>€213</td>
</tr>
<tr>
<td>1</td>
<td>DN40CF</td>
<td>52.8</td>
<td>40.1</td>
<td>-</td>
<td>FH-BNC-D-40CF</td>
<td>£194</td>
<td>€224</td>
</tr>
<tr>
<td>1</td>
<td>DN63CF</td>
<td>52.8</td>
<td>40.1</td>
<td>19.3</td>
<td>FH-BNC-D-63CF</td>
<td>£336</td>
<td>€387</td>
</tr>
</tbody>
</table>

**KF Flange Mounted**

<table>
<thead>
<tr>
<th>No.</th>
<th>Flange</th>
<th>A</th>
<th>B</th>
<th>CC</th>
<th>Part Code</th>
<th>Price £</th>
<th>Price €</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>DN16KF</td>
<td>54.3</td>
<td>28.7</td>
<td>-</td>
<td>FH-BNC-D-16KF</td>
<td>£185</td>
<td>€213</td>
</tr>
<tr>
<td>2</td>
<td>DN40KF</td>
<td>51.6</td>
<td>41.4</td>
<td>-</td>
<td>FH-BNC-D-40KF</td>
<td>£194</td>
<td>€224</td>
</tr>
<tr>
<td>2</td>
<td>DN50KF</td>
<td>51.6</td>
<td>41.4</td>
<td>19.1</td>
<td>FH-BNC2-D-50KF</td>
<td>£336</td>
<td>€387</td>
</tr>
<tr>
<td>2</td>
<td>DN50KF</td>
<td>51.6</td>
<td>41.4</td>
<td>24.1</td>
<td>FH-BNC3-D-50KF</td>
<td>£488</td>
<td>€562</td>
</tr>
</tbody>
</table>

---

**Weldable**

<table>
<thead>
<tr>
<th>No.</th>
<th>A</th>
<th>B</th>
<th>CC</th>
<th>Part Code</th>
<th>Price £</th>
<th>Price €</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>DN16CF</td>
<td>64.3</td>
<td>29.0</td>
<td>-</td>
<td>FH-BNC-D-16CF</td>
<td>£185</td>
</tr>
<tr>
<td>3</td>
<td>DN40CF</td>
<td>52.8</td>
<td>40.1</td>
<td>19.3</td>
<td>FH-BNC2-D-40CF</td>
<td>£336</td>
</tr>
<tr>
<td>3</td>
<td>DN63CF</td>
<td>52.8</td>
<td>40.1</td>
<td>24.1</td>
<td>FH-BNC3-D-63CF</td>
<td>£622</td>
</tr>
</tbody>
</table>

---

**Accessories**

<table>
<thead>
<tr>
<th>Description</th>
<th>Part Code</th>
<th>Price £</th>
<th>Price €</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 Ohm Kapton® coax UHV cable BNC - N/C L=500mm</td>
<td>CC-50-BNC-500</td>
<td>£71</td>
<td>€78</td>
</tr>
<tr>
<td>50 Ohm Kapton® coax UHV cable BNC - N/C L=1000mm</td>
<td>CC-50-BNC-1000</td>
<td>£78</td>
<td>€82</td>
</tr>
<tr>
<td>User end ferrule</td>
<td>Add: UEF</td>
<td>£136</td>
<td>€145</td>
</tr>
<tr>
<td>SMA male</td>
<td>Add: SMA</td>
<td>£57</td>
<td>€62</td>
</tr>
<tr>
<td>BNC male</td>
<td>Add: BNC</td>
<td>£57</td>
<td>€62</td>
</tr>
</tbody>
</table>

Connector details are included in Section 9 of this catalogue.
500 Volts, 3 Amps, BNC Floating Shield Single Ended

**Specifications:**

- **Voltage**: 500VDC max  
  (Floating shield - ground : 2,500VDC max)
- **Current**: 3A max
- **Impedance**: Non constant
- **Material**:  
  - Flange: 304 St.St.
  - Shell: 304 St.St.
  - Pin: 304 St.St.
- **Insulation**: Alumina ceramic

**Temperature Range**

- CF flanged feedthrough: -200°C to 450°C
- KF flanged feedthrough: -20°C to 150°C
- Weldable feedthrough: -200°C to 450°C
- Air side connector: -65°C to 165°C

**Features:**

- Shielded conductor.
- Industry standard bayonet connector.
- Air side connector included.
- In-vacuum connectors & cables available.
- Custom versions available on request.

