Standard Voltage 50-Pin D-type Accessories

90-005D

- Standard Voltage to 250 V AC/400 V DC, 5 A
- Cable Assemblies
- Cable Connectors & Connector Blocks
- Breakouts & PCB Connectors
- Guaranteed Compatibility
- High Voltage Solutions are also Available
  See Data Sheet 90-005HVD

Simple Connection

Pickering connection solutions provide a simple way of connecting to a user's device under test or remote connection. The products include cable assemblies, cable connectors, connector blocks, breakouts and pcb connectors.

Cable Assemblies

Cable assemblies are offered in connector to connector, and connector to unterminated versions. There are 3 termination options for the unterminated cables - ferrules, tinned copper or simple cut end.

Connector Blocks

Connector Blocks convert the 50-pin D-type connections to an array of screw terminals. The customer can then interface to other devices using his own wiring. An alternative is a remote Breakout with screw terminals at the end of a cable assembly.

Custom Design Needs

Pickering Interfaces can manufacture custom connector accessories to suit any application. If you do not see what you need in this data sheet contact your Pickering Interfaces sales office with information on your requirements or consider using our free online Cable Design Tool.

Using our Cable Design Tool, you can graphically design your own custom cable assembly. Once completed and submitted, our engineers will generate a quote for your cable requirements. See pickeringtest.com/cdt

Examples of Pickering PXI and LXI Products using 50-Pin D-type Connectors

Standard Voltage - Cable Assemblies

Description		End 1	End 2		Cable Length	Product Order Code and Part Number	Data Sheet Page
		Gender & Cable Exit	Gender & Cable Exit	Options			
	Cable Assy, 50-Pin D-Type, 5 A	Male, 45° Away from Pin 1	Female, 45° Away from Pin 1	-	0.5 m 1 m 2 m	40-970-050-0.5m-MF 40-970-050-1m-MF 40-970-050-2m-MF	5
		Male, 45° Towards Pin 1	Female, 45° Towards Pin 1	-	0.5 m 1 m 2 m	A050DM5-050DF5-0A050 A050DM5-050DF5-0A100 A050DM5-050DF5-0A200	
		Female, 45° Away from Pin 1	Female, 45° Away from Pin 1	-	0.5 m 1 m 2 m	40-970-050-0.5m-FF 40-970-050-1m-FF 40-970-050-2m-FF	6
		Female, 45° Towards Pin 1	Female, 45° Towards Pin 1	-	0.5 m 1 m 2 m	A050DF5-050DF5-0A050 A050DF5-050DF5-0A100 A050DF5-050DF5-0A200	
	Cable Assy, 50-Pin D-Type to Unterminated, 5 A	Female, 45° Away from Pin 1	NA	Ferrules	0.5 m 1 m 2 m	40-972-050-0.5m-FU 40-972-050-1m-FU 40-972-050-2m-FU	7
				Tinned End	0.5 m 1 m 2 m	A050DF4-T-0A050 A050DF4-T-0A100 A050DF4-T-0A200	
				Cut End	0.5 m 1 m 2 m	A050DF4-C-0A050 A050DF4-C-0A100 A050DF4-C-0A200	
		Female, 45° Towards Pin 1	NA	Ferrules	0.5 m 1 m 2 m	A050DF5-F-0A050 A050DF5-F-0A100 A050DF5-F-0A200	
				Tinned End	0.5 m 1 m 2 m	A050DF5-T-0A050 A050DF5-T-0A100 A050DF5-T-0A200	
				Cut End	0.5 m 1 m 2 m	A050DF5-C-0A050 A050DF5-C-0A100 A050DF5-C-0A200	

Note: Custom lengths by quotation

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

Standard Voltage - Female Connector Blocks/Connectors

Standard Voltage - Male Breakouts/PCB Connectors

Additional Accessories

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

Standard Voltage - Cable Assemblies

Description		End 1	End 2		Cable Length	Product Order Code and Part Number	Data Sheet Page
		Gender & Cable Exit	Gender & Cable Exit	Options			
	Cable Assy, 50-Pin D-Type, 5 A	Male, 45° Away from Pin 1	Male, 45° Away from Pin 1	-	0.5 m 1 m 2 m	40-970-050-0.5m-MM 40-970-050-1m-MM 40-970-050-2m-MM	17
		Male, 45° Towards Pin 1	Male, 45° Towards Pin 1	-	0.5 m 1 m 2 m	A050DM5-050DM5-0A050 A050DM5-050DM5-0A100 A050DM5-050DM5-0A200	
	Cable Assy, 50-Pin D-Type to Unterminated, 5 A	Male, 45° Away from Pin 1	NA	Ferrules	0.5 m 1 m 2 m	40-972-050-0.5m-MU 40-972-050-1m-MU 40-972-050-2m-MU	18
				Tinned End	0.5 m 1 m 2 m	A050DM4-T-0A050 A050DM4-T-0A100 A050DM4-T-0A200	
				Cut End	0.5 m 1 m 2 m	A050DM4-C-0A050 A050DM4-C-0A100 A050DM4-C-0A200	
		Male, 45° Towards Pin 1	NA	Ferrules	0.5 m 1 m 2 m	A050DM5-F-0A050 A050DM5-F-0A100 A050DM5-F-0A200	
				Tinned End	0.5 m 1 m 2 m	A050DM5-T-0A050 A050DM5-T-0A100 A050DM5-T-0A200	
				Cut End	0.5 m 1 m 2 m	A050DM5-C-0A050 A050DM5-C-0A100 A050DM5-C-0A200	

Note: Custom lengths by quotation

Standard Voltage - Male Breakouts/Connectors

Description		Gender & Cable Exit	Type	Product Order Code and Part Number	Page
	Cable Connector 50-Pin D-Type, 5 A, Solder Bucket	Male, 45° Options	With Backshell	40-960-050-M	19
			Without Backshell	92-960-050-M	

Custom Termination

5 Amp Cable Assy - Male to Female

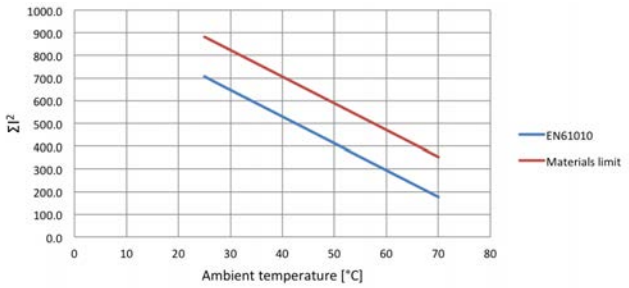
90-005D

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

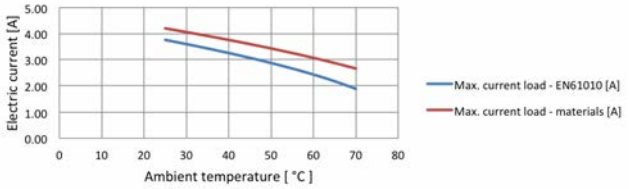
Technical Specification

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
Maximum Current	5 A
Maximum Voltage	250 VAC/400 VDC
Insulation Resistance	1000 MOhm
Connectors:	
Contact Material	Gold plated copper alloy
Contact Resistance	<20 mOhm
Cable Exit	45° (See Order Codes)
Overall Size (Approx)	H68 x W18.5 x D55 mm
Cable Type:	Individual wires, screened & sleeved
Conductor: Material	Copper
Strands	19/0.18 (0.41 mm², 21AWG)
Resistance	0.041 Ω/m
Insulation	PFA
Outer Sleeve	Polyester
Screened Construction	Yes (Cable screen connected to backshells)
Additional Braided Sleeve	Yes
Cable O/D	12 mm
Minimum Bend Radius	25 mm
Door Closure Allowance	55 mm (see diagram)

