96-Pin 1.27 mm Pitch Micro-D Accessories (SCSI) 90-016D

- Mating Connectors
- Connector Hoods
- Connector Blocks
- Cable Assemblies
- 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, connector blocks 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 96-pin 1.27 mm Pitch Micro-D connections to an array of screw terminals. The customer can then interface to other devices using his own wiring.

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 BRIC Products using 96-Pin 1.27 mm Pitch Micro-D Connectors

Issue 11.4 March 2024

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, 96-Pin 1.27 mm Pitch Micro-D, 1A	Female, Metal Spring Latch, Rear Cable Exit	Female, Metal Spring Latch, Rear Cable Exit	-	0.5 m 1 m 2 m	40-970C-096-0.5m-FF 40-970C-096-1m-FF 40-970C-096-2m-FF	5
	Cable Assy, 96-Pin 1.27 mm Pitch Micro-D to Unterminated, 1A	Female, Metal Spring Latch, Rear Cable Exit	NA	Ferrules	0.5 m 1 m 2 m	A096SFR-F-5B050 A096SFR-F-5B100 A096SFR-F-5B200	7
				Tinned End	0.5 m 1 m 2 m	A096SFR-T-5B050 A096SFR-T-5B100 A096SFR-T-5B200	
				Cut End	0.5 m 1 m 2 m	40-972C-096-0.5m-FU 40-972C-096-1m-FU 40-972C-096-2m-FU	
	Cable Assy, 96-Pin 1.27 mm Pitch Micro-D to 100-Pin 1.27 mm Pitch Micro-D Adaptor Lead, 1A	Female, Metal Spring Latch, Rear Cable Exit	Male, 4-40 UNC Screwlocks (Male), Rear Cable Exit	-	0.5 m 1 m 2 m	40-973C-096-0.5m-FM 40-973C-096-1m-FM 40-973C-096-2m-FM	9
Note: Custom lengths by quotation							

Cable Assemblies 40-971-096-*m-FF, 40-971-096-*m-FM, 40-971A-096-*m-FF & 40-971A-096-*m-FM formerly in this data sheet may be available as custom products. Please contact cables@pickeringconnect.com for more information.

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

Female Connector Blocks/Connectors

Male Connector Blocks/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.

Connector Blocks/Connectors

Description		Gender & Cable Exit	Type	Product Order Code and Part Number	Page
	PCB Connector, 96-Pin 1.27 mm Pitch Micro-D, 1A	Female, Push Fit	Right Angle PCB Mount	40-963-096-RF	22
		Female, Push Fit	Straight PCB Mount	40-963-096-SF	23

Appendix

Custom Termination

Cable Assy - Female to Female

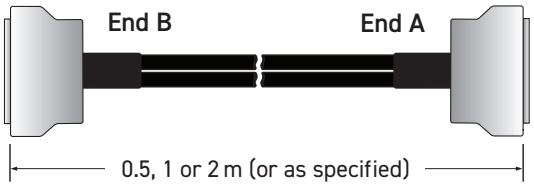
90-016D

- High Specification, Highly Flexible Cable
- Fully Screened Cable Construction with Strain Relief
- Metal Spring Latches

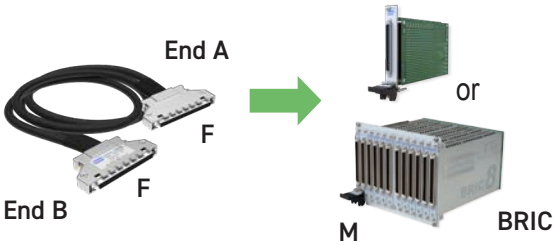
96-Pin Micro-D Cable Assy - Female to Female