**Accessories**

<table>
<thead>
<tr>
<th>Description</th>
<th>Part Code</th>
<th>Price £</th>
<th>Price €</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 Ohm Kapton® grounded shield UHV cable</td>
<td>CC-50GS-AF500-500</td>
<td>£130</td>
<td>€150</td>
</tr>
<tr>
<td>50 Ohm Kapton® grounded shield UHV cable</td>
<td>CC-50GS-AF500-1000</td>
<td>£137</td>
<td>€158</td>
</tr>
<tr>
<td>50 Ohm Kapton® floating shield UHV cable</td>
<td>CC-50FS-AF875-500</td>
<td>£130</td>
<td>€150</td>
</tr>
<tr>
<td>50 Ohm Kapton® floating shield UHV cable</td>
<td>CC-50FS-AF875-1000</td>
<td>£137</td>
<td>€158</td>
</tr>
<tr>
<td>User end female</td>
<td>AUE-LDF</td>
<td>£126</td>
<td>€145</td>
</tr>
<tr>
<td>SMA male</td>
<td>AAD-09MA</td>
<td>£87</td>
<td>€100</td>
</tr>
<tr>
<td>BNC male</td>
<td>ANJ-7</td>
<td>£87</td>
<td>€100</td>
</tr>
<tr>
<td>Power push-on connector BeCu 2.4mm 150°C vacuum 10PK</td>
<td>PHP-BECU-2.4-CON</td>
<td>£34</td>
<td>€40</td>
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<td>Power push-on connector BeCu 3.1mm 150°C vacuum 10PK</td>
<td>PHP-BECU-3.1-CON</td>
<td>£36</td>
<td>€42</td>
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* - Use grounded shield cable assemblies with these feedthroughs. Connector details are included in Section 9 of this catalogue.
500 Volts, 3 Amps, BNC Floating Shield Double Ended

Specifications:
- **Voltage**: 500VDC max
  (Floating shield - ground : 2,500VDC max)
- **Current**: 3A max
- **Impedance**: Non constant
- **Material**:
  - Flange: 304 St.St.
  - Shell: 304 St.St.
  - Pin: 304 St.St.
- **Insulation**: Alumina ceramic

**Temperature Range**
- CF flanged feedthrough: -200°C to 450°C
- KF flanged feedthrough: -20°C to 150°C
- Weldable feedthrough: -200°C to 450°C
- Air side connector: -65°C to 165°C

**Features:**
- Shielded conductor.
- Industry standard bayonet connector.
- Air side connector included.
- In-vacuum connectors & cables available.
- Custom versions available on request.

**Accessories**

<table>
<thead>
<tr>
<th>Description</th>
<th>Part Code</th>
<th>Price £</th>
<th>Price €</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 Ohm Kapton® coax UHV cable BNC - N/C L=500mm</td>
<td>CC-50-BNC-500</td>
<td>£71</td>
<td>€82</td>
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<tr>
<td>50 Ohm Kapton® coax UHV cable BNC - N/C L=1000mm</td>
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<td>€90</td>
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<td>SMA male</td>
<td>A23 -SMA</td>
<td>£67</td>
<td>€78</td>
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<td>A23 -BNC</td>
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<td>€78</td>
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**Connector details are included in Section 9 of this catalogue.**
5,000 Volts, 3 Amps, MHV Grounded Shield Single Ended

Specifications:

- **Voltage**: 5,000VDC max
- **Current**: 3A max
- **Impedance**: Non constant
- **Material**:
  - Flange: 304 St.St.
  - Shell: 304 St.St.
  - Pin: 304 St.St.
- **Insulation**: Alumina ceramic

Temperature Range:

- CF flanged feedthrough: -200°C to 450°C
- KF flanged feedthrough: -20°C to 150°C
- Weldable feedthrough: -200°C to 450°C

Air side connector: -65°C to 165°C

Features:

- Shielded conductor.
- Industry standard bayonet connector.
- Air side connector included.
- In-vacuum connectors & cables available.
- Custom versions available on request.

Accessories:

- 50 Ohm Kapton® ground/shield LV cable AF50K: £130
- 50 Ohm Kapton® ground/shield LV cable AF50L: £137
- SMA male: £126
- SMA female: £126
- Power push-on connector BeCu 2.4mm: £38
- Power in-line connector BeCu 3.1mm: £40

Connector details are included in Section 9 of this catalogue.
5,000 Volts, 3 Amps, MHV Grounded Shield Double Ended

Specifications:

**Voltage**\(^1\) 5,000VDC max

**Current**\(^2\) 3A max

**Impedance** Non constant

**Material**
- Flange: 304 St.St.
- Shell: 304 St.St.
- Pin: 304 St.St.
- Insulation: Alumina ceramic

**Temperature Range**\(^2\)
- CF flanged feedthrough: -200°C to 450°C
- KF flanged feedthrough: -20°C to 150°C
- Weldable feedthrough: -200°C to 450°C
- Air side connector: -65°C to 165°C

\(^1\) Please see section introduction for safety information.

