

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

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

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

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

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





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





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

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

Pickering Interfaces **China**
Tel: +86 10 5982 2465
e-mail: chinasales@pickeringtest.com



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			Male	40-963-050-SM	
	Cable Connector 50 Way D-Type, 5A, Solder Bucket	With Backshell	Female	40-960-050-F	Page 6
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		With Backshell	Male	40-960-050-M	
		Without Backshell		92-960-050-M	
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HIGH VOLTAGE - Cable Assemblies					
VIEW	DESCRIPTION	END 1	END 2	PART No.	PAGE
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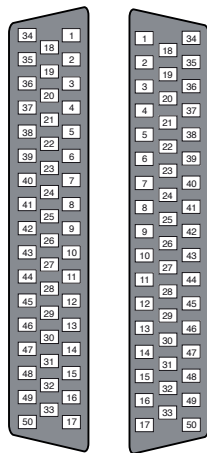
PCB Interfacing - 50 Way D-Type Connector

Standard Voltage

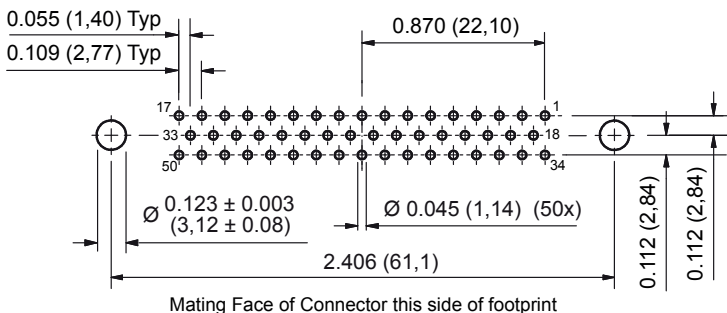
- Right Angle PCB Mount
- Male and Female Versions Available
- Ideal for User Created Termination Solutions

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

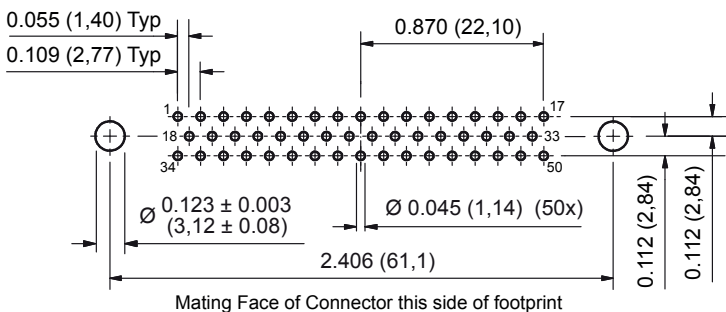
Male Female



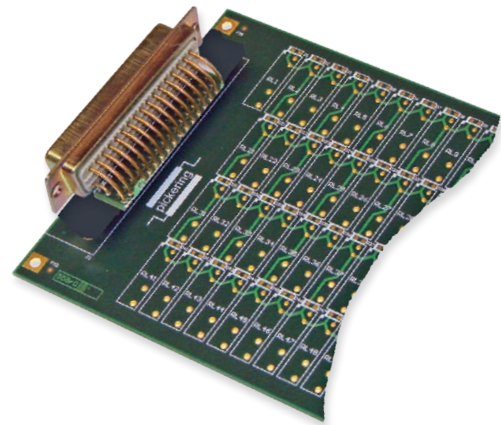
PCB Footprint of 50-Way Right Angle Female Connector (Connector Side - Not to Scale)



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



Female version depicted



PCB not supplied

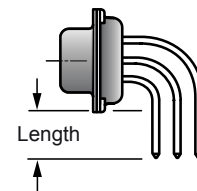
Technical Specification

Connector Type:	50 Way D-Subminiature
Gender	Male or female
Mounting	Right angle PCB mount
Effective Leg Length	3,6mm nom (See diagram)
Cable Securing Method	4-40 UNC screwlock
Connector Type:	
Current Rating	5A each pin
Voltage Rating	250V AC
Contact Material	Gold plated copper alloy
Contact Resistance	<20mOhm

Notes:

50 Way Female connectors can be directly mated to a corresponding Pickering Switching Module.

Effective Leg Length



Product Order Codes

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

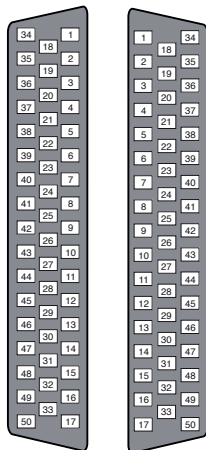
PCB Interfacing - 50 Way D-Type Connector

Standard Voltage

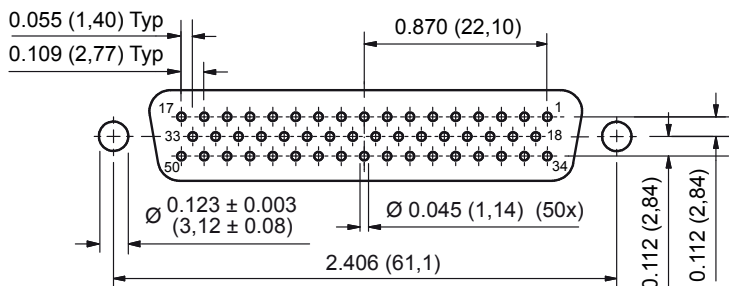
- Straight PCB Mount
- Male and Female Versions Available
- Ideal for User Created Termination Solutions

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

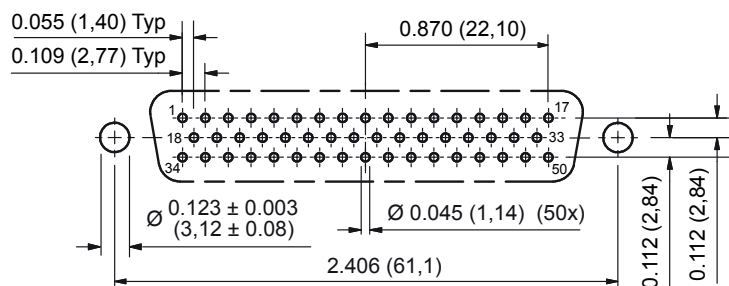
Male Female



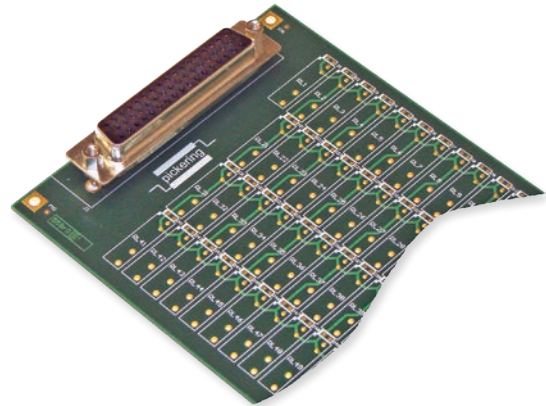
PCB Footprint of 50-Way Straight Female Connector (Connector Side - Not to Scale)



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



Female version depicted



PCB not supplied

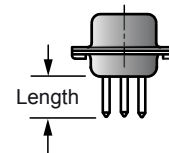
Technical Specification

Connector Type:	50 Way D-Subminiature
Gender	Male or female
Mounting	Straight PCB mount
Effective Leg Length	3,8mm nom (See diagram)
Cable Securing Method	4-40 UNC screwlock
Connector Type:	5A each pin
Current Rating	250V AC
Voltage Rating	Gold plated copper alloy
Contact Material	<20mOhm
Contact Resistance	

Notes:

50 Way Female connectors can be directly mated to a corresponding Pickering Switching Module.

Effective Leg Length



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

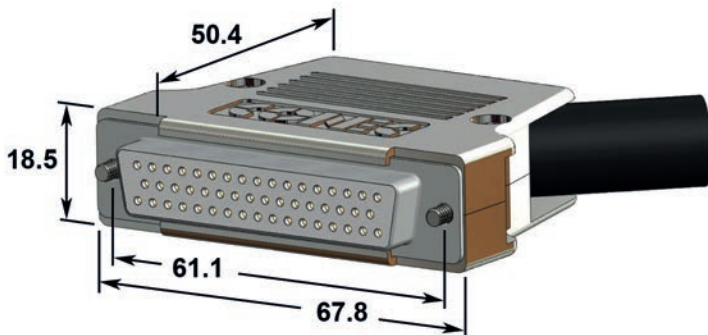
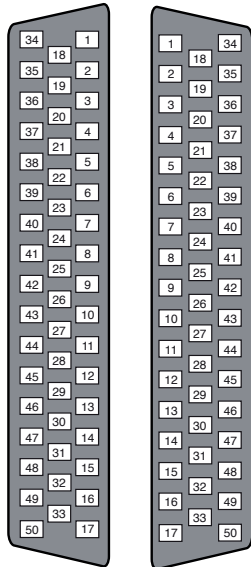
- Connector only or Connector and Backshell
- Cable Clamp in Backshell
- Soldered Cable Termination

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

The cable exit on this accessory is supplied to go downwards when used on a 50-way D connector with pin 1 at the top. The exit sense can be changed by simply taking off the shell and turning the connector around.



Male Female



Technical Specification

Connector Type:	50 Way D-Subminiature
Gender	Male or female
Securing Method	4-40 UNC screwlocks
Cable Entry	15mm dia
Overall Size (Approx)	H68 x W18.5 x D55mm
Connector Ratings:	
Current Rating	5A
Voltage Rating	250V AC
Contact Material	Gold plated copper alloy
Contact Resistance	20mOhm
Insulation Resistance	1000MOhm
Cable Connection:	
Recommended Cable	PTFE 19/0.15 (0.410mm ² , 22AWG), 1.2mm O/D
Connection Method	Solder bucket
Cable Clamp	Yes (in backshell)
Notes:	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

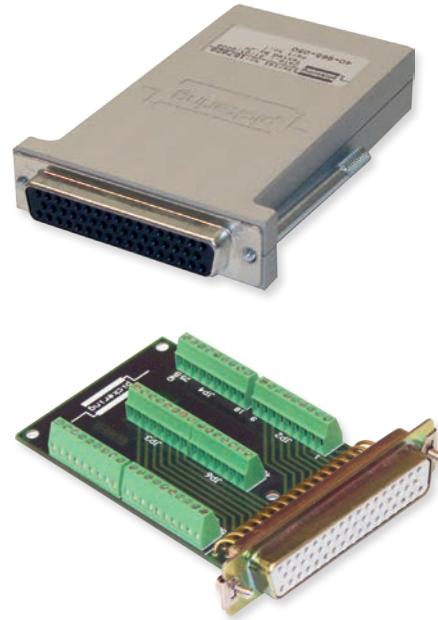
Standard Voltage

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

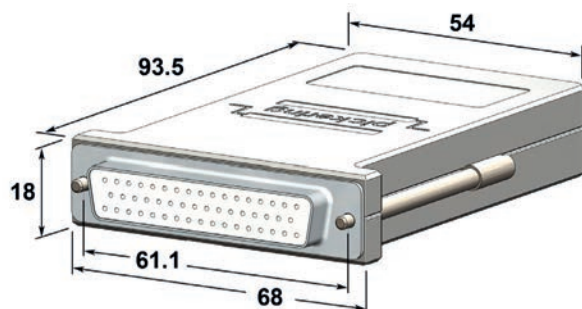
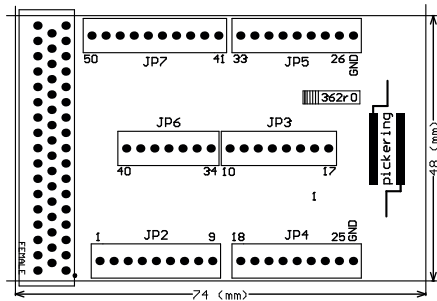
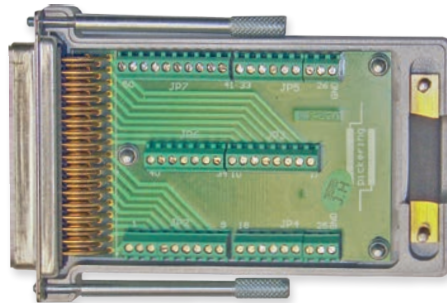
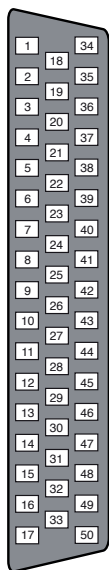
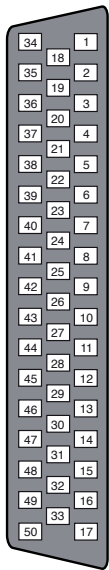
This connector block provides a simple method of connecting to 50 Way D-Type connectors. The screw terminals use a rising cage clamp mechanism to minimize risk of copper strand breakage. PTFE cables are recommended for use with this connector block to maximise copper cross-sectional area and insulation 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.

The accessory is suited for PXI modules which have pin 1 at the top or the bottom of the module.



Male

Female



Technical Specification

Connector Block	
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
Main Connector:	
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
Wire/Cable Connection:	
Connection Method	Rising cage screw terminals
Recommended Wire/Cable	PTFE type
Recommended Wire Size	Up to 1.54mm ² csa (>16AWG)
Torque Setting	0.13Nm
Cable Clamp	Yes (in backshell)
Notes:	
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

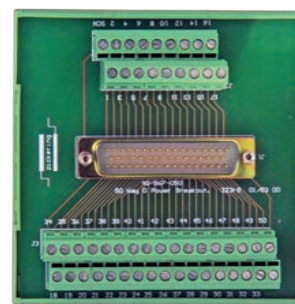
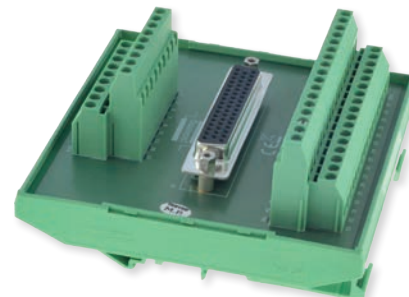
Cable Connection - 50 Way D-Type Breakout

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.

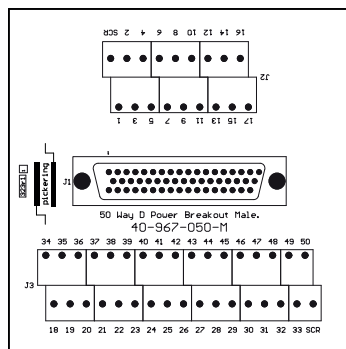
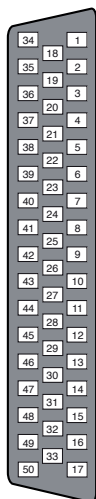
- For Connection at Cable End
- Simple to Use Rising Cage Screw Clamp Termination
- DIN Rail Mounted

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.

