

## 9-Way D-type Connection Accessories

- **Standard, High Voltage and Calibration Port Solutions**
- **Standard Voltage to 250V AC/400V, 5A**
- **High Voltage to 750V Working/1000VDC AC Peak Typical, 5A**
- **Mating Connectors**
- **Connector Hoods**
- **Connector Blocks**
- **Cable Assemblies**
- **Guaranteed Compatibility**



The Standard Voltage 9-Way D-Type connector is used on PXI and LXI switching products to provide a low density user connector solution. It is also used as the Calibration Port connector for Precision resistor modules.

The High Voltage 9-Way D-Type connector is used on LXI switching products to provide a high voltage connector solution. Pickering Interfaces has developed a full range of standard connection solutions to simplify the task of integrating products into a test system.

For users wishing to develop their own cabling solutions, we offer mating connectors and connector hoods which allow users to create either their own cable based solutions, or a PCB header solution. Connector Blocks directly terminate the module connector and convert the connection to arrays of screw terminal blocks, or users can select to use a remote DIN rail mounted breakout to terminate the cables at the end of a cable assembly.

Connector to Connector cable assemblies provide a simple way of connecting the product to the user's remote matching connection. Connectors to unterminated solutions allow the user to connect directly to the product connector and wire directly into a remote UUT. Cable assemblies are offered in various lengths to match most user requirements.

Pickering Interfaces can manufacture custom connector accessories to suit any application, if you do not see what you need then contact your Pickering Interfaces sales office with information on your requirements and let us solve your connection problems.



### Sales Offices and Support

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		Without Backshell		<b>92-960-009-F</b>	
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	Cable Assy, 9 Way D-Type to Underterminated, 5A, 0.5m, 1m and 2m Custom lengths by quotation	Female	Underterminated with Options	<b>40-972-009-*m-FU A009DF4-*-0A***</b>	Page 10
		Male	Underterminated with Options	<b>40-972-009-*m-MU A009DM4-*-0A***</b>	

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HIGH VOLTAGE - Connectors / Connector Blocks					
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		Without Backshell		<b>92-960-009-M-HV</b>	

HIGH VOLTAGE - Cable Assemblies					
VIEW	DESCRIPTION	END 1	END 2	PART No.	PAGE
	Cable Assy, 9 Way D-Type 5A, High Voltage 0.5m, 1m and 2m Custom lengths by quotation	Female	Female	<b>40-970-009-*m-FF-HV</b>	Page 14
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		Male	Female	<b>40-970-009-*m-MF-HV</b>	
	Cable Assy, 9 Way D-Type to Untermated, 5A, High Voltage 0.5m, 1m and 2m Custom lengths by quotation	Female	Untermated with Options	<b>40-972-009-*m-FU-HV</b> <b>A009DF4-*-HA***</b>	Page 15
		Male	Untermated with Options	<b>40-972-009-*m-MU-HV</b> <b>A009DM4-*-HA***</b>	

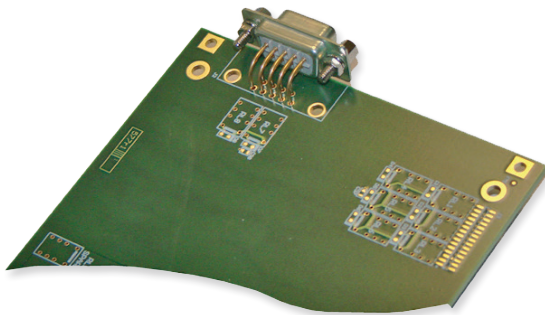
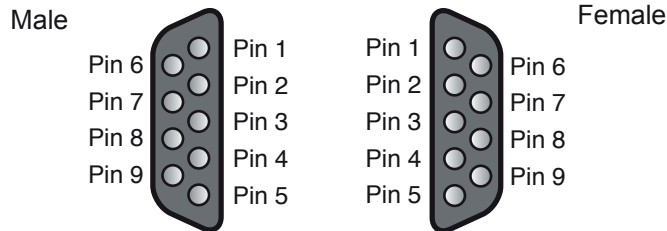
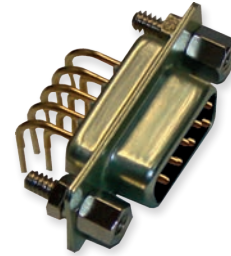
40-975-009 Module Specific Solutions				
VIEW AND DESCRIPTION	END 1	END 2	PART No.	PAGE
	4 x 4mm DMM Bayonet Plug	1 x 9 Way D-Type	<b>40-975-009-SL1</b>	Page 16
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		3 x 9 Way D-Type	<b>40-975-009-SL3</b>	

## PCB Interfacing - 9 Way D-Type Connector

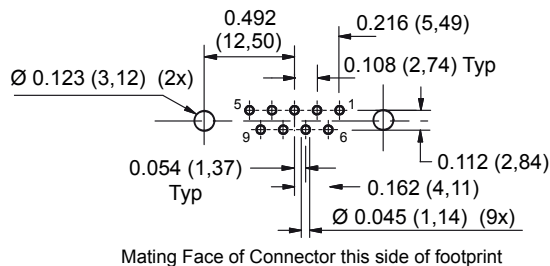
## Standard Voltage

- Right Angle PCB Mount
- Male and Female Versions Available
- Ideal for User Created Termination Solutions

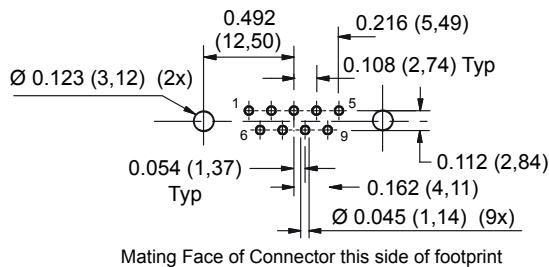
This accessory allows a user to create their own PCB based termination solution mounted directly on the front of the product or on the end of a cable. Interfacing PCBs should be designed with suitable clearances for the voltage the application requires.



### PCB Footprint of 9-Way Right Angle Female Connector (Connector Side - Not to Scale)



### PCB Footprint of 9-Way Right Angle Male Connector (Connector Side - Not to Scale)



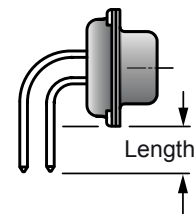
### Technical Specification

<b>Connector Type:</b>	9 Way D-Subminiature
<b>Gender</b>	Male or female
<b>Mounting</b>	Right angle PCB mount
<b>Effective Leg Length</b>	3.1mm nom (See diagram)
<b>Cable Securing Method</b>	4-40 UNC
<b>Connector Type:</b>	
<b>Current Rating</b>	5A each pin
<b>Voltage Rating</b>	250V AC
<b>Contact Material</b>	Gold plated copper alloy
<b>Contact Resistance</b>	<20mOhm

#### Notes:

Female versions are suited to direct connection to a Pickering Module while male versions can be used to interface to a female cable assembly termination.

