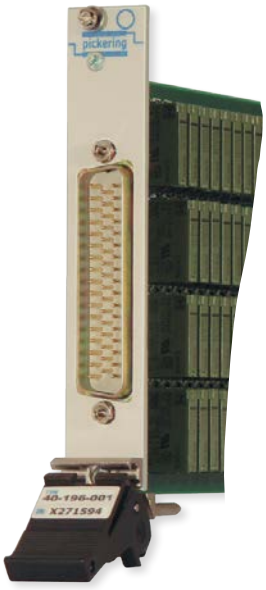
Standard Voltage 50-Pin D-type Connector Accessories

- **Standard Voltage to 250V AC/400V DC, 5A**
- **Mating Connectors**
- **Connector Hoods**
- **Connector Blocks**
- **Cable Assemblies**
- **Guaranteed Compatibility**
- **50-Pin High Voltage Solutions are also Available**
  See Data Sheet 90-005HVD



The Standard Voltage 50-Pin D-Type connector is used on switching products to provide a medium density user connector solution.

Connector to Connector cable assemblies provide a simple way of connecting the product to the user's remote mating 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 meet most user requirements.

For unterminated versions of cables we offer options based on the use of boot lace ferrules, tinned copper ends or simple cut ends to suit user termination requirements.

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 breakout to terminate the cables at the end of a cable assembly.

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.

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Contents - Mating Accessories for Pickering Products

Please click on the page number to navigate to the data sheet page required. Return to this page via the C button.

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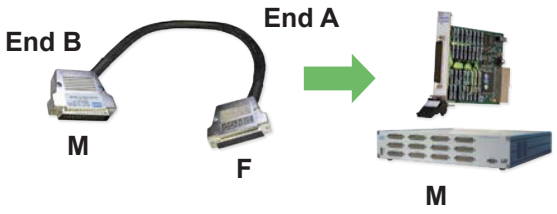
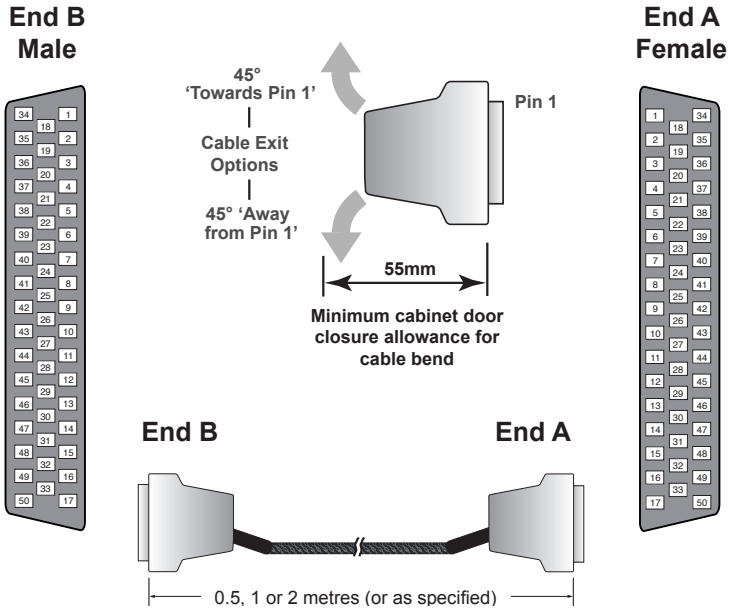
Contents - Additional Accessories

Although these items do not directly mate with Pickering Interfaces products customers may find them useful in the development of their own connection solutions.

Standard Voltage 50-Pin D-Type Cable Assy - Male to Female

- High Specification Cable
- Highly Flexible Cable with Braided Sleeving
- 45 Degree Cable Exit
- Strain Relief
- Fully Screened Cable Construction



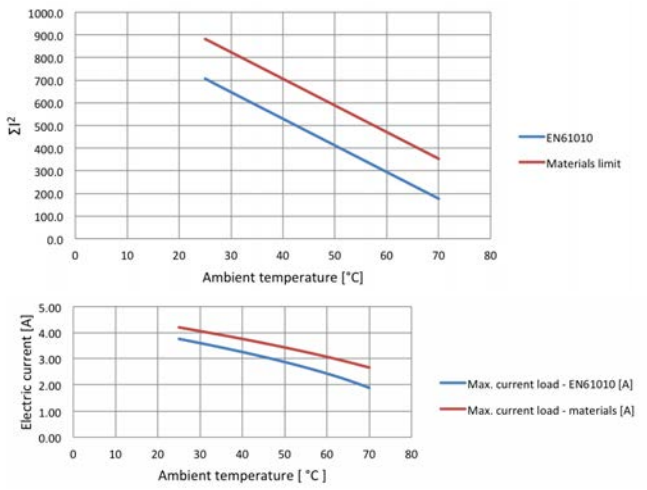


Technical Specification

Connector Type (End A):	50-Pin D-Subminiature
Gender	Female
Securing Method	4-40 UNC screwlocks, male
Connector Type (End B):	50-Pin D-Subminiature
Gender	Male
Securing Method	4-40 UNC screwlocks, male
Cable Assembly Rating:	
Maximum Current	5A
Maximum Voltage	250VAC/400VDC
Insulation Resistance	1000MOhm
Connectors:	
Contact Material	Gold plated copper alloy
Contact Resistance	<20mOhm
Cable Exit	45° (See Order Codes)
Overall Size (Approx)	H68 x W18.5 x D55mm
Cable Type:	Individual wires, screened & sleeved
Conductor: Material	Copper
Strands	19/0.18 (0.41mm², 21AWG)
Resistance	0.041Ω/m
Insulation	PFA
Outer Sleeve	Polyester
Screened Construction	Yes
Additional Braided Sleeve	Yes
Cable O/D	12mm
Minimum Bend Radius	25mm
Door Closure Allowance	55mm (see diagram)

Notes:
Other cable lengths can be supplied.

Characteristic Plots for 40-970-050-1m



The top graph shows the permitted ΣI² 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.

The bottom graph shows the allowed current versus temperature assuming ALL wires carry the same current. Higher currents to the cable rating are permitted on individual wires provided the ΣI² is complied with.

Product Order Codes

50-Pin D-Type Cable Assy, 5A, Male to Female,

Cable Exit 45° (Away from Pin 1),

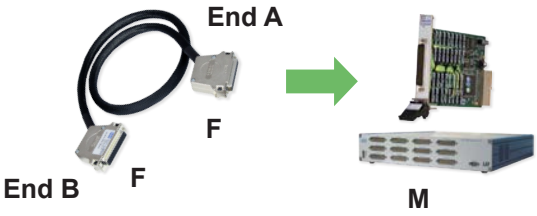
0.5m Long	**40-970-050-0.5m-MF**
1.0m Long	**40-970-050-1m-MF**
2.0m Long	**40-970-050-2m-MF**

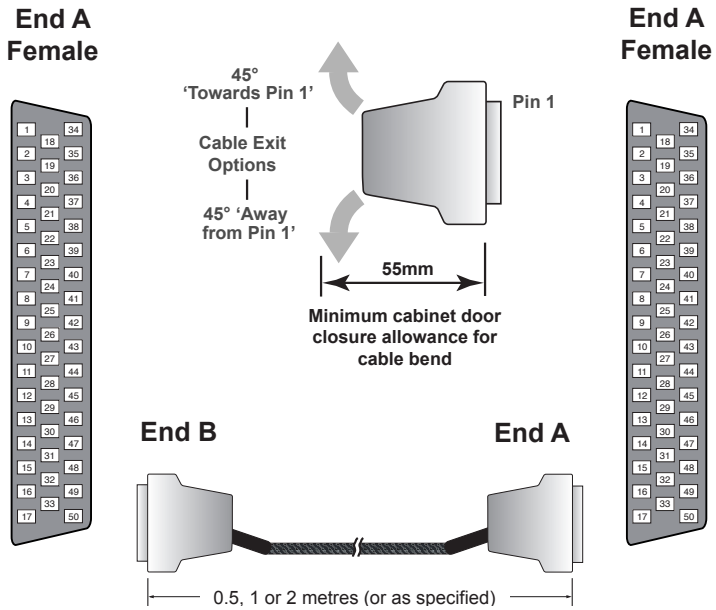
Cable Exit 45° (Towards Pin 1),

0.5m Long	**A050DM5-050DF5-0A050**
1.0m Long	**A050DM5-050DF5-0A100**
2.0m Long	**A050DM5-050DF5-0A200**

Standard Voltage 50-Pin D-Type Cable Assy - Female to Female

- High Specification Cable
- Highly Flexible Cable with Braided Sleeving
- 45 Degree Cable Exit
- Strain Relief
- Fully Screened Cable Construction