Characteristic Plots for 40-970-050-1m



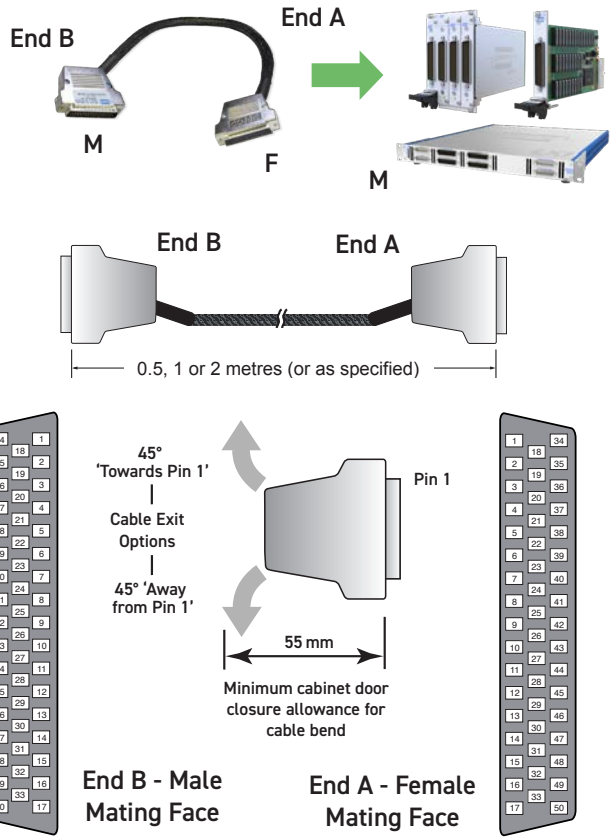
The graph shows the permitted ΣI^2 versus ambient temperature in accordance with EN61010 for user exposure to surface temperature and a higher limit imposed by the materials used where the cable is not directly user accessible.



The 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 ΣI^2 is complied with.

50-Pin D-Type Cable Assembly

Product Compatibility



Product Order Codes

50-Pin D-Type Cable Assy, 5 A, Male to Female,	
Cable Exit 45° (Away from Pin 1),	
0.5 m Long	40-970-050-0.5m-MF
1.0 m Long	40-970-050-1m-MF
2.0 m Long	40-970-050-2m-MF
Cable Exit 45° (Towards Pin 1),	
0.5 m Long	A050DM5-050DF5-0A050
1.0 m Long	A050DM5-050DF5-0A100
2.0 m Long	A050DM5-050DF5-0A200

Note: Other cable lengths can be supplied.

5 Amp Cable Assy - Female to Female

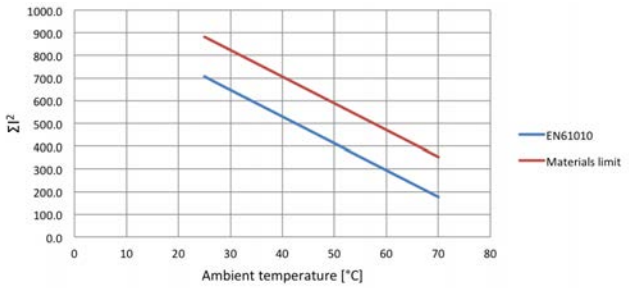
90-005D

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

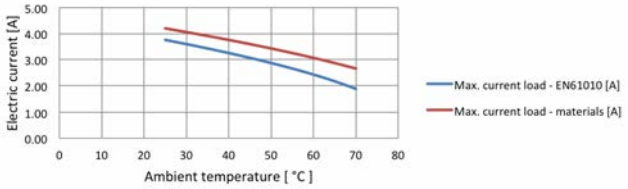
Technical Specification

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
Maximum Current	5 A
Maximum Voltage	250 VAC/400 VDC
Insulation Resistance	1000 MOhm
Connectors:	
Contact Material	Gold plated copper alloy
Contact Resistance	<20 mOhm
Cable Exit	45° (See Order Codes)
Overall Size (Approx)	H68 x W18.5 x D55 mm
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 (Cable screen connected to backshells)
Additional Braided Sleeve	Yes
Cable O/D	12 mm
Minimum Bend Radius	25 mm
Door Closure Allowance	55 mm (see diagram)

Characteristic Plots for 40-970-050-1m



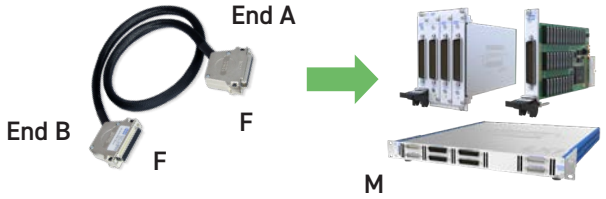
The graph shows the permitted ΣI^2 versus ambient temperature in accordance with EN61010 for user exposure to surface temperature and a higher limit imposed by the materials used where the cable is not directly user accessible.

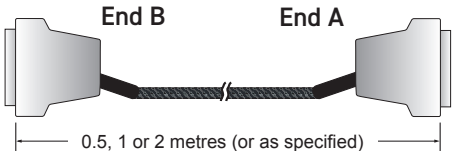


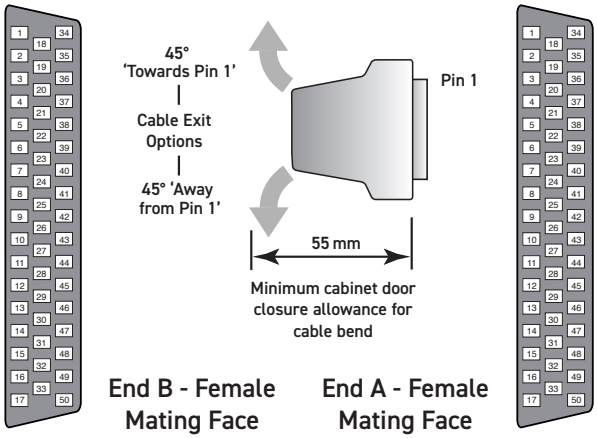
The graph shows the allowed current versus temperature assuming ALL wires carry the same current. Higher currents to the cable rating are permitted on individual wires provided the ΣI^2 is complied with.

50-Pin D-Type Cable Assembly

Product Compatibility







Product Order Codes

50-Pin D-Type Cable Assy, 5 A, Female to Female,	
Cable Exit 45° (Away from Pin 1),	
0.5 m Long	40-970-050-0.5m-FF
1.0 m Long	40-970-050-1m-FF
2.0 m Long	40-970-050-2m-FF
Cable Exit 45° (Towards Pin 1),	
0.5 m Long	A050DF5-050DF5-0A050
1.0 m Long	A050DF5-050DF5-0A100
2.0 m Long	A050DF5-050DF5-0A200

Note: Other cable lengths can be supplied.

