

**50-Way D-type Connector Accessories**

- **Standard and High Voltage 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 50-Way D-Type connector is used on PXI switching products to provide a medium density user connector solution.

The High Voltage 50-Way D-Type connector is used on high voltage PXI and 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**

© Copyright (2014) Pickering Interfaces Ltd. All Rights Reserved.

**Pickering Interfaces Inc. USA**  
Tel: +1 541 471 0700  
e-mail: [ussales@pickeringtest.com](mailto:ussales@pickeringtest.com)

**Pickering Interfaces Ltd. United Kingdom**  
Tel: +44 (0)1255-687900  
e-mail: [sales@pickeringtest.com](mailto:sales@pickeringtest.com)

**Pickering Interfaces Sarl France**  
Tel: +33 1 60 53 55 50  
e-mail: [frsales@pickeringtest.com](mailto:frsales@pickeringtest.com)

**Pickering Interfaces s.r.o. Czech Republic**  
Tel: +420 558 987 613  
e-mail: [desales@pickeringtest.com](mailto:desales@pickeringtest.com)





**Pickering Interfaces Inc. USA East Coast**  
Tel: +1 781 897 1710  
e-mail: [ussales@pickeringtest.com](mailto:ussales@pickeringtest.com)



**Pickering Interfaces GmbH Germany**  
Tel: +49 89 125 953 160  
e-mail: [desales@pickeringtest.com](mailto:desales@pickeringtest.com)

**Pickering Interfaces AB Sweden**  
Tel: +46 340-69 06 69  
e-mail: [ndsales@pickeringtest.com](mailto:ndsales@pickeringtest.com)

**MTCS Systems Engineering Co. Ltd China**  
Telephone: 86-10-5881-6565  
e-mail: [sales@mtcs.com.cn](mailto:sales@mtcs.com.cn)



## CONTENTS



STANDARD VOLTAGE - Connectors / Connector Blocks					
VIEW	DESCRIPTION	TYPE	GENDER	PART No.	PAGE
	PCB Connector 50 Way D-Type, 5A	Right Angle PCB Mount	Female	<b>40-963-050-RF</b>	Page 4
			Male	<b>40-963-050-RM</b>	
		Straight PCB Mount	Female	<b>40-963-050-SF</b>	Page 5
			Male	<b>40-963-050-SM</b>	
	Cable Connector 50 Way D-Type, 5A, Solder Bucket	With Backshell	Female	<b>40-960-050-F</b>	Page 6
		Without Backshell		<b>92-960-050-F</b>	
		With Backshell	Male	<b>40-960-050-M</b>	
		Without Backshell		<b>92-960-050-M</b>	
	Shielded Connector Block, 50 Way D-Type, 5A, Screw Terminal.	With Backshell	Female	<b>40-965-050-F</b>	Page 7
		Without Backshell		<b>92-965-050-F</b>	
		With Backshell	Male	<b>40-965-050-M</b>	
		Without Backshell		<b>92-965-050-M</b>	
	Breakout with DIN Rail Mount, 50 Way D-Type, 5A, Screw Terminal		Female	<b>40-967-050-F</b>	Page 8
			Male	<b>40-967-050-M</b>	

STANDARD VOLTAGE - Cable Assemblies					
VIEW	DESCRIPTION	END 1	END 2	PART No.	PAGE
	Cable Assy, 50 Way D-Type, 5A, 0.5m, 1m and 2m Custom lengths by quotation	Female	Female	<b>40-970-050-*m-FF</b>	Page 9
		Male	Male	<b>40-970-050-*m-MM</b>	
		Male	Female	<b>40-970-050-*m-MF</b>	
	Cable Assy, 50 Way D-Type to Unterminated, 5A, 0.5m, 1m and 2m Custom lengths by quotation	Female	Unterminated with Ferrules	<b>40-972-050-*m-FU</b>	Page 10
		Male	Unterminated with Ferrules	<b>40-972-050-*m-MU</b>	

Please use the hyperlinked text to navigate to the data sheet page required. Return to this page via the  button.

## CONTENTS

HIGH VOLTAGE - Connectors / Connector Blocks					
VIEW	DESCRIPTION	TYPE	GENDER	PART No.	PAGE
	PCB Connector 50 Way D-Type, 5A, High Voltage	Right Angle PCB Mount	Female	<b>40-963-050-RF-HV</b>	Page 11
			Male	<b>40-963-050-RM-HV</b>	
		Straight PCB Mount	Female	<b>40-963-050-SF-HV</b>	Page 12
			Male	<b>40-963-050-SM-HV</b>	
	Cable Connector 50 Way D-Type, 5A, Solder Bucket, High Voltage	With Backshell	Female	<b>40-960-050-F-HV</b>	Page 13
		Without Backshell		<b>92-960-050-F-HV</b>	
		With Backshell	Male	<b>40-960-050-M-HV</b>	
		Without Backshell		<b>92-960-050-M-HV</b>	