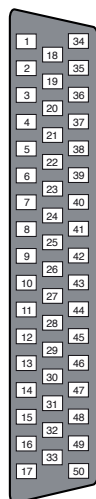


40-967-050-M

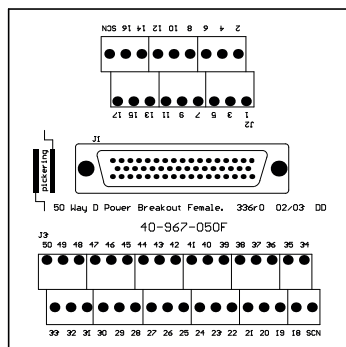
Male



Female



40-967-050-F



Technical Specification

Connector Block	
Current Rating	5A
Voltage Rating	200V DC
Securing Method	Suitable for securing to DIN rails.
Overall Size (Approx)	H110 x W110 x D56mm
Main Connector:	
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
Wire/Cable Connection:	
Connection Method	Rising cage screw terminals
Recommended Wire/Cable	Any (User Defined)
Recommended Wire Size	Solid wire up to 4mm ² csa (>12AWG)
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

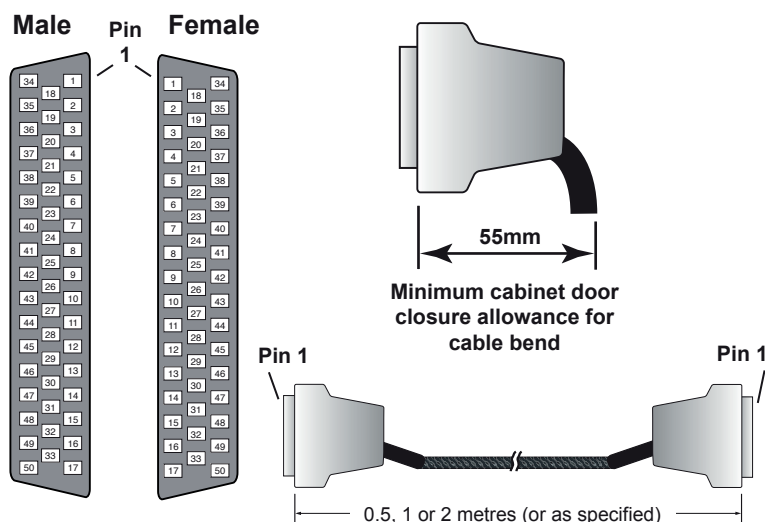
50 Way D-Type Connector to Connector Assy

Standard Voltage

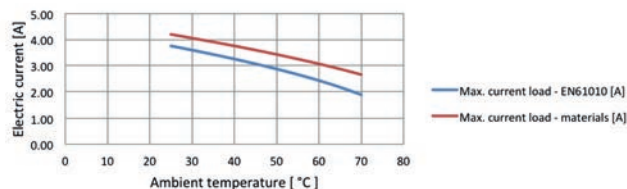
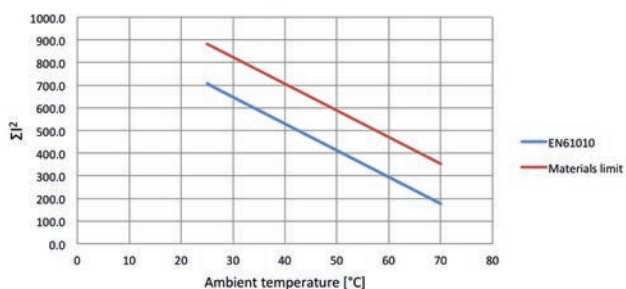
- High Specification Cable
- Highly Flexible Cable with Braided Sleaving
- 45 Degree Down Cable Exit if Pin 1 at Top
- Strain Relief
- Fully Screened Cable Construction

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

The orientation of the connector exit is down when Pin 1 of the connector is at the top.

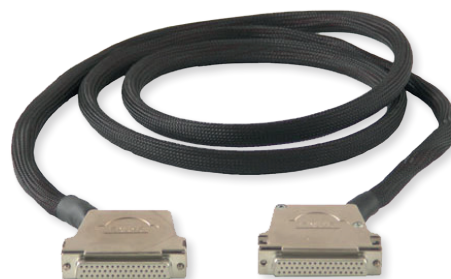


Characteristic Plots for 40-970-050-1m



Top 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.

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 ΣI^2 is complied with.



Technical Specification

Cable Assembly Rating:	
Maximum Current	5A
Maximum Voltage	250VAC / 400VDC
Standard Lengths	Multiples of 0.5m
Door Closure Allowance	55mm (see diagram)
Connector Type (End A):	50 Way D-Subminiature
Gender	Male or female
Current Rating	5A
Voltage Rating	250V AC
Contact Material	Gold plated copper alloy
Contact Resistance	<20mOhm
Cable Exit	45 deg (Pin 50 side)
Product Securing Method	4-40 UNC screwlocks
Overall Size (Approx)	H68 x W18.5 x D55mm
Connector Type (End B)	As End A
Gender	Male or female
Cable Type:	Individual wires, screened & sleeved
Conductors:	
Material	Copper
Strands	19/0.18 (0.41mm², 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
Notes:	
	<ul style="list-style-type: none"> • 50 Way Female cable connectors can be directly mated to a corresponding Pickering Switching Module. • Other cable lengths can be supplied.

Product Order Codes

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

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

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

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

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

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

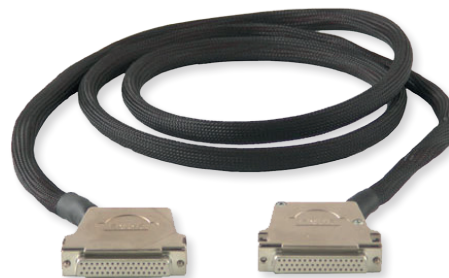
50 Way D-Type Connector to Connector Assy

Standard Voltage

- High Specification Cable
- Highly Flexible Cable with Braided Sleaving
- 45 Degree Down Cable Exit if Pin 1 at Bottom
- Strain Relief
- Fully Screened Cable Construction

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

The orientation of the connector exit is down when Pin 1 of the connector is at the bottom.

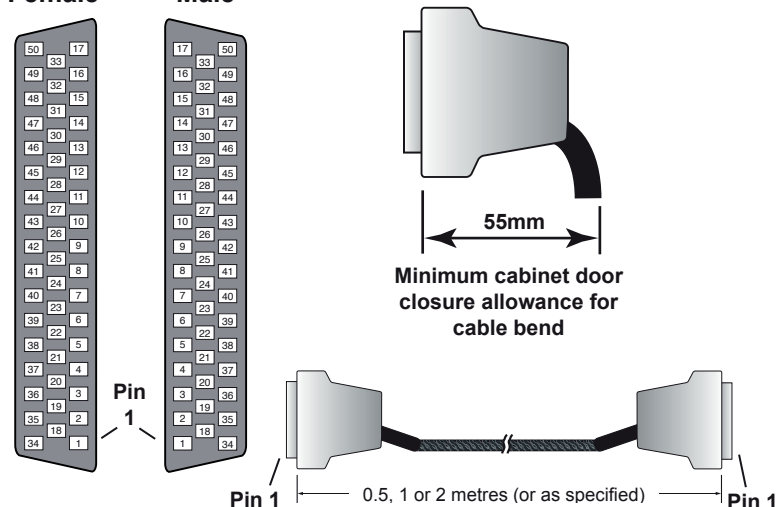


Technical Specification

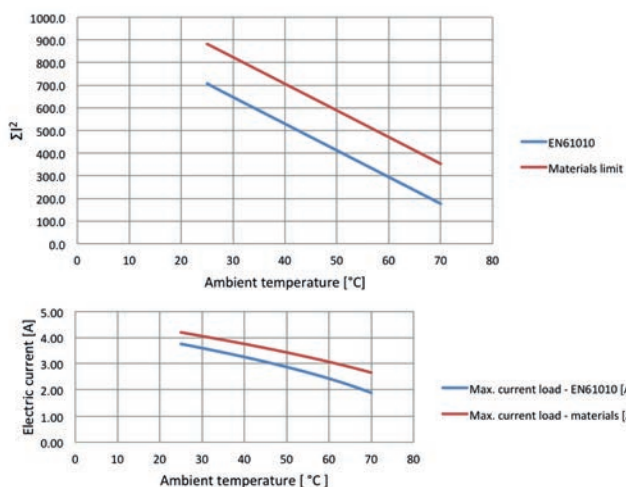
Cable Assembly Rating:	
Maximum Current	5A
Maximum Voltage	250VAC / 400VDC
Standard Lengths	Multiples of 0.5m
Door Closure Allowance	55mm (see diagram)
Connector Type (End A):	50 Way D-Subminiature
Gender	Male or female
Current Rating	5A
Voltage Rating	250V AC
Contact Material	Gold plated copper alloy
Contact Resistance	<20mOhm
Cable Exit	45 deg (Pin 1 side)
Product Securing Method	4-40 UNC screwlocks
Overall Size (Approx)	H68 x W18.5 x D55mm
Connector Type (End B)	As End A
Gender	Male or female
Cable Type:	Individual wires, screened & sleeved
Conductors:	
Material	Copper
Strands	19/0.18 (0.41mm ² , 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
Notes:	
<ul style="list-style-type: none"> • 50 Way Female cable connectors can be directly mated to a corresponding Pickering Switching Module. • Other cable lengths can be supplied. 	