5 Amp Cable Assy - Female to Unterminated 90-005D

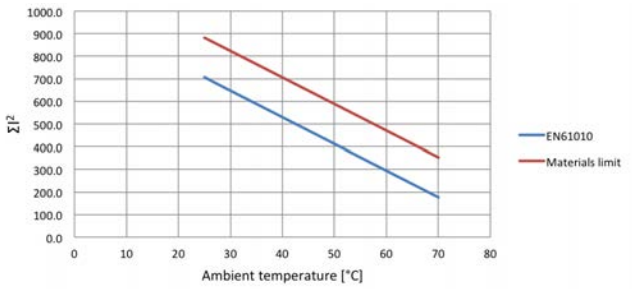
- High Specification, Highly Flexible Cable
- Fully Screened Cable Construction with Strain Relief
- Fully Coded Markers to Ensure Easy Connection

Technical Specification

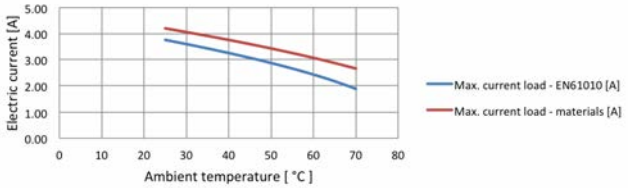
Connector Type (End A):	50-Pin D-Subminiature
Gender	Female
Securing Method	4-40 UNC screwlocks, male
Unterminated End (End B):	
Free Wire Length	130 mm nominal
Individual Wire Labelling	To connector pins A white/black screen pigtail is also included
Wire End Options	Ferrules, Tinned, Cut End
Maximum Current	5 A
Maximum Voltage	250 VAC/400 VDC
Insulation Resistance	1000 MOhm
Connector:	
Contact Material	Gold plated copper alloy
Contact Resistance	<20 mOhm
Cable Exit	45° (See Order Codes)
Overall Size (Approx)	H68 x W18.5 x D55 mm
Cable Type:	Individual wires, screened & sleeved
Conductor: Material	Copper
Strands	19/0.18 (0.41 mm², 21AWG)
Resistance	0.041Ω/m (max)
Insulation	PFA
Outer Sleeve	Polyester
Screened Construction	Yes (Cable screen connected to backshell)
Additional Braided Sleeve	Yes
Cable O/D	12 mm
Minimum Bend Radius	25 mm
Door Closure Allowance	55 mm (see diagram)

Note: When using this product please ensure appropriate electrical safety.

Characteristic Plots for 40-972-050-1m



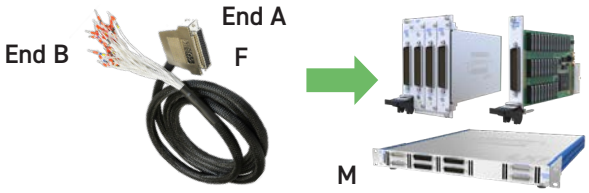
The graph shows the permitted ΣI² versus ambient temperature in accordance with EN61010 for user exposure to surface temperature and a higher limit imposed by the materials used where the cable is not directly user accessible.

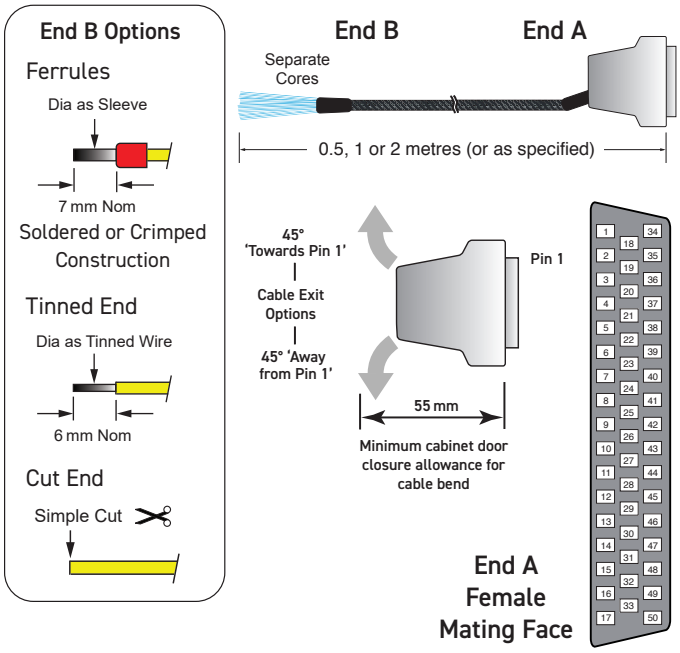


The graph shows the allowed current versus temperature assuming ALL wires carry the same current. Higher currents to the cable rating are permitted on individual wires provided the ΣI² is complied with.

50-Pin D-Type Unterminated Cable Assembly

Product Compatibility





Product Order Codes

50-Pin D-Type Cable Assy, 5 A, Cable Exit Away from PIn 1, Ferrules,	
Female to Unterminated, 0.5 m Long	40-972-050-0.5m-FU
Female to Unterminated, 1.0 m Long	40-972-050-1m-FU
Female to Unterminated, 2.0 m 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 = 0.5 m
  - 100 = 1.0 m
  - 200 = 2.0 m

Note: Other cable lengths can be supplied.

5 Amp Connector Block - Female

90-005D

- Connector & PCB Only or Connector, PCB & Backshell
- Male Screwlocks
- Easy to Use Rising Cage Screw Terminals

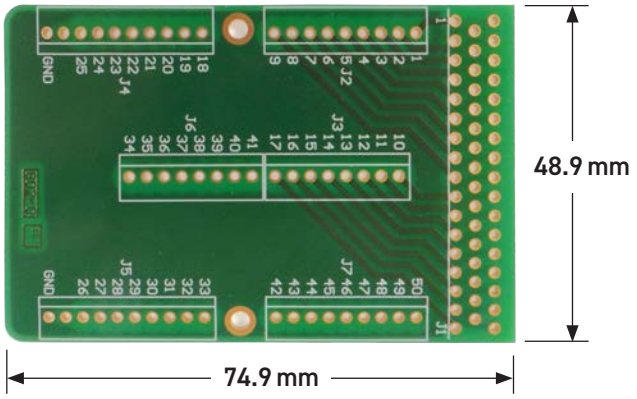
Connector blocks provide a convenient method of termination without the use of custom cabling. However, a higher resistance path, lower capacity ratings and lower voltage ratings are typical.