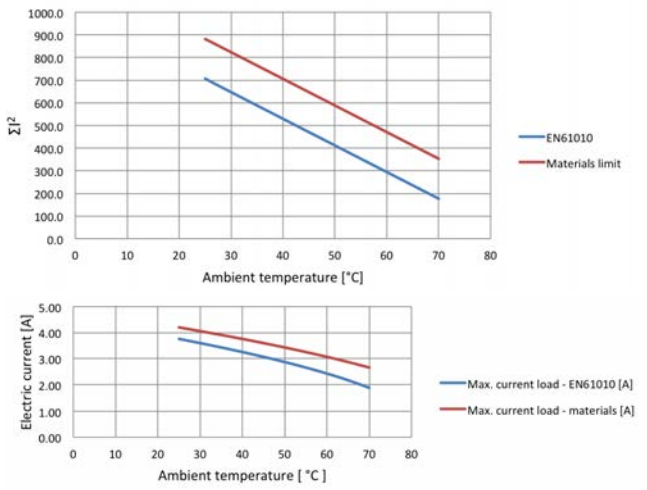




Technical Specification

Connector Type (End A):	50-Pin D-Subminiature
Gender	Female
Securing Method	4-40 UNC screwlocks, male
Connector Type (End B):	50-Pin D-Subminiature
Gender	Female
Securing Method	4-40 UNC screwlocks, male
Cable Assembly Rating:	
Maximum Current	5A
Maximum Voltage	250VAC/400VDC
Insulation Resistance	1000MOhm
Connectors:	
Contact Material	Gold plated copper alloy
Contact Resistance	<20mOhm
Cable Exit	45° (See Order Codes)
Overall Size (Approx)	H68 x W18.5 x D55mm
Cable Type:	Individual wires, screened & sleeved
Conductor: Material	Copper
Strands	19/0.18 (0.41mm², 21AWG)
Resistance	0.041Ω/m
Insulation	PFA
Outer Sleeve	Polyester
Screened Construction	Yes
Additional Braided Sleeve	Yes
Cable O/D	12mm
Minimum Bend Radius	25mm
Door Closure Allowance	55mm (see diagram)
Notes: Other cable lengths can be supplied.	

Characteristic Plots for 40-970-050-1m



The top graph shows the permitted ΣI² 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.

The bottom graph shows the allowed current versus temperature assuming ALL wires carry the same current. Higher currents to the cable rating are permitted on individual wires provided the ΣI² is complied with.

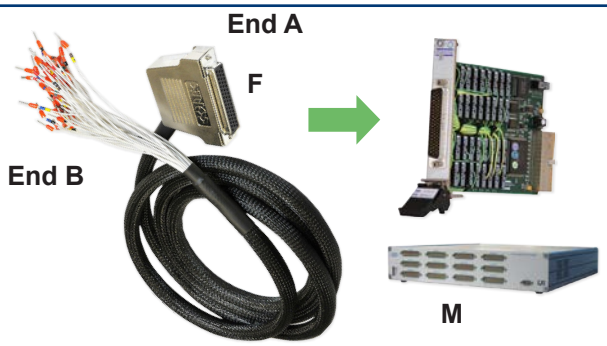
Product Order Codes

50-Pin D-Type Cable Assy, 5A, Female to Female,

Cable Exit 45° (Away from Pin 1),	
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**
Cable Exit 45° (Towards Pin 1),	
0.5m Long	**A050DF5-050DF5-0A050**
1.0m Long	**A050DF5-050DF5-0A100**
2.0m Long	**A050DF5-050DF5-0A200**

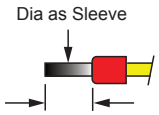
Standard Voltage 50-Pin D-Type Cable Assy - Female to Unterminated

- **High Specification Cable**
- **Highly Flexible Cable**
- **Fully Screened Cable Construction with Braided Sleeve and Strain Relief**
- **45 Degree Cable Exit**
- **Fully Coded Markers to Ensure Easy Connection**



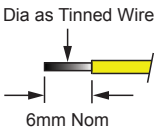
End B Options

Ferrules

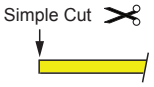


Soldered or Crimped Construction

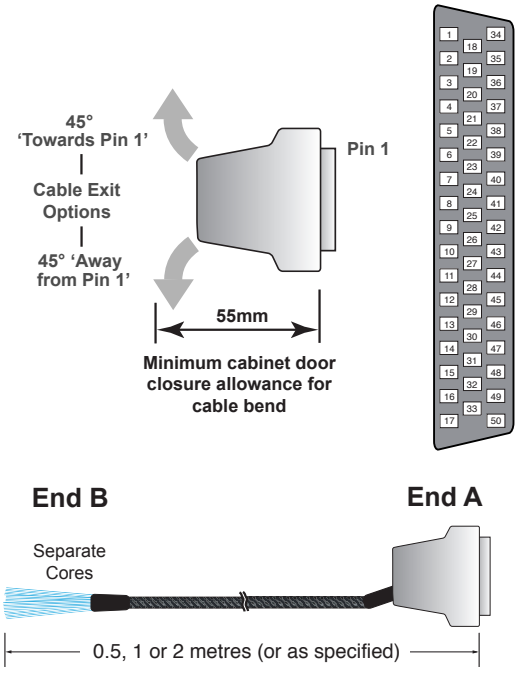
Tinned End



Cut End



End A - Female

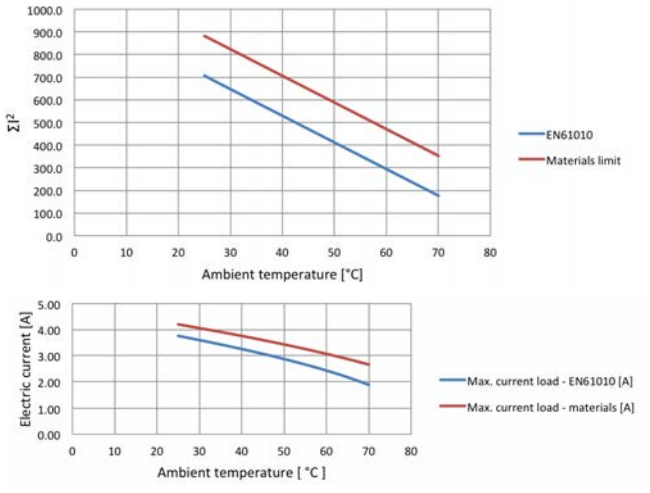


Technical Specification

Connector Type (End A):	50-Pin D-Subminiature
Gender	Female
Securing Method	4-40 UNC screwlocks, male
Unterminated End (End B):	
Free Wire Length	130mm nominal
Individual Wire Labelling	To connector pins
Wire End Options	Ferrules, Tinned, Cut End
Cable Assembly Rating:	
Maximum Current	5A
Maximum Voltage	250VAC/400VDC
Insulation Resistance	1000MOhm
Connector:	
Contact Material	Gold plated copper alloy
Contact Resistance	<20mOhm
Cable Exit	45° (See Order Codes)
Overall Size (Approx)	H68 x W18.5 x D55mm
Cable Type:	Individual wires, screened & sleeved
Conductor: Material	Copper
Strands	19/0.18 (0.41mm², 21AWG)
Resistance	0.041Ω/m (max)
Insulation	PFA
Outer Sleeve	Polyester
Screened Construction	Yes
Additional Braided Sleeve	Yes
Cable O/D	12mm
Minimum Bend Radius	25mm
Door Closure Allowance	55mm (see diagram)

Notes:
- When using this product please ensure appropriate electrical safety precautions are observed.
- Other cable lengths can be supplied.

Characteristic Plots for 40-972-050-1m



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The bottom graph shows the allowed current versus temperature assuming ALL wires carry the same current. Higher currents to the cable rating are permitted on individual wires provided the ΣI² is complied with.