### Effective Leg Length



### Product Order Codes

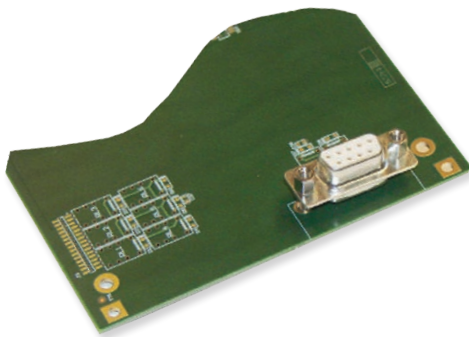
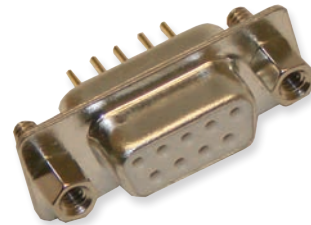
<b>9 Way D-Type Connector, 5A, Right Angle PCB Mount</b>	
<b>Female</b>	40-963-009-RF
<b>Male</b>	40-963-009-RM

## PCB Interfacing - 9 Way D-Type Connector

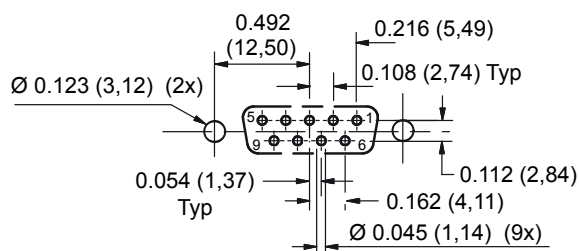
## Standard Voltage

- Straight PCB Mount
- Male and Female Versions Available
- Ideal for User Created Termination Solutions

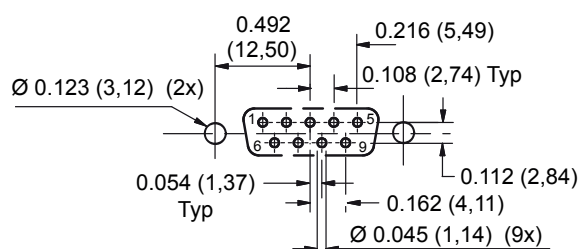
Ideal for user created termination schemes where the termination is to be on the front or remotely connected to the module by cable. Suitable cables for this product are contained elsewhere in this data sheet. Interfacing PCBs should be designed with suitable clearances for the voltage the application requires.



### PCB Footprint of 9-Way Straight Female Connector (Connector Side - Not to Scale)



### PCB Footprint of 9-Way Straight Male Connector (Connector Side - Not to Scale)



### Technical Specification

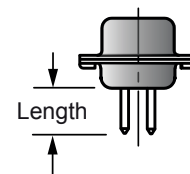
<b>Connector Type:</b>	9 Way D-Subminiature
<b>Gender</b>	Male or female
<b>Mounting</b>	Straight PCB mount
<b>Effective Leg Length</b>	6.0mm nom (See diagram)
<b>Cable Securing Method</b>	4-40 UNC

<b>Connector Type:</b>	9 Way D-Subminiature
<b>Current Rating</b>	5A each pin
<b>Voltage Rating</b>	250V AC
<b>Contact Material</b>	Gold plated copper alloy
<b>Contact Resistance</b>	<20mOhm

#### Notes:

Female versions are suited to direct connection to a Pickering Module while male versions can be used to interface to a female cable assembly termination.

### Effective Leg Length



### Product Order Codes

9 Way D-Type Connector, 5A, Straight PCB Mount  
 Female 40-963-009-SF  
 Male 40-963-009-SM



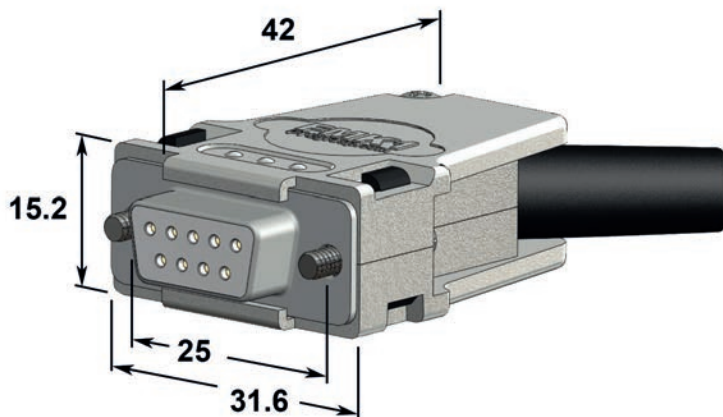
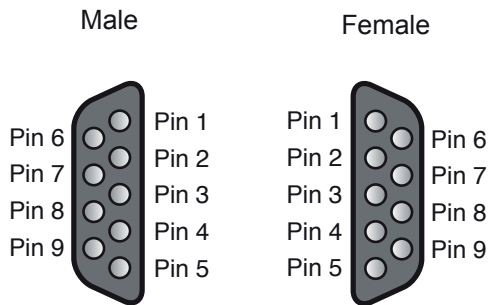
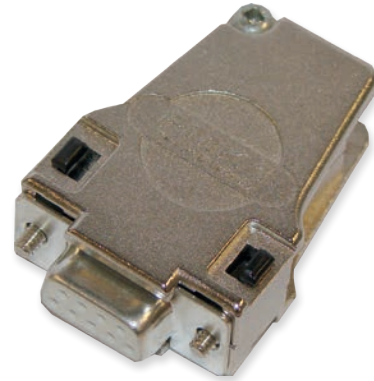
## Cable Connection - 9 Way D-Type Connector

## Standard Voltage

- Connector Only or Connector and Backshell
- Soldered Connection
- Cable Clamp in Backshell

This accessory is designed to allow users to directly terminate a cable with soldered connections.

When the product is used without a backshell users should make their own cable strain relief arrangements and ensure appropriate electrical safety precautions are observed.



### Technical Specification

<b>Connector Type:</b>	9 Way D-Subminiature
Gender	Male or female
Securing Method	4-40 UNC screwlocks
Cable Exit	15mm dia
Overall Size (Approx)	H32 x W15 x D46mm
<b>Connector Ratings:</b>	
Current Rating	5A
Voltage Rating	250V AC
Contact Material	Gold plated copper alloy
Contact Resistance	<20mOhm
<b>Cable Connection:</b>	
Recommended Cable	PFA 19/0.15 (0.338mm <sup>2</sup> csa, 22AWG) 1.2mm O/D
Connection Method	Solder bucket
Cable Clamp	Yes (in backshell)
<b>Notes:</b>	
9 Way Female cable connectors can be directly mated to a corresponding Pickering Module.	