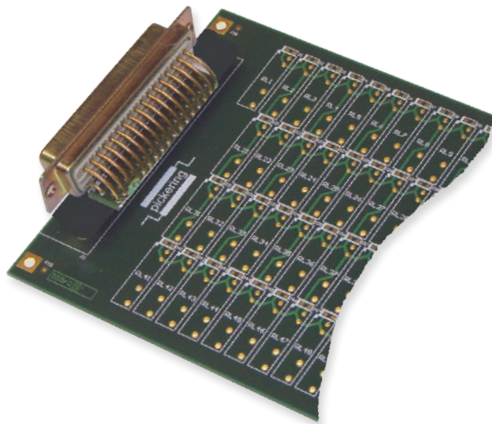
HIGH VOLTAGE - Cable Assemblies					
VIEW	DESCRIPTION	END 1	END 2	PART No.	PAGE
	Cable Assy, 50 Way D-Type, 5A, High Voltage 0.5m, 1m and 2m Custom lengths by quotation	Female	Female	<b>40-970-050-*m-FF-HV</b>	Page 14
		Male	Male	<b>40-970-050-*m-MM-HV</b>	
		Male	Female	<b>40-970-050-*m-MF-HV</b>	
	Cable Assy, 50 Way D-Type to Unterminated, 5A, High Voltage 0.5m, 1m and 2m Custom lengths by quotation	Female	Unterminated with Ferrules	<b>40-972-050-*m-FU-HV</b>	Page 15
		Male	Unterminated with Ferrules	<b>40-972-050-*m-MU-HV</b>	

<b>CUSTOM TERMINATION</b>	Page 16
---------------------------	---------

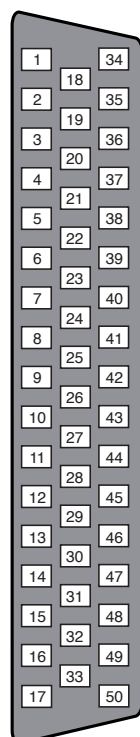
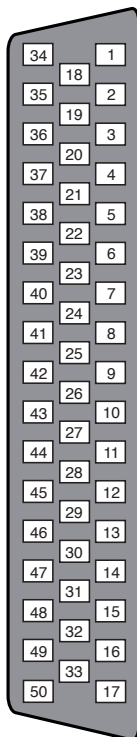
**PCB Interfacing - 50 Way D-Type Connector**
**Standard Voltage**

- Male and Female versions available
- PCB mounted
- Ideal for user created termination solutions

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.



Female version depicted

**Male**
**Female**

**Technical Specification**

<b>Connector Type:</b>	50 Way D-Subminiature
Gender	Male or Female
Mounting	Right Angle PCB Mount
Cable Securing Method	4-40 UNC Screwlock
<b>Connector Type:</b>	
Current Rating	5A each pin
Voltage Rating	250V AC
Contact Material	Gold Plated Copper Alloy
Contact Resistance	<20mOhm
<b>Notes:</b>	
50 Way Female connectors can be directly mated to a corresponding Pickering Switching Module.	

**Product Order Codes**

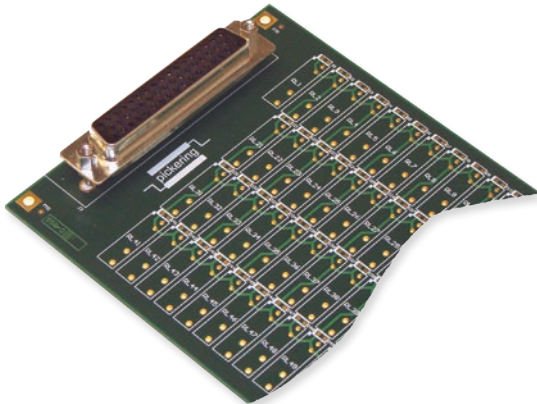
50 Way D-Type Connector, 5A, Right Angle PCB Mount  
 Female **40-963-050-RF**  
 Male **40-963-050-RM**

**PCB Interfacing - 50 Way D-Type Connector**

**Standard Voltage**

- Male and Female versions available
- PCB mounted
- Ideal for user created termination solutions

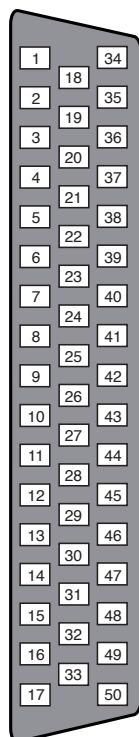
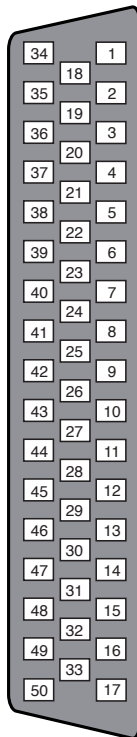
Ideal for user created termination schemes where the termination is to be on the front or remotely connected to the module by cable. Suitable cables for this product are contained elsewhere in this data sheet. Interfacing PCBs should be designed with suitable clearances for the voltage the application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



Female version depicted

**Male**

**Female**



**Technical Specification**

<b>Connector Type:</b> Gender Mounting Cable Securing Method	50 Way D-Subminiature Male or Female Straight PCB Mount 4-40 UNC Screwlock
<b>Connector Type:</b> Current Rating Voltage Rating Contact Material Contact Resistance	5A each pin 250V AC Gold Plated Copper Alloy <20mOhm
<b>Notes:</b> 50 Way Female connectors can be directly mated to a corresponding Pickering Switching Module.	