Product Order Codes

50-Pin D-Type Cable Assy, 5A, Cable Exit Away from Pin 1, Boot Lace Ferrules,

Female to Unterminated, 0.5m Long	**40-972-050-0.5m-FU**
Female to Unterminated, 1.0m Long	**40-972-050-1m-FU**
Female to Unterminated, 2.0m Long	**40-972-050-2m-fU**

Part numbers for other versions:

A050DF*-*-0A***

End A: 45° Cable Exit
4 = (Away from Pin 1)
5 = (Towards Pin 1)

End B:
F = Ferrules
T = Tinned End
C = Cut End

Cable Length:
050 = 0.5m
100 = 1.0m
200 = 2.0m

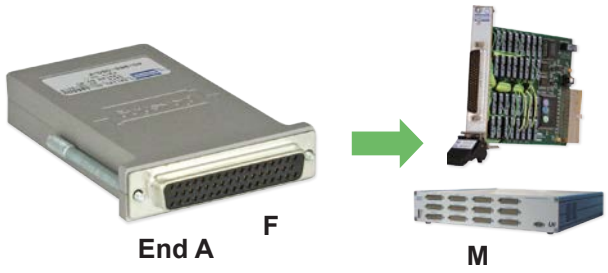
Standard Voltage 50-Pin D-Type Connector Block - Female

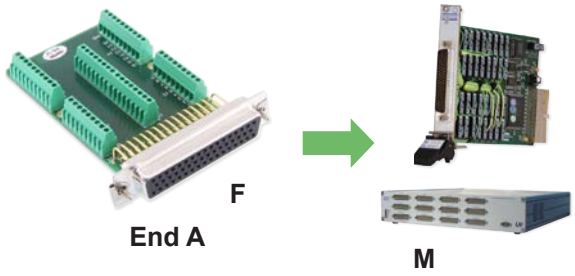
- **Connector and PCB Only or Connector, PCB and Backshell**
- **Male Screwlocks**
- **Cable Clamp in Backshell**
- **Easy to Use Rising Cage Screw Terminals**

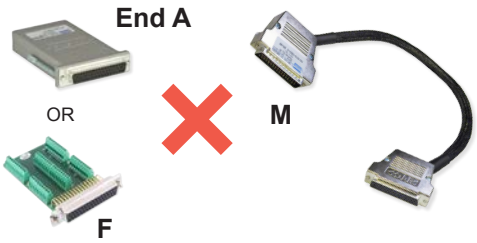
Connector blocks provide a convenient method of termination without the use of custom cabling. However, a higher resistance path, lower capacity ratings and lower voltage ratings are typical.

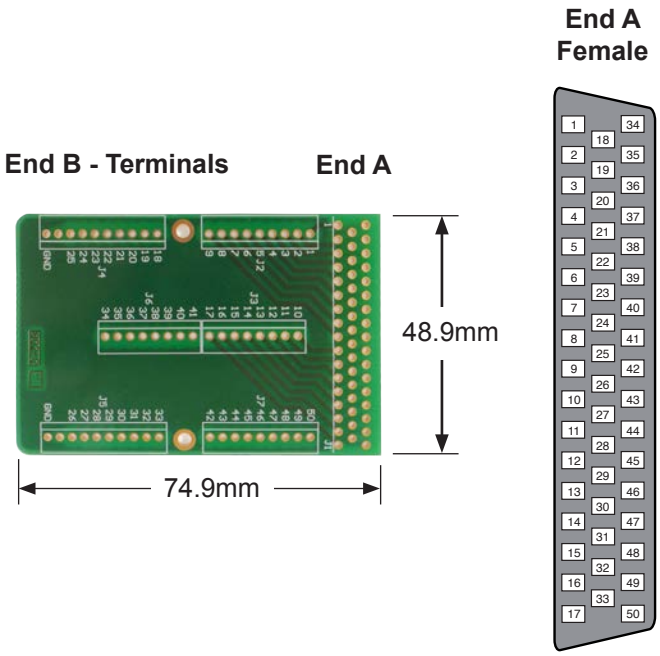
The screw terminals use a rising cage clamp mechanism to minimize risk of copper strand breakage. PTFE cables are recommended for use with this connector block to maximise copper cross-sectional area and insulation properties. The breakdown voltage of the connector block is controlled by clearances to the metal shell. The metal shell includes an internal insulation barrier under the carrier board.

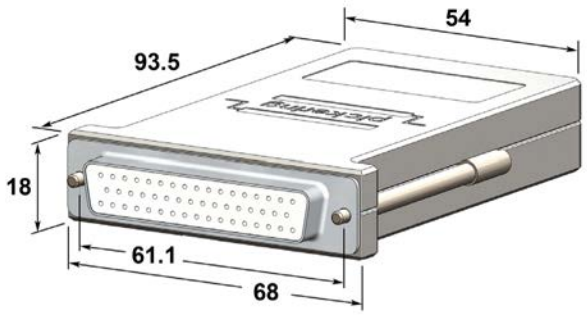
This connector block uses male screwlocks and will not mate to Pickering cables. Connector blocks supplied without a backshell do not include cable strain relief.











Technical Specification

Connector Type (End A):	50-Pin D-Subminiature
Gender	Female
Securing Method:	
Product with Backshell	4-40 UNC screwlocks, male
Product without Backshell	4-40 UNC screwlocks, male
Wire Connection (End B):	
Gender	Female
Connection Method	Rising cage screw terminals
Connector Block Ratings:	
Maximum Current	5A
Maximum Voltage	200VDC
Cable Exit	Rear - 10.3 x 20mm
Overall Size (Approx)	H68 x W18 x D100mm
50-Pin D-Sub:	
Contact Material	Gold plated copper alloy
Contact Resistance	<20mOhm
Screw Terminals:	
Maximum Wire Size	20AWG
Recommended Insulation	PTFE
Additional Cable Clamp	Yes (in backshell)

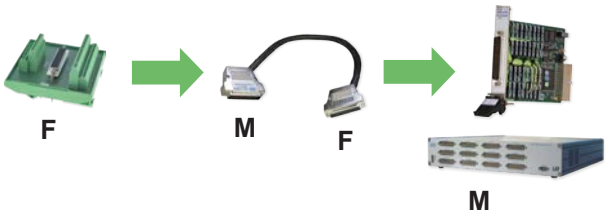
Product Order Codes

50-Pin D-Type Shielded Connector Block, 5A,

Screw Terminal, With Backshell, Female	**40-965-050-F**
Screw Terminal, Without Backshell, Female	**92-965-050-F**

Standard Voltage 50-Pin D-Type Breakout - Female

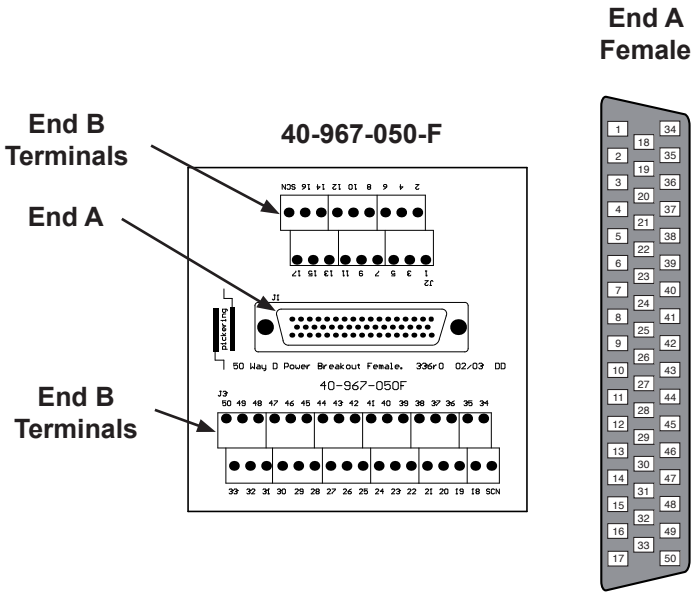
- **For Connection at Cable End**
- **Simple to Use Rising Cage Screw Clamp Termination**
- **DIN Rail Mounted**



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.

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.

When using this product please ensure appropriate electrical safety precautions are observed.



Technical Specification

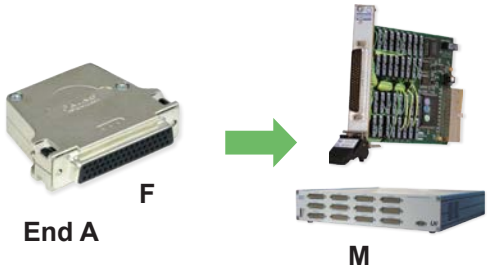
Connector Type (End A):	50-Pin D-Subminiature
Gender	Female
Securing Method	4-40 UNC screwlocks, female
Wire Connection (End B):	
Gender	Female
Connection Method	Rising cage screw terminals
Breakout Ratings:	
Maximum Current	5A
Maximum Voltage	200VDC
Securing Method	Suitable for securing to DIN rails.
Overall Size (Approx)	H110 x W110 x D56mm
50-Pin D-Sub:	
Contact Material	Gold plated copper alloy
Contact Resistance	<20mOhm
Screw Terminals:	
Maximum Wire Size	12AWG
Additional Cable Clamp	No