### Product Order Codes

9 Way D-Type Connector, 5A, Solder Bucket	
With Backshell, Female	40-960-009-F
With Backshell, Male	40-960-009-M
Without Backshell, Female	92-960-009-F
Without Backshell, Male	92-960-009-M

## Direct Connection - 9 Way D-Type Connector Block

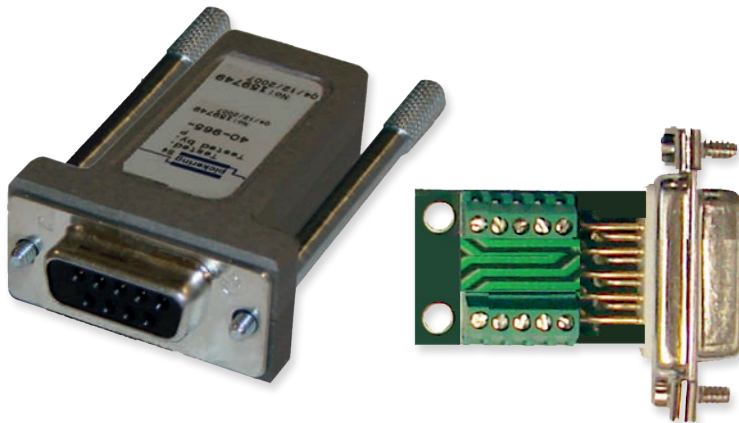
## Standard Voltage

Connector blocks provide a convenient method of termination without the use of custom cabling. However, a higher resistance path, lower capacity ratings and lower voltage ratings are typical.

- Connector and PCB Only or Connector, PCB and Backshell
- Male and Female Versions Available
- Cable Clamp in Backshell
- Easy to Use Rising Cage Screw Terminals

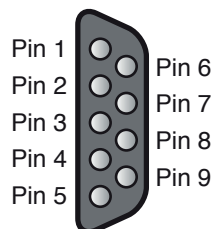
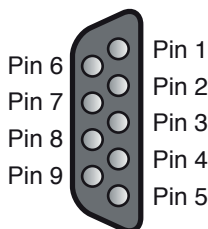
Suitable for use on the front of modules this connector block provides a simple method of connecting to 9 Way D-Type connectors. The screw terminals use a rising cage clamp mechanism to minimize risk of copper strand breakage. PTFE cables are recommended for use with this connector block to maximise copper cross-sectional area and insulation properties. Connector blocks have higher losses than a cable connection and the breakdown voltage is controlled by clearances to the metal shell. The metal shell includes an internal insulation barrier under the carrier board.

When the product is used without a backshell users should make their own cable strain relief arrangements and ensure appropriate electrical safety precautions are observed.



Male

Female



### Technical Specification

<b>Connector Block</b>	
Current Rating	5A
Voltage Rating	200V DC
Securing Method	4-40 UNC screwlocks
Cable Exit	Dual 11 x 24mm
Overall Size (Approx)	H37.5 x W16.5 x D80mm
<b>Main Connector:</b>	
Type	9 Way D-Subminiature
Gender	Male or female
Current Rating	5A
Voltage Rating	250V AC
Contact Material	Gold plated copper alloy
Contact Resistance	<20mOhm
<b>Wire/Cable Connection:</b>	
Connection Method	Rising cage screw terminals
Recommended Wire/Cable	PTFE type
Recommended Wire Size	Up to 0.5mm <sup>2</sup> csa (>21AWG)
Torque Setting	0.12-0.15Nm
Cable Clamp	Yes (in backshell)
<b>Notes:</b>	
Female versions are suited to direct connection to a Pickering Module while male versions can be used to interface to a female cable assembly termination.	

### Product Order Codes

9 Way D-Type Connector Block, 5A, Screw Terminal	
With Backshell, Female	40-965-009-F
With Backshell, Male	40-965-009-M
Without Backshell, Female	92-965-009-F
Without Backshell, Male	92-965-009-M

## Cable Connection - 9 Way D-Type Breakout

## Standard Voltage

Connector blocks provide a convenient method of termination without the use of custom cabling. However, a higher resistance path, lower capacity ratings and lower voltage ratings are typical.

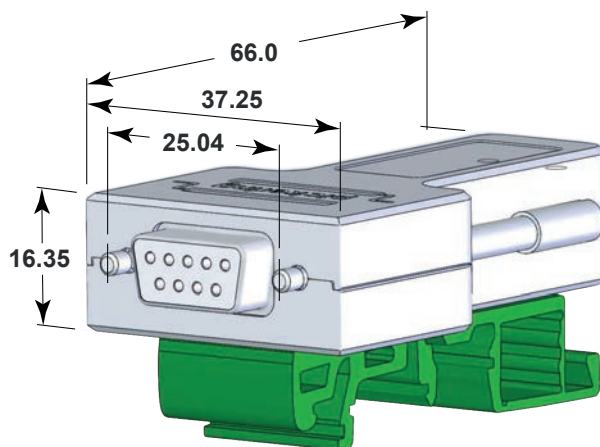
- For Connection at Cable End
- Simple to Use Rising Cage Screw Clamp Termination
- DIN Rail Mounted

Suitable for use at the end of mating cable remote from the product and on DIN rails this termination option is capable of accepting heavy duty connection wires and uses rising clamp screw terminals to minimize the danger of copper strand damage. Users should care take to protect the termination and provide a suitable method of restraining the cables.



Male

Female



### Technical Specification

<b>Connector Block</b>	
Current Rating	5A
Voltage Rating	200V DC
Securing Method	Suitable for securing to DIN rails.
Overall Size (Approx)	H38 x W17 x D70mm
<b>Main Connector:</b>	
Type	9 Way D-Subminiature
Gender	Male or female
Current Rating	5A
Voltage Rating	250V AC
Contact Material	Gold plated copper alloy
Contact Resistance	<20mOhm
Cable Securing Method	4-40 UNC screwlocks
<b>Wire/Cable Connection:</b>	
Connection method	Rising cage screw terminals
Recommended Wire/Cable	PTFE type
Recommended Wire Size	Up to 0.5mm <sup>2</sup> csa (>21AWG)
Torque Setting	0.12-0.15Nm
Cable Clamp	Yes (in backshell)
<b>Notes:</b>	
Female versions are suited to direct connection to a Pickering Module while male versions can be used to interface to a female cable assembly termination.	

### Product Order Codes

9 Way D-Type Breakout with DIN Rail Mount, 5A,  
Screw Terminal, Female 40-967-009-F  
Screw Terminal, Male 40-967-009-M



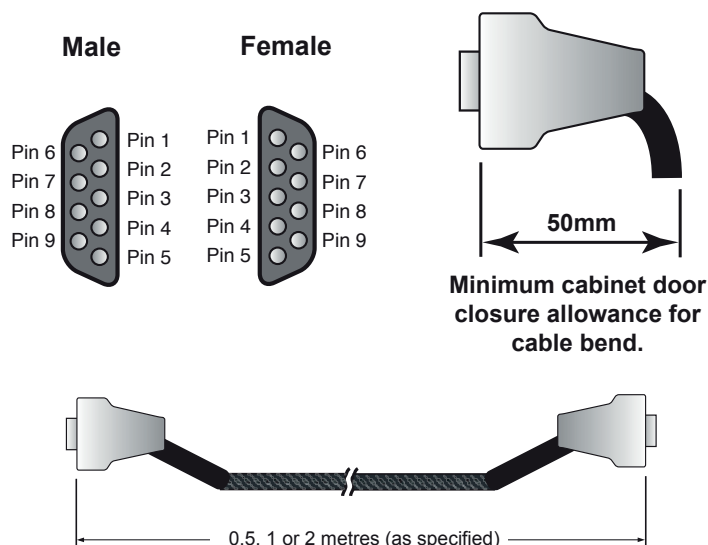
## 9 Way D-Type Connector to Connector Assembly