Female

Male



Characteristic Plots for 40-970-050-1m

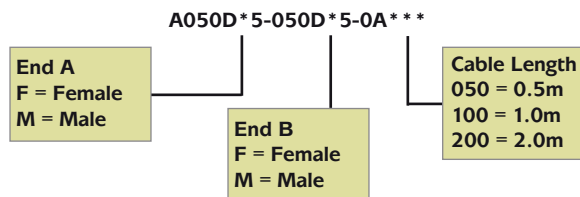


Top graph shows the permitted ΣI^2 versus ambient temperature in accordance with EN61010 for user exposure to surface temperature and a higher limit imposed by the materials used where the cable is not directly user accessible.

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 ΣI^2 is complied with.

Product Order Codes

50 Way D-Type Cable Assy, 5A, with End and Length options



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
- 45 Degree Down Cable Exit if Pin 1 at Top
- Fully Coded Markers to Ensure Easy Connection

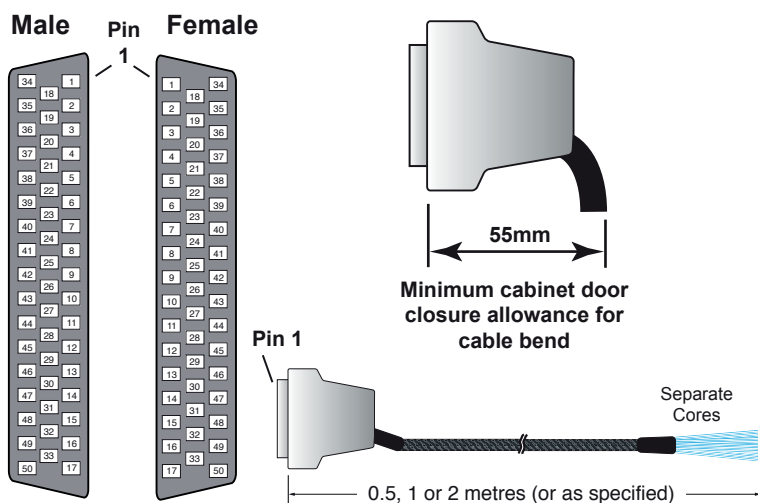


The 50 Way Female cable assembly is suited for direct connection to Pickering Interfaces products with unterminated connections at the other end.

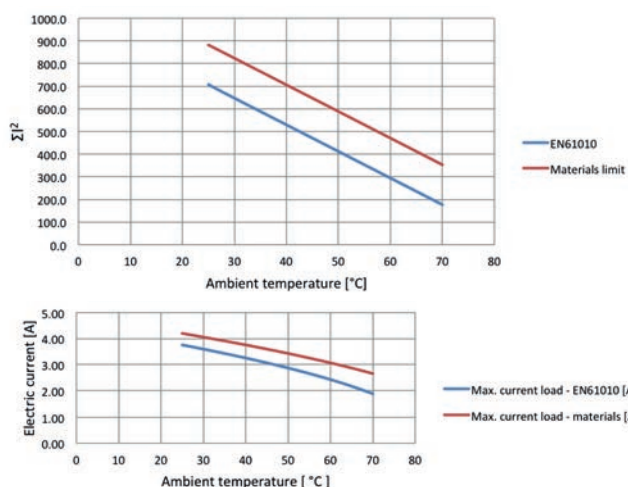
The orientation of the connector exit is down when Pin 1 of the connector is at the top.

Technical Specification

Cable Assembly Rating:	
Maximum Current	5A
Maximum Voltage	250V AC / 400V DC
Standard Lengths	Multiples of 0.5m
Door Closure Allowance	55mm (see diagram)
Connector Type (End A):	
Gender	50 Way D-Subminiature Male or female
Current Rating	5A
Voltage Rating	250V AC
Contact Material	20mOhm
Contact Resistance	1000MOhm
Cable Exit	45 deg (Pin 50 side)
Product Securing Method	4-40 UNC screwlocks
Overall Size (Approx)	H68 x W18.5 x D55mm
Unterminated End (End B)	
Free Wire Length	130mm nominal
Wire Coding	Yes - To connector pins
Wire End Options	Ferrules, Cut End, Tinned
Cable Type:	
Individual wires, screened & sleeved	
Conductors:	
Material	Copper
Strands	19/0.18 (0.41mm ² , 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
Notes:	Other cable lengths can be supplied.



Characteristic Plots for 40-972-050-1m



Top 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.

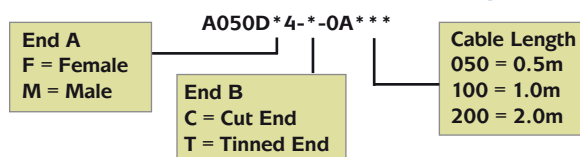
Bottom graph shows allowed current versus temperature assuming ALL wires carry the same current. Higher currents to the cable rating are permitted on individual wires provided the ΣI^2 is complied with.

Product Order Codes

50 Way D-Type Cable Assy, 5A, Female to Unterminated
 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

50 Way D-Type Cable Assy, 5A, Male to Unterminated
 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

Part numbers for Cut End and Tinned End options:



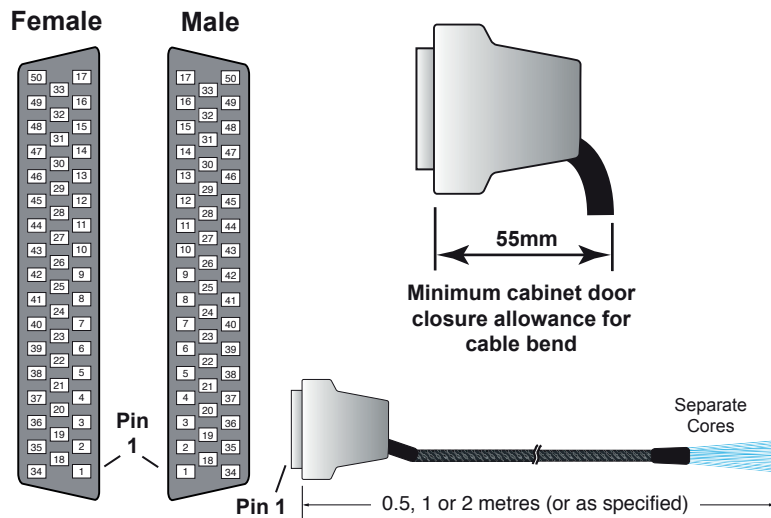
50 Way D-Type Connector to Unterminated

Standard Voltage

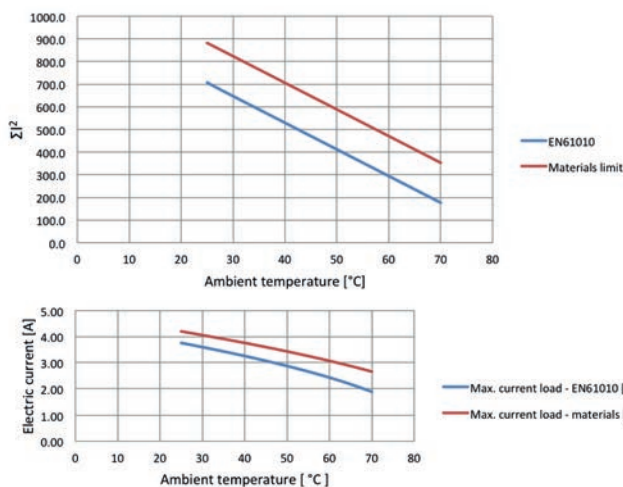
- High Specification Cable
- Highly Flexible Cable
- Fully Screened Cable Construction with Braided Sleeve and Strain Relief
- 45 Degree Down Cable Exit if Pin 1 at Bottom
- Fully Coded Markers to Ensure Easy Connection

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

The orientation of the connector exit is down when Pin 1 of the connector is at the bottom.