Product Order Codes

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

Standard Voltage 50-Pin D-Type Connector - Female

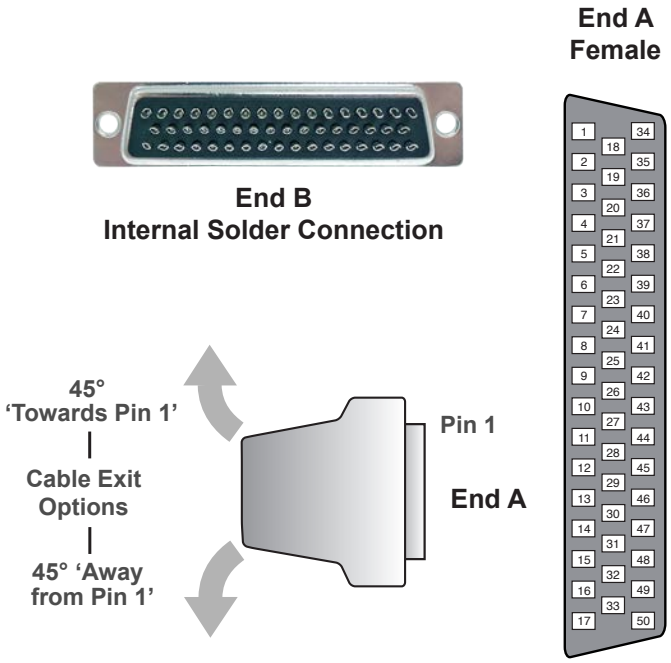
- **Connector only or Connector and Backshell**
- **Cable Clamp in Backshell**
- **Soldered Cable Termination**

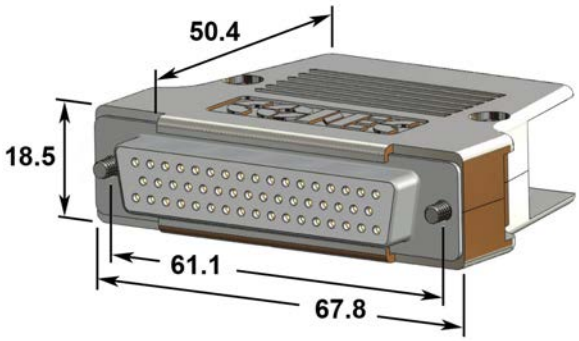


This accessory is designed to allow users to directly terminate with soldered connections to the connector.

Connector and shell are supplied separately to allow the user to determine the direction of the cable exit.

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

Connector Type (End A):	50-Pin D-Subminiature
Gender	Female
Securing Method:	
Product with Backshell	4-40 UNC screwlocks, male
Product without Backshell	4-40 UNC screwlocks, male
Wire Connection (End B):	
Gender	Female
Connection Method	Solder bucket
Connector Ratings:	
Maximum Current	5A
Maximum Voltage	250VAC
Cable Exit:	45°
Cable Exit Size	15mm dia
Overall Size (Approx)	H68 x W18.5 x D55mm
50-Pin D-Sub:	
Contact Material	Gold plated copper alloy
Contact Resistance	20mOhm
Wire Connection:	
Maximum Wire Size	20AWG
Recommended Insulation	PTFE
Additional Cable Clamp	Yes (in backshell)

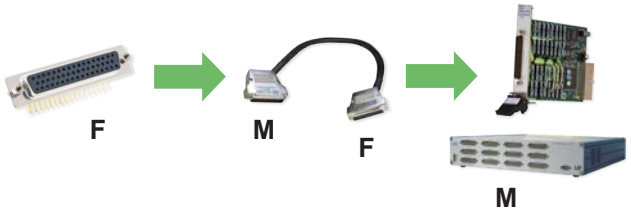
Product Order Codes

50-Pin D-Type Connector, 5A, Solder Bucket,

With Backshell, Female	**40-960-050-F**
Without Backshell, Female	**92-960-050-F**

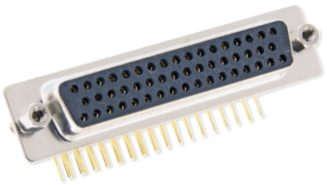
Standard Voltage 50-Pin D-Type Connector - Female

- **Right Angle PCB Mount**
- **Ideal for User Created Termination Solutions**

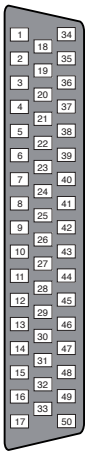


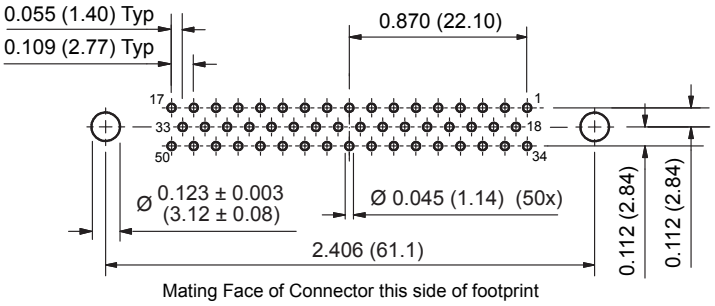
This accessory allows a user to create their own PCB based termination solution mounted on the end of a cable. Suitable cables for this product are contained elsewhere in this data sheet. Interfacing PCBs should be designed with suitable clearances for the voltage the application requires.

Note: This product is not suitable for directly mounting onto the front panel of a Pickering switching product.



End A
Female



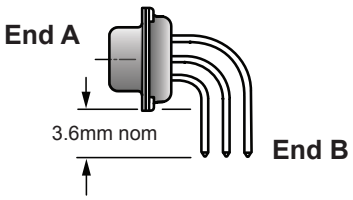


PCB Footprint of 50-Pin Right Angle Female Connector (Connector Side - Not to Scale)

Technical Specification

Connector Type (End A):	50-Pin D-Subminiature
Gender	Female
Securing Method	4-40 UNC screwlocks, female
PCB Connection (End B):	
Gender	Male
Connection Method	Solder
Mounting	Right angle PCB mount
Connector Ratings:	
Maximum Current	5A each pin
Maximum Voltage	250VAC
50-Pin D-Sub:	
Contact Material	Gold plated copper alloy
Contact Resistance	<20mOhm
PCB Legs:	
Effective Leg Length	3.6mm nom (See diagram)

Effective Leg Length



Product Order Codes

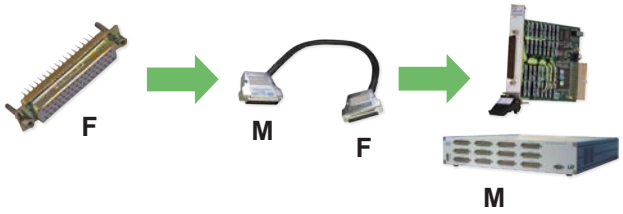
50-Pin D-Type Connector, 5A, Right Angle PCB Mount	
Female	**40-963-050-RF**

Standard Voltage 50-Pin D-Type Connector - Female

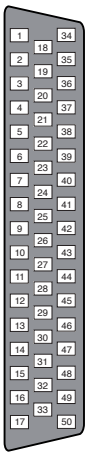
- **Straight PCB Mount**
- **Ideal for User Created Termination Solutions**

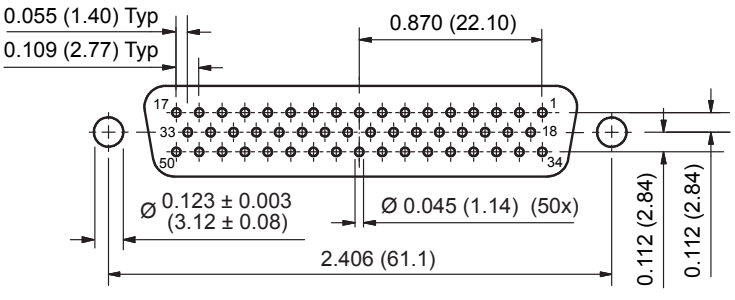
This accessory allows a user to create their own PCB based termination solution mounted on the end of a cable. Suitable cables for this product are contained elsewhere in this data sheet. Interfacing PCBs should be designed with suitable clearances for the voltage the application requires.

Note: This product is not suitable for directly mounting onto the front panel of a Pickering switching product.



