3-Pin Power D-type Accessories

- Voltage to 350 VDC or 350 VAC Peak, 40 A
- Cable Assemblies
- Cable Connectors
- PCB Connectors
- Guaranteed Compatibility

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 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.





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



An example of a Pickering PXI Product using a 3-Pin Power D-type Connector





Cable Assemblies

Description		End 1	End 2	2	Cable	Product Order Code	Data
		Gender & Cable Exit	Gender & Cable Exit	Options	Length	and Part Number	Sheet Page
	Cable Assy,	Male, 45° Towards Pin 1	Female, 45° Away from Pin 1	-	0.5 m 1 m 2 m	40-970-403-0.5m-MF 40-970-403-1m-MF 40-970-403-2m-MF	4
	3-Pin Power D-Type, 20 A	Female, 45° Away from Pin 1	Female, 45° Away from Pin 1	-	0.5 m 1 m 2 m	40-970-403-0.5m-FF 40-970-403-1m-FF 40-970-403-2m-FF	5
				Ferrules	0.5 m 1 m 2 m	A003PF4-F-5A050 A003PF4-F-5A100 A003PF4-F-5A200	
Cable Assy, 3-Pin Power D-Type to Unterminated, 20 A	Female, 45° Away from Pin 1	NA	Tinned End	0.5 m 1 m 2 m	A003PF4-T-5A050 A003PF4-T-5A100 A003PF4-T-5A200	6	
			Cut End	0.5 m 1 m 2 m	40-972-403-0.5m-FU 40-972-403-1m-FU 40-972-403-2m-FU		
Note: Custom lengths by quotation							

Connectors

[Description	Gender & Cable Exit	Туре	Product Order Code and Part Number	Page
	Cable Connector 3-Pin Power D-Type,	Female, 45° Options	With Backshell	40-960-003-F	7
0 (03 (23 (2))	40 A, Solder Bucket		Without Backshell	92-960-003-F	,
	PCB Connector	Female	Right Angle PCB Mount	40-963-003-RF	8
his car	3-Pin Power D-Type, 20 A	Male	Right Angle PCB Mount	40-963-003-RM	9

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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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.

Cable Assemblies

Description		End 1	End 2		Cable	Product Order Code	Data
		Gender & Cable Exit	Gender & Cable Exit	Options	Length	and Part Number	Sheet Page
O	Cable Assy, 3-Pin Power D-Type, 20 A	Male, 45° Towards Pin 1	Male, 45° Towards Pin 1	-	0.5 m 1 m 2 m	40-970-403-0.5m-MM 40-970-403-1m-MM 40-970-403-2m-MM	11
	Cable Assy, 3-Pin Power	Male,		Ferrules Tinned	0.5 m 1 m 2 m 0.5 m	A003PM5-F-5A050 A003PM5-F-5A100 A003PM5-F-5A200 A003PM5-T-5A050	
	D-Type to Unterminated,	45° Towards Pin 1	NA	End	1 m 2 m	A003PM5-T-5A100 A003PM5-T-5A200	12
	20 A			Cut End	0.5 m 1 m 2 m	40-972-403-0.5m-MU 40-972-403-1m-MU 40-972-403-2m-MU	
Note: Custom lengths by quotation							

Connectors

С	Description	Gender & Cable Exit	Туре	Product Order Code and Part Number	Page
Cable Connector A Rio Review R Time Male,		Male,	With Backshell	40-960-003-M	10
	3-Pin Power D-Type, 40 A, Solder Bucket 45° Options	/ib (Intions	Without Backshell	92-960-003-M	13