## Standard Voltage

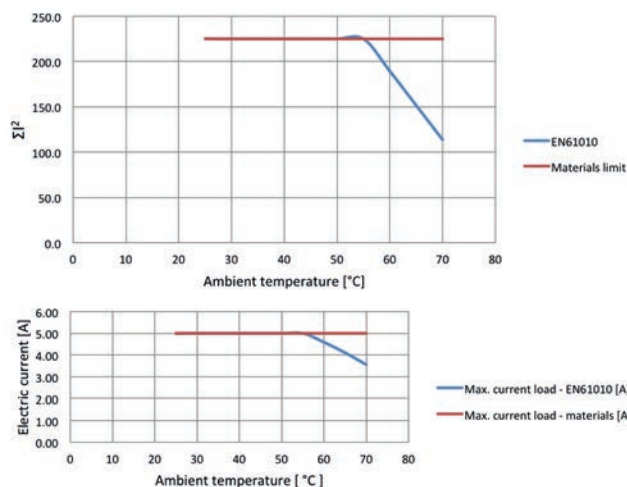
- High Specification Cable
- Highly Flexible Cable
- Strain Relief
- Braided Slewing
- Fully Screened Cable Construction



A 9 Way Female connector option of this cable assembly is suited for direct connection to corresponding Pickering Interfaces products.



### Characteristic Plots for 40-970-009-1m-MF



Top graph shows the permitted  $\Sigma I^2$  versus ambient temperature in accordance with EN61010 for user exposure to surface temperature and a higher limit imposed by the materials used where the cable is not directly user accessible.

Bottom graph shows allowed current versus temperature assuming ALL wires carry the same current. Higher currents to the cable rating are permitted on individual wires provided the  $\Sigma I^2$  is complied with.

### Technical Specification

<b>Cable Assembly Rating:</b>	
Maximum Current	5A
Maximum Voltage	250VAC / 400VDC
Standard Lengths	Multiples of 0.5m
Door Closure Allowance	50mm (see diagram)
<b>Connector Type (End A):</b>	9 Way D-Subminiature
Gender	Male or female
Current Rating	5A
Voltage Rating	250V AC
Contact Material	Gold plated copper alloy
Contact Resistance	<20mOhm
Product Securing Method	4-40 UNC screwlocks
Overall Size (Approx)	H32 x W15 x D46mm
<b>Connector Type (End B)</b>	As End A
Gender	Male or female
<b>Cable Type:</b>	Individual wires, screened & sleeved
Conductors:	
Material	Tinned copper wire
Strands	19/0.18 (0.4mm <sup>2</sup> , 21AWG)
Resistance	0.041Ω/m (max)
Screened Construction	Yes
Insulation	PFA
Outer Sleeve	Polyester
Additional Braided Sleeve	Yes
Cable O/D	8mm
Minimum Bend Radius	25mm
<b>Notes:</b>	Other cable lengths can be supplied.

### Product Order Codes

<b>9 Way D-Type Cable Assy, 5A, Female to Female</b>	
0.5m Long	40-970-009-0.5m-FF
1.0m Long	40-970-009-1m-FF
2.0m Long	40-970-009-2m-FF
<b>9 Way D-Type Cable Assy, 5A, Male to Male</b>	
0.5m Long	40-970-009-0.5m-MM
1.0m Long	40-970-009-1m-MM
2.0m Long	40-970-009-2m-MM
<b>9 Way D-Type Cable Assy, 5A, Male to Female</b>	
0.5m Long	40-970-009-0.5m-MF
1.0m Long	40-970-009-1m-MF
2.0m Long	40-970-009-2m-MF

## 9 Way D-Type Connector to Unterminated

## Standard Voltage

- High Specification Cable
- Highly Flexible Cable
- Fully Screened Cable Construction with Braided Screen and Strain Relief
- Fully Coded Markers to Ensure Easy Connection
- Boot Lace Ferrule Option to Prevent Wire Strand Breakage



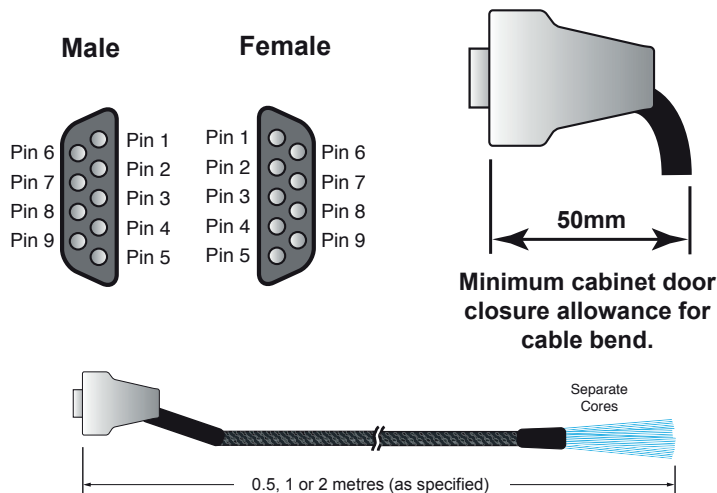
### Technical Specification

<b>Cable Assembly Rating:</b>	
Maximum Current	5A
Maximum Voltage	250VAC / 400VDC
Standard Lengths	Multiples of 0.5m
Door Closure Allowance	50mm (see diagram)
<b>Connector Type (End A):</b>	
Gender	9 Way D-Subminiature Male or female
Current Rating	5A
Voltage Rating	250V AC
Contact Material	Gold plated copper alloy
Contact Resistance	<20mOhm
Product Securing Method	4-40 UNC screwlocks
Overall Size (Approx)	H32 x W15 x D46mm
<b>Unterminated End (End B)</b>	
Free Wire Length	130mm nominal
Wire Coding	Yes - To connector pins
Wire End Options	Ferrules, Cut end or Tinned
<b>Cable Type:</b>	
Individual wires, screened & sleeved	
Conductors:	
Material	Tinned copper wire
Strands	19/0.18 (0.4mm <sup>2</sup> , 21AWG)
Resistance	0.041Ω/m (max)
Screened Construction	Yes
Insulation	PFA
Outer Sleeve	Polyester
Additional Braided Sleeve	Yes
Cable O/D	8mm
Minimum Bend Radius	25mm

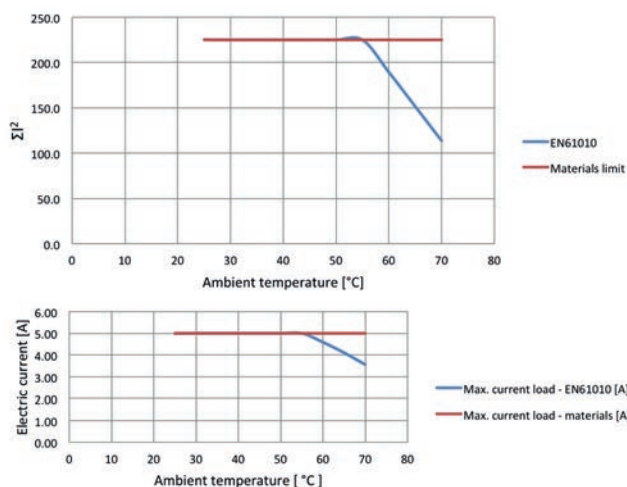
### Notes:

- 9 Way Female cable connectors can be directly mated to a corresponding Pickering Module.
- Cable strain relief arrangements may be necessary and appropriate electrical safety precautions should be observed.