Characteristic Plots for 40-972-050-1m



Top 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.

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 ΣI^2 is complied with.

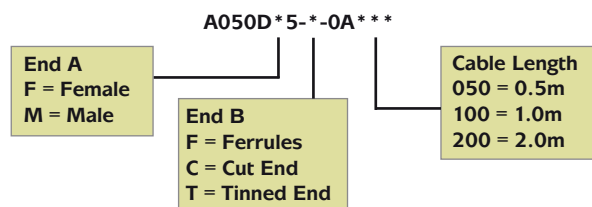


Technical Specification

Cable Assembly Rating:	
Maximum Current	5A
Maximum Voltage	250V AC / 400V DC
Standard Lengths	Multiples of 0.5m
Door Closure Allowance	55mm (see diagram)
Connector Type (End A):	50 Way D-Subminiature
Gender	Male or female
Current Rating	5A
Voltage Rating	250V AC
Contact Material	20mOhm
Contact Resistance	1000MOhm
Cable Exit	45 deg (Pin 1 side)
Product Securing Method	4-40 UNC screwlocks
Overall Size (Approx)	H68 x W18.5 x D55mm
Unterminated End (End B)	
Free Wire Length	130mm nominal
Wire Coding	Yes - To connector pins
Wire End Options	Ferrules, Cut End, Tinned
Cable Type:	Individual wires, screened & sleeved
Conductors:	
Material	Copper
Strands	19/0.18 (0.41mm ² , 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
Notes:	Other cable lengths can be supplied.

Product Order Codes

50 Way D-Type Unterminated Cable Assy, 5A, with End and Length options



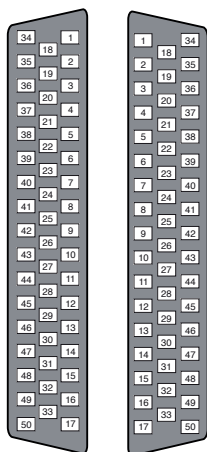
PCB Interfacing - 50 Way D-Type Connector

High Voltage

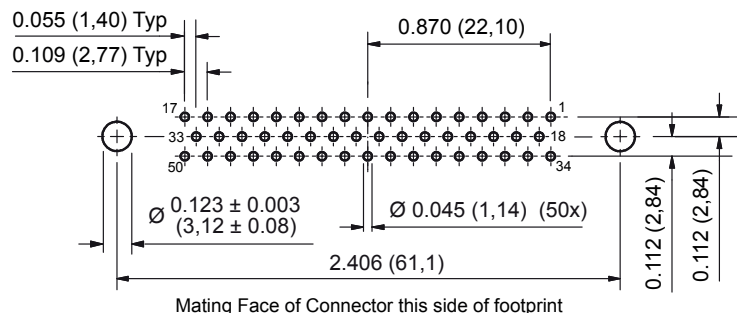
- Right Angle PCB Mount
- Male or Female Versions Available
- Ideal for User Created Termination Solutions

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

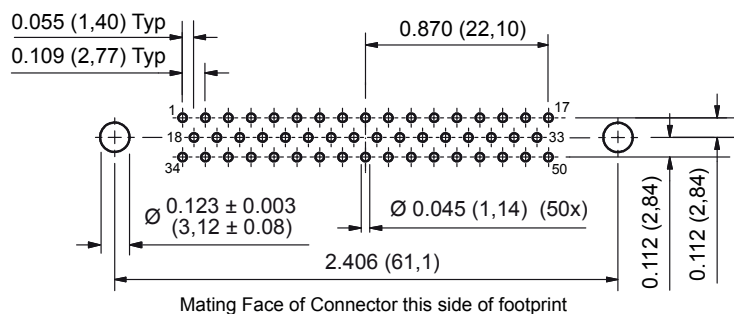
Male Female



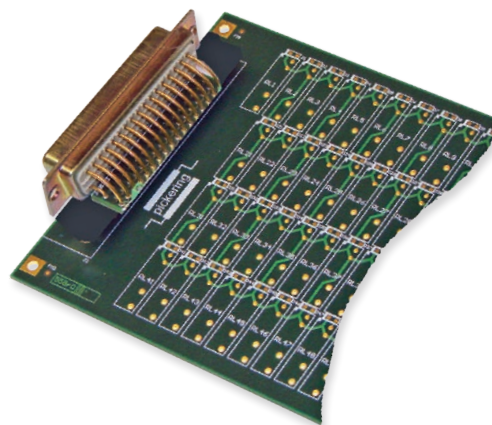
PCB Footprint of 50-Way Right Angle Female HV Connector (Connector Side - Not to Scale)



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



Female version depicted



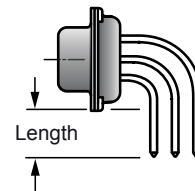
PCB not supplied

Technical Specification

Connector Type:	50 Way D-Subminiature High voltage
Gender	Male or female
Mounting	Right angle PCB mount
Effective Leg Length	3,6mm nom (See diagram)
Cable Securing Method	4-40 UNC screwlock
Connector Type:	
Current Rating	5A each pin
Voltage Rating	1000V DC or AC
Contact Material	Gold plated copper alloy
Contact Resistance	<20mOhm

Notes:
50 Way Female HV connectors can be directly mated to a corresponding Pickering Switching Module.

Effective Leg Length



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

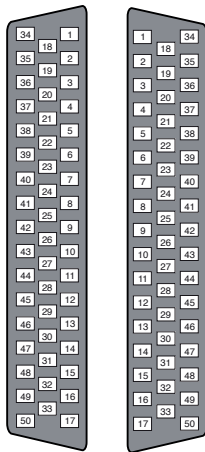
PCB Interfacing - 50 Way D-Type Connector

High Voltage

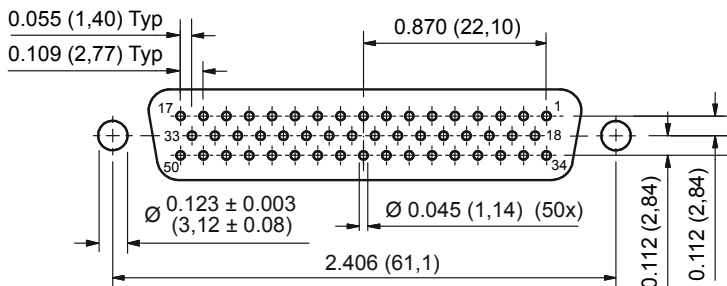
- Straight PCB Mount
- Male and Female Versions Available
- Ideal for User Created Termination Solutions

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

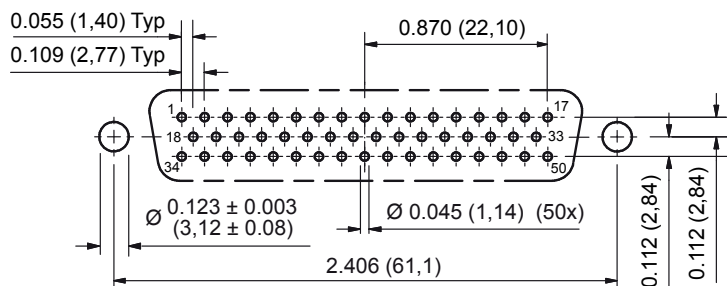
Male Female



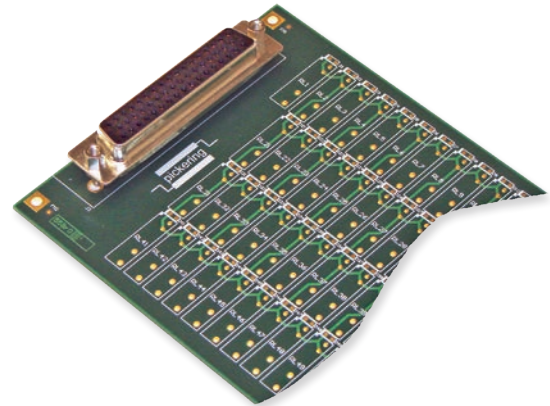
PCB Footprint of 50-Way Straight Female HV Connector (Connector Side - Not to Scale)



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



Female version depicted

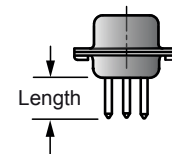


PCB not supplied

Technical Specification

Connector Type:	50 Way D-Subminiature
Gender	Male or female
Mounting	Straight PCB mount
Effective Leg Length	3,8mm nom (See diagram)
Cable Securing Method	4-40 UNC screwlock
Connector Type:	
Current Rating	5A each pin
Voltage Rating	1000V DC or AC
Contact Material	Gold plated copper alloy
Contact Resistance	<20mOhm
Notes: 50 Way Female HV connectors can be directly mated to a corresponding Pickering Switching Module.	