**Product Order Codes**

50 Way D-Type Connector, 5A, Straight PCB Mount  
**Female** 40-963-050-SF  
**Male** 40-963-050-SM

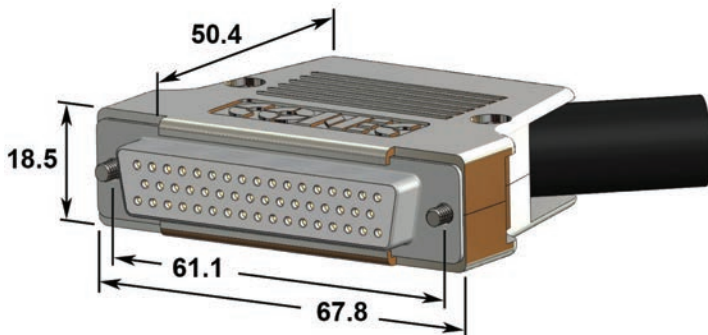
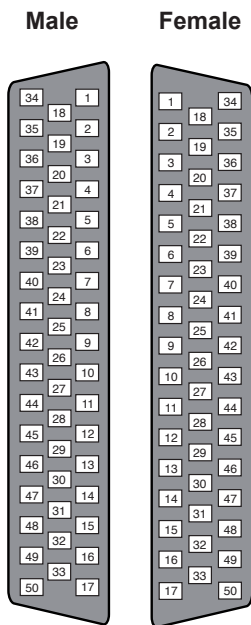
**Cable Connection - 50 Way D-Type Connector**

**Standard Voltage**

- Connector only or Connector and Backshell
- Cable clamp in backshell
- Soldered cable termination



This accessory is designed to allow users to directly terminate with soldered connections to the connector.



**Technical Specification**

<b>Connector Type:</b> Gender Securing method Cable entry Overall size (Approx)	50 Way D-Subminiature Male or Female 4-40 UNC Screwlocks 15mm Dia H68 x W18.5 x D55mm
<b>Connector Ratings:</b> Current Rating Voltage Rating Contact Material Contact Resistance Insulation Resistance	5A 250V AC Gold Plated Copper Alloy 20mOhm 1000MOhm
<b>Cable Connection:</b> Recommended Cable  Connection method Cable Clamp	PTFE 19/0.15 (0.410mm <sup>2</sup> 22AWG),1.2mm O/D)  Soldering Yes (In Backshell)
<b>Notes:</b>	50 Way Female cable connectors can be directly mated to a corresponding Pickering Switching Module.

**Product Order Codes**

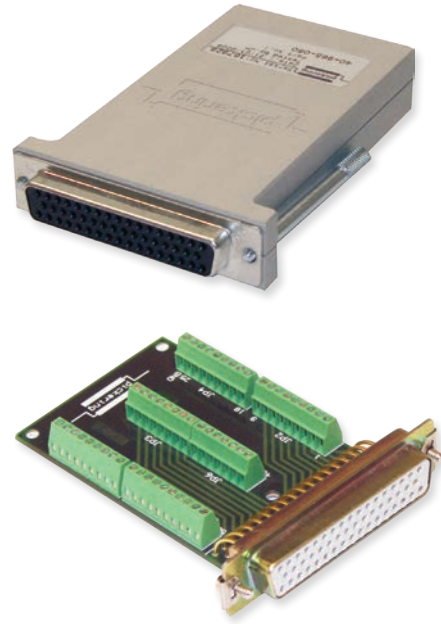
50 Way D-Type Connector, 5A, Solder Bucket, With Backshell, Female	40-960-050-F
With Backshell, Male	40-960-050-M
Without Backshell, Female	92-960-050-F
Without Backshell, Male	92-960-050-M

Direct Connection - 50 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.

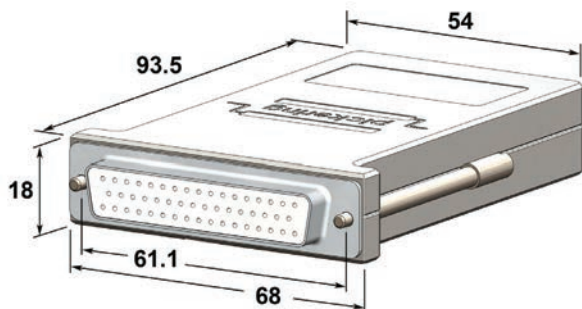
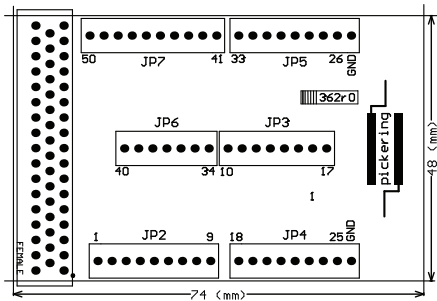
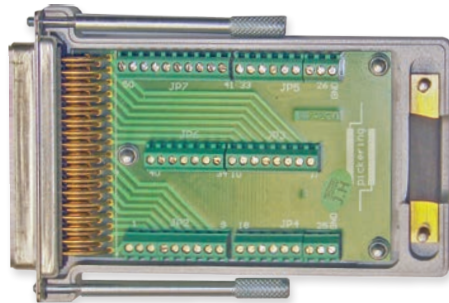
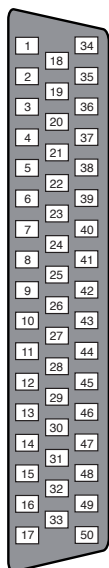
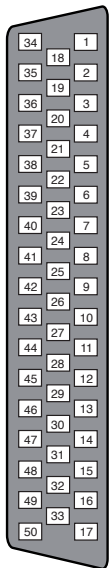
- Connector and PCB only or Connector, PCB and Backshell
- Male and Female versions available
- Cable clamp in backshell
- Easy to use rising cage screw terminals



This connector block provides a simple method of connecting to 50 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.