End A
Female

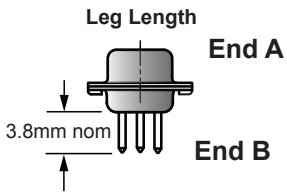




PCB Footprint of 50-Pin Straight Female Connector (Connector Side - Not to Scale)

Technical Specification

Connector Type (End A):	50-Pin D-Subminiature
Gender	Female
Securing Method	4-40 UNC screwlocks, female
PCB Connection (End B):	
Gender	Male
Connection Method	Solder
Mounting	Straight PCB mount
Connector Ratings:	
Maximum Current	5A each pin
Maximum Voltage	250VAC
50-Pin D-Sub:	
Contact Material	Gold plated copper alloy
Contact Resistance	<20mOhm
PCB Legs:	
Effective Leg Length	3.8mm nom (See diagram)

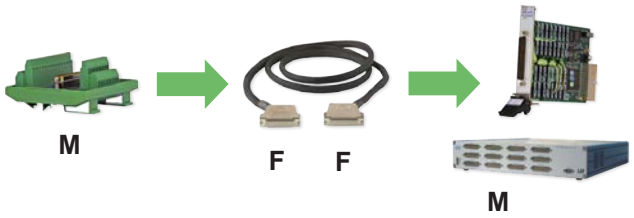


Product Order Codes

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

Standard Voltage 50-Pin D-Type Breakout - Male

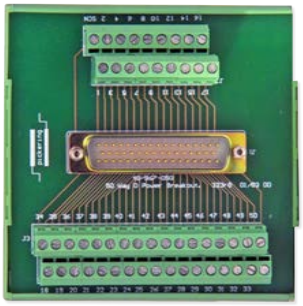
- **For Connection at Cable End**
- **Simple to Use Rising Cage Screw Clamp Termination**
- **DIN Rail Mounted**

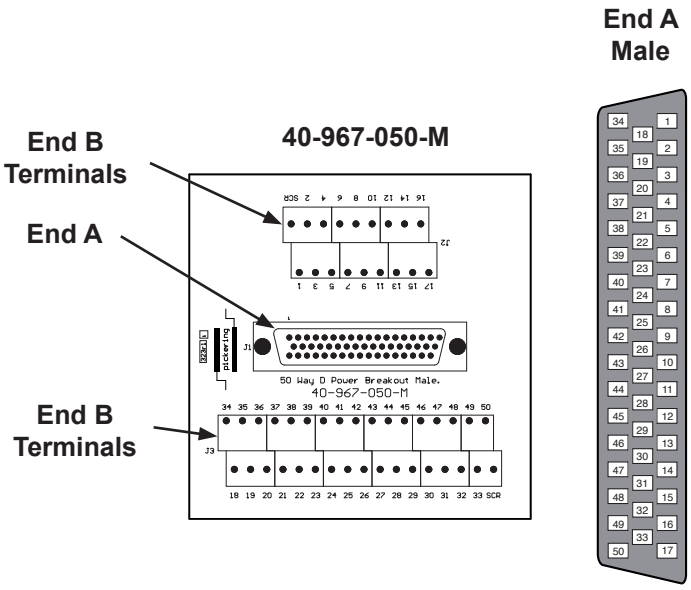


Connector blocks provide a convenient method of termination without the use of custom cabling. However, a higher resistance path, lower capacity ratings and lower voltage ratings are typical.

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.

When using this product please ensure appropriate electrical safety precautions are observed.





Technical Specification

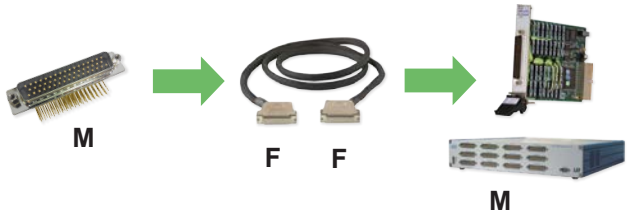
Connector Type (End A):	50-Pin D-Subminiature
Gender	Male
Securing Method	4-40 UNC screwlocks, female
Wire Connection (End B):	
Gender	Female
Connection Method	Rising cage screw terminals
Breakout Ratings:	
Maximum Current	5A
Maximum Voltage	200VDC
Securing Method	Suitable for securing to DIN rails.
Overall Size (Approx)	H110 x W110 x D56mm
50-Pin D-Sub:	
Contact Material	Gold plated copper alloy
Contact Resistance	<20mOhm
Screw Terminals:	
Maximum Wire Size	12AWG
Additional Cable Clamp	No

Product Order Codes

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

Standard Voltage 50-Pin D-Type Connector - Male

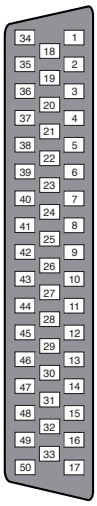
- **Right Angle PCB Mount**
- **Ideal for User Created Termination Solutions**

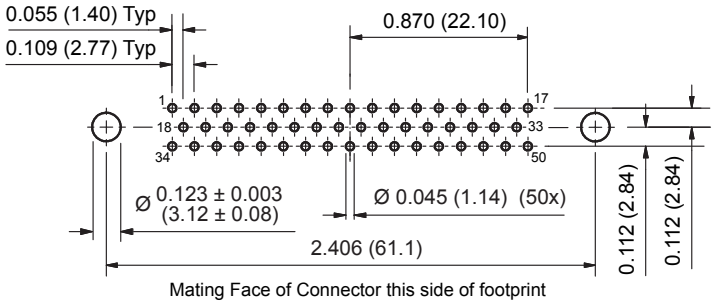


This accessory allows a user to create their own PCB based termination solution mounted on the end of a cable. Suitable cables for this product are contained elsewhere in this data sheet. Interfacing PCBs should be designed with suitable clearances for the voltage the application requires.

Note: This product is not suitable for directly mounting onto the front panel of a Pickering switching product.

End A
Male



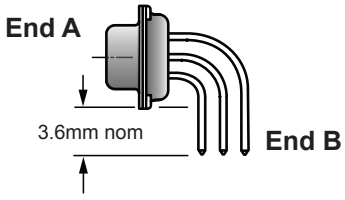


PCB Footprint of 50-Pin Right Angle Male Connector (Connector Side - Not to Scale)

Technical Specification

Connector Type (End A):	50-Pin D-Subminiature
Gender	Male
Securing Method	4-40 UNC screwlocks, female
PCB Connection (End B):	
Gender	Male
Connection Method	Solder
Mounting	Right angle PCB mount
Connector Ratings:	
Maximum Current	5A each pin
Maximum Voltage	250VAC
50-Pin D-Sub:	
Contact Material	Gold plated copper alloy
Contact Resistance	<20mOhm
PCB Legs:	
Effective Leg Length	3.6mm nom (See diagram)

Effective Leg Length

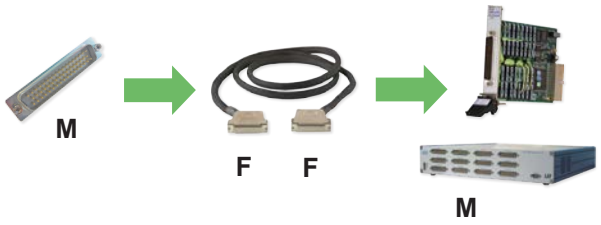


Product Order Codes

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

Standard Voltage 50-Pin D-Type Connector - Male

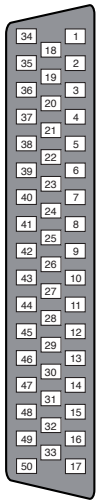
- **Straight PCB Mount**
- **Ideal for User Created Termination Solutions**

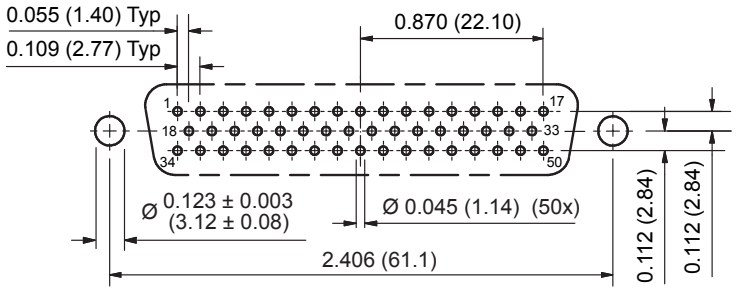


This accessory allows a user to create their own PCB based termination solution mounted on the end of a cable. Suitable cables for this product are contained elsewhere in this data sheet. Interfacing PCBs should be designed with suitable clearances for the voltage the application requires.

Note: This product is not suitable for directly mounting onto the front panel of a Pickering switching product.

End A
Male

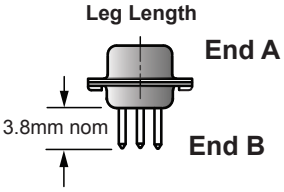




PCB Footprint of 50-Pin Straight Male Connector (Connector Side - Not to Scale)

Technical Specification

Connector Type (End A):	50-Pin D-Subminiature
Gender	Male
Securing Method	4-40 UNC screwlocks, female
PCB Connection (End B):	
Gender	Male
Connection Method	Solder
Mounting	Straight PCB mount
Connector Ratings:	
Maximum Current	5A each pin
Maximum Voltage	250VAC
50-Pin D-Sub:	
Contact Material	Gold plated copper alloy
Contact Resistance	<20mOhm
PCB Legs:	
Effective Leg Length	3.8mm nom (See diagram)