\(^2\) Assembly rating is reduced to that of the lowest rated component.

Features:

- Shielded conductor.
- Industry standard bayonet connector.
- Air side connector included.
- In-vacuum connectors & cables available.
- Custom versions available on request.

**Fig. 1.**

**Fig. 2.**

**Fig. 3.**

**CF Flange Mounted**

<table>
<thead>
<tr>
<th>Fig. No.</th>
<th>Flange</th>
<th>A</th>
<th>B</th>
<th>CC</th>
<th>Part Code</th>
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<th>Price €</th>
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<th>Price €</th>
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<td>DN40KF</td>
<td>51.6</td>
<td>41.4</td>
<td>-</td>
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<td>51.6</td>
<td>41.4</td>
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**Weldable**

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<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
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<th>Price €</th>
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<td>5.9</td>
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<td>€165</td>
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**Accessories**

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<th>Description</th>
<th>Part Code</th>
<th>Price £</th>
<th>Price €</th>
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<td>50 Ohm Kapton® UHV cable MHV - N/C L=500mm</td>
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<td>€115</td>
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<td>Ad3-SMA</td>
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<td>€63</td>
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<td>MHV male</td>
<td>Ad3-MHV</td>
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Connector details are included in Section 9 of this catalogue.
ELECTRICAL FEEDTHROUGHS

5,000 Volts, 3 Amps, MHV Floating Shield Single Ended

Specifications:

Voltage¹ 5,000VDC max
(Floating shield - ground : 2,500VDC max)

Current¹ 3A max

Impedance Non constant

Material
Flange 304 St.St.
Shell 304 St.St.
Pin 304 St.St.
Insulation Alumina ceramic

Temperature Range²
CF flanged feedthrough -200°C to 450°C
KF flanged feedthrough -20°C to 150°C
Weldable feedthrough -200°C to 450°C

Air side connector -65°C to 165°C

¹ - See section introduction for safety information.
² - Assembly rating is reduced to that of the lowest rated component.

Features:

- Shielded conductor.
- Industry standard bayonet connector.
- Air side connector included.
- In-vacuum connectors & cables available.
- Custom versions available on request.

Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

All dimensions are nominal in millimetres unless otherwise specified.

SECTION 1.4 COAXIAL

CF Flange Mounted*

<table>
<thead>
<tr>
<th>Fig. No.</th>
<th>Flange A</th>
<th>B</th>
<th>C</th>
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<td>17.8</td>
<td>24.9</td>
<td>2.4</td>
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<td>€189</td>
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KF Flange Mounted*

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<th>Fig. No.</th>
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<th>C</th>
<th>D</th>
<th>Part Code</th>
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<th>Price €</th>
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<td>€189</td>
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<tr>
<td>4</td>
<td>DN40KF</td>
<td>53.1</td>
<td>20.7</td>
<td>2.4</td>
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<td>£147</td>
<td>€189</td>
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Weldable

<table>
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<tr>
<th>Fig. No.</th>
<th>Flange A</th>
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<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
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<th>Price €</th>
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<td>10.2</td>
<td>12.7</td>
<td>19.8</td>
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<td>101</td>
<td>FH5-MHV-FS-W</td>
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<td>22.6</td>
<td>25.0</td>
<td>2.4</td>
<td>10.2</td>
<td>12.7</td>
<td>19.8</td>
<td>17.1</td>
<td>24.6</td>
<td>FH5-MHV-FS-WS</td>
<td>£101</td>
<td>€117</td>
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Accessories

<table>
<thead>
<tr>
<th>Description</th>
<th>Part Code</th>
<th>Price £</th>
<th>Price €</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 Ohm Kapton® gnd shd coax UHV cable AF500 - N/C L=500mm CC-50GS-AF500-500</td>
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<td>€150</td>
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<td>50 Ohm Kapton® gnd shd coax UHV cable AF500 - N/C L=1000mm CC-50GS-AF500-1000</td>
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<td>50 Ohm Kapton® flt shd coax UHV cable AF500 - N/C L=500mm CC-50FS-AF500-500</td>
<td>£130</td>
<td>€158</td>
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<tr>
<td>50 Ohm Kapton® flt shd coax UHV cable AF500 - N/C L=1000mm CC-50FS-AF500-1000</td>
<td>£137</td>
<td>€158</td>
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<tr>
<td>User end female</td>
<td>Add -UEF</td>
<td>£126</td>
<td>€145</td>
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<tr>
<td>SMA male</td>
<td>Add -SMA</td>
<td>£67</td>
<td>€78</td>
</tr>
<tr>
<td>MHV male</td>
<td>Add-MHV</td>
<td>£71</td>
<td>€82</td>
</tr>
<tr>
<td>Power push-on connector BeCu 2.4mm 150°C air 200°C vacuum 10/PK FHP-BECU-2.4-CON</td>
<td>£34</td>
<td>€40</td>
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<tr>
<td>Power in-line connector BeCu 3.1mm 150°C air 400°C vacuum 10/PK FHP-BECU-3IL-CON</td>
<td>£36</td>
<td>€42</td>
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</tbody>
</table>

