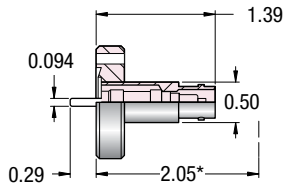
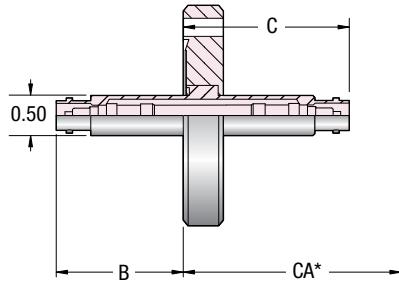




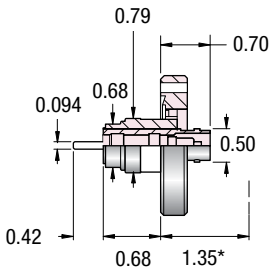
**Grounded Shield — Single-Ended**  
Fig. 1



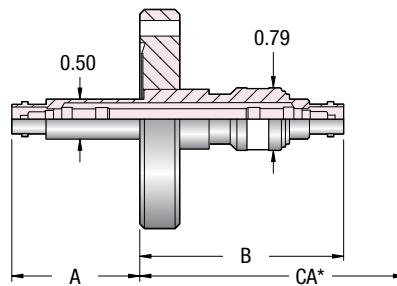
**Double-Ended**  
Fig. 2



**Floating Shield — Single-Ended**  
Fig. 3



**Double-Ended**  
Fig. 4



**110141** / Single-Ended MHV  
(Vacuum Side)



**110144** / Single-Ended MHV  
(Vacuum Side)



**110174** / Single-Ended MHV  
(Vacuum Side)

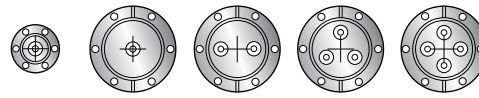


**110175** / Double-Ended MHV  
(Vacuum Side)

| No. Pins | SE Circle |
|----------|-----------|
| 1        | —         |
| 2        | 0.85      |
| 3        | 0.85      |
| 4        | 0.85      |

\* Connector Attached

End Views showing feedthrough placements



133 CF    275 CF

**CF Flange<sup>1</sup> — 3 Amp / 250°C / UHV to 1x10<sup>-10</sup> Torr**

| No. Pins | Fig. | End <sup>2</sup> Type | CF Flange | OD | B | C | CA | Model Number | Part Number | Unit Price \$ |
|----------|------|-----------------------|-----------|----|---|---|----|--------------|-------------|---------------|
|----------|------|-----------------------|-----------|----|---|---|----|--------------|-------------|---------------|

**Grounded Shield — 5000VDC Pin to Ground**

|   |   |    |        |      |      |      |      |             |               |     |
|---|---|----|--------|------|------|------|------|-------------|---------------|-----|
| 1 | 1 | SE | 133 CF | 1.33 | —    | —    | —    | MHV-GS-133  | <b>110140</b> | 105 |
| 1 | 1 | SE | 275 CF | 2.73 | —    | —    | —    | MHV-GS-275  | <b>110141</b> | 111 |
| 2 | 1 | SE | 275 CF | 2.73 | —    | —    | —    | MHV-GS2-275 | <b>110142</b> | 158 |
| 3 | 1 | SE | 275 CF | 2.73 | —    | —    | —    | MHV-GS3-275 | <b>110143</b> | 216 |
| 4 | 1 | SE | 275 CF | 2.73 | —    | —    | —    | MHV-GS4-275 | <b>110144</b> | 273 |
| 1 | 2 | DE | 133 CF | 1.33 | 1.08 | 2.55 | 3.20 | 2MHV-GS-133 | <b>110122</b> | 310 |
| 1 | 2 | DE | 275 CF | 2.73 | 1.58 | 2.05 | 2.70 | 2MHV-GS-275 | <b>110123</b> | 314 |

**Floating Shield — 2500VDC Shield to Ground**

|   |   |    |        |      |      |      |      |             |               |     |
|---|---|----|--------|------|------|------|------|-------------|---------------|-----|
| 1 | 3 | SE | 275 CF | 2.73 | —    | —    | —    | MHV-FS-275  | <b>110174</b> | 231 |
| 1 | 4 | DE | 133 CF | 1.33 | 1.20 | 2.91 | 3.56 | 2MHV-FS-133 | <b>110175</b> | 394 |
| 1 | 4 | DE | 275 CF | 2.73 | 1.60 | 2.51 | 3.16 | 2MHV-FS-275 | <b>110176</b> | 394 |