Male

Female



Technical Specification

<b>Connector Block</b>	
Current Rating	5A
Voltage Rating	200V DC
Securing method	4-40 UNC Screwlocks
Cable entry	10 x 20mm
Overall size (Approx)	H68 x W18 x D100mm
<b>Main Connector:</b>	
Type	50 Way D-Subminiature
Gender	Male or Female
Current Rating	5A each pin
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 1.3mm <sup>2</sup> csa
Torque Setting	0.12-0.15Nm
Cable Clamp	Yes (In Backshell)
<b>Notes:</b>	
	Female versions are suited to direct connection to a Pickering Switching Module while male versions can be used to interface to a female cable assembly termination.

Product Order Codes

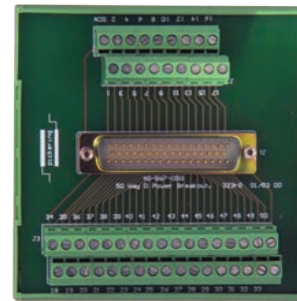
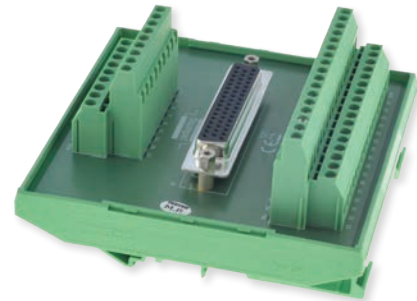
50 Way D-Type Shielded Connector Block, 5A, Screw Terminal, With Backshell, Female	40-965-050-F
Screw Terminal, With Backshell, Male	40-965-050-M
Screw Terminal, Without Backshell, Female	92-965-050-F
Screw Terminal, Without Backshell, Male	92-965-050-M

Cable Connection - 50 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

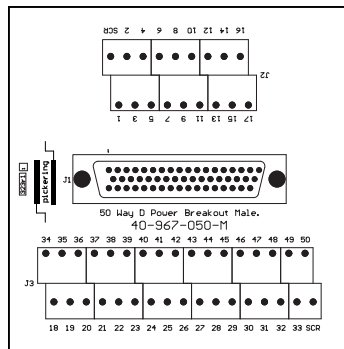
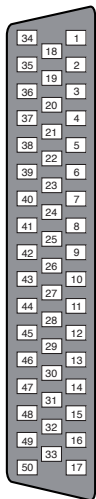


This termination option is capable of accepting heavy duty connection wires and uses rising clamp screw terminals to minimize the danger of copper strand damage. Users should care take to protect the termination and provide a suitable method of restraining the cables. Pickering cable assemblies for this product are contained elsewhere in this data sheet. Interfacing PCB's should be designed with suitable clearances for the voltage the application requires.



40-967-050-M

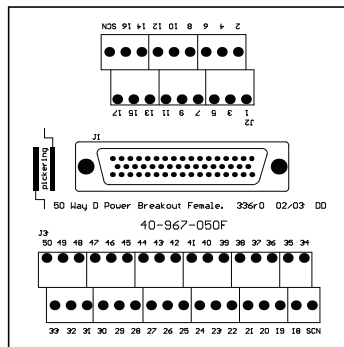
Male



Female



40-967-050-F



Technical Specification

<b>Connector Block</b>	
Current Rating	5A
Voltage Rating	200V DC
Securing method	Suitable for securing to DIN rails.
Overall size (Approx)	H110 x W110 x D56mm
<b>Main Connector:</b>	
Type	50 Way D-Subminiature
Gender	Male or Female
Current Rating	5A each pin
Voltage Rating	250V AC
Contact Material	Gold Plated Copper Alloy
Contact Resistance	<20mOhm
Cable Securing Method	4-40 UNC Screwlock
<b>Wire/Cable Connection:</b>	
Connection method	Rising cage screw terminals
Recommended Wire/Cable	Any (User Defined)
Recommended Wire Size	Solid wire up to 4mm <sup>2</sup> csa
Torque Setting	0.5-0.6Nm
Cable Clamp	No

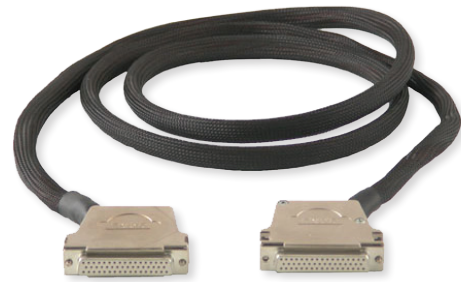
Product Order Codes

50 Way D-Type Breakout with DIN Rail Mount, 5A,  
Screw Terminal, Female **40-967-050-F**  
Screw Terminal, Male **40-967-050-M**

50 Way D-Type Connector to Connector Assy

Standard Voltage

- High Specification Cable
- Highly Flexible Cable
- Strain Relief
- Braided sleeving
- Fully screened cable construction