* - Use grounded shield cable assemblies with these feedthroughs. Connector details are included in Section 9 of this catalogue.
5,000 Volts, 3 Amps, MHV Floating Shield Double Ended

**Specifications:**

- **Voltage**: 5,000VDC max
  - (Floating shield - ground: 2,500VDC max)
- **Current**: 3A max
- **Impedance**: Non constant
- **Material**:
  - Flange: 304 St.St.
  - Shell: 304 St.St.
  - Pin: 304 St.St.
  - Insulation: Alumina ceramic
- **Temperature Range**:
  - CF flanged feedthrough: -200°C to 450°C
  - KF flanged feedthrough: -20°C to 150°C
  - Weldable feedthrough: -200°C to 450°C
  - Air side connector: -65°C to 165°C

**Features:**

- Shielded conductor.
- Industry standard bayonet connector.
- Air side connector included.
- In-vacuum connectors & cables available.
- Custom versions available on request.

---

**CF Flange Mounted**

<table>
<thead>
<tr>
<th>Fig.</th>
<th>No.</th>
<th>Flange</th>
<th>A</th>
<th>B</th>
<th>Part Code</th>
<th>Price £</th>
<th>Price €</th>
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<td>41.1</td>
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<th>B</th>
<th>Part Code</th>
<th>Price £</th>
<th>Price €</th>
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<td>1</td>
<td>DN16KF</td>
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<td>FH5-MHV-FSD-KF</td>
<td>£282</td>
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<td>2</td>
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**Weldable**

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<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>Part Code</th>
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<th>Price €</th>
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**Accessories**

<table>
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<th>Description</th>
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<th>Price £</th>
<th>Price €</th>
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<tbody>
<tr>
<td>50 Ohm Kapton® coax UHV cable MHV - N/C L=500mm</td>
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<td>€82</td>
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<td>MHV male</td>
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<td>€82</td>
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Connector details are included in Section 9 of this catalogue.
5,000 Volts, 5 Amps, SHV Grounded Shield Exposed Pin

Specifications:

Voltage\(^1\) 5,000VDC max

Current\(^2\) 5A max

Impedance Non constant

Material
- Flange 304 St.St.
- Shell 304 St.St.
- Pin Nickel
- Insulation Alumina ceramic

Temperature Range\(^2\)
- CF flanged feedthrough -200°C to 450°C
- KF flanged feedthrough -20°C to 150°C
- Weldable feedthrough -200°C to 450°C
- Air side connector -65°C to 165°C

Features:
- Shielded conductor.
- Recessed air side pin for increased safety.
- Industry standard bayonet connector.
- Air side connector included.
- In-vacuum connectors available.
- Custom versions available on request.

\(^1\) Please see section introduction for safety information.
\(^2\) Assembly rating is reduced to that of the lowest rated component.

CF Flange Mounted

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<th>Pins</th>
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<th>A</th>
<th>B</th>
<th>C</th>
<th>CC</th>
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<th>Price €</th>
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KF Flange Mounted

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Weldable

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<th>B</th>
<th>C</th>
<th>D</th>
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<th>Price €</th>
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<td>12.6</td>
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Accessories

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<th>Price €</th>
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<tr>
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<td>FHP-BECU-2.4-CON</td>
<td>£34</td>
<td>€40</td>
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<tr>
<td>Power in-line connector BeCu 3.1mm 150°C air 400°C vacuum 10/PK</td>
<td>FHP-BECU-3IL-CON</td>
<td>£36</td>
<td>€42</td>
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Connector details are included in Section 9 of this catalogue.
5,000 Volts, 5 Amps, SHV Grounded Shield Recessed Pin

Specifications:

Voltage\(^1\) 5,000VDC max
Current\(^1\) 5A max
Impedance Non constant

Material
Flange 304 St.St.
Shell 304 St.St.
Pin Nickel
Insulation Alumina ceramic

Temperature Range\(^2\)
CF flanged feedthrough -200°C to 450°C
KF flanged feedthrough -20°C to 150°C
Weldable feedthrough -200°C to 450°C
Air side connector -65°C to 165°C

\(^1\) - Please see section introduction for safety information.
\(^2\) - Assembly rating is reduced to that of the lowest rated component.