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

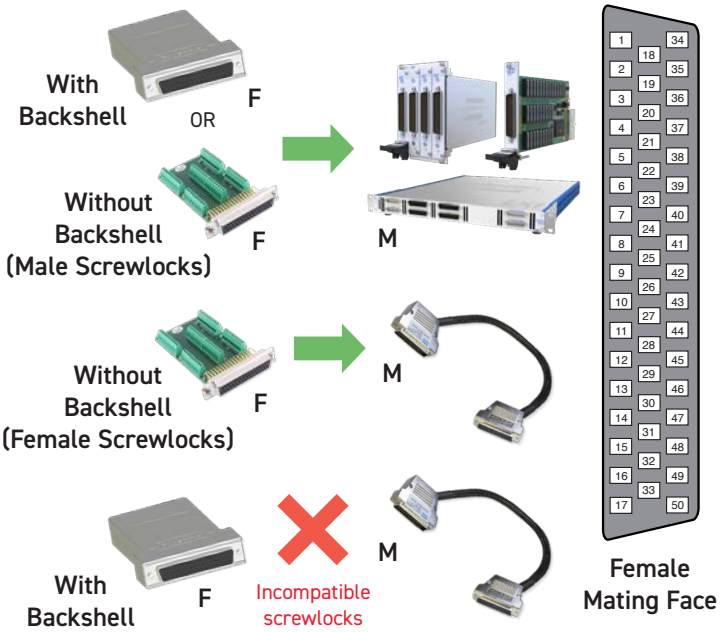
Connector Type:	50-Pin D-Subminiature
Gender	Female
Securing Method:	
Product with Backshell	4-40 UNC screwlocks, male
Product without Backshell	4-40 UNC screwlocks, male or female
Wire Connection	Rising cage screw terminals A screen (GND) connection is provided
Connector Block Ratings:	
Maximum Current	5 A
Maximum Voltage	200 VDC
Cable Exit	Rear - 15.3 x 30 mm
Overall Size (Approx)	H68 x W18.3 x D102 mm
50-Pin D-Sub:	
Contact Material	Gold plated copper alloy
Contact Resistance	<20 mOhm
Screw Terminals:	
Maximum Wire Size	20AWG
Recommended Insulation	PTFE
Additional Cable Clamp	Yes (in backshell)

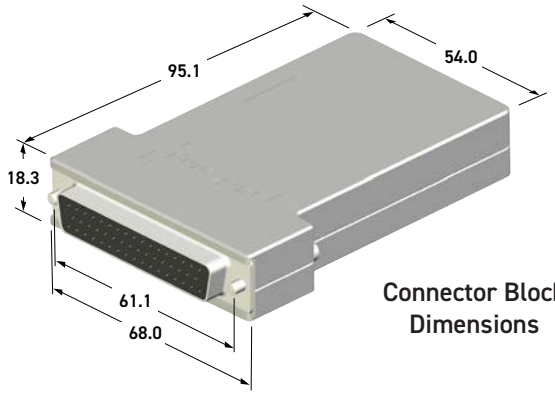


PCB Legend and Dimensions

50-Pin D-Type Connector Block

Product Compatibility





Connector Block Dimensions

Product Order Codes

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

Note: Male and female screwlocks are provided for connector blocks without a backshell.

5 Amp Breakout - Female

90-005D

- 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.

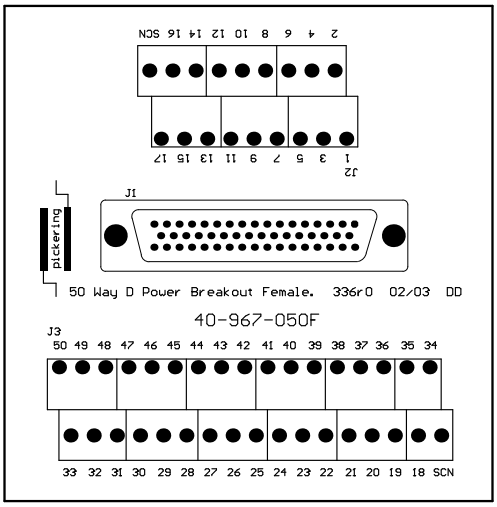
This termination option is capable of accepting heavy duty connection wires and uses rising clamp screw terminals to minimize the danger of copper strand damage. Users should care take to protect the termination and provide a suitable method of restraining the cables.

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

50-Pin D-Type Breakout

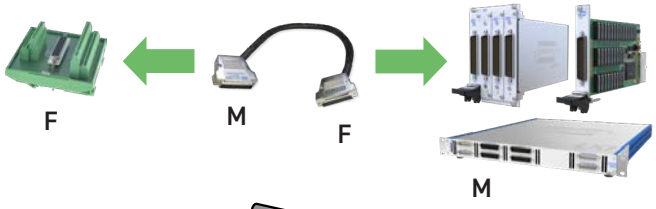
Technical Specification

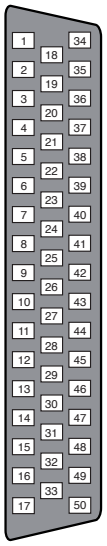
Connector Type:	50-Pin D-Subminiature
Gender	Female
Securing Method:	4-40 UNC screwlocks, female
Wire Connection	Rising cage screw terminals A screen connection is provided
Breakout Ratings:	
Maximum Current	5 A
Maximum Voltage	200 VDC
Securing Method	Suitable for securing to DIN rails
Overall Size (Approx)	H110 x W110 x D56 mm
50-Pin D-Sub:	
Contact Material	Gold plated copper alloy
Contact Resistance	<20 mOhm
Screw Terminals:	
Maximum Wire Size	12AWG
Additional Cable Clamp	No



PCB Layout

Product Compatibility





Female
Mating Face

Product Order Codes

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

5 Amp Cable Connector - Female

90-005D

- 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.

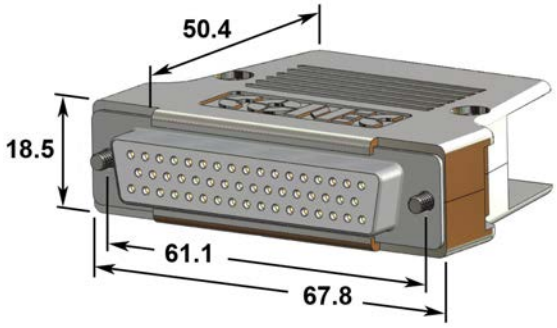
Connector and shell are supplied separately to allow the user to determine the direction of the cable exit.

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.

50-Pin D-Type Cable Connector

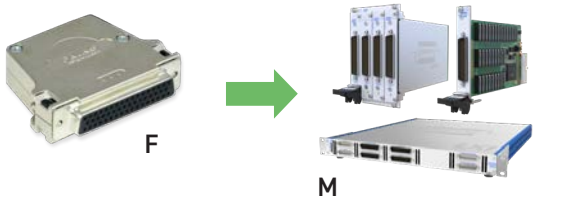
Technical Specification

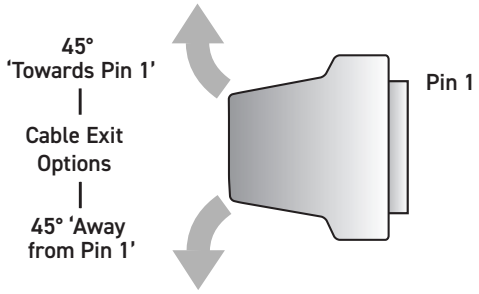
Connector Type:	50-Pin D-Subminiature
Gender	Female
Securing Method:	
Product with Backshell	4-40 UNC screwlocks, male
Product without Backshell	4-40 UNC screwlocks, male
Wire Connection	Solder bucket. A backshell fixing is also provided for a cable screen
Connector Ratings:	
Maximum Current	5 A
Maximum Voltage	250 VAC
Cable Exit:	45°
Cable Exit Size	15 mm dia
Overall Size (Approx)	H68 x W18.5 x D55 mm
50-Pin D-Sub:	
Contact Material	Gold plated copper alloy
Contact Resistance	20 mOhm
Wire Connection:	
Maximum Wire Size	20AWG
Recommended Insulation	PTFE
Additional Cable Clamp	Yes (in backshell)