A range of 9 Way D-Type cable assemblies with unterminated connections on one end. The unterminated connections are coded to match the connector pin designation. An option includes crimped on ferrules to ensure the wire strands cannot break when they are terminated.



### Characteristic Plots for 40-972-009-1m



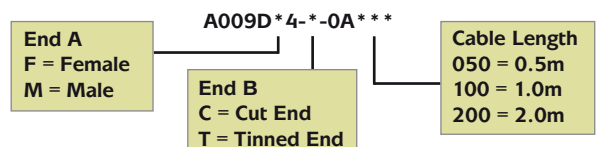
Top graph shows the permitted  $\Sigma I^2$  versus ambient temperature in accordance with EN61010 for user exposure to surface temperature and a higher limit imposed by the materials used where the cable is not directly user accessible.

Bottom graph shows allowed current versus temperature assuming ALL wires carry the same current. Higher currents to the cable rating are permitted on individual wires provided the  $\Sigma I^2$  is complied with.

### Product Order Codes

<b>9 Way D-Type Cable Assy, 5A, Boot Lace Ferrules</b>	
Female to Unterminated, 0.5m Long	40-972-009-0.5m-FU
Female to Unterminated, 1.0m Long	40-972-009-1m-FU
Female to Unterminated, 2.0m Long	40-972-009-2m-FU
<b>9 Way D-Type Cable Assy, 5A, Boot Lace Ferrules</b>	
Male to Unterminated, 0.5m Long	40-972-009-0.5m-MU
Male to Unterminated, 1.0m Long	40-972-009-1m-MU
Male to Unterminated, 2.0m Long	40-972-009-2m-MU

### Part numbers for Cut End and Tinned End options:

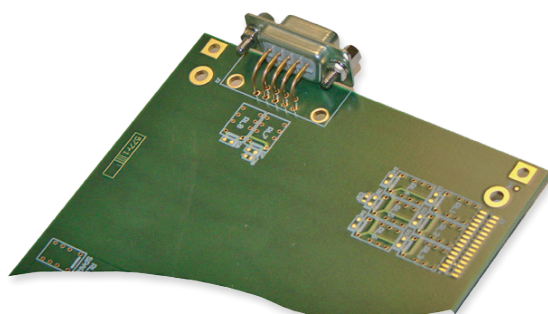
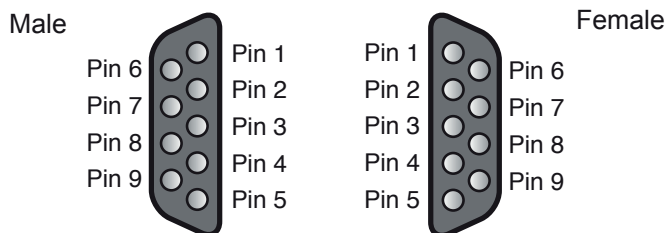
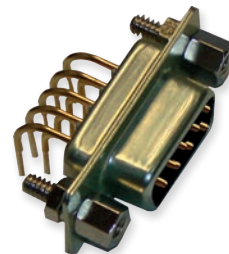


## PCB Interfacing - 9 Way D-Type Connector

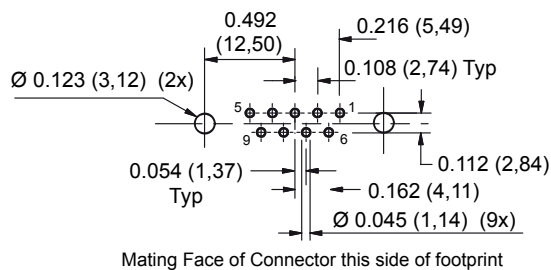
## High Voltage

- Right Angle PCB Mount
- Male and Female Versions Available
- Ideal for User Created Termination Solutions

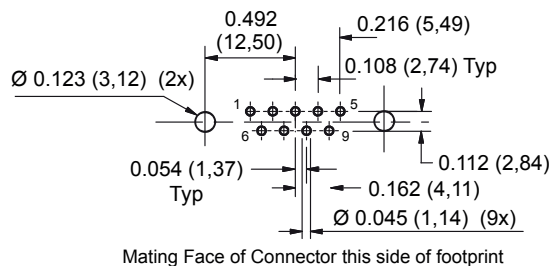
This accessory allows a user to create their own PCB based termination solution mounted directly on the front of the product or on the end of a cable. Interfacing PCBs should be designed with suitable clearances for the voltage the application requires.



### PCB Footprint of 9-Way Right Angle Female HV Connector (Connector Side - Not to Scale)



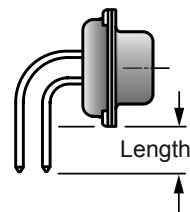
### PCB Footprint of 9-Way Right Angle Male HV Connector (Connector Side - Not to Scale)



### Technical Specification

<b>Connector Type:</b>	9 Way D-Subminiature High voltage
Gender	Male or female
Mounting	Right angle PCB mount
Effective Leg Length	3.1mm nom (See diagram)
Cable Securing Method	4-40 UNC
<b>Connector Type:</b>	
Current Rating	5A each pin
Voltage Rating	750VDC/AC peak
Contact Material	Gold plated copper alloy
Contact Resistance	<20mOhm
<b>Notes:</b>	
Female versions are suited to direct connection to a Pickering Module while male versions can be used to interface to a female cable assembly termination.	

### Effective Leg Length



### Product Order Codes

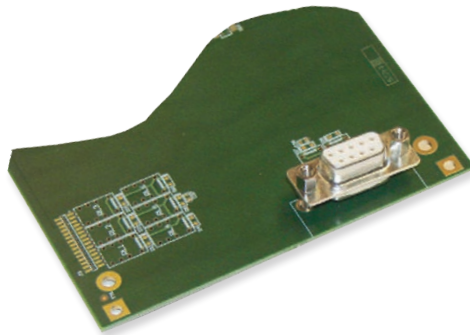
9 Way D-Type Connector, 5A, Right Angle PCB Mount, HV  
 Female 40-963-009-RF-HV  
 Male 40-963-009-RM-HV

## PCB Interfacing - 9 Way D-Type Connector

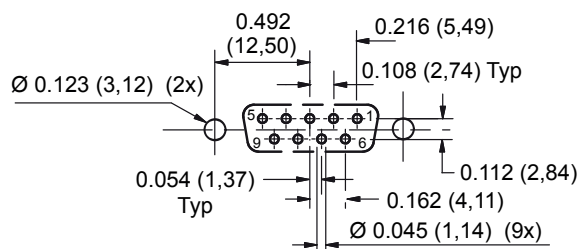
## High Voltage

- Straight PCB Mount
- Male and Female Versions Available
- Ideal for User Created Termination Solutions

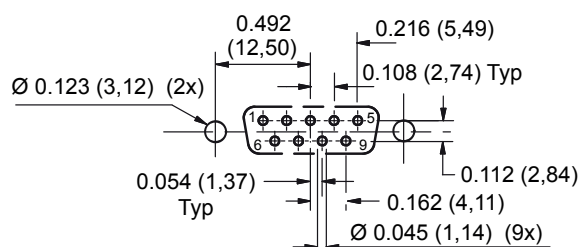
Ideal for user created termination schemes where the termination is to be on the front or remotely connected to the module by cable. Suitable cables for this product are contained elsewhere in this data sheet. Interfacing PCBs should be designed with suitable clearances for the voltage the application requires.