Custom Termination

Cable Assy - Male to Female

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

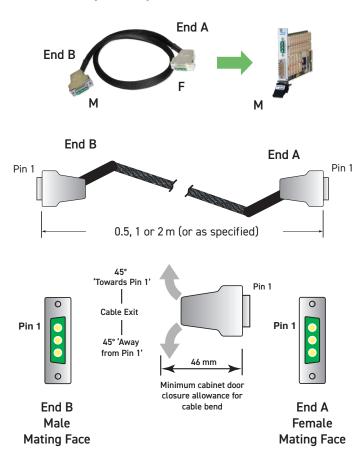
Technical Specification

Connector Type (End A):	3-Pin D-Subminiature
Gender	Female
Securing Method	4-40 UNC screwlocks, male
Connector Type (End B):	3-Pin D-Subminiature
Gender	Male
Securing Method	4-40 UNC screwlocks, male
Maximum Current Maximum Voltage Insulation Resistance Connectors:	20 A 350 V DC or AC peak 1000 MOhm
Contact Material Contact Resistance Cable Exit:	Gold plated copper alloy 1.0 mOhm
Female Connectors	45° (Away from Pin 1)
Male Connectors	45° (Towards Pin 1)
Overall Size (Approx)	H32 x W15 x D46 mm
Cable Type:	Individual wires, screened & sleeved,
Conductor: Material Strands Resistance	Tri-rated Tinned copper $50/0.26$ (2.08 mm ² csa, 14AWG) $0.008 \Omega/m$ PVC, $O/D 3.6 mm$
Outer Sleeve Screened Construction	Polyester Yes (Cable screen connected to backshells)
Additional Braided Sleeve	Yes
Cable O/D	10 mm
Minimum Bend Radius	25 mm
Door Closure Allowance	46 mm (see diagram)



3-Pin Power D-Type Cable Assembly

Product Compatibility



Product Order Codes

Note: Other cable lengths can be supplied.

3-Pin Power D-Type Cable Assy, 20 A, Male to Female,		
0.5 m Long	40-970-403-0.5m-MF	
1.0 m Long	40-970-403-1m-MF	
2.0 m Long	40-970-403-2m-MF	

Pin 1

Cable Assy - Female to Female

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

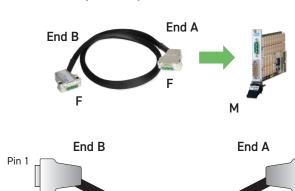
Technical Specification

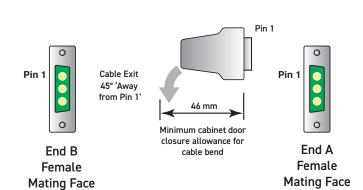
Connector Type (End A): Gender Securing Method	3-Pin D-Subminiature Female 4-40 UNC screwlocks, male
Connector Type (End B): Gender	3-Pin D-Subminiature Female
Securing Method	4-40 UNC screwlocks, male
Maximum Current	20 A
Maximum Voltage	350 V DC or AC peak
Insulation Resistance Connectors:	1000 M0hm
Contact Material	Gold plated copper alloy
Contact Resistance	1.0 m0hm
Cable Exit:	45° (Away from Pin 1)
Overall Size (Approx)	H32 x W15 x D46 mm
Cable Type:	Individual wires, screened & sleeved, Tri-rated
Conductor: Material	Tinned copper
Strands	50/0.26 (2.08 mm ² csa, 14AWG)
Resistance	0.008 Ω/m
Insulation	PVC, 0/D 3.6 mm
Outer Sleeve	Polyester
Screened Construction	Yes (Cable screen connected to backshells)
Additional Braided Sleeve	Yes
Cable O/D	10 mm
Minimum Bend Radius	25 mm
Door Closure Allowance	46 mm (see diagram)



3-Pin Power D-Type Cable Assembly

Product Compatibility





0.5, 1 or 2 m (or as specified)

Product Order Codes

3-Pin Power D-Type Cable Assy, 20 A, Female to Female, 0.5 m Long 40-970-403-0.5m-FF 1.0 m Long 40-970-403-1m-FF 2.0 m Long 40-970-403-2m-FF

Note: Other cable lengths can be supplied.

Cable Assy - Female to Unterminated

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

3-Pin Power D-Type Unterminated Cable Assembly

Technical Specification

Additional Braided Sleeve

Minimum Bend Radius

Door Closure Allowance

Cable O/D

Connector Type (End A): 3-Pin D-Subminiature Gender Female 4-40 UNC screwlocks, male Securing Method 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 Maximum Voltage 350 V DC or AC peak Insulation Resistance 1000 M0hm Connector: Contact Material Gold plated copper alloy Contact Resistance 1.0 m0hm 45° (Away from Pin 1) Cable Exit Overall Size (Approx) H32 x W15 x D46 mm Cable Type: Individual wires, screened & sleeved, Tri-rated Conductor: Material Tinned copper Strands 50/0.26 (2.08 mm² csa, 14AWG) Resistance $0.008 \,\Omega/m$ Insulation PVC, 0/D 3.6 mm Outer Sleeve Polyester Screened Construction Yes (Cable screen connected to backshell)