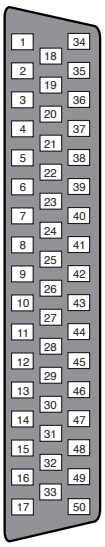
Connector Dimensions

Product Compatibility





Internal Solder Connection



Female
Mating Face

Product Order Codes

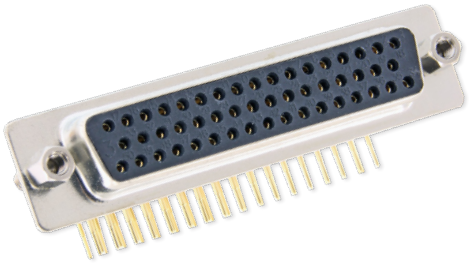
50-Pin D-Type Connector, 5 A, Solder Bucket,	
With Backshell, Female	40-960-050-F
Without Backshell, Female	92-960-050-F

5 Amp PCB Connector, Right Angle - Female 90-005D

- 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.

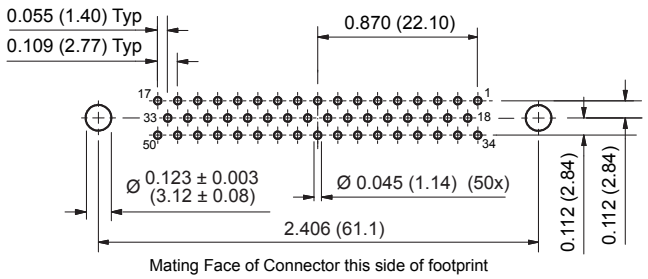
Note: This product is not suitable for directly mounting onto the front panel of a Pickering switching product.



50-Pin D-Type PCB Connector

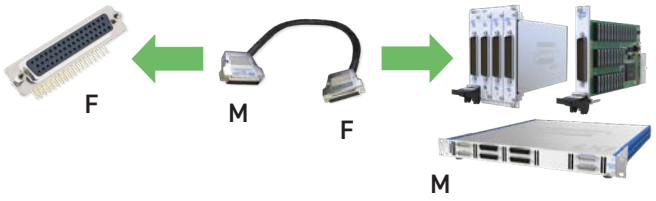
Technical Specification

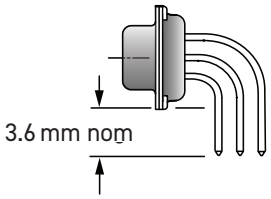
Connector Type:	50-Pin D-Subminiature
Gender	Female
Securing Method	4-40 UNC screwlocks, female
PCB Mounting	Right angle PCB mount, solder
Connector Ratings:	
Maximum Current	5 A each pin
Maximum Voltage	250 VAC
50-Pin D-Sub:	
Contact Material	Gold plated copper alloy
Contact Resistance	<20 mOhm
PCB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



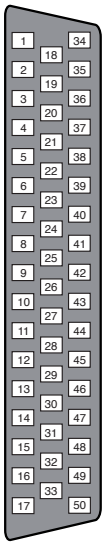
PCB Footprint of 50-Pin Right Angle Female Connector
(Connector Side - Not to Scale)

Product Compatibility





Effective Leg Length



Female
Mating Face

Product Order Codes

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

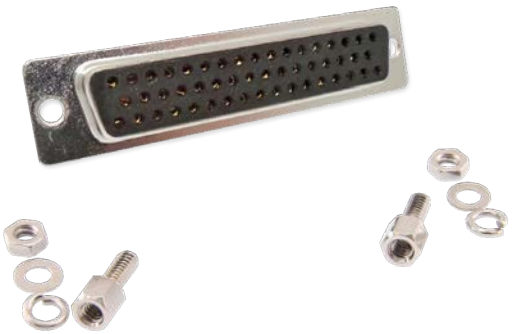
5 Amp PCB Connector, Straight - Female

90-005D

- 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.

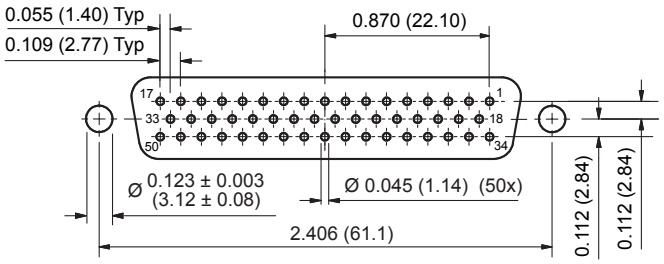
Note: This product is not suitable for directly mounting onto the front panel of a Pickering switching product.



50-Pin D-Type PCB Connector

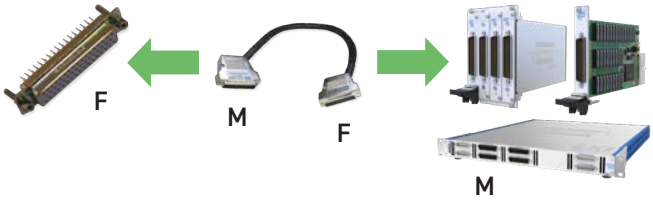
Technical Specification

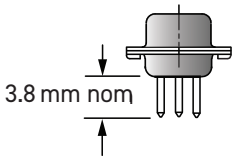
Connector Type:	50-Pin D-Subminiature
Gender	Female
Securing Method	4-40 UNC screwlocks, female
PCB Mounting	Straight PCB mount, solder
Connector Ratings:	
Maximum Current	5 A each pin
Maximum Voltage	250 VAC
50-Pin D-Sub:	
Contact Material	Gold plated copper alloy
Contact Resistance	<20 mOhm
PCB Legs: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



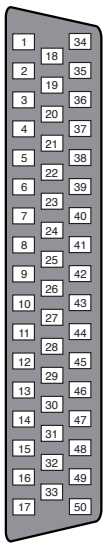
PCB Footprint of 50-Pin Straight Female Connector
(Connector Side - Not to Scale)

Product Compatibility





Leg Length



Female
Mating Face

Product Order Codes

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

5 Amp Breakout - Male

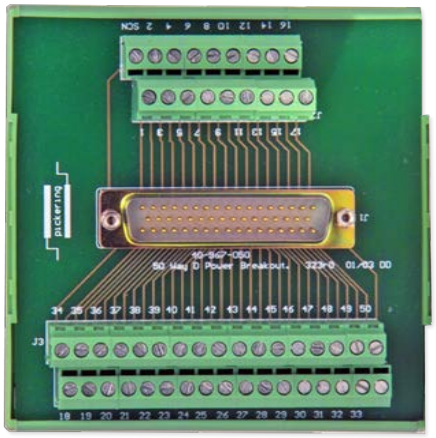
90-005D

- 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.