**PCB Footprint of 9-Way Straight Female HV Connector  
(Connector Side - Not to Scale)**



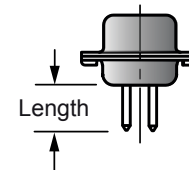
**PCB Footprint of 9-Way Straight Male HV Connector  
(Connector Side - Not to Scale)**



### Technical Specification

<b>Connector Type:</b>	9 Way D-Subminiature, High voltage
<b>Gender</b>	Male or female
<b>Mounting</b>	Straight PCB mount
<b>Effective Leg Length</b>	6.0mm nom (See diagram)
<b>Cable Securing Method</b>	4-40 UNC
<b>Connector Type:</b>	5A each pin
<b>Current Rating</b>	750VDC/AC peak
<b>Voltage Rating</b>	Gold plated copper alloy
<b>Contact Material</b>	<20mOhm
<b>Contact Resistance</b>	
<b>Notes:</b>	Female versions are suited to direct connection to a Pickering Module while male versions can be used to interface to a female cable assembly termination.

### Effective Leg Length



### Product Order Codes

9 Way D-Type Connector, 5A, Straight PCB Mount, HV  
 Female 40-963-009-SF-HV  
 Male 40-963-009-SM-HV

## Cable Connection - 9 Way D-Type Connector

## High Voltage

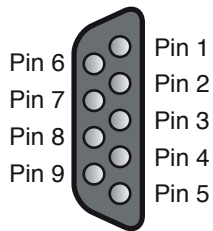
- Connector Only
- Soldered Connection
- Cable Clamp in Backshell

This accessory is designed to allow users to directly terminate a cable with soldered connections.

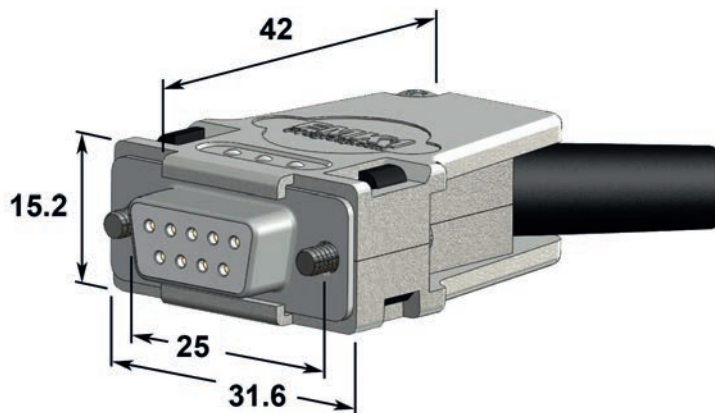
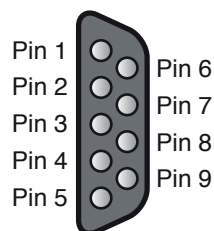
When the product is used without a backshell users should make their own cable strain relief arrangements and ensure appropriate electrical safety precautions are observed.



Male



Female



### Technical Specification

<b>Connector Type:</b>	9 Way D-Subminiature High voltage
Gender	Male or female
Securing Method	4-40 UNC screwlocks
Cable Exit	15mm dia
Overall Size (Approx)	H36.1 x W15.2 x D46mm
<b>Connector Ratings:</b>	
Current Rating	5A
Voltage Rating	750V working / 1000VDC peak typical
Contact Material	Gold plated copper alloy
Contact Resistance	<20mOhm
<b>Cable Connection:</b>	
Recommended Cable	PTFE Type C - 7/0.2mm (0.22mm <sup>2</sup> csa, 24AWG)
Connection Method	1.62mm O/D
Cable Clamp	Solder bucket Yes (in backshell)
<b>Notes:</b>	Female versions are suited to direct connection to a Pickering Module while male versions can be used to interface to a female cable assembly termination.

### Product Order Codes

9 Way D-Type Connector, 5A, Solder Bucket,	
With Backshell, Female, High Voltage	40-960-009-F-HV
With Backshell, Male, High Voltage	40-960-009-M-HV
Without Backshell, Female, High Voltage	92-960-009-F-HV
Without Backshell, Male, High Voltage	92-960-009-M-HV



## 9 Way D-Type Connector to Connector Assembly

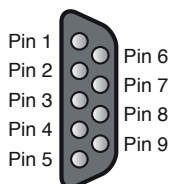
## High Voltage

- High Specification Cable
- Highly Flexible Cable
- Strain Relief
- Braided Slewing
- Fully Screened Cable Construction

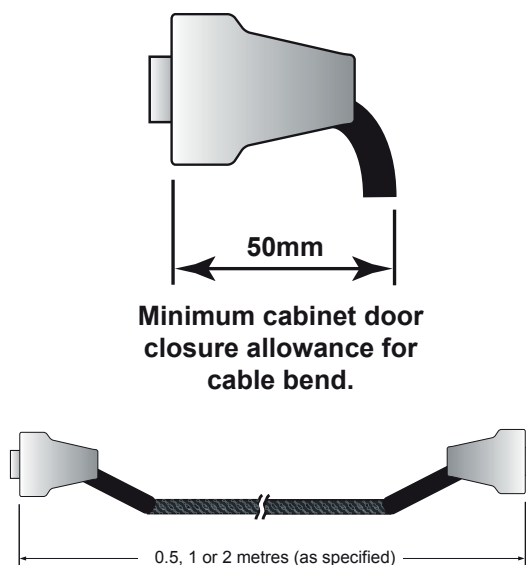
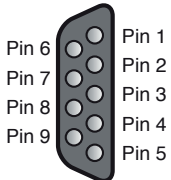


A 9 Way Female connector option of this cable assembly is suited for direct connection to corresponding Pickering Interfaces products.