1. Compatible with Conflat® flanges and hardware. 2. SE (single-ended) DE (double ended)



**110151** / Single-Ended MHV  
(Vacuum Side)



**110134** / Double-Ended MHV  
(Vacuum Side)

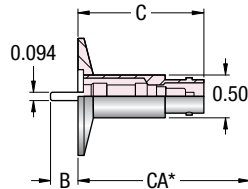


**110177** / Single-Ended MHV  
(Vacuum Side)

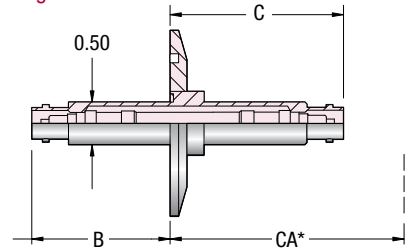


**110178** / Double-Ended MHV  
(Vacuum Side)

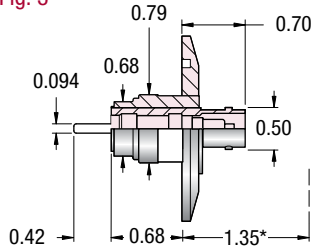
**Grounded Shield — Single-Ended**  
Fig. 1



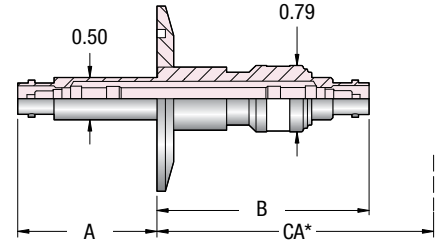
**Double-Ended**  
Fig. 2



**Floating Shield — Single-Ended**  
Fig. 3



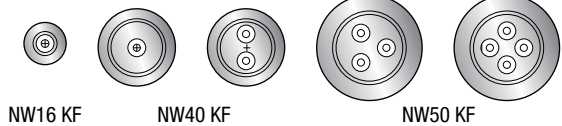
**Double-Ended**  
Fig. 4



| No. Pins | SE Circle | DE Circle |
|----------|-----------|-----------|
| 1        | —         | —         |
| 2        | 0.75      | .875      |
| 3        | 0.85      | 1.10      |
| 4        | 0.85      | —         |

\* Connector Attached

End Views showing feedthrough placements



**ISO KF Flange<sup>1</sup> — 3 Amp / 150°C / HV to 1x10<sup>-8</sup> Torr**

| No. Pins | End <sup>2</sup> Fig. | Type | ISO Flange | OD | B | C | CA | Model Number | Part Number | Unit Price \$ |
|----------|-----------------------|------|------------|----|---|---|----|--------------|-------------|---------------|
|----------|-----------------------|------|------------|----|---|---|----|--------------|-------------|---------------|

**Grounded Shield — 5000VDC**

|   |   |    |         |      |      |      |      |              |               |     |
|---|---|----|---------|------|------|------|------|--------------|---------------|-----|
| 1 | 1 | SE | NW16 KF | 1.18 | 0.25 | 1.44 | 2.10 | MHV-GS-K16   | <b>110150</b> | 105 |
| 1 | 1 | SE | NW40 KF | 2.16 | 0.35 | 1.34 | 2.00 | MHV-GS-K40   | <b>110151</b> | 111 |
| 2 | 1 | SE | NW40 KF | 2.16 | 0.35 | 1.34 | 2.00 | MHV-GS2-K40  | <b>110152</b> | 158 |
| 3 | 1 | SE | NW50 KF | 2.95 | 0.35 | 1.34 | 2.00 | MHV-GS3-K50  | <b>110153</b> | 252 |
| 4 | 1 | SE | NW50 KF | 2.95 | 0.35 | 1.34 | 2.00 | MHV-GS4-K50  | <b>110154</b> | 310 |
| 1 | 2 | DE | NW16 KF | 1.18 | 1.08 | 2.55 | 3.20 | 2MHV-GS-K16  | <b>110133</b> | 310 |
| 1 | 2 | DE | NW40 KF | 2.16 | 1.58 | 2.05 | 2.70 | 2MHV-GS-K40  | <b>110134</b> | 315 |
| 2 | 2 | DE | NW50 KF | 2.95 | 1.58 | 2.05 | 2.70 | 2MHV-GS2-K50 | <b>110138</b> | 499 |