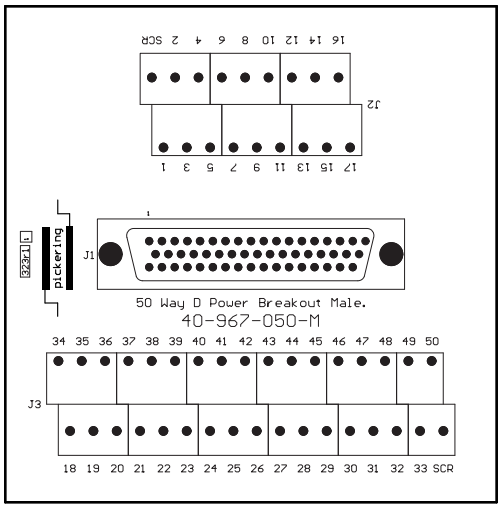
When using this product please ensure appropriate electrical safety precautions are observed.



50-Pin D-Type Breakout

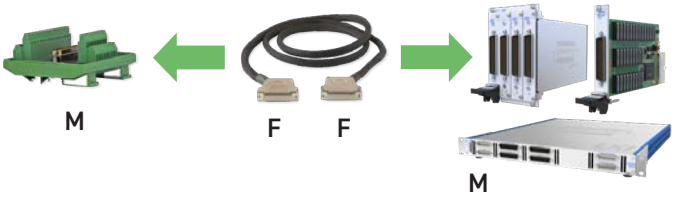
Technical Specification

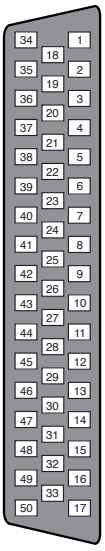
Connector Type:	50-Pin D-Subminiature
Gender	Male
Securing Method:	4-40 UNC screwlocks, female
Wire Connection	Rising cage screw terminals A screen connection is provided
Breakout Ratings:	
Maximum Current	5 A
Maximum Voltage	200 VDC
Securing Method	Suitable for securing to DIN rails
Overall Size (Approx)	H110 x W110 x D56 mm
50-Pin D-Sub:	
Contact Material	Gold plated copper alloy
Contact Resistance	<20 mOhm
Screw Terminals:	
Maximum Wire Size	12AWG
Additional Cable Clamp	No



PCB Layout

Product Compatibility





Male
Mating Face

Product Order Codes

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

5 Amp PCB Connector, Right Angle - Male

90-005D

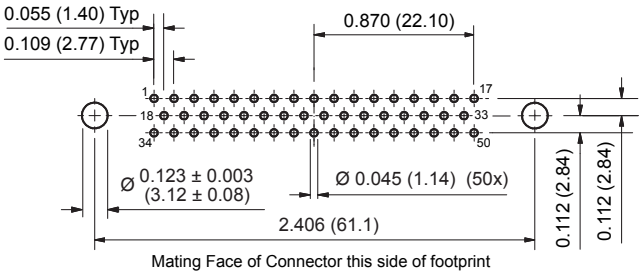
- Right Angle PCB Mount
- Ideal for User Created Termination Solutions

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.

Technical Specification

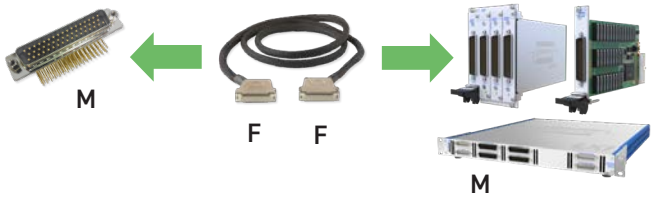
Connector Type:	50-Pin D-Subminiature
Gender	Male
Securing Method	4-40 UNC screwlocks, female
PCB Mounting	Right angle PCB mount, solder
Connector Ratings:	
Maximum Current	5 A each pin
Maximum Voltage	250 VAC
50-Pin D-Sub:	
Contact Material	Gold plated copper alloy
Contact Resistance	<20 mOhm
PCB Legs: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

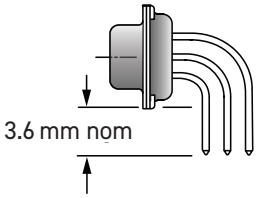


PCB Footprint of 50-Pin Right Angle Male Connector (Connector Side - Not to Scale)

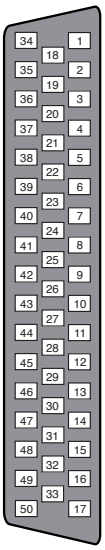
50-Pin D-Type PCB Connector

Product Compatibility





Effective Leg Length



Male Mating Face

Product Order Codes

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

5 Amp PCB Connector, Straight - Male

90-005D

- Straight PCB Mount
- Ideal for User Created Termination Solutions

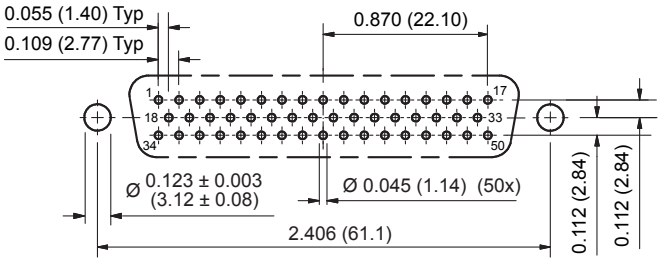
This accessory allows a user to create their own PCB based termination solution mounted on the end of a cable. Suitable cables for this product are contained elsewhere in this data sheet. Interfacing PCBs should be designed with suitable clearances for the voltage the application requires.

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

50-Pin D-Type PCB Connector

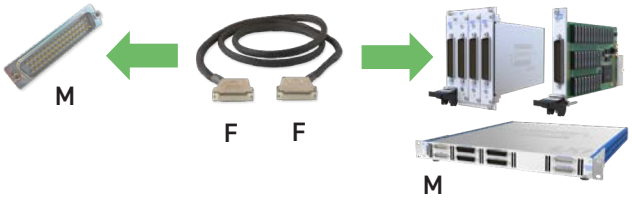
Technical Specification

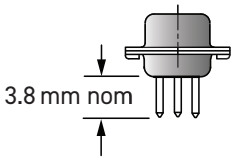
Connector Type:	50-Pin D-Subminiature
Gender	Male
Securing Method	4-40 UNC screwlocks, female
PCB Mounting	Straight PCB mount, solder
Connector Ratings:	
Maximum Current	5 A each pin
Maximum Voltage	250 VAC
50-Pin D-Sub:	
Contact Material	Gold plated copper alloy
Contact Resistance	<20 mOhm
PCB Legs: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



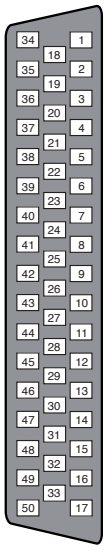
PCB Footprint of 50-Pin Straight Male Connector
(Connector Side - Not to Scale)

Product Compatibility





Leg Length



Male
Mating Face

Product Order Codes

50-Pin D-Type Connector, 5 A, 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.