Product Order Codes

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

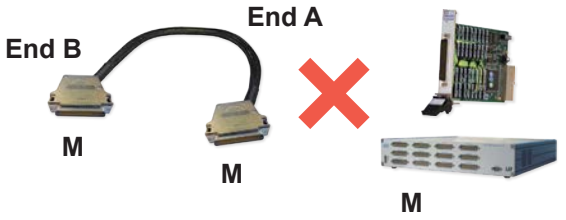
Additional
Connection Accessories

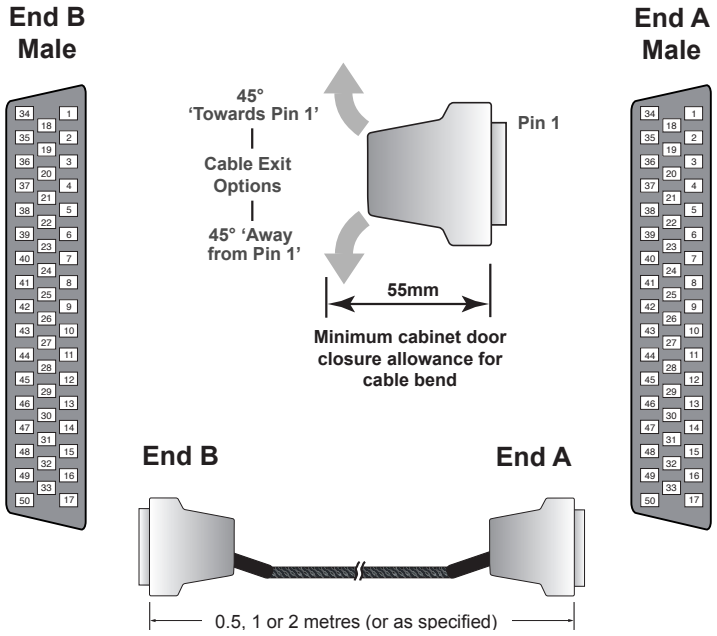
Although these items do not directly mate with Pickering Interfaces products customers may find them useful in the development of their own connection solutions.

Standard Voltage 50-Pin D-Type Cable Assy - Male to Male

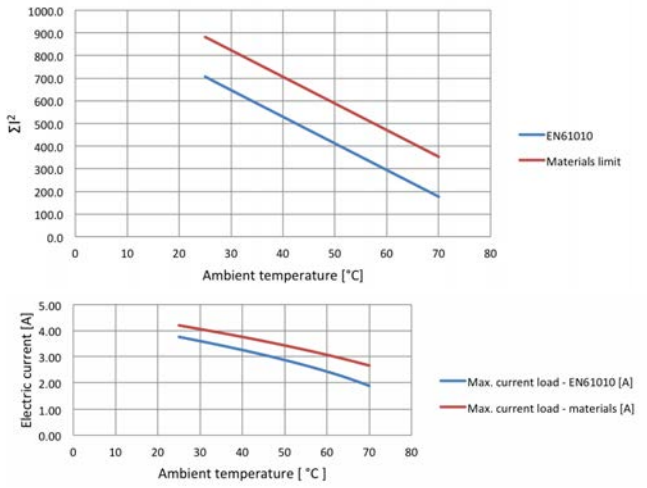
This Cable Assembly is Not Suitable for Connection to a Pickering Switching Product

- High Specification Cable
- Highly Flexible Cable with Braided Sleeving
- 45 Degree Cable Exit
- Strain Relief
- Fully Screened Cable Construction





Characteristic Plots for 40-970-050-1m



The top graph shows the permitted ΣI² 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.

The bottom graph shows the allowed current versus temperature assuming ALL wires carry the same current. Higher currents to the cable rating are permitted on individual wires provided the ΣI² is complied with.

Technical Specification

Connector Type (End A):	50-Pin D-Subminiature
Gender	Male
Securing Method	4-40 UNC screwlocks, male
Connector Type (End B):	50-Pin D-Subminiature
Gender	Male
Securing Method	4-40 UNC screwlocks, male
Cable Assembly Rating:	
Maximum Current	5A
Maximum Voltage	250VAC/400VDC
Insulation Resistance	1000MOhm
Connectors:	
Contact Material	Gold plated copper alloy
Contact Resistance	<20mOhm
Cable Exit	45° (See Order Codes)
Overall Size (Approx)	H68 x W18.5 x D55mm
Cable Type:	Individual wires, screened & sleeved
Conductor: Material	Copper
Strands	19/0.18 (0.41mm², 21AWG)
Resistance	0.041Ω/m
Insulation	PFA
Outer Sleeve	Polyester
Screened Construction	Yes
Additional Braided Sleeve	Yes
Cable O/D	12mm
Minimum Bend Radius	25mm
Door Closure Allowance	55mm (see diagram)
Notes: Other cable lengths can be supplied.	

Product Order Codes

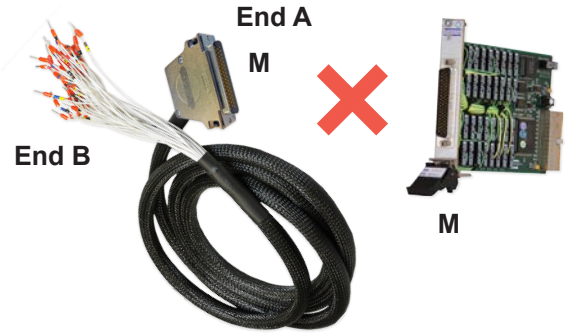
50-Pin D-Type Cable Assy, 5A, Male to Male,

Cable Exit 45° (Away from Pin 1),	
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**
Cable Exit 45° (Towards Pin 1),	
0.5m Long	**A050DM5-050DM5-0A050**
1.0m Long	**A050DM5-050DM5-0A100**
2.0m Long	**A050DM5-050DM5-0A200**

Standard Voltage 50-Pin D-Type Cable Assy - Male to Unterminated

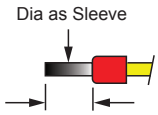
This Cable Assembly is Not Suitable for Connection to a Pickering Switching Product

- **High Specification and Highly Flexible Cable**
- **Fully Screened Cable Construction with Braided Sleeve and Strain Relief**
- **45 Degree Cable Exit**
- **Fully Coded Markers to Ensure Easy Connection**



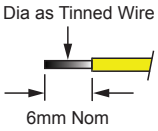
End B Options

Ferrules

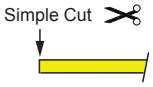


Soldered or Crimped Construction

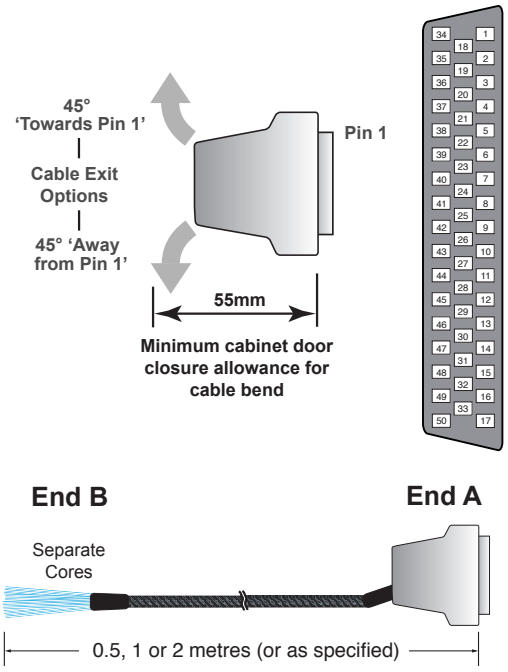
Tinned End



Cut End



End A - Male

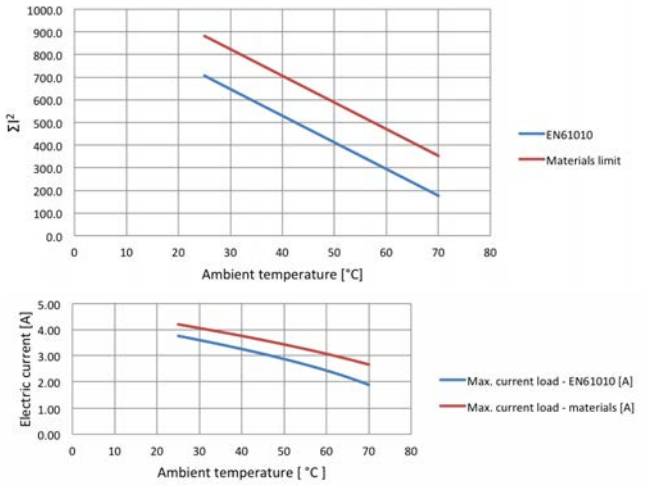


Technical Specification

Connector Type (End A):	50-Pin D-Subminiature
Gender	Male
Securing Method	4-40 UNC screwlocks, male
Unterminated End (End B):	
Free Wire Length	130mm nominal
Individual Wire Labelling	To connector pins
Wire End Options	Ferrules, Tinned, Cut End
Cable Assembly Rating:	
Maximum Current	5A
Maximum Voltage	250VAC/400VDC
Insulation Resistance	1000MOhm
Connector:	
Contact Material	Gold plated copper alloy
Contact Resistance	<20mOhm
Cable Exit	45° (See Order Codes)
Overall Size (Approx)	H68 x W18.5 x D55mm
Cable Type:	Individual wires, screened & sleeved
Conductor: Material	Copper
Strands	19/0.18 (0.41mm², 21AWG)
Resistance	0.041Ω/m
Insulation	PFA
Outer Sleeve	Polyester
Screened Construction	Yes
Additional Braided Sleeve	Yes
Cable O/D	12mm
Minimum Bend Radius	25mm
Door Closure Allowance	55mm (see diagram)

Notes:
- When using this product please ensure appropriate electrical safety precautions are observed.
- Other cable lengths can be supplied.