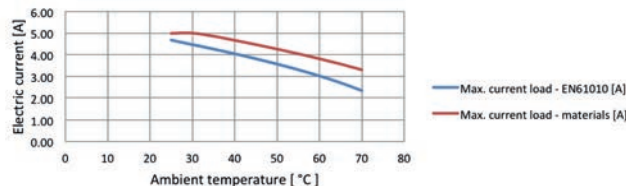
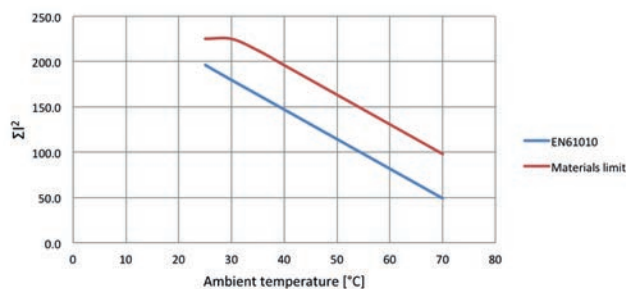
### Female



### Male



### Characteristic Plots for 40-970-009-1m-FF-HV



Top graph shows the permitted  $\Sigma I^2$  versus ambient temperature in accordance with EN61010 for user exposure to surface temperature and a higher limit imposed by the materials used where the cable is not directly user accessible.

Bottom graph shows allowed current versus temperature assuming ALL wires carry the same current. Higher currents to the cable rating are permitted on individual wires provided the  $\Sigma I^2$  is complied with.

### Technical Specification

<b>Cable Assembly Rating:</b>	
Maximum Current	5A
Maximum Voltage	750V working/1000VDC AC peak typical
Standard Lengths	Multiples of 0.5m
Door Closure Allowance	50mm (see diagram)
<b>Connector Type (End A):</b>	9 Way D-Subminiature High voltage
Gender	Male or female
Current Rating	5A
Voltage Rating	750V working / 1000VDC peak typical
Contact Material	Gold plated copper alloy
Contact Resistance	<20mOhm
Product Securing Method	4-40 UNC screwlocks
Overall Size (Approx)	H36 x W15 x D46mm
<b>Connector Type (End B)</b>	As End A
Gender	Male or female
<b>Cable Type:</b>	Individual wires, screened & sleeved
Conductors:	
Material	Tinned copper wire
Strands	7/0.2 (0.2 mm <sup>2</sup> , 24AWG)
	1.62mm O/D
Resistance	0.089Ω/m (max) at 20°C
Screened Construction	Yes
Insulation	PTFE Type C (BS3G210)
Outer Sleeve	Polyester
Additional Braided Sleeve	Yes
Cable O/D	8mm
Minimum Bend Radius	25mm
<b>Notes:</b>	
	• Other cable lengths can be supplied.

### Product Order Codes

<b>9 Way D-Type Cable Assy, 5A, Female to Female, HV</b>	
0.5m Long	40-970-009-0.5m-FF-HV
1.0m Long	40-970-009-1m-FF-HV
2.0m Long	40-970-009-2m-FF-HV
<b>9 Way D-Type Cable Assy, 5A, Male to Male, HV</b>	
0.5m Long	40-970-009-0.5m-MM-HV
1.0m Long	40-970-009-1m-MM-HV
2.0m Long	40-970-009-2m-MM-HV
<b>9 Way D-Type Cable Assy, 5A, Male to Female, HV</b>	
0.5m Long	40-970-009-0.5m-MF-HV
1.0m Long	40-970-009-1m-MF-HV
2.0m Long	40-970-009-2m-MF-HV

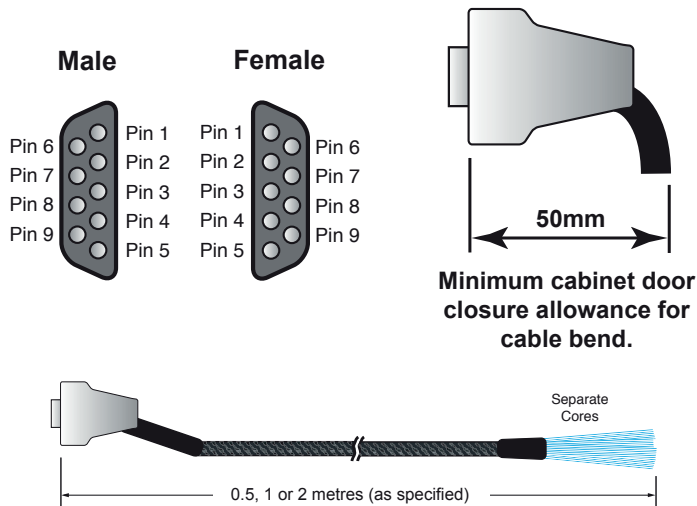
## 9 Way D-Type Connector to Underterminated

## High Voltage

- High Specification Cable
- Highly Flexible Cable
- Fully Screened Cable Construction with Braided Sleeve and Strain Relief
- Fully Coded Markers to Ensure Easy Connection
- Boot Lace Ferrule Option to Prevent Wire Strand breakage



A range of 9 Way D-Type High Voltage cable assemblies with unterminated connections on one end. The unterminated connections are coded to match the connector pin designation. An option includes crimped on ferrules to ensure the wire strands cannot break when they are terminated.



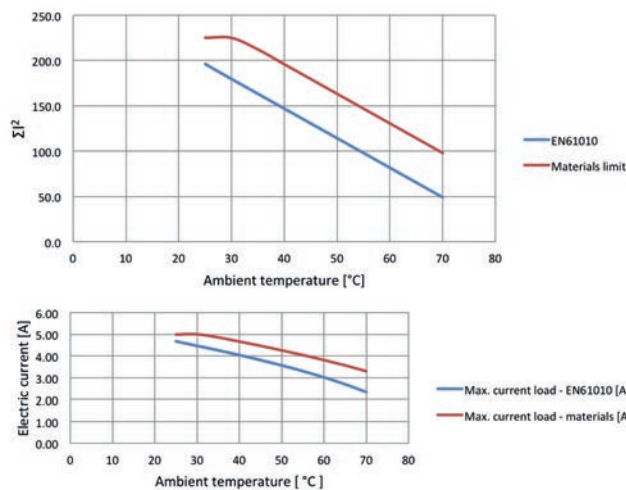
### Technical Specification

<b>Cable Assembly Rating:</b> Maximum Current Maximum Voltage	5A 750V working / 1000VDC AC peak typical
Standard Lengths Door Closure Allowance	Multiples of 0.5m 50mm (see diagram)
<b>Connector Type (End A):</b> Gender Current Rating Voltage Rating	9 Way D-Subminiature High voltage Male or female 5A 750V working / 1000VDC peak typical
Contact Material Contact Resistance Product Securing Method Overall Size (Approx)	Gold plated copper alloy <20mOhm 4-40 UNC screwlocks H36 x W15 x D46mm
<b>Unterminated End (End B)</b> Free Wire Length Wire Coding Wire End Options	130mm nominal Yes - To connector pins Ferrules, Cut end or Tinned
<b>Cable Type:</b> Conductors: Material Strands Resistance Screened Construction Insulation Outer Sleeve Additional Braided Sleeve Cable O/D Minimum Bend Radius	Individual wires, screened & sleeved  Tinned copper wire 7/0.2 (0.2 mm <sup>2</sup> , 24AWG) 1.62mm O/D 0.089Ω/m (max) at 20°C Yes PTFE Type C (BS3G210) Polyester Yes 8mm 25mm

### Notes:

- 9 Way Female cable connectors can be directly mated to a corresponding Pickering Module.
- Cable strain relief arrangements may be necessary and appropriate electrical safety precautions should be observed.