5 Amp Cable Assy - Male to Male

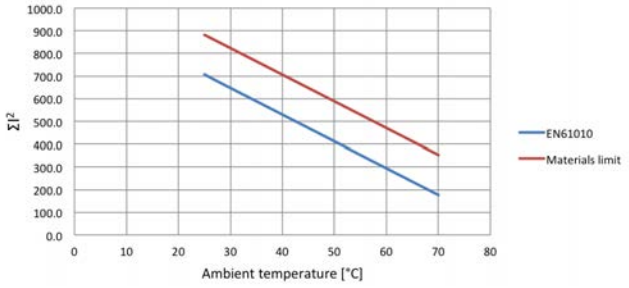
90-005D

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

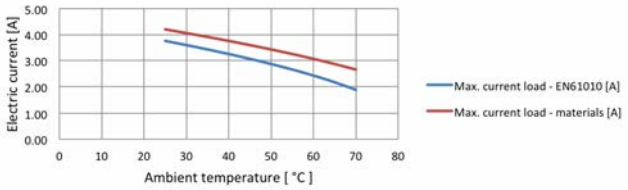
Technical Specification

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
Maximum Current	5 A
Maximum Voltage	250 VAC/400 VDC
Insulation Resistance	1000 MOhm
Connectors:	
Contact Material	Gold plated copper alloy
Contact Resistance	<20 mOhm
Cable Exit	45° (See Order Codes)
Overall Size (Approx)	H68 x W18.5 x D55 mm
Cable Type:	Individual wires, screened & sleeved
Conductor: Material	Copper
Strands	19/0.18 (0.41 mm², 21AWG)
Resistance	0.041 Ω/m
Insulation	PFA
Outer Sleeve	Polyester
Screened Construction	Yes (Cable screen connected to backshells)
Additional Braided Sleeve	Yes
Cable O/D	12 mm
Minimum Bend Radius	25 mm
Door Closure Allowance	55 mm (see diagram)

Characteristic Plots for 40-970-050-1m



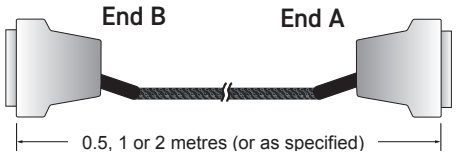
The graph shows the permitted ΣI^2 versus ambient temperature in accordance with EN61010 for user exposure to surface temperature and a higher limit imposed by the materials used where the cable is not directly user accessible.

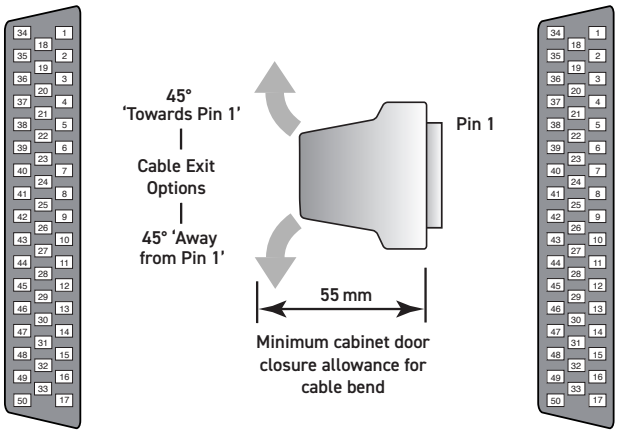


The graph shows the allowed current versus temperature assuming ALL wires carry the same current. Higher currents to the cable rating are permitted on individual wires provided the ΣI^2 is complied with.

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

50-Pin D-Type Cable Assembly





End B - Male Mating Face

End A - Male Mating Face

Product Order Codes

50-Pin D-Type Cable Assy, 5 A, Male to Male,	
Cable Exit 45° (Away from Pin 1),	
0.5 m Long	40-970-050-0.5m-MM
1.0 m Long	40-970-050-1m-MM
2.0 m Long	40-970-050-2m-MM
Cable Exit 45° (Towards Pin 1),	
0.5 m Long	A050DM5-050DM5-0A050
1.0 m Long	A050DM5-050DM5-0A100
2.0 m Long	A050DM5-050DM5-0A200

Note: Other cable lengths can be supplied.

5 Amp Cable Assy - Male to Unterminated

90-005D

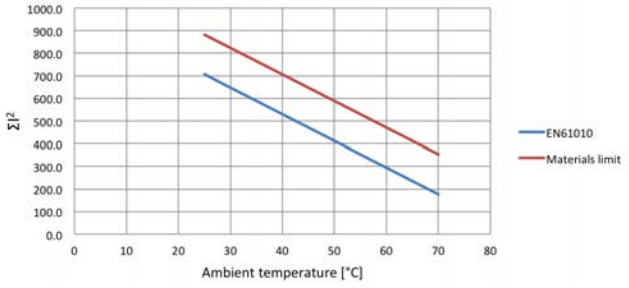
- High Specification, Highly Flexible Cable
- Fully Screened Cable Construction with Strain Relief
- Fully Coded Markers to Ensure Easy Connection

Technical Specification

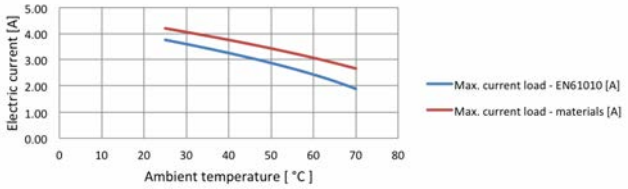
Connector Type (End A):	50-Pin D-Subminiature
Gender	Male
Securing Method	4-40 UNC screwlocks, male
Unterminated End (End B):	
Free Wire Length	130 mm nominal
Individual Wire Labelling	To connector pins. A white/black screen pigtail is also included
Wire End Options	Ferrules, Tinned, Cut End
Maximum Current	5 A
Maximum Voltage	250 VAC/400 VDC
Insulation Resistance	1000 MOhm
Connector:	
Contact Material	Gold plated copper alloy
Contact Resistance	<20 mOhm
Cable Exit	45° (See Order Codes)
Overall Size (Approx)	H68 x W18.5 x D55 mm
Cable Type:	Individual wires, screened & sleeved
Conductor: Material	Copper
Strands	19/0.18 (0.41 mm², 21AWG)
Resistance	0.041Ω/m (max)
Insulation	PFA
Outer Sleeve	Polyester
Screened Construction	Yes (Cable screen connected to backshell)
Additional Braided Sleeve	Yes
Cable O/D	12 mm
Minimum Bend Radius	25 mm
Door Closure Allowance	55 mm (see diagram)

Note: When using this product please ensure appropriate electrical safety.

Characteristic Plots for 40-972-050-1m

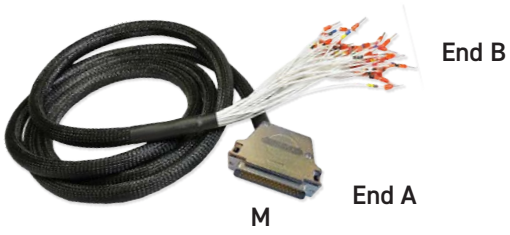


The graph shows the permitted ΣI² versus ambient temperature in accordance with EN61010 for user exposure to surface temperature and a higher limit imposed by the materials used where the cable is not directly user accessible.