**Floating Shield — 2500VDC**

|   |   |    |         |      |      |      |      |             |               |     |
|---|---|----|---------|------|------|------|------|-------------|---------------|-----|
| 1 | 3 | SE | NW40 KF | 2.16 | —    | —    | —    | MHV-FS-K40  | <b>110177</b> | 226 |
| 1 | 4 | DE | NW16 KF | 1.18 | 1.25 | 2.86 | 3.51 | 2MHV-FS-K16 | <b>110178</b> | 394 |
| 1 | 4 | DE | NW40 KF | 2.16 | 1.65 | 2.46 | 3.11 | 2MHV-FS-K40 | <b>110179</b> | 394 |

1. Compatible with ISO 2861/1 specification flanges and hardware 2. SE (single-ended) DE (double ended)

See page 68 for **Specifications**

## Ultrahigh Vacuum Cable Assemblies

The cables in the assemblies listed below consist of Accu-Glass Products' TYP6, 26 AWG, coaxial cable (part number 100720, page 99). These components are UHV compatible to  $1 \times 10^{-10}$  Torr.

**Connector to Cable** UHV cable assemblies are fitted with either stainless steel Accufast™ Female or MHV Male Bayonet connectors at one end and a non-terminated, Kapton® insulated wire at the other. The connectors mate directly to the in-vacuum side of our MHV feedthrough flanges on pages 69 and 70.

**Connector to User-Specified End** UHV cable assemblies are fitted with either stainless steel Accufast™ Female or MHV Male Bayonet connectors at one end and a user-specified connector at the other: MHV Bayonet Male. The connectors mate directly to the in-vacuum side of our MHV feedthrough flanges on pages 69 and 70.

### Cables — 250°C / UHV to $1 \times 10^{-10}$ Torr

| Connector Type            | Figure (Below) | Wire Length | Connector Name   | Model Number     | Part Number   | Unit Price \$ |
|---------------------------|----------------|-------------|------------------|------------------|---------------|---------------|
| <b>Connector to Cable</b> |                |             |                  |                  |               |               |
| Grounded                  | 1              | 19          | Accufast™ 500    | KAP-1CX-19AF500S | <b>110196</b> | 175           |
| Grounded                  | 1              | 39          | Accufast™ 500    | KAP-1CX-39AF500S | <b>110197</b> | 185           |
| Floating                  | 2              | 19          | Accufast™ 875    | KAP-1CX-19AF875S | <b>110192</b> | 175           |
| Floating                  | 2              | 39          | Accufast™ 875    | KAP-1CX-39AF875S | <b>110193</b> | 185           |
| Bayonet                   | —              | 19          | MHV Male Bayonet | KAP-1CX-19MHV    | <b>110798</b> | 105           |
| Bayonet                   | —              | 39          | MHV Male Bayonet | KAP-1CX-39MHV    | <b>110799</b> | 115           |

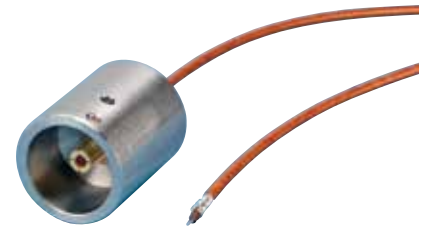
### Connector to User-Specified End Options

|           |   |                  |                       |            |     |
|-----------|---|------------------|-----------------------|------------|-----|
| 1 contact | 3 | User-End Female  | append to Part Number | <b>.51</b> | 170 |
| 1 contact | — | MHV Male Bayonet | append to Part Number | <b>.55</b> | 95  |

These are sold as additions to the above cable assemblies and are added at the factory only. Price is added to the unit price. For example, Part Number 110196.55 would have a price of \$270.



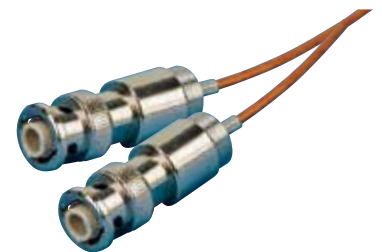
**110196** / MHV Grounded Shield UHV Connector



**110192** / MHV Floating Shield UHV Connector



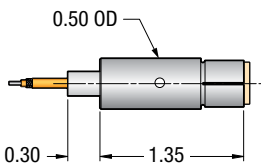
**.51, and .55** / User End Female and MHV Male Bayonet