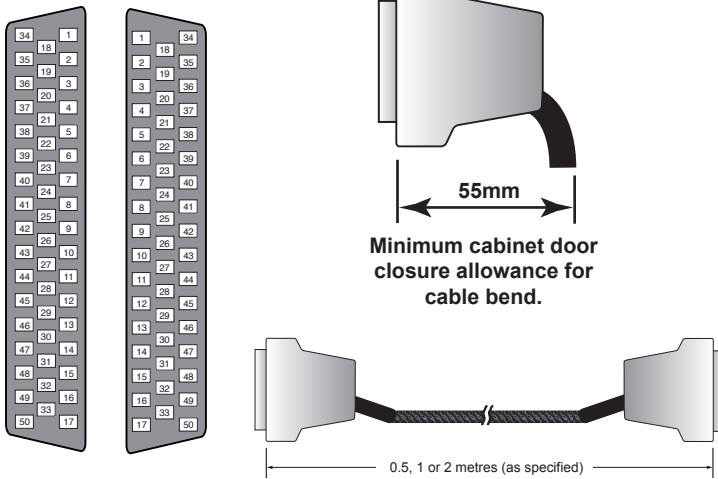


The 50 Way Female connector option of this cable assembly is suited for direct connection to Pickering Interfaces products.

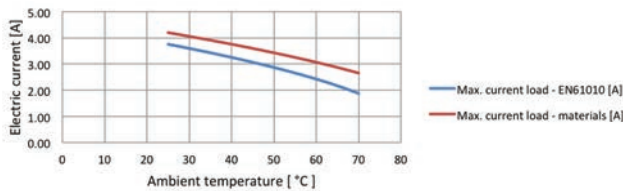
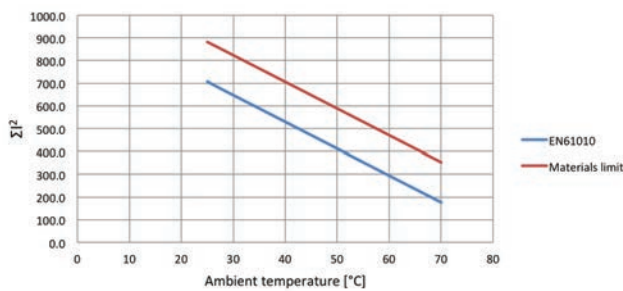
Technical Specification

<b>Cable Assembly Rating:</b>	
Maximum Current	5A
Maximum Voltage	250VAC / 400VDC
Standard Lengths	Multiples of 0.5m
Door Closure Allowance	55mm (See diagram)
<b>Connector Type (End A):</b>	50 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)	H68 x W18.5 x D55mm
<b>Connector Type (End B)</b>	As End A
Gender	Male or Female
<b>Cable Type:</b>	
Conductors:	
Material	Copper
Strands	19/0.18 (0.41mm <sup>2</sup> 21AWG)
Resistance	0.041Ω/m (max)
Screened Construction	Yes
Insulation	PFA
Outer Sleeve	Polyester
Additional Braided Sleeve	Yes
Cable O/D	12mm
Minimum Bend Radius	25mm
<b>Notes:</b>	
	<ul style="list-style-type: none"> <li>• 50 Way Female cable connectors can be directly mated to a corresponding Pickering Switching Module.</li> <li>• Other cable lengths can be supplied.</li> </ul>

Male Female



Characteristic Plots for 40-970-050-1m



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>50 Way D-Type Cable Assy, 5A, Female to Female</b>	
0.5m Long	40-970-050-0.5m-FF
1.0m Long	40-970-050-1m-FF
2.0m Long	40-970-050-2m-FF
<b>50 Way D-Type Cable Assy, 5A, Male to Male</b>	
0.5m Long	40-970-050-0.5m-MM
1.0m Long	40-970-050-1m-MM
2.0m Long	40-970-050-2m-MM
<b>50 Way D-Type Cable Assy, 5A, Male to Female</b>	
0.5m Long	40-970-050-0.5m-MF
1.0m Long	40-970-050-1m-MF
2.0m Long	40-970-050-2m-MF

50 Way D-Type Connector to Unterminated

Standard Voltage

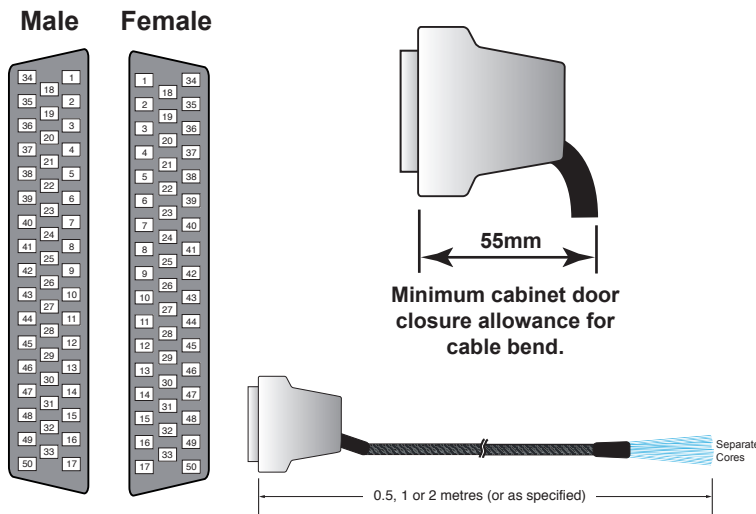
- High Specification Cable
- Highly Flexible Cable
- Fully screened cable construction with Braided Sleeve and Strain Relief
- Fully coded markers to ensure easy connection
- Boot lace ferrules to prevent wire strand breakage