Effective Leg Length



Product Order Codes

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

Cable Connection - 50 Way D-Type Connector

High Voltage

- Connector Only
- Soldered Connection
- Cable Clamp in Backshell

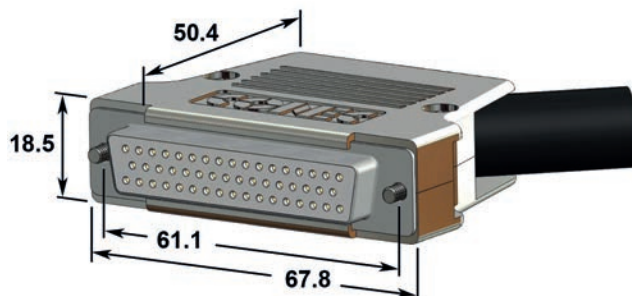
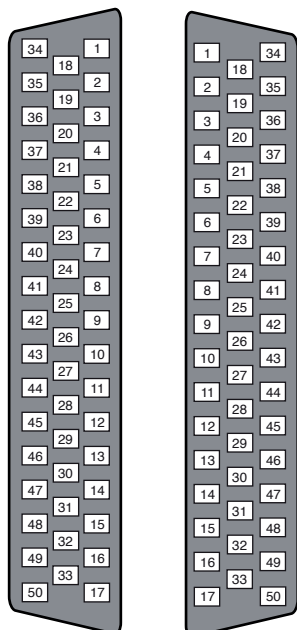
This accessory is designed to allow users to directly terminate with soldered connections to the connector.

The cable exit on this accessory is supplied to go downwards when used on a 50-way D connector with pin 1 at the top. The exit sense can be changed by simply taking off the shell and turning the connector around.



Male

Female



Technical Specification

Connector Type:	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
Connector Ratings:	
Current Rating	5A
Voltage Rating	1000V DC or AC
Contact Material	Gold plated copper alloy
Contact Resistance	<20mOhm
Insulation Resistance	5 x 10 ⁹ MOhm
Cable Connection:	
Recommended Cable	PTFE Type C 7/0.2mm (0.22mm ² csa, 24AWG), 1.62mm O/D
Connection Method	Solder bucket
Cable Clamp	Yes (in backshell)
Notes:	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

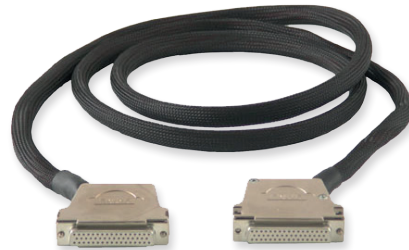
50 Way D-Type Connector to Connector Assy

High Voltage

- High Specification Cable
- Highly Flexible Cable with Braided Sleeving
- 45 Degree Down Cable Exit if Pin 1 at Top
- Strain Relief
- Fully Screened Cable Construction

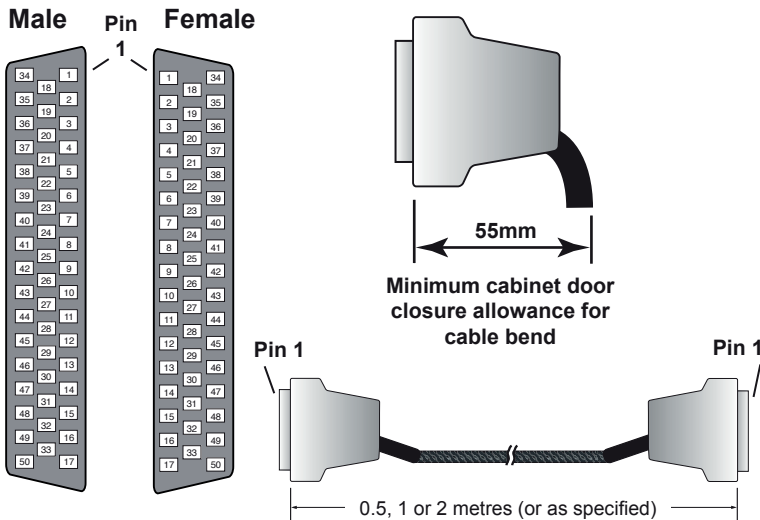
The 50 Way Female connector option of this cable assembly is suited for direct connection to Pickering Interfaces products.

The orientation of the connector exit is down when Pin 1 of the connector is at the top.

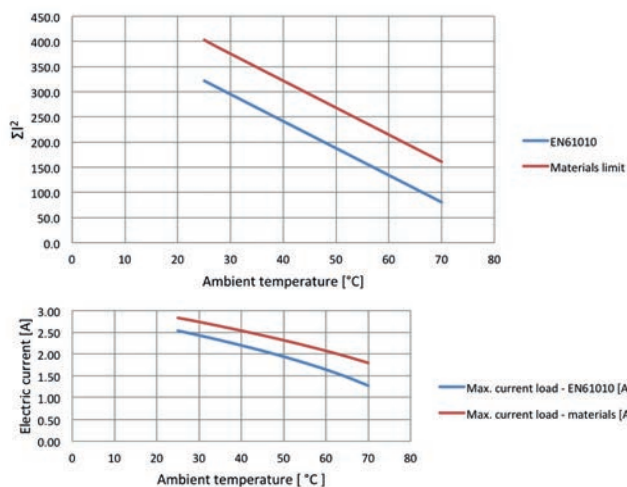


Technical Specification

Cable Assembly Rating:	
Maximum Current	5A
Maximum Voltage	750V working/ 1000VDC AC peak typical
Standard Lengths	Multiples of 0.5m
Door Closure Allowance	55mm (see diagram)
Connector Type (End A):	50 Way D-Subminiature, HV Female
General	
Current Rating	5A
Voltage Rating	1000V DC or AC
Contact Material	Gold plated copper alloy
Contact Resistance	<20mOhm
Cable Exit	45 deg (Pin 50 side)
Product Securing Method	4-40 UNC screwlocks
Overall Size (Approx)	H68 x W18.5 x D55mm
Connector Type (End B)	As End A
Gender	Female
Cable Type:	Individual wires, screened & sleeved
Conductors:	
Material	Tinned copper wire
Strands	7/0.2 (0.2 mm ² , 24AWG)
	1.62mm O/D
Resistance	0.089Ω/m (max) at 20°C
Screened Construction	Yes
Insulation	PTFE Type C (BS3G210)
Outer Sleeve	Polyester
Additional Braided Sleeve	Yes
Cable O/D	12mm
Minimum Bend Radius	25mm
Notes:	Other cable lengths can be supplied.



Characteristic Plots for 40-970-050-1m (HV)



Top 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.

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 ΣI^2 is complied with.