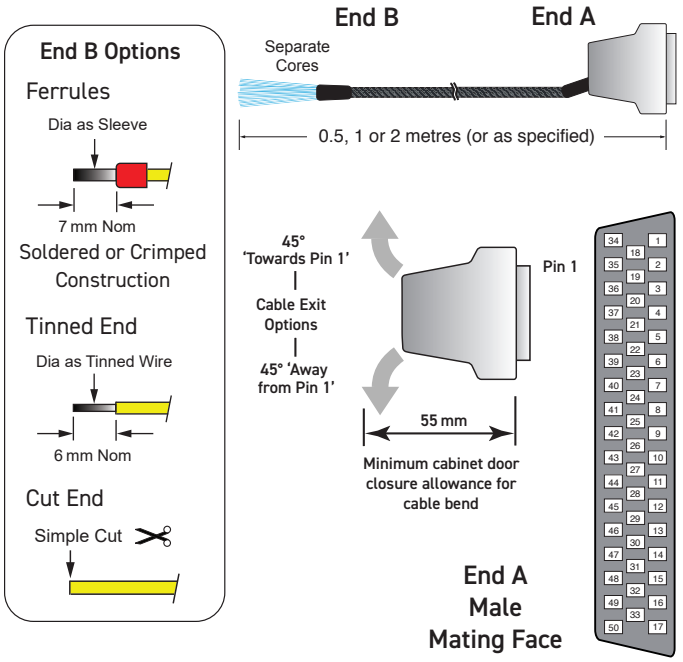


The graph shows the allowed current versus temperature assuming ALL wires carry the same current. Higher currents to the cable rating are permitted on individual wires provided the ΣI² is complied with.

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



50-Pin D-Type Unterminated Cable Assembly



Product Order Codes

50-Pin D-Type Cable Assy, 5 A, Cable Exit Away from PIn 1, Ferrules,	
Female to Unterminated, 0.5 m Long	40-972-050-0.5m-MU
Female to Unterminated, 1.0 m Long	40-972-050-1m-MU
Female to Unterminated, 2.0 m 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 = 0.5 m
  - 100 = 1.0 m
  - 200 = 2.0 m

Note: Other cable lengths can be supplied.

5 Amp Cable Connector - Male

90-005D

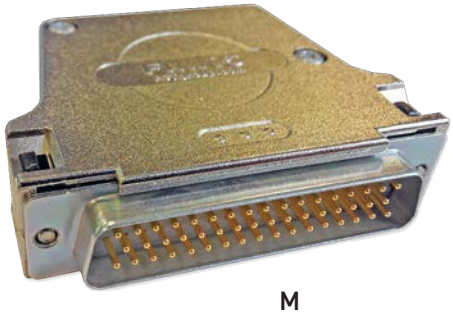
- Connector only or Connector and Backshell
- Male Screwlocks
- Cable Clamp in Backshell
- Soldered Cable Termination

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.

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

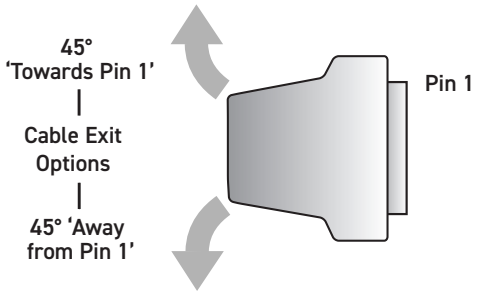


M

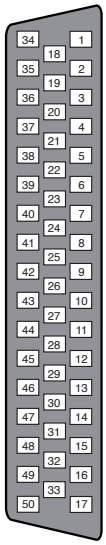
50-Pin D-Type Connector with Backshell

Technical Specification

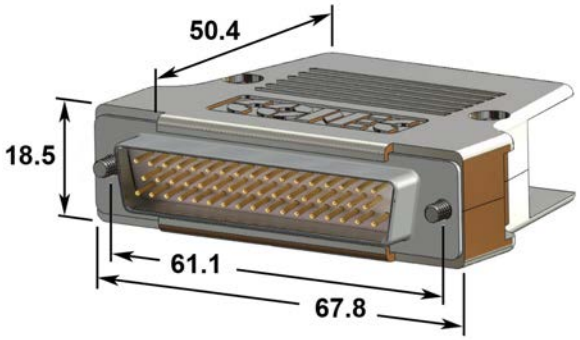
Connector Type:	50-Pin D-Subminiature
Gender	Male
Securing Method:	
Product with Backshell	4-40 UNC screwlocks, male
Product without Backshell	4-40 UNC screwlocks, male
Wire Connection	Solder bucket. A backshell fixing is also provided for a cable screen
Connector Ratings:	
Maximum Current	5 A
Maximum Voltage	250 VAC
Cable Exit:	45°
Cable Exit Size	15 mm dia
Overall Size (Approx)	H68 x W18.5 x D55 mm
50-Pin D-Sub:	
Contact Material	Gold plated copper alloy
Contact Resistance	20 mOhm
Wire Connection:	
Maximum Wire Size	20AWG
Recommended Insulation	PTFE
Additional Cable Clamp	Yes (in backshell)



Internal Solder Connection



Male
Mating Face



Connector Dimensions

Product Order Codes

50-Pin D-Type Connector, 5 A, 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.

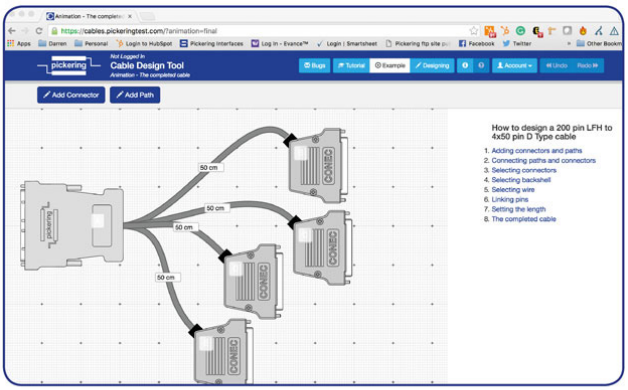
All products are designed to ensure easy and problem free connection.

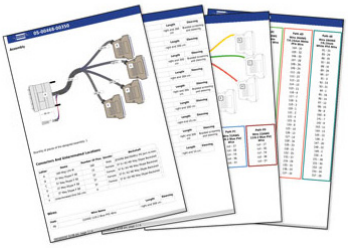
We offer a fast turn round of custom items to keep your ordering and integration time scales to a minimum.

Pickering's Cable Design Tool

Our Cable Design Tool is an online tool that allows you to define a cable assembly to exactly meet your requirements.

- Graphical design of customized cable assemblies
- Built-in library of standard cable sets can be used as the basis for customization, or cables can be defined from scratch
- The ability to store cable assemblies in the Cloud and develop them over time
- Each cable design has a PDF documentation file detailing all the specifications
- Allows detailed design including; connector types, wire type, pin definitions, pin & cable labelling, cable bundling, length selection, sleeving, comments, etc.
- Add your own connectors and wires
- Fully supported on major tablet operating systems





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.

For more information visit: pickeringtest.com/cdt