Characteristic Plots for 40-972-050-1m



The top graph shows the permitted ΣI² 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.

The bottom graph shows the allowed current versus temperature assuming ALL wires carry the same current. Higher currents to the cable rating are permitted on individual wires provided the ΣI² is complied with.

Product Order Codes

50-Pin D-Type Cable Assy, 5A, Cable Exit Away from PIn 1, Boot Lace Ferrules,

Male to Unterminated, 0.5m Long	**40-972-050-0.5m-MU**
Male to Unterminated, 1.0m Long	**40-972-050-1m-MU**
Male to Unterminated, 2.0m Long	**40-972-050-2m-MU**

Part numbers for other versions:

A050DM*-*-0A***

End A: 45° Cable Exit
4 = (Away from Pin 1)
5 = (Towards Pin 1)

End B:
F = Ferrules
T = Tinned End
C = Cut End

Cable Length:
050 = 0.5m
100 = 1.0m
200 = 2.0m

Standard Voltage 50-Pin D-Type Connector Block - Male

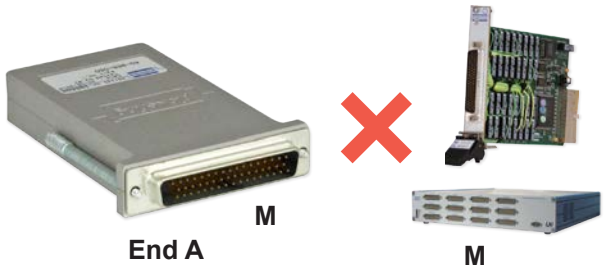
This Connector Block is Not Suitable for Connection to a Pickering Switching Product

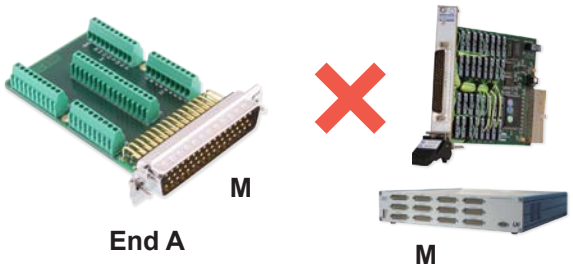
- **Connector and PCB Only or Connector, PCB and Backshell**
- **Male Screwlocks**
- **Cable Clamp in Backshell**
- **Easy to Use Rising Cage Screw Terminals**

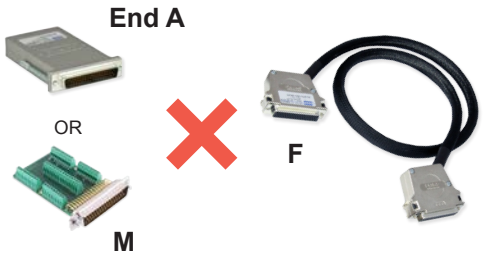
Connector blocks provide a convenient method of termination without the use of custom cabling. However, a higher resistance path, lower capacity ratings and lower voltage ratings are typical.

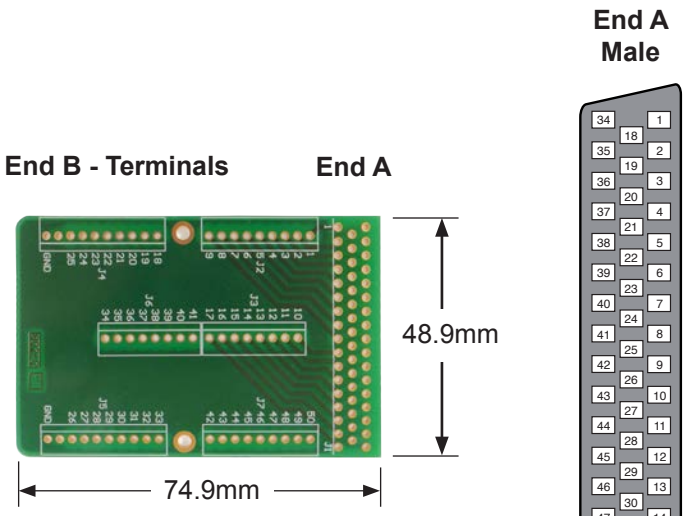
The screw terminals use a rising cage clamp mechanism to minimize risk of copper strand breakage. PTFE cables are recommended for use with this connector block to maximise copper cross-sectional area and insulation properties. The breakdown voltage of the connector block is controlled by clearances to the metal shell. The metal shell includes an internal insulation barrier under the carrier board.

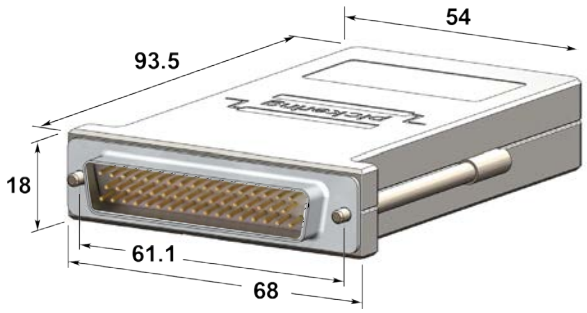
This connector block uses male screwlocks and will not mate to Pickering cables. Connector blocks supplied without a backshell do not include cable strain relief.











Technical Specification

Connector Type (End A):	50-Pin D-Subminiature
Gender	Male
Securing Method:	
Product with Backshell	4-40 UNC screwlocks, male
Product without Backshell	4-40 UNC screwlocks, male
Wire Connection (End B):	
Gender	Female
Connection Method	Rising cage screw terminals
Connector Block Ratings:	
Maximum Current	5A
Maximum Voltage	200VDC
Cable Exit	Rear - 10.3 x 20mm
Overall Size (Approx)	H68 x W18 x D100mm
50-Pin D-Sub:	
Contact Material	Gold plated copper alloy
Contact Resistance	<20mOhm
Screw Terminals:	
Maximum Wire Size	20AWG
Recommended Insulation	PTFE
Additional Cable Clamp	Yes (in backshell)

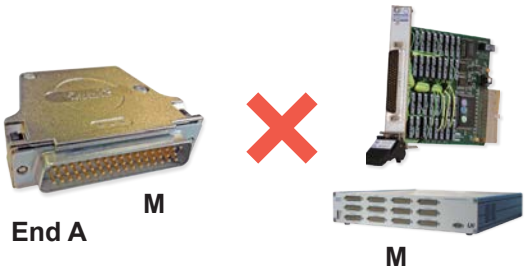
Product Order Codes

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

Standard Voltage 50-Pin D-Type Connector - Male

This Connector is Not Suitable for Connection to a Pickering Switching Product

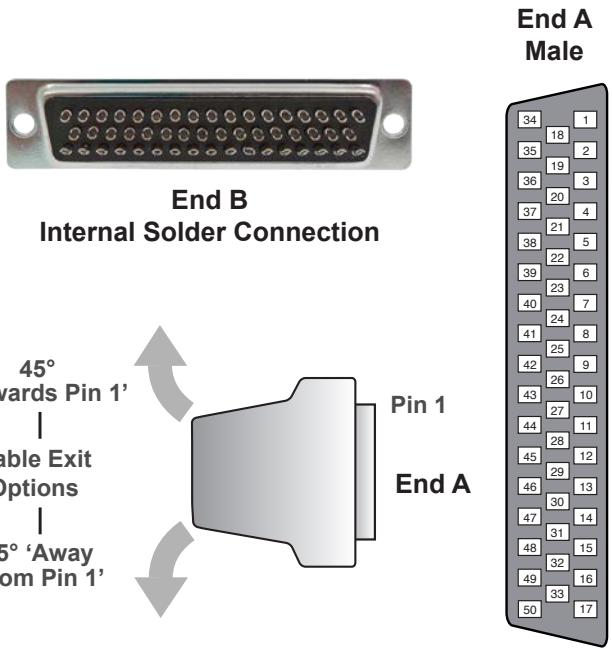
- **Connector only or Connector and Backshell**
- **Male Screwlocks**
- **Cable Clamp in Backshell**
- **Soldered Cable Termination**

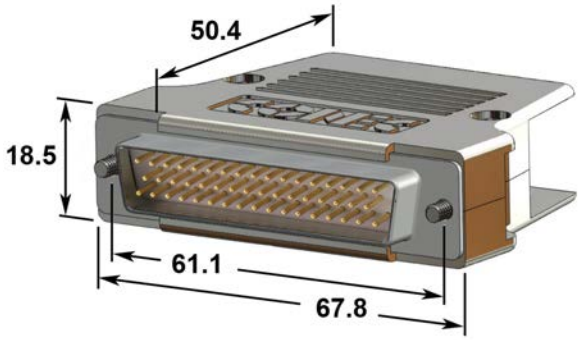


This accessory is designed to allow users to directly terminate with soldered connections to the connector.