Product Order Codes

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

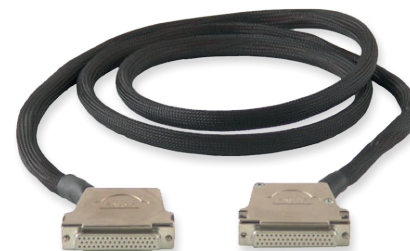
50 Way D-Type Connector to Connector Assy

High Voltage

- High Specification Cable
- Highly Flexible Cable with Braided Sleeving
- 45 Degree Down Cable Exit if Pin 1 at Bottom
- Strain Relief
- Fully Screened Cable Construction

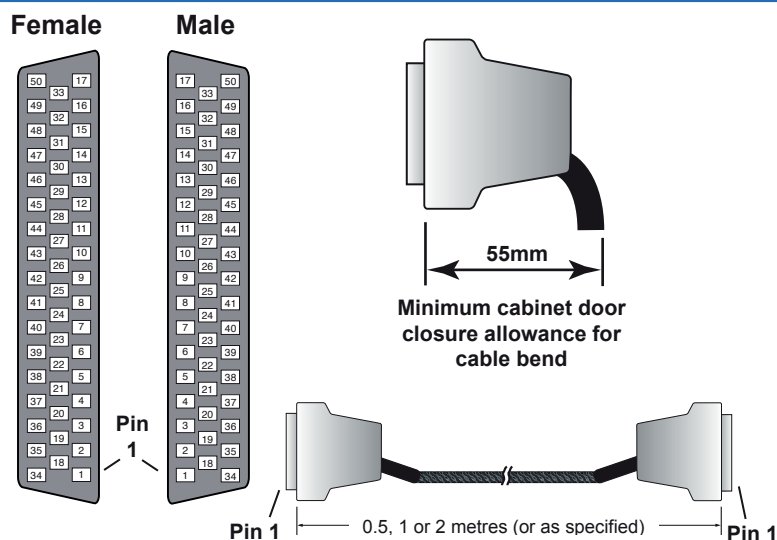
The 50 Way Female connector option of this cable assembly is suited for direct connection to Pickering Interfaces products.

The orientation of the connector exit is down when Pin 1 of the connector is at the bottom.

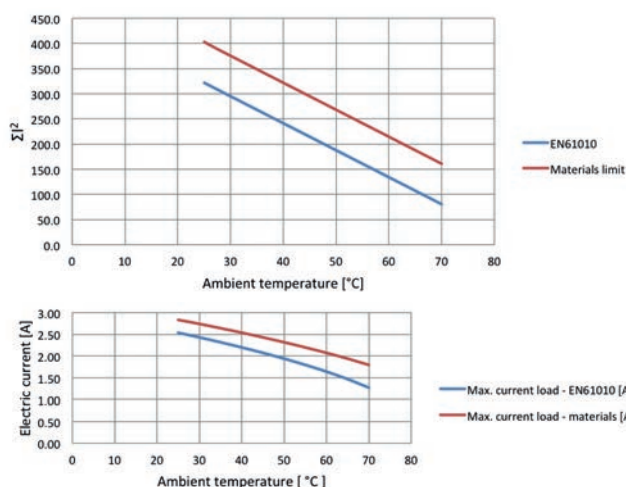


Technical Specification

Cable Assembly Rating:	
Maximum Current	5A
Maximum Voltage	750V working/1000VDC AC peak typical
Standard Lengths	Multiples of 0.5m
Door Closure Allowance	55mm (see diagram)
Connector Type (End A):	50 Way D-Subminiature, HV Female
General	
Current Rating	5A
Voltage Rating	1000V DC or AC
Contact Material	Gold plated copper alloy
Contact Resistance	<20mOhm
Cable Exit	45 deg (Pin 1 side)
Product Securing Method	4-40 UNC Screwlocks
Overall Size (Approx)	H68 x W18.5 x D55mm
Connector Type (End B)	As End A
Gender	Female
Cable Type:	Individual wires, screened & sleeved
Conductors:	
Material	Tinned copper wire
Strands	7/0.2 (0.2 mm ² , 24AWG)
	1.62mm O/D
Resistance	0.089Ω/m (max) at 20°C
Screened Construction	Yes
Insulation	PTFE Type C (BS3G210)
Outer Sleeve	Polyester
Additional Braided Sleeve	Yes
Cable O/D	12mm
Minimum Bend Radius	25mm
Notes:	Other cable lengths can be supplied.



Characteristic Plots for 40-970-050-1m (HV)

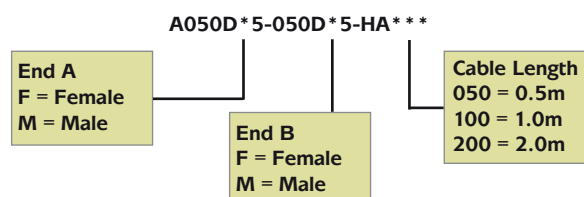


Top graph shows the permitted ΣI^2 versus ambient temperature in accordance with EN61010 for user exposure to surface temperature and a higher limit imposed by the materials used where the cable is not directly user accessible.

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 ΣI^2 is complied with.

Product Order Codes

50 Way D-Type Cable Assy, 5A, High Voltage, with End and Length options



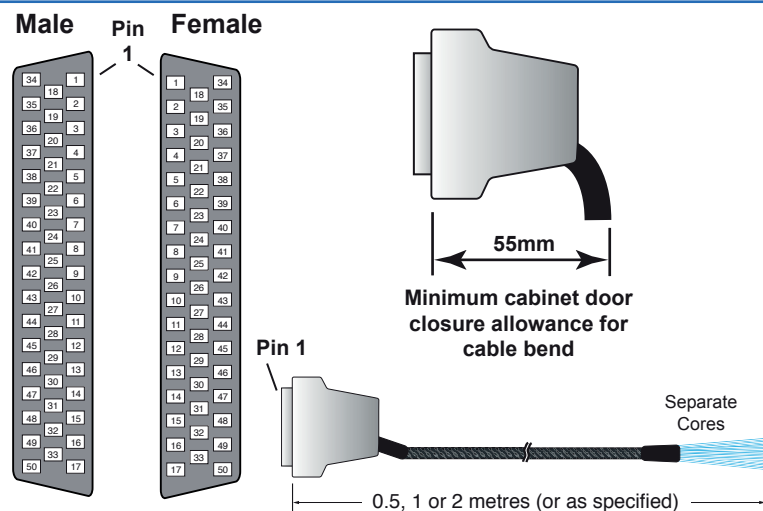
50 Way D-Type Connector to Unterminated

High Voltage

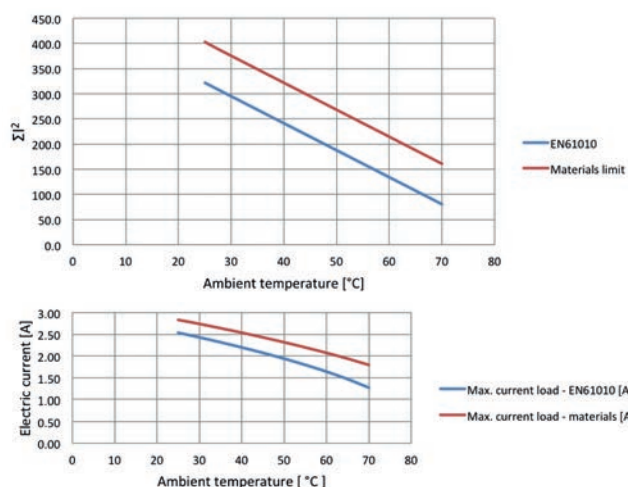
- High Specification and Highly Flexible Cable
- Fully Screened Cable Construction with Braided Sleeve and Strain Relief
- 45 Degree Down Cable Exit if Pin 1 at Top
- Fully Coded Markers to Ensure Easy Connection

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.

The orientation of the connector exit is down when Pin 1 of the connector is at the top.



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



Top 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.

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 ΣI^2 is complied with.