Features:
- Shielded conductor.
- Recessed air side pin for increased safety.
- Industry standard bayonet connector.
- Air side connector included.
- In-vacuum connectors available.
- Custom versions available on request.

Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

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<td><strong>Fig.</strong></td>
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<tbody>
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<td><strong>Description</strong></td>
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<tr>
<td>Power push-on connector BeCu 2.4mm 150°C air 200°C vacuum 10PK</td>
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<tr>
<td>Power-in-line connector BeCu 3.1mm 150°C air 400°C vacuum 10PK</td>
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Connector details are included in Section 9 of this catalogue.
**Specifications:**

**Voltage** 5,000VDC max
(Floating shield - ground : 2,500VDC max)

**Current** 5A max

**Impedance** Non constant

**Material**
- Flange: 304 St.St.
- Shell: 304 St.St.
- Pin: Nickel
- Insulation: Alumina ceramic

**Temperature Range**
- CF flanged feedthrough: -200°C to 450°C
- KF flanged feedthrough: -20°C to 150°C
- Weldable feedthrough: -200°C to 450°C
- Air side connector: -65°C to 165°C

**Features:**

- Shielded conductor.
- Recessed air side pin for increased safety.
- Industry standard bayonet connector.
- Air side connector included.
- In-vacuum connectors available.
- Custom versions available on request.

**Accessories**

<table>
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<tr>
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<th>Price €</th>
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Connector details are included in Section 9 of this catalogue.
10,000 Volts, 5 Amps, SHV Grounded Shield Exposed Pin

Specifications:
- **Voltage**: 10,000VDC max
- **Current**: 5A max
- **Impedance**: Non constant

**Material**
- Flange: 304 St.St.
- Shell: 304 St.St.
- Pin: Nickel
- Insulation: Alumina ceramic

**Temperature Range**
- CF flanged feedthrough: -200°C to 450°C
- KF flanged feedthrough: -20°C to 150°C
- Weldable feedthrough: -200°C to 450°C
- Air side connector: -65°C to 165°C

**Features:**
- Shielded conductor.
- Recessed air side pin for increased safety.
- Industry standard bayonet connector.
- Air side connector included.
- In-vacuum connectors available.
- Custom versions available on request.

**Accessories**

<table>
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<th>Price €</th>
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<td>Power push-on connector BeCu 1.3mm 150°C air 200°C vacuum 10PK</td>
<td>FH10-BECU-1.3-CON</td>
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</table>

Connector details are included in Section 9 of this catalogue.
10,000 Volts, 5 Amps, SHV Grounded Shield Recessed Pin

Specifications:

- Voltage: 10,000VDC max
- Current: 5A max
- Impedance: Non constant

Material:
- Flange: 304 St.St.
- Shell: 304 St.St.
- Pin: Nickel
- Insulation: Alumina ceramic

Temperature Range:
- CF flanged feedthrough: -20°C to 450°C
- KF flanged feedthrough: -20°C to 150°C
- Weldable feedthrough: -200°C to 450°C
- Air side connector: -65°C to 165°C

Features:
- Shielded conductor.
- Recessed air side pin for increased safety.
- Industry standard bayonet connector.
- Air side connector included.
- In-vacuum connectors available.
- Custom versions available on request.

Accessories

- Power in-line connector BeCu 1.5mm 150°C air 400°C vacuum 10/PK: FHP-BECU-1.5IL-CON £36 €42
- Power push-on connector BeCu 1.3mm 150°C air 200°C vacuum 10/PK: FHP-BECU-1.3-CON £34 €40

Connector details are included in Section 9 of this catalogue.
20,000 Volts, 15 Amps, SHV Grounded Shield Exposed Pin

Specifications:
- Voltage\(^1\): 20,000VDC max
- Current\(^1\): 15A max
- Impedance: Non constant

Material:
- Flange: 304 St.St.
- Shell: 304 St.St.
- Pin: Nickel
- Insulation: Alumina ceramic

Temperature Range\(^2\):
- CF flanged feedthrough: -200°C to 450°C
- KF flanged feedthrough: -20°C to 150°C
- Weldable feedthrough: -200°C to 450°C
- Air side connector: -65°C to 165°C

Features:
- Shielded conductor.
- Recessed air side pin for increased safety.
- Industry standard bayonet connector.
- Air side connector included.
- In-vacuum connectors available.
- Custom versions available on request.

Fig. 1.

Fig. 2.