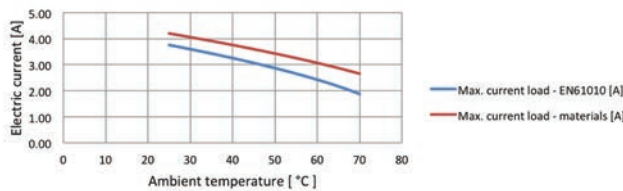
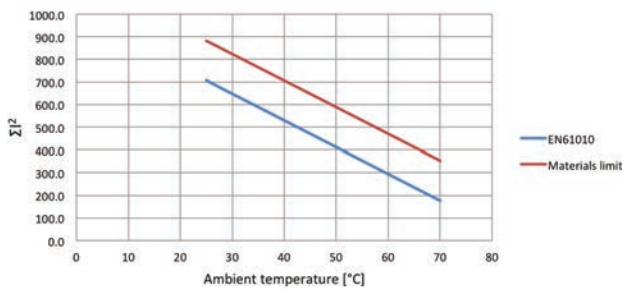
The 50 Way Female cable assembly is suited for direct connection to Pickering Interfaces products with unterminated connections at the other end.

Technical Specification

<b>Cable Assembly Rating:</b> Maximum Current Maximum Voltage Standard Lengths Door Closure Allowance	5A 250V AC / 400V DC Multiples of 0.5m 55mm (See diagram)
<b>Connector Type (End A):</b> Gender Current Rating Voltage Rating Contact Material Contact Resistance Product Securing method Overall size (Approx)	50 Way D-Subminiature Male or Female 5A 250V AC 20mOhm 1000MOhm 4-40 UNC Screwlocks H68 x W18.5 x D55mm
<b>Unterminated End (End B)</b> Wire coding Boot Lace Ferrules Contact Material/Fixing Free wire length	Yes - To Connector pins Yes Tinned Copper/Crimped 130mm nominal
<b>Cable Type:</b> Conductors: Material Strands Resistance Screened Construction Insulation Outer Sleeve Additional Braided Sleeve Cable O/D Minimum Bend Radius	Copper 19/0.18 (0.41mm <sup>2</sup> 21AWG) 0.041Ω/m (max) Yes PFA Polyester Yes 12mm 25mm
<b>Notes:</b>	Other cable lengths can be supplied.



Characteristic Plots for 40-972-050-1m



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

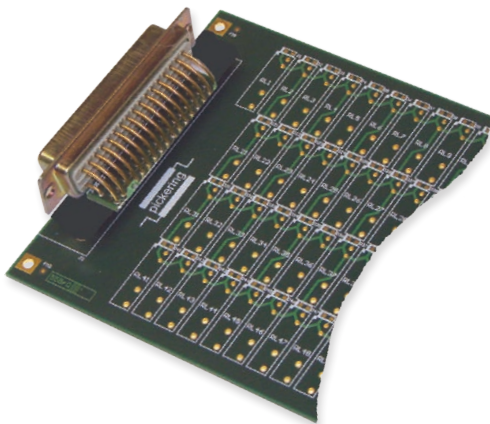
- |   |                    |
|---|--------------------|
| <b>50 Way D-Type Cable Assy, 5A, Female to Unterminated</b> |                    |
| 0.5m Long   | 40-972-050-0.5m-FU |
| 1.0m Long   | 40-972-050-1m-FU   |
| 2.0m Long   | 40-972-050-2m-FU   |
| <b>50 Way D-Type Cable Assy, 5A, Male to Unterminated</b>   |                    |
| 0.5m Long   | 40-972-050-0.5m-MU |
| 1.0m Long   | 40-972-050-1m-MU   |
| 2.0m Long   | 40-972-050-2m-MU   |

PCB Interfacing - 50 Way D-Type Connector

High Voltage

- Male or Female versions available
- PCB mounted
- Ideal for user created termination solutions

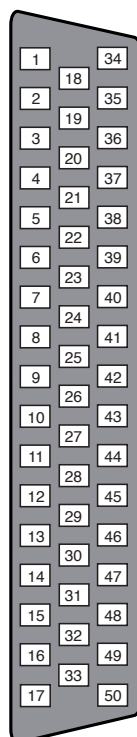
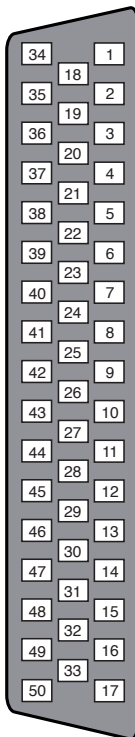
Accessory allows a user to create their own PCB based termination solution mounted directly on the front of the product or on the end of a cable. Interfacing PCBs should be designed with suitable clearances for the voltage the application requires.



Female version depicted

Male

Female



Technical Specification

<b>Connector Type:</b>	50 Way D-Subminiature High Voltage
Gender	Male or Female
Mounting	Right Angle PCB Mount
Cable Securing Method	4-40 UNC Screwlock
<b>Connector Type:</b>	
Current Rating	5A each pin
Voltage Rating	1000V DC or AC
Contact Material	Gold Plated Copper Alloy
Contact Resistance	<20mOhm
<b>Notes:</b>	50 Way Female HV connectors can be directly mated to a corresponding Pickering Switching Module.