Technical Specification

Cable Assembly Rating:	
Maximum Current	5A
Maximum Voltage	750V working/1000VDC AC peak typical
Standard Lengths	Multiples of 0.5m
Door Closure Allowance	55mm (see diagram)
Connector Type (End A):	50 Way D-Subminiature, HV
Gender	Male or female
Current Rating	5A
Voltage Rating	1000V DC or AC
Contact Material	Gold plated copper alloy
Contact Resistance	<20mOhm
Cable Exit	45 deg (Pin 50 side)
Product Securing Method	4-40 UNC screwlocks
Overall Size (Approx)	H68 x W18.5 x D55mm
Unterminated End (End B)	
Free Wire Length	130mm nominal
Wire Coding	Yes - To connector pins
Wire End Options	Ferrules, Cut end, Tinned
Cable Type:	Individual wires, screened & sleeved
Conductors:	
Material	Tinned copper wire
Strands	7/0.2 (0.2 mm², 24AWG)
	1.62mm O/D
Resistance	0.089Ω/m (max) at 20°C
Screened Construction	Yes
Insulation	PTFE Type C (BS3G210)
Outer Sleeve	Polyester
Additional Braided Sleeve	Yes
Cable O/D	12mm
Minimum Bend Radius	25mm
Notes:	Other cable lengths can be supplied.

Product Order Codes

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

Part numbers for Cut End and Tinned End options:

End A	A050D*4-*HA***	Cable Length
F = Female		050 = 0.5m
M = Male		100 = 1.0m
	End B	200 = 2.0m
	C = Cut End	
	T = Tinned End	

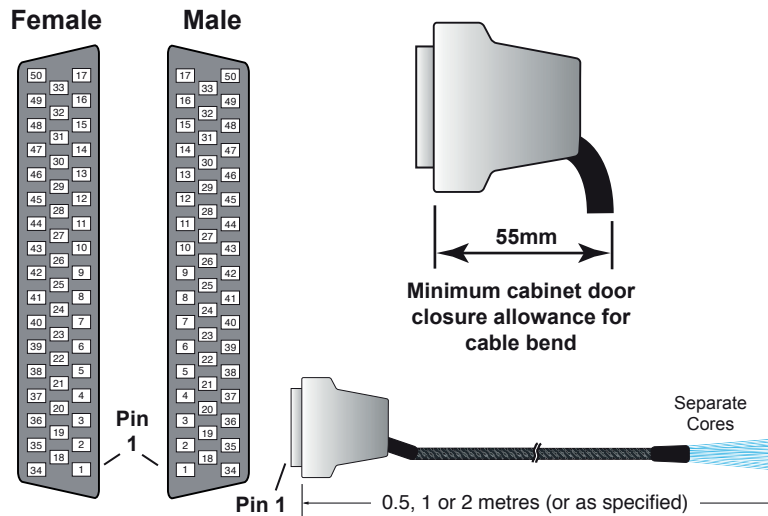
50 Way D-Type Connector to Unterminated

High Voltage

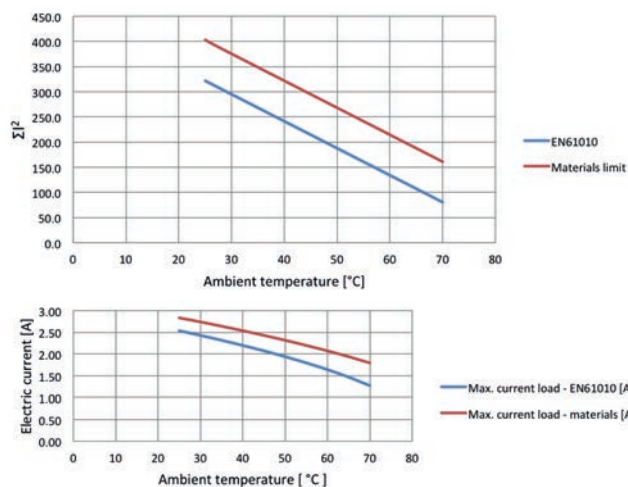
- High Specification and Highly Flexible Cable
- Fully Screened Cable Construction with Braided Sleeve and Strain Relief
- 45 Degree Down Cable Exit if Pin 1 at Bottom
- Fully Coded Markers to Ensure Easy Connection

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.

The orientation of the connector exit is down when Pin 1 of the connector is at the bottom.



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



Top 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.

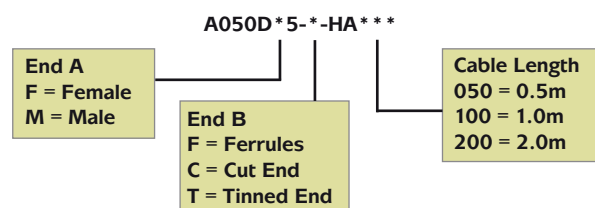
Bottom graph shows allowed current versus temperature assuming ALL wires carry the same current. Higher currents to the cable rating are permitted on individual wires provided the ΣI^2 is complied with.

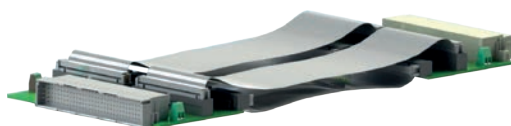
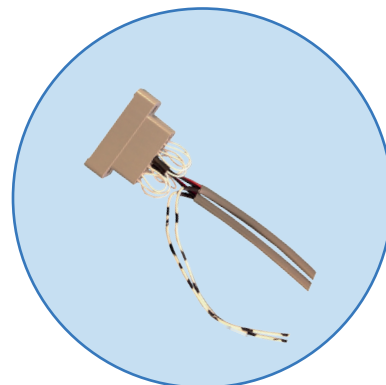
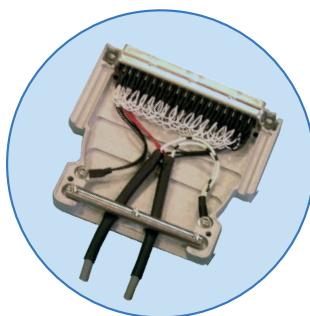
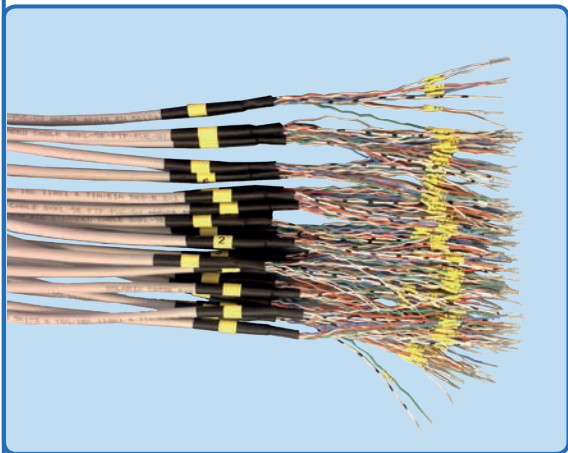
Technical Specification

Cable Assembly Rating:	
Maximum Current	5A
Maximum Voltage	750V working/1000VDC AC peak typical
Standard Lengths	Multiples of 0.5m
Door Closure Allowance	55mm (see diagram)
Connector Type (End A):	
Gender	50 Way D-Subminiature, HV Male or female
Current Rating	5A
Voltage Rating	1000V DC or AC
Contact Material	Gold plated copper alloy
Contact Resistance	<20mOhm
Cable Exit	45 deg (Pin1 side)
Product Securing Method	4-40 UNC screwlocks
Overall Size (Approx)	H68 x W18.5 x D55mm
Unterminated End (End B)	
Free Wire Length	130mm nominal
Wire Coding	Yes - To connector pins
Wire End Options	Ferrules, Cut end, Tinned
Cable Type:	
Individual wires, screened & sleeved	
Conductors:	
Material	Tinned copper wire
Strands	7/0.2 (0.2 mm², 24AWG)
	1.62mm O/D
Resistance	0.089Ω/m (max) at 20°C
Screened Construction	Yes
Insulation	PTFE Type C (BS3G210)
Outer Sleeve	Polyester
Additional Braided Sleeve	Yes
Cable O/D	12mm
Minimum Bend Radius	25mm
Notes:	
Other cable lengths can be supplied.	

Product Order Codes

50 Way D-Type Unterminated Cable Assy, 5A, High Voltage, with End and Length options





Custom Termination

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

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

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

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

Design your own cable assembly online

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