Fig. 3.
20,000 Volts, 15 Amps, SHV Grounded Shield Recessed Pin

Specifications:

Voltage\(^1\) 20,000VDC max
Current\(^2\) 15A max
Impedance Non constant

Material

Flange 304 St.St.
Shell 304 St.St.
Pin Nickel
Insulation Alumina ceramic

Temperature Range\(^2\)

CF flanged feedthrough -200°C to 450°C
KF flanged feedthrough -20°C to 150°C
Weldable feedthrough -200°C to 450°C

Air side connector -65°C to 165°C

Features:

- Shielded conductor.
- Recessed air side pin for increased safety.
- Industry standard bayonet connector.
- Air side connector included.
- In-vacuum connectors available.
- Custom versions available on request.

CF Flange Mounted

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<tr>
<th>Fig. No.</th>
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<th>C</th>
<th>CC</th>
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<th>Price €</th>
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<td>97.8</td>
<td>6.9</td>
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<td>£210</td>
<td>€242</td>
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<tr>
<td>1</td>
<td>2</td>
<td>0.5</td>
<td>96.5</td>
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<td>FH20-SHV-40KF</td>
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KF Flange Mounted

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<th>B</th>
<th>C</th>
<th>CC</th>
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<tr>
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<td>96.5</td>
<td>9.4</td>
<td>FH20-SHV-16KF</td>
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<td>96.5</td>
<td>9.4</td>
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<td>£215</td>
<td>€248</td>
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<tr>
<td>2</td>
<td>2</td>
<td>0.5</td>
<td>96.5</td>
<td>9.4</td>
<td>FH20-SHV2-50KF</td>
<td>£425</td>
<td>€489</td>
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Weldable

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<th>Fig. No.</th>
<th>A</th>
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<th>C</th>
<th>CC</th>
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<th>Price €</th>
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Accessories

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<td>€60</td>
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Connector details are included in Section 9 of this catalogue.
500 Volts, 3 Amps, Type N Single Ended

Specifications:

- Voltage: 500VDC max
- Current: 3A max
- Impedance: See Table

Material:
- Flange: 304 St.St.
- Shell: 304 St.St.
- Pin: Nickel
- Insulation: Alumina ceramic

Temperature Range:
- CF flanged feedthrough: -200°C to 450°C
- KF flanged feedthrough: -20°C to 150°C
- Weldable feedthrough: -200°C to 450°C
- Air side connector: -65°C to 165°C

Features:
- Shielded conductor.
- High frequency transmission, up to 1GHz.
- Industry standard screw connector.
- Constant 50 Ohm version available.
- Air side connector included.
- In-vacuum connectors available.
- Custom versions available on request.

Connector details are included in Section 9 of this catalogue. Non-constant versions pictured.
500 Volts, 3 Amps, Type N Double Ended

Specifications:

Voltage\(^1\) 500VDC max
Current\(^2\) 3A max
Impedance Non constant

Material
Flange 304 St.St.
Shell 304 St.St.
Pin Nickel
Insulation Alumina ceramic

Temperature Range\(^2\)
CF flanged feedthrough -200°C to 450°C
KF flanged feedthrough -20°C to 150°C
Weldable feedthrough -200°C to 450°C
Air side connector -65°C to 165°C

Features:
- Shielded conductor.
- High frequency transmission, up to 1GHz.
- Industry standard screw connector.
- Air side connector included.
- Custom versions available on request.

\(^1\) Please see section introduction for safety information.
\(^2\) Assembly rating is reduced to that of the lowest rated component.

Fig. 1. \hspace{1cm} Fig. 2. \hspace{1cm} Fig. 3.
700 Volts, 1 Amp, SMA Grounded Shield Single Ended

**Specifications:**

- **Voltage:** 700VDC max
- **Current:** 1A max
- **Impedance:** See table
- **Material:**
  - Flange: 304 St.St.
  - Shell: 304 St.St.
  - Pin: Nickel
- **Insulation:** Alumina ceramic
- **Temperature Range:**
  - CF flanged feedthrough: -200°C to 450°C
  - KF flanged feedthrough: -20°C to 150°C
  - Weldable feedthrough: -200°C to 450°C
  - Air side connector: -65°C to 165°C

**Features:**

- Shielded conductor.
- Industry standard screw connector.
- Constant 50 Ohm version available.
- Air side connector included.
- In-vacuum connectors available.

**CF Flange Mounted**

<table>
<thead>
<tr>
<th>Fig. No.</th>
<th>No. Pins</th>
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<th>B</th>
<th>C</th>
<th>PCD</th>
<th>Part Code</th>
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* - 4 pins on 25.4 pcd, 1 pin central.

**KF Flange Mounted**

<table>
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<th>No. Pins</th>
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<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
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* - 4 pins on 31.8 pcd, 1 pin central.