Product Order Codes

50 Way D-Type Connector, 5A, Right Angle PCB Mount  
 Female, High Voltage 40-963-050-RF-HV  
 Male, High Voltage 40-963-050-RM-HV



**Cable Connection - 50 Way D-Type Connector**

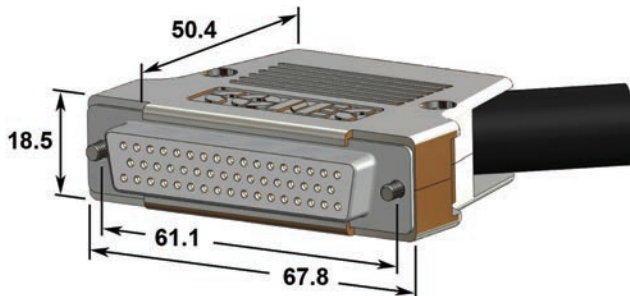
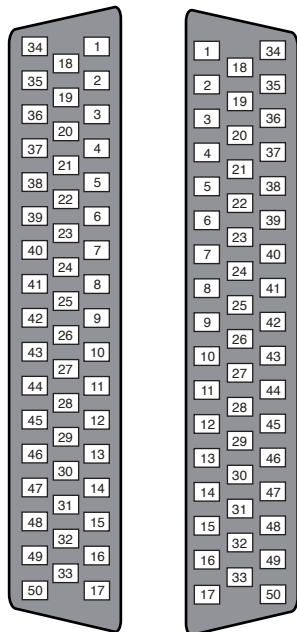
**High Voltage**

- Connector only
- Soldered connection
- Cable clamp in backshell

This accessory is designed to allow users to directly terminate with soldered connections to the connector.



**Male      Female**



**Technical Specification**

<b>Connector Type:</b>	50 Way D-Subminiature, High Voltage
Gender	Male or Female
Securing method	4-40 UNC Screwlocks
Cable entry	12mm Dia
Overall size (Approx)	H68 x W18.5 x D55mm
<b>Connector Ratings:</b>	
Current Rating	5A
Voltage Rating	1000V DC or AC
Contact Material	Gold Plated Copper Alloy
Contact Resistance	<20mOhm
Insulation Resistance	5 x 10 <sup>9</sup> MOhm
<b>Cable Connection:</b>	
Recommended Cable	PTFE Type C 7/0.2mm (0.22mm <sup>2</sup> csa, 24AWG), 1.62mm O/D
Connection method	Soldered
Cable Clamp	Yes (In Backshell)
<b>Notes:</b>	50 Way Female HV connectors can be directly mated to a corresponding Pickering Switching Module.

**Product Order Codes**

- 50 Way D-Type Connector, 5A, Solder Bucket,  
 With Backshell, Female, High Voltage      40-960-050-F-HV  
 With Backshell, Male, High Voltage      40-960-050-M-HV  
 Without Backshell, Female, High Voltage      92-960-050-F-HV  
 Without Backshell, Male, High Voltage      92-960-050-M-HV

**50 Way D-Type Connector to Connector Assy**

**High Voltage**

- High Specification Cable
- Highly Flexible Cable
- Strain Relief
- Braided sleeving
- Fully screened cable construction

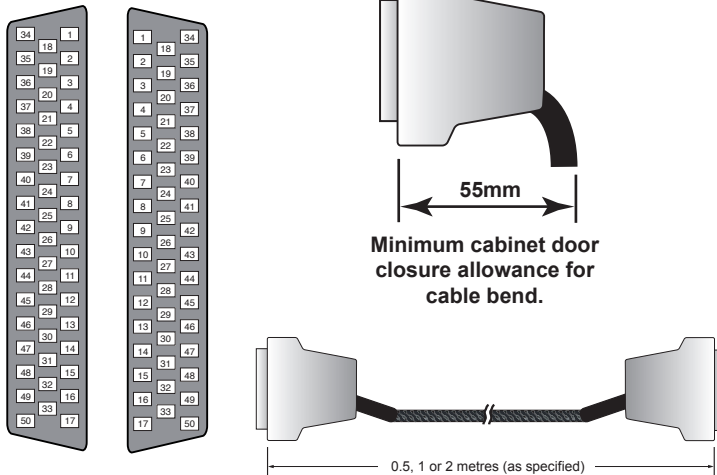


The 50 Way Female connector option of this cable assembly is suited for direct connection to Pickering Interfaces products.

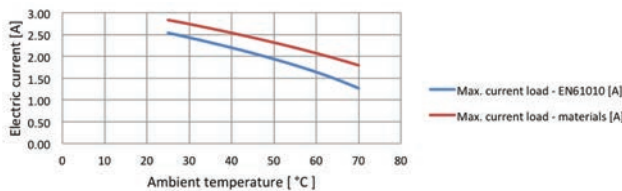
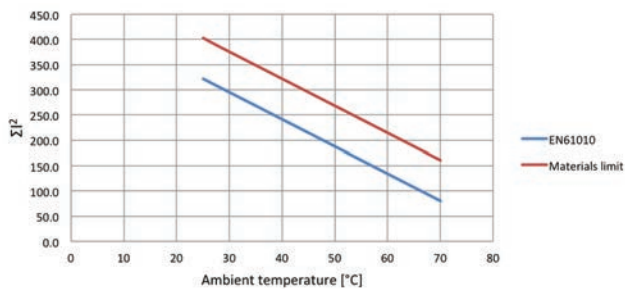
**Technical Specification**

<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 55mm (See diagram)
<b>Connector Type (End A):</b> General Current Rating Voltage Rating Contact Material Contact Resistance Product Securing method Overall size (Approx)	50 Way D-Subminiature, HV Female 5A 1000V DC or AC Gold Plated Copper Alloy <20mOhm 4-40 UNC Screwlocks H68 x W18.5 x D55mm
<b>Connector Type (End B)</b> Gender	As End A Female
<b>Cable Type:</b> Conductors: Material Strands  Resistance Screened Construction Insulation Outer Sleeve Additional Braided Sleeve Cable O/D Minimum Bend Radius	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 12mm 25mm
<b>Notes:</b>	Other cable lengths can be supplied.