### Characteristic Plots for 40-972-009-1m-FU-HV



Top graph shows the permitted  $\Sigma I^2$  versus ambient temperature in accordance with EN61010 for user exposure to surface temperature and a higher limit imposed by the materials used where the cable is not directly user accessible.

Bottom graph shows allowed current versus temperature assuming ALL wires carry the same current. Higher currents to the cable rating are permitted on individual wires provided the  $\Sigma I^2$  is complied with.

### Product Order Codes

9 Way D-Type Cable Assy, 5A, Unterminated with Ferrules, HV

<b>Cable Length</b> 0.5 = 0.5m 1 = 1.0m 2 = 2.0m	<b>40-972-009-*m-*U-HV</b>	<b>End A</b> F = Female M = Male
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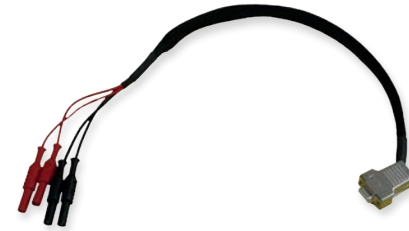
### Part numbers for Cut End and Tinned End options:

<b>End A</b> F = Female M = Male	<b>A009D*4-*HA***</b>	<b>End B</b> C = Cut End T = Tinned End	<b>Cable Length</b> 050 = 0.5m 100 = 1.0m 200 = 2.0m
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## Calibration Port Precision Resistor Modules

## Module Specific

- High Specification Cable
- Stranded Hi-Flex PVC Cable
- Strain Relief
- Braided Sleaving
- Fully Screened Cable Construction



40-975-009-SL1

Other Versions as below.

The cable assembly is specifically designed to connect to the 9-Way D-Type calibration port located on the front panel of Pickering Interfaces Module Part Numbers 40-260, 40-261, 40-262 and 40-265. Three product types are available.

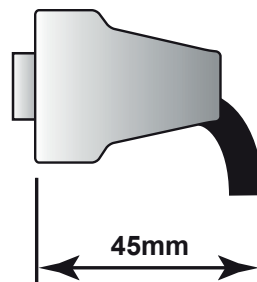
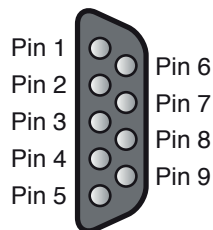


40-975-009-SL2



40-975-009-SL3

### 9W D-Type Female



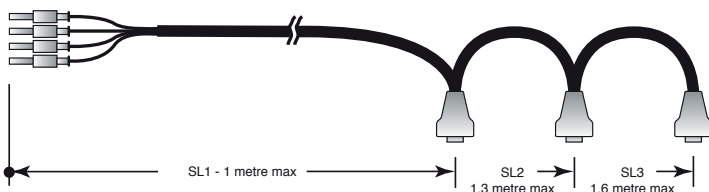
Potential cabinet door closure allowance for cable bend.

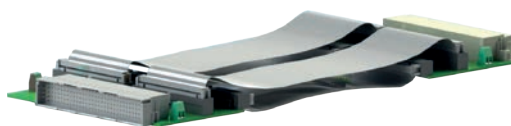
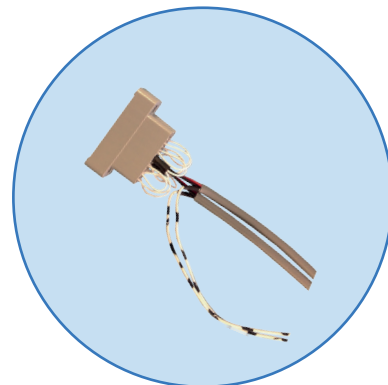
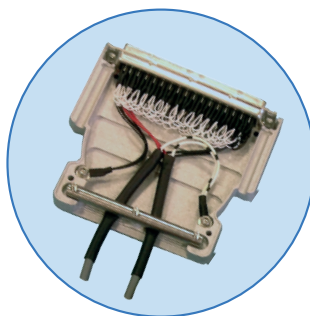
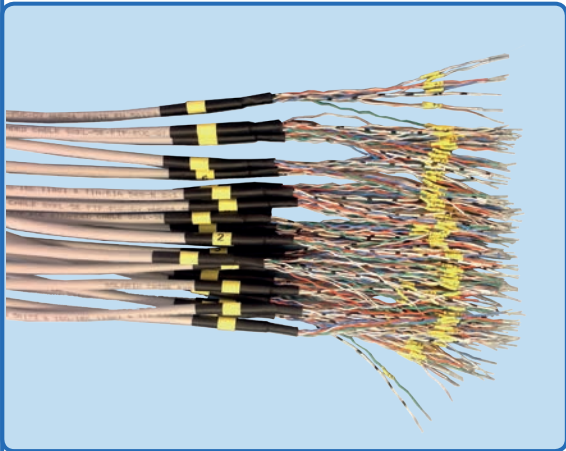
### Technical Specification

<b>Cable Assembly Rating:</b>	
Maximum Current	5A
Maximum Voltage	750V
Standard Lengths	1.0m (SL1) See diagram for SL2 & SL3
Door Closure Allowance	45mm (see diagram)
<b>Connector Type (End A):</b>	
Gender	4 x 4mm DMM bayonet plug
Contact Material	Male
Contact Resistance	Gold plated copper alloy
Product Securing Method	<20mOhm
Overall Size (Approx)	Push fit
	50 x 8.5mm dia
<b>Connector Type (Ends B)</b>	
Gender	9 Way D-Subminiature
Contact Material	Female
Contact Resistance	Gold plated copper alloy
Product Securing Method	<20mOhm
Overall Size (Approx)	4-40 UNC screwlocks
	H36 x W15 x D46mm
<b>Cable Type:</b>	
Conductors:	Stranded Hi-Flex PVC
Material	Tinned copper wire
Strands	259/0.07 (1.0 mm <sup>2</sup> , 17AWG)
	2.7mm O/D (inc insulation)
Screened Construction	No
Insulation	PVC
Outer Sleeve	Polyester
Additional Braided Sleeve	Yes
Cable O/D	8mm
Minimum Bend Radius	10mm
<b>Notes:</b>	
Other cable lengths can be supplied.	

### Product Order Codes

4 x 4mm DMM Bayonet Plug to:	
1 x 9 Way D-Type connector, Female	40-975-009-SL1
2 x 9 Way D-Type connector, Female	40-975-009-SL2
3 x 9 Way D-Type connector, Female	40-975-009-SL3





## Custom Termination

Pickering Interfaces are able to manufacture custom built cable assemblies and backshells that mate with all the connectors we use in our extensive product range and to provide connection solutions for third party products.

We are able to model and manufacture cable assemblies and other termination arrangements to user notes and drawings, and to deal with simple and complex assemblies and both small and high volume orders.

All products are designed to ensure easy and problem free connection.

We offer a fast turn round of custom items to keep your ordering and integration timescales to a minimum.

## Design your own cable assembly online

See <http://pickeringtest.com/cableconfig>