**Weldable**

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<th>No. Pins</th>
<th>Impedance</th>
<th>Flange</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>Part Code</th>
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<th>Price €</th>
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<td>N/C</td>
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<td>FH-SMA-W50</td>
<td>£230</td>
<td>€264</td>
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</table>

**Accessories**

<table>
<thead>
<tr>
<th>Description</th>
<th>Part Code</th>
<th>Price £</th>
<th>Price €</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power push-on connector BeCu 2.4mm 180°C at 200°C vacuum 10PK</td>
<td>FH-4BEU2.4-CON</td>
<td>£34</td>
<td>€40</td>
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<tr>
<td>Power push-on connector BeCu 1.5mm 180°C at 200°C vacuum 10PK</td>
<td>FH-4BEU1.5-CON</td>
<td>£34</td>
<td>€40</td>
</tr>
<tr>
<td>Power in-line connector BeCu 3.1mm 180°C at 400°C vacuum 10PK</td>
<td>FH-4BEU3L-CON</td>
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<tr>
<td>Power in-line connector BeCu 1.5mm 180°C at 400°C vacuum 10PK</td>
<td>FH-4BEU1.5L-CON</td>
<td>£36</td>
<td>€42</td>
</tr>
</tbody>
</table>

Connector details are included in Section 9 of this catalogue.

All dimensions are nominal in millimetres unless otherwise specified.
700 Volts, 1 Amp, SMA Grounded Shield Double Ended

**Specifications:**

- **Voltage:** 700VDC max
- **Current:** 1A max
- **Impedance:** 50Ω

**Material**

- Flange: 304 St.St.
- Shell: 304 St.St.
- Pin: Nickel
- Insulation: Alumina ceramic

**Features:**

- Shielded conductor.
- Industry standard screw connector.
- Constant 50 Ohm impedance.
- Up to 6GHz operation.
- Air side connector included.
- In-vacuum connectors & cables available.
- Custom versions available on request.

**Temperature Range**

- CF flanged feedthrough: -200°C to 450°C
- KF flanged feedthrough: -20°C to 150°C
- Weldable feedthrough: -200°C to 450°C
- Air side connector: -65°C to 165°C

---

**CF Flange Mounted**

<table>
<thead>
<tr>
<th>Fig.</th>
<th>No.</th>
<th>Imp</th>
<th>Flange</th>
<th>A</th>
<th>B</th>
<th>Part Code</th>
<th>Price £</th>
<th>Price €</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>50Ω</td>
<td>DN16CF</td>
<td>17.3</td>
<td>21.8</td>
<td>FH-SMA-D-16CF</td>
<td>£374</td>
<td>€431</td>
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<tr>
<td>1</td>
<td>1</td>
<td>50Ω</td>
<td>DN40CF</td>
<td>17.3</td>
<td>21.8</td>
<td>FH-SMA-D-40CF</td>
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**KF Flange Mounted**

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<tr>
<th>Fig.</th>
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<th>Flange</th>
<th>A</th>
<th>B</th>
<th>Part Code</th>
<th>Price £</th>
<th>Price €</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>1</td>
<td>50Ω</td>
<td>DN16KF</td>
<td>18.5</td>
<td>23.8</td>
<td>FH-SMA-D-16KF</td>
<td>£374</td>
<td>€431</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>50Ω</td>
<td>DN40KF</td>
<td>18.5</td>
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<td>FH-SMA-D-40KF</td>
<td>£374</td>
<td>€431</td>
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**Weldable**

<table>
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<th>Fig.</th>
<th>No.</th>
<th>Imp</th>
<th>A</th>
<th>B</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>Part Code</th>
<th>Price £</th>
<th>Price €</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>1</td>
<td>50Ω</td>
<td>16.0</td>
<td>23.1</td>
<td>10.7</td>
<td>12.6</td>
<td>6.4</td>
<td>10.2</td>
<td>FH-SMA-D-W</td>
<td>£290</td>
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**Accessories**

<table>
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<th>Description</th>
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<th>Price €</th>
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</thead>
<tbody>
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<td>50 OHM Kapton® coax UHV cable SMA - N/C L=500mm</td>
<td>CC-SMA-500</td>
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<td>50 OHM Kapton® coax UHV cable SMA - N/C L=1000mm</td>
<td>CC-SMA-1000</td>
<td>£78</td>
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<td>User end female</td>
<td>AUF-UF</td>
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<td>SMA male</td>
<td>AUF-SMA</td>
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<td>€78</td>
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<tr>
<td>SMA female</td>
<td>AUF-SMAF</td>
<td>£67</td>
<td>€78</td>
</tr>
</tbody>
</table>

Connector details are included in Section 9 of this catalogue.
**700 Volts, 1 Amp, SMA Floating Shield Single Ended**

### Specifications:

- **Voltage**: 700VDC max
- **Impedance**: Non constant
- **Material**:
  - Flange: 304 St.St.
  - Shell: 304 St.St.
  - Pin: Nickel
  - Insulation: Alumina ceramic

### Features:

- Shielded conductor.
- Industry standard screw connector.
- Air side connector included.
- In-vacuum connectors & cables available.
- Custom versions available on request.