**Male Female**



**Characteristic Plots for 40-970-050-1m (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**

<b>50 Way D-Type Cable Assy, 5A, Female to Female, HV</b>	
0.5m Long	40-970-050-0.5m-FF-HV
1.0m Long	40-970-050-1m-FF-HV
2.0m Long	40-970-050-2m-FF-HV
<b>50 Way D-Type Cable Assy, 5A, Male to Male, HV</b>	
0.5m Long	40-970-050-0.5m-MM-HV
1.0m Long	40-970-050-1m-MM-HV
2.0m Long	40-970-050-2m-MM-HV
<b>50 Way D-Type Cable Assy, 5A, Male to Female, HV</b>	
0.5m Long	40-970-050-0.5m-MF-HV
1.0m Long	40-970-050-1m-MF-HV
2.0m Long	40-970-050-2m-MF-HV

50 Way D-Type Connector to Unterminated

High Voltage

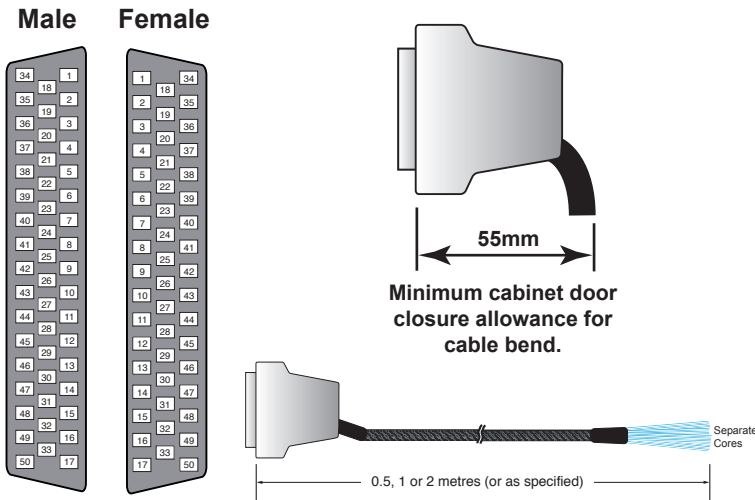
- High Specification Cable
- Highly Flexible Cable
- Fully screened cable construction with Braided Sleeve and Strain Relief
- Fully coded markers to ensure easy connection
- Boot lace ferrules to prevent wire strand breakage



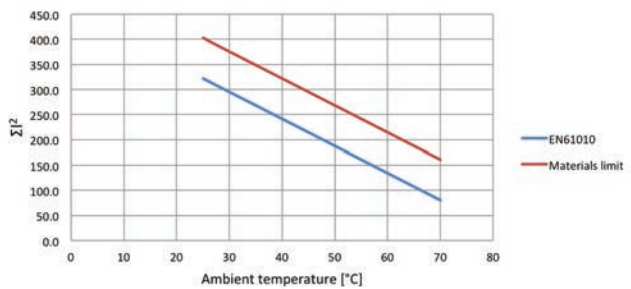
The Female cable assembly is suited for direct connection to Pickering Interfaces products using the 50 pin D-Type connector with unterminated connections at the other end. The unterminated connections are coded to match the connector pin designation and include crimped on ferrules to ensure the wire 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 55mm (See diagram)
<b>Connector Type (End A):</b> Gender Current Rating Voltage Rating Contact Material Contact Resistance Product Securing method Overall size (Approx)	50 Way D-Subminiature, HV Male or Female 5A 1000V DC or AC Gold Plated Copper Alloy <20mOhm 4-40 UNC Screwlocks H68 x W18.5 x D55mm
<b>Unterminated End (End B)</b> Wire coding Boot Lace Ferrules Contact Material/Fixing Free wire length	Yes - To Connector pins Yes Tinned Copper/Crimped 130mm nominal
<b>Cable Type:</b> Conductors: Material Strands Resistance Screened Construction Insulation Outer Sleeve Additional Braided Sleeve Cable O/D Minimum Bend Radius	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 12mm 25mm
<b>Notes:</b>	Other cable lengths can be supplied.



Characteristic Plots for 40-972-050-1m (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

<b>50 Way D-Type Cable Assy, 5A, Female to Unterminated</b>	
0.5m Long, High Voltage	40-972-050-0.5m-FU-HV
1.0m Long, High Voltage	40-972-050-1m-FU-HV
2.0m Long, High Voltage	40-972-050-2m-FU-HV
<b>50 Way D-Type Cable Assy, 5A, Male to Unterminated</b>	
0.5m Long, High Voltage	40-972-050-0.5m-MU-HV
1.0m Long, High Voltage	40-972-050-1m-MU-HV
2.0m Long, High Voltage	40-972-050-2m-MU-HV

## Custom Termination

Pickering Interfaces is able to manufacture custom built cable assemblies and backshells that mate with all the connectors we use in our extensive product range.

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

All products are designed to ensure easy and problem free connection to our products and we can provide solutions to connect to third party products.

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