**110798.55** / UHV MHV Male Bayonet with MHV Male Bayonet User-Specified End Option

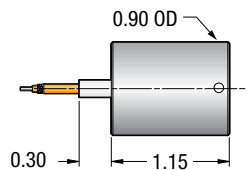
#### Grounded Shield

Fig. 1



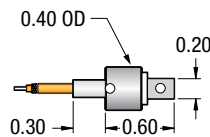
#### Floating Shield

Fig. 2



#### User-End

Fig. 3

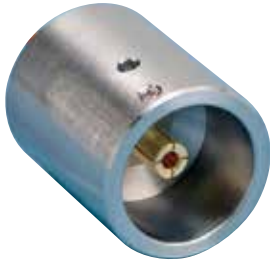


See page 68 for **Specifications**

See page 94 for **Cable Specs**



**111033** / Accufast™ 500 UHV Connector



**111021** / Accufast™ 875 UHV Connector



**111024** / MHV Male UHV Connector

### Ultrahigh Vacuum Connectors

Components in this section are sold as the most basic components. Connectors do not include wire or cable.

Connectors are designed for use with our TYP6, 26 AWG, coaxial cable (part number 100720, page 99). Use of these connectors on other coaxial cable may require modification to the crimp sleeve of the connector. Please call before ordering if using with other coaxial cable.

Accufast™ 500 and 875 connectors mate directly to the vacuum side of corresponding single-ended feedthroughs on pages 69 and 70.

### Connectors — 250°C / UHV to 1x10<sup>-10</sup> Torr

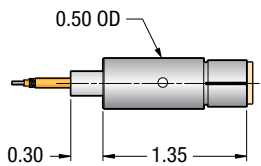
| Connector Type | Figure (Below) | Connector Name | Model Number | Part Number | Unit Price \$ |
|----------------|----------------|----------------|--------------|-------------|---------------|
|----------------|----------------|----------------|--------------|-------------|---------------|

#### Connector

|          |   |               |           |               |     |
|----------|---|---------------|-----------|---------------|-----|
| Grounded | 1 | Accufast™ 500 | AF500HV   | <b>111033</b> | 165 |
| Floating | 2 | Accufast™ 875 | AF875     | <b>111021</b> | 155 |
| MHV      | — | UHV MHV Male  | MHV-UHV-P | <b>111024</b> | 90  |
| Generic  | 3 | USER-END      | USER-END  | <b>111022</b> | 145 |

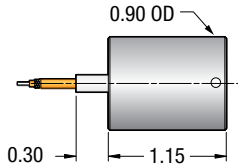
#### Grounded Shield

Fig. 1



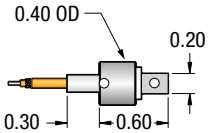
#### Floating Shield

Fig. 2



#### User-End

Fig. 3



### Assembly Tools and Components

|                   |        |            |               |     |
|-------------------|--------|------------|---------------|-----|
| Hex Crimping Tool | 1 ea.  | HCT-1      | <b>111029</b> | 95  |
| UHV Solder        | 1 inch | UHV-SOLDER | <b>110796</b> | 39  |
| Solder Flux       | 1 ea.  | S-FLUX     | <b>110797</b> | 45  |
| Soldering Iron    | 1 ea.  | S-IRON     | <b>110800</b> | 155 |

See page 68 for **Specifications**

## Air-service Cable Assemblies and Connectors

MHV Male to MHV Male air side cable assemblies are fitted with standard MHV Male Bayonet connectors at both ends of an RG59B/U coaxial cable. The connectors mate directly with the air side of the MHV feedthrough flanges on pages 69 and 70.



**110194** / Air-Service MHV Male Bayonet to MHV Male Bayonet

## Cable Assembly, Connectors, and Cable — 80°C / Air Atmosphere

| Type                               | Gender | Length<br>Inches | Diameter | Model<br>Number | Part<br>Number | Unit<br>Price<br>\$ |
|------------------------------------|--------|------------------|----------|-----------------|----------------|---------------------|
| <b>Cable Assembly — MHV to MHV</b> |        |                  |          |                 |                |                     |
| MHV                                | M / M  | 48               | 0.25     | AIR-MHV-482PC   | <b>110194</b>  | 60                  |
| <b>Connectors — MHV</b>            |        |                  |          |                 |                |                     |
| MHV                                | M      | —                | —        | AIR-MHV-C       | <b>110195</b>  | 30                  |



**110195** / Air-Service MHV Male Connector