### Temperature Range:

- CF flanged feedthrough: -200°C to 450°C
- KF flanged feedthrough: -20°C to 150°C
- Weldable feedthrough: -200°C to 450°C
- Air side connector: -65°C to 165°C

---

**CF Flange Mounted**

<table>
<thead>
<tr>
<th>Fig.</th>
<th>No. Pk</th>
<th>Impedance</th>
<th>Flange</th>
<th>A</th>
<th>B</th>
<th>Part Code</th>
<th>Price £</th>
<th>Price €</th>
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</thead>
<tbody>
<tr>
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<td>FH-SMA-FS-40CF</td>
<td>239.16</td>
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**KF Flange Mounted**

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<tr>
<th>Fig.</th>
<th>No. Pk</th>
<th>Impedance</th>
<th>Flange</th>
<th>A</th>
<th>B</th>
<th>Part Code</th>
<th>Price £</th>
<th>Price €</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>FH-SMA-FS-40KF</td>
<td>239.16</td>
<td>290</td>
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</tbody>
</table>

**Weldable**

<table>
<thead>
<tr>
<th>Fig.</th>
<th>No. Pk</th>
<th>Imp</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>Part Code</th>
<th>Price £</th>
<th>Price €</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>ABC</td>
<td>17.0</td>
<td>19.1</td>
<td>2.4</td>
<td>16.7</td>
<td>20.6</td>
<td>19.0</td>
<td>FH-SMA-FS-W</td>
<td>210.00</td>
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</table>

**Accessories**

Double ended 50Ω version of this feedthrough is also available, please contact sales office for details.

---

All dimensions are nominal in millimetres unless otherwise specified.
500 Volts, 2 Amps, Microdot

Specifications:
- **Voltage**: 500VDC max
- **Current**: 2A max
- **Impedance**: Non constant

**Material**
- **Flange**: 304 St.St.
- **Shell**: 304 St.St.
- **Pin**: Molybdenum
- **Insulation**: Alumina ceramic

**Temperature Range**
- CF flanged feedthrough: -200°C to 450°C
- KF flanged feedthrough: -20°C to 150°C
- Weldable feedthrough: -200°C to 450°C
- Air side connector: -65°C to 165°C

1. Please see section introduction for safety information.
2. Assembly rating is reduced to that of the lowest rated component.

### Features:
- Shielded conductor.
- Industry standard screw connector.
- Air side connector included.
- In-vacuum connectors available.
- Custom versions available on request.

### Accessories

<table>
<thead>
<tr>
<th>Description</th>
<th>Part Code</th>
<th>Price £</th>
<th>Price €</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power push-on connector BeCu 1.0mm 150°C air 200°C vacuum 10PK</td>
<td>PH-BECU-10-CON</td>
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<tr>
<td>Power in-line connector BeCu 1.5mm 150°C air 400°C vacuum 10PK</td>
<td>PH-BECU-1.5IL-CON</td>
<td>£36</td>
<td>€42</td>
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<td>Power in-line connector BeCu 1.5mm 150°C air 400°C vacuum 10PK</td>
<td>PH-BECU-1.5IL-CON</td>
<td>£36</td>
<td>€42</td>
</tr>
</tbody>
</table>

Connector details are included in Section 9 of this catalogue.
**SECTION 1.4 COAXIAL**

**Microdot to BNC, 500 Volts, 1 Amp**

### Specifications:

- **Voltage**: 500VDC max
- **Current**: 1A max
- **Impedance**: Non constant

### Features:

- Shielded conductor.
- Industry standard screw / bayonet connector.
- Air side connector included.
- In-vacuum connectors & cables available.
- Custom versions available on request.

### Temperature Range

- CF flanged feedthrough: -200°C to 450°C
- KF flanged feedthrough: -20°C to 150°C
- Weldable feedthrough: -200°C to 450°C
- Air side connector: -65°C to 165°C

1 - Please see section introduction for safety information.
2 - Assembly rating is reduced to that of the lowest rated component.

### Figures

**Fig. 1.**

**Fig. 2.**

**Fig. 3.**

All dimensions are nominal in millimetres unless otherwise specified.