 $\textbf{Note:} \ \textbf{When using this product please ensure appropriate electrical safety.}$

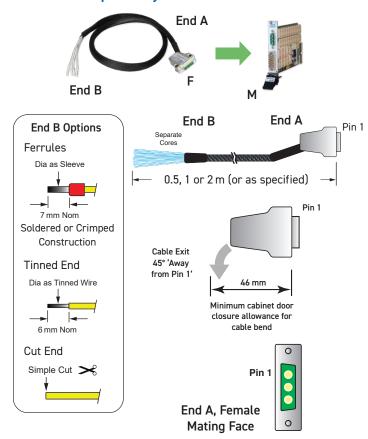
46 mm (see diagram)

Yes

10 mm

25 mm

Product Compatibility



Product Order Codes

3-Pin Power D-Type Cable Assy, 20 A, Female to Unterminated,		
Ferrules, 0.5 m Long	A003PF4-F-5A050	
Ferrules, 1.0 m Long	A003PF4-F-5A100	
Ferrules, 2.0 m Long	A003PF4-F-5A200	
Tinned End, 0.5 m Long	A003PF4-T-5A050	
Tinned End, 1.0 m Long	A003PF4-T-5A100	
Tinned End, 2.0 m Long	A003PF4-T-5A200	
Cut End, 0.5 m Long	40-972-403-0.5m-FU	
Cut End, 1.0 m Long	40-972-403-1m-FU	
Cut End, 2.0 m Long	40-972-403-2m-FU	
Note: Other cable lengths can be supplied		

C

Note: Other cable lengths can be supplied.

Cable 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

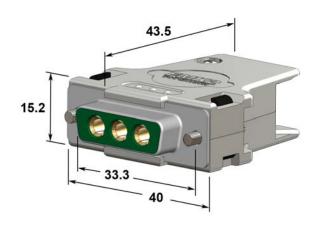
Wire Connection: Maximum Wire Size

Recommended Insulation Additional Cable Clamp

recrimed opecimentor	•
Connector Type:	3-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	40 A
Maximum Voltage	350 VDC or AC peak
Cable Exit:	45°
Cable Exit Size	15 mm dia
Overall Size (Approx)	H32 x W15 x D46 mm
3-Pin D-Sub:	
Contact Material	Gold plated copper alloy
Contact Resistance	1.0 m0hm

12AWG Tri-rated PVC

Yes (in backshell)

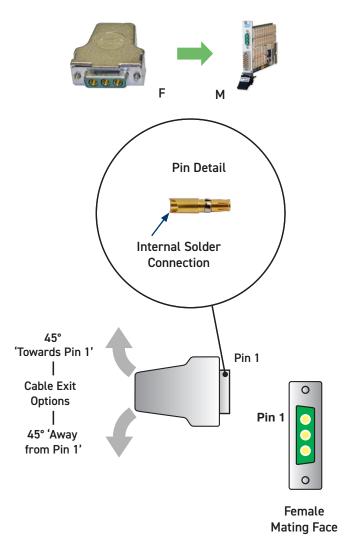


Connector Dimensions



3-Pin Power D-Type Cable Connector with Backshell

Product Compatibility



Product Order Codes

3-Pin Power D-Type Connector, 40 A, Solder Bucket,
With Backshell, Female
40-960-003-F
Without Backshell, Female
92-960-003-F

PCB Connector, Right Angle - 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.

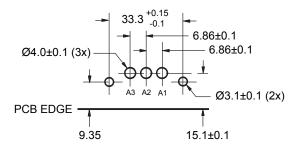
Note: This product is not suitable for directly mounting onto the front panel of a Pickering switching product.