Connector and shell are supplied separately to allow the user to determine the direction of the cable exit.

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

Connector Type (End A):	50-Pin D-Subminiature
Gender	Male
Securing Method:	
Product with Backshell	4-40 UNC screwlocks, male
Product without Backshell	4-40 UNC screwlocks, male
Wire Connection (End B):	
Gender	Female
Connection Method	Solder bucket
Connector Ratings:	
Maximum Current	5A
Maximum Voltage	250VAC
Cable Exit:	45°
Cable Exit Size	15mm dia
Overall Size (Approx)	H68 x W18.5 x D55mm
50-Pin D-Sub:	
Contact Material	Gold plated copper alloy
Contact Resistance	20mOhm
Wire Connection:	
Maximum Wire Size	20AWG
Recommended Insulation	PTFE
Additional Cable Clamp	Yes (in backshell)

Product Order Codes

50-Pin D-Type Connector, 5A, Solder Bucket,

With Backshell, Male	**40-960-050-M**
Without Backshell, Male	**92-960-050-M**

Custom Termination

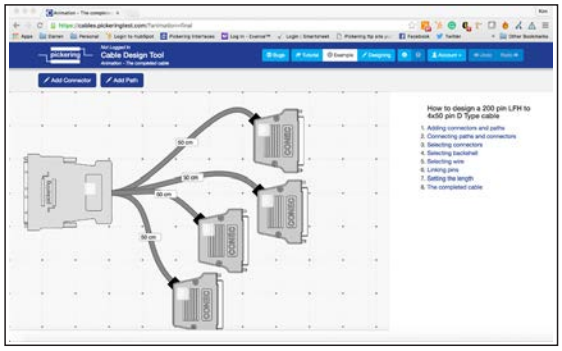
Pickering Interfaces are able to manufacture custom built cable assemblies and backshells that mate with all the connectors we use in our extensive product range and to provide connection solutions for third party products.

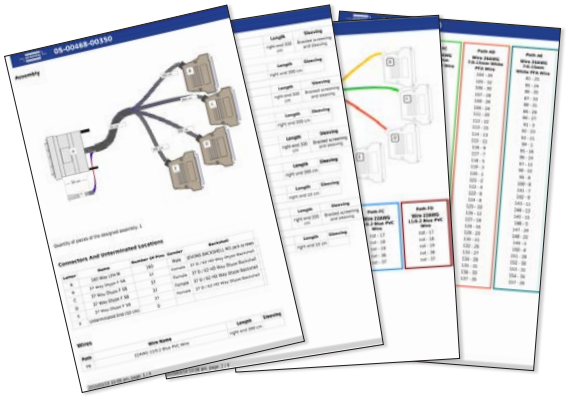
We are able to model and manufacture cable assemblies and other termination arrangements to user notes and drawings, and to deal with simple and complex assemblies, and both small and high volume orders.

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.

NEW - Pickering's Cable Design Tool





Go to **pickeringtest.com/cdt** to find out more.

Over the years, we have received many requests for customized cabling solutions that are often based on our standard cable assemblies but adjusted to match specific application requirements. To help with this, we have introduced our Cable Design Tool – a new graphically based web tool for cable design. We're excited about the features the software includes:

- Graphical design of customized cable assemblies
- Built-in library of standard cable sets to be used as the basis for customization or cables can just be defined from scratch
- The ability to store cable assemblies in the Cloud and develop over time
- Each cable design has a documentation pdf file detailing all of the specifications
- Very detailed design characteristics including the selection of connector types, wire type, pin definitions, pin and cable labeling, cable bundling, length selection, sleeving, comments, etc.
- Runs on popular browsers, Windows, Mac and Linux
- Fully supported on popular tablets: iPad and Android
- Built-in tutorials allow you to get quickly up to speed

Because the Cable Design Tool is a web-based tool, we will continually update it to better accommodate your requirements and features. Your data is not trapped; complete details of the design are always available to the user at any time via the documentation or spreadsheet file. Once a cable is designed, you can submit it to us for quotation.

Appendix - Standard Voltage Part Number Listing

Cables: Standard Voltage 50-Pin D-Type Connector to Connector								
End 1		End 2		Product Order Code/Part Number			Mates with a Pickering Switching Product	Data Sheet Page
Gender	Cable Exit	Gender	Cable Exit	0.5m Long	1m Long	2m Long		
Male	45° Away from Pin 1	Female	45° Away from Pin 1	40-970-050-0.5m-MF	40-970-050-1m-MF	40-970-050-2m-MF	Yes (Female end)	4
	45° Towards Pin 1		45° Towards Pin 1	A050DM5-050DF5-0A050	A050DM5-050DF5-0A100	A050DM5-050DF5-0A200		
Female	45° Away from Pin 1	Female	45° Away from Pin 1	40-970-050-0.5m-FF	40-970-050-1m-FF	40-970-050-2m-FF	Yes	5
	45° Towards Pin 1		45° Towards Pin 1	A050DF5-050DF5-0A050	A050DF5-050DF5-0A100	A050DF5-050DF5-0A200		
Male	45° Away from Pin 1	Male	45° Away from Pin 1	40-970-050-0.5m-MM	40-970-050-1m-MM	40-970-050-2m-MM	No	16
	45° Towards Pin 1		45° Towards Pin 1	A050DM5-050DM5-0A050	A050DM5-050DM5-0A100	A050DM5-050DM5-0A200		

Cables: Standard Voltage 50-Pin D-Type Connector to Unterminated								
End 1		End 2 Unterminated Options	Product Order Code/Part Number			Mates with a Pickering Switching Product	Data Sheet Page
Gender	Cable Exit		0.5m Long	1m Long	2m Long		
Female	45° Away from Pin 1	Boot Lace Ferrules	40-972-050-0.5m-FU	40-972-050-1m-FU	40-972-050-2m-FU	Yes	6
		Tinned Ends	A050DF4-T-0A050	A050DF4-T-0A100	A050DF4-T-0A200		
		Cut End	A050DF4-C-0A050	A050DF4-C-0A100	A050DF4-C-0A200		
	45° Towards Pin 1	Boot Lace Ferrules	A050DF5-F-0A050	A050DF5-F-0A100	A050DF5-F-0A200		
		Tinned Ends	A050DF5-T-0A050	A050DF5-T-0A100	A050DF5-T-0A200		
		Cut End	A050DF5-C-0A050	A050DF5-C-0A100	A050DF5-C-0A200		
Male	45° Away from Pin 1	Boot Lace Ferrules	40-972-050-0.5m-MU	40-972-050-1m-MU	40-972-050-2m-MU	No	17
		Tinned Ends	A050DM4-T-0A050	A050DM4-T-0A100	A050DM4-T-0A200		
		Cut End	A050DM4-C-0A050	A050DM4-C-0A100	A050DM4-C-0A200		
	45° Towards Pin 1	Boot Lace Ferrules	A050DM5-F-0A050	A050DM5-F-0A100	A050DM5-F-0A200		
		Tinned Ends	A050DM5-T-0A050	A050DM5-T-0A100	A050DM5-T-0A200		
		Cut End	A050DM5-C-0A050	A050DM5-C-0A100	A050DM5-C-0A200		

Cable Connectors and Connector Blocks: Standard Voltage 50-Pin D-Type						
Type	Gender	Cable Exit	Product Order Code/Part Number		Mates with a Pickering Switching Product	Data Sheet Page
			With Backshell	Without Backshell		
Connector Block	Female	Rear	40-965-050-F	92-965-050-F	Yes	7
	Male		40-965-050-M	92-965-050-M	No	18
Cable Connector	Female	45° Options	40-960-050-F	92-960-050-F	Yes	9
	Male		40-960-050-M	92-960-050-M	No	19

Breakouts and PCB Connectors: Standard Voltage 50-Pin D-Type						
Type	Mount	Gender	Cable Exit	Product Order Code/Part Number	Mates with a Pickering Switching Product	Data Sheet Page
Breakout	DIN Rail Mount	Female	N/A	40-967-050-F	No	8
		Male	N/A	40-967-050-M		12
PCB Connector	Right Angle PCB Mount	Female	N/A	40-963-050-RF		10
		Male	N/A	40-963-050-RM		13
	Straight PCB Mount	Female	N/A	40-963-050-SF		11
		Male	N/A	40-963-050-SM		14