Technical Specification

Connector Type: Gender Securing Method PCB Mounting	3-Pin D-Subminiature Female 4-40 UNC screwlocks, female Right angle PCB mount, solder, 1.6 mm thick PCB
Connector Ratings: Maximum Current Maximum Voltage 3-Pin D-Sub:	20 A 250 V working
Contact Material Contact Resistance	Gold plated copper alloy 1m0hm (IEC60807-2)



An Individual 40 A Female Contact



PCB Footprint of 3-Pin Right Angle Female Connector (Connector Side - Not to Scale)



3-Pin Power D-Type PCB Connector

Product Compatibility





Female Mating Face

Product Order Codes

3-Pin Power D-Type Connector, 20 A, Right Angle PCB Mount, Female 40-963-003-RF

Note: 3 off female socket contacts are supplied with the connector kit.

PCB Connector, Right Angle - 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.

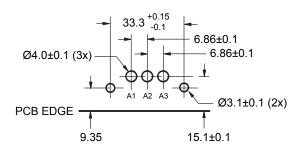
Note: This product is not suitable for directly mounting onto the front panel of a Pickering switching product.

Technical Specification

Connector Type: Gender Securing Method PCB Mounting	3-Pin D-Subminiature Male 4-40 UNC screwlocks, female Right angle PCB mount, solder, 1.6 mm thick PCB
Connector Ratings: Maximum Current Maximum Voltage 3-Pin D-Sub:	20 A 250 V working
Contact Material Contact Resistance	Gold plated copper alloy 1mOhm(IEC60807-2)



An Individual 40 A Male Contact



PCB Footprint of 3-Pin Right Angle Male Connector (Connector Side - Not to Scale)



3-Pin Power D-Type PCB Connector

Product Compatibility





Male Mating Face

Product Order Codes

3-Pin Power D-Type Connector, 20 A, Right Angle PCB Mount, Male 40-963-003-RM

Note: 3 off male contacts are supplied with the connector kit.

C

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.

Cable Assy - Male to Male

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

Technical Specification

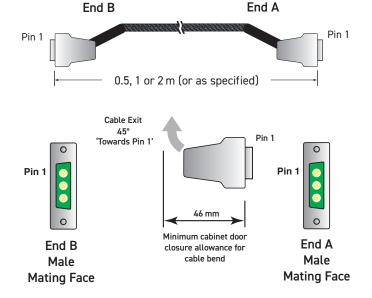
Connector Type (End A): Gender Securing Method	3-Pin D-Subminiature Male 4-40 UNC screwlocks, male
Connector Type (End B): Gender Securing Method	3-Pin D-Subminiature Male 4-40 UNC screwlocks, male
Maximum Current Maximum Voltage Insulation Resistance Connectors:	20 A 350 V DC or AC peak 1000 MOhm
Contact Material Contact Resistance Cable Exit: Overall Size (Approx)	Gold plated copper alloy 1.0 m0hm 45° (Towards Pin 1) H32 x W15 x D46 mm
Cable Type:	Individual wires, screened & sleeved, Tri-rated
Conductor: Material Strands Resistance Insulation	Tinned copper 50/0.26 (2.08 mm² csa, 14AWG) 0.008 Ω/m PVC, O/D 3.6 mm
Outer Sleeve Screened Construction	Polyester Yes (Cable screen connected to backshells)
Additional Braided Sleeve Cable O/D Minimum Bend Radius Door Closure Allowance	Yes 10 mm 25 mm 46 mm (see diagram)

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



3-Pin Power D-Type Cable Assembly

Product Compatibility



Product Order Codes

3-Pin Power D-Type Cable Assy, 20 A, Male to Male,		
0.5 m Long	40-970-403-0.5m-MM	
1.0 m Long	40-970-403-1m-MM	
2.0 m Long	40-970-403-2m-MM	

Note: Other cable lengths can be supplied.

Cable Assy - Male to Unterminated

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

Technical Specification

Connector Type (End A): 3-Pin D-Subminiature Gender Male 4-40 UNC screwlocks, male Securing Method Unterminated End (End B): Free Wire Length 130 mm nominal Individual Wire Labelling To connector pins. A white/black screen pigtail is included Wire End Options Ferrules, Tinned, Cut End Maximum Current Maximum Voltage 350 V DC or AC peak Insulation Resistance 1000 M0hm Connector: Contact Material Gold plated copper alloy Contact Resistance 1.0 m0hm 45° (Towards Pin 1) Cable Exit Overall Size (Approx) H32 x W15 x D46 mm Cable Type: Individual wires, screened & sleeved, Tri-rated Conductor: Material Tinned copper Strands 50/0.26 (2.08 mm² csa, 14AWG) Resistance $0.008 \,\Omega/m$ Insulation PVC, 0/D 3.6 mm Outer Sleeve Polyester Screened Construction Yes (Cable screen connected to backshell) Additional Braided Sleeve Yes Cable O/D 10 mm Minimum Bend Radius 25 mm Door Closure Allowance 46 mm (see diagram)

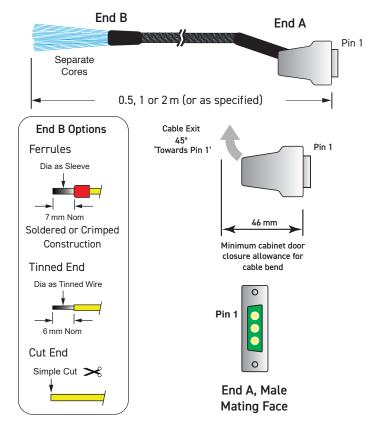
Note: When using this product please ensure appropriate electrical safety.

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



3-Pin Power D-Type Unterminated Cable Assembly

Product Compatibility



Product Order Codes

3-Pin Power D-Type Cable Assy, 20 A, Male to Unterminated,		
Ferrules, 0.5 m Long	A003PM5-F-5A050	
Ferrules, 1.0 m Long	A003PM5-F-5A100	
Ferrules, 2.0 m Long	A003PM5-F-5A200	
Tinned End, 0.5 m Long	A003PM5-T-5A050	
Tinned End, 1.0 m Long	A003PM5-T-5A100	
Tinned End, 2.0 m Long	A003PM5-T-5A200	
Cut End, 0.5 m Long	40-972-403-0.5m-MU	
Cut End, 1.0 m Long	40-972-403-1m-MU	
Cut End, 2.0 m Long	40-972-403-2m-MU	
Note: Other cable lengths can be supplied		

Cable Connector - Male

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

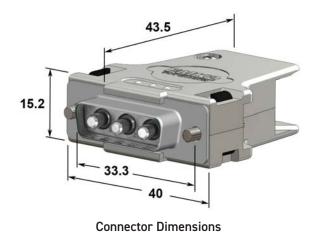
This accessory is designed to allow users to directly terminate with soldered connections to the connector.

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

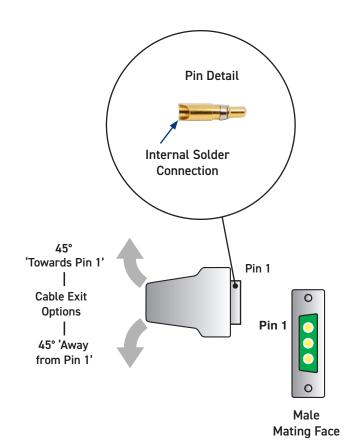
Connector Type:	3-Pin D-Subminiature
Gender	Male
Securing Method:	
Product with Backshell	4-40 UNC screwlocks, male
Product without Backshell	4-40 UNC screwlocks, male
Wire Connection	Solder bucket. A backshell fixing is
	also provided for a cable screen
Connector Ratings:	
Maximum Current	40 A
Maximum Voltage	350 VDC or AC peak
Cable Exit:	45°
Cable Exit Size	15 mm dia
Overall Size (Approx)	H32 x W15 x D46 mm
3-Pin D-Sub:	
Contact Material	Gold plated copper alloy
Contact Resistance	1.0 m0hm
Wire Connection:	
Maximum Wire Size	12AWG
Recommended Insulation	Tri-rated PVC
Additional Cable Clamp	Yes (in backshell)



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



3-Pin Power D-Type Cable Connector with Backshell



Product Order Codes

3-Pin Power D-Type Connector, 40 A, Solder Bucket,
With Backshell, Male
40-960-003-M
Without Backshell, Male
92-960-003-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.

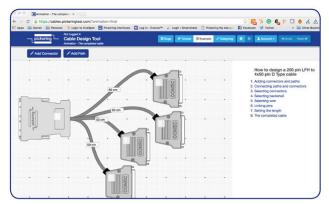
We offer a fast turn round of custom items to keep your ordering and integration time scales to a minimum.



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