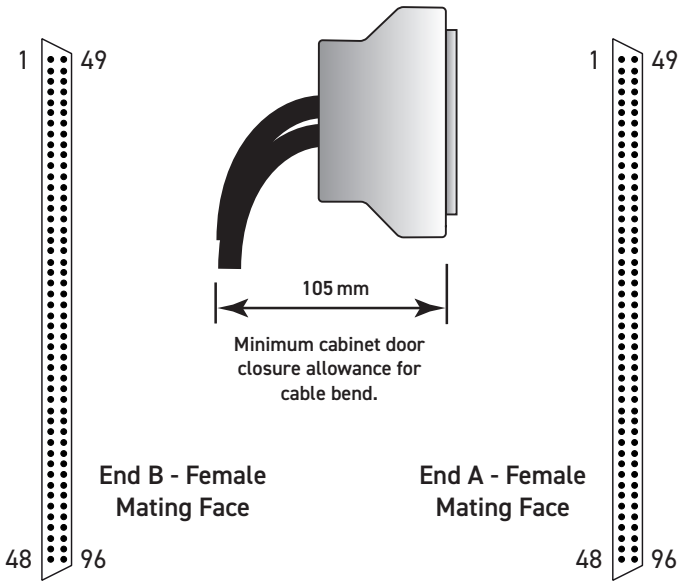
Technical Specification

Connector Type (End A):	96-Pin 1.27 mm Pitch Micro-D
Gender	Female
Securing Method	Metal spring latch
Connector Type (End B):	96-Pin 1.27 mm Pitch Micro-D
Gender	Female
Securing Method	Metal spring latch
Maximum Current	1 A
Maximum Voltage	150 V
Insulation Resistance	Cable $1x10^{10}$ Ohm/3 m
Connectors:	
Contact Material	Gold plated copper alloy
Contact Resistance	<35 mOhm
Cable Exit	Rear
Overall Size (Approx)	H78 x W12 x D40 mm
Cable Type:	2 off identified x 50-Pin twisted pair
Conductor: Material	Tinned stranded copper
Strands	7/36 (28AWG, 0.38 mm O/D)
Insulation	PVC
Outer Sleeve	PVC
Screened Construction	Dual shielded
	Cable screens connected to backshells
Additional Braided Sleeve	No
Cable O/D	8.1 mm
Minimum Bend Radius	25 mm
Door Closure Allowance	105 mm (see diagram)



Product Compatibility





Note: Wiring Schedule information can be found on the following page.

Product Order Codes

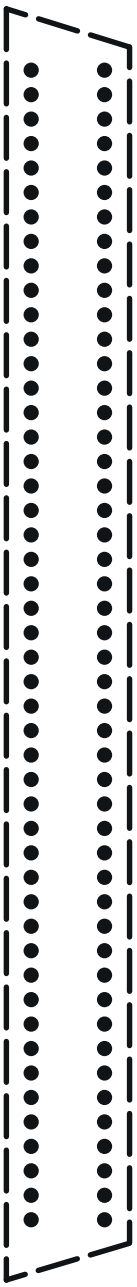
96-Pin 1.27 mm Pitch Micro-D Cable Assy, 1 A,	
Female to Female, 0.5 m Long	40-970C-096-0.5m-FF
Female to Female, 1.0 m Long	40-970C-096-1m-FF
Female to Female, 2.0 m Long	40-970C-096-2m-FF

Note: Please ensure the correct connector gender is ordered for the application. Other cable lengths can be supplied.

96-Pin 1.27 mm Pitch Micro-D Cable Assy - Female to Female (40-970C-096-*m-FF)

End B

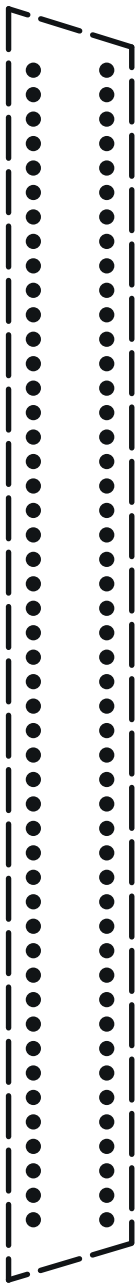
	Wire Color	Pin	Pin	Wire Color	
Cable 1	Black/Red	1	49	Red/Black	Cable 1
	Black/White	2	50	White/Black	
	Black/Green	3	51	Green/Black	
	Black/Blue	4	52	Blue/Black	
	Black/Yellow	5	53	Yellow/Black	
	Black/Brown	6	54	Brown/Black	
	Black/Orange	7	55	Orange/Black	
	Red/White	8	56	White/Red	
	Red/Green	9	57	Green/Red	
	Red/Blue	10	58	Blue/Red	
	Red/Yellow	11	59	Yellow/Red	
	Red/Brown	12	60	Brown/Red	
	Red/Orange	13	61	Orange/Red	
	Green/White	14	62	White/Green	
	Green/Blue	15	63	Blue/Green	
	Green/Yellow	16	64	Yellow/Green	
	Green/Brown	17	65	Brown/Green	
	Green/Orange	18	66	Orange/Green	
	White/Blue	19	67	Blue/White	
	White/Yellow	20	68	Yellow/White	
	White/Brown	21	69	Brown/White	
	White/Orange	22	70	Orange/White	
	Blue/Yellow	23	71	Yellow/Blue	
	Blue/Brown	24	72	Brown/Blue	
	Blue/Orange	25	73	Orange/Blue	
Cable 2	Black/Red	26	74	Red/Black	Cable 2
	Black/White	27	75	White/Black	
	Black/Green	28	76	Green/Black	
	Black/Blue	29	77	Blue/Black	
	Black/Yellow	30	78	Yellow/Black	
	Black/Brown	31	79	Brown/Black	
	Black/Orange	32	80	Orange/Black	
	Red/White	33	81	White/Red	
	Red/Green	34	82	Green/Red	
	Red/Blue	35	83	Blue/Red	
	Red/Yellow	36	84	Yellow/Red	
	Red/Brown	37	85	Brown/Red	
	Red/Orange	38	86	Orange/Red	
	Green/White	39	87	White/Green	
	Green/Blue	40	88	Blue/Green	
	Green/Yellow	41	89	Yellow/Green	
	Green/Brown	42	90	Brown/Green	
	Green/Orange	43	91	Orange/Green	
	White/Blue	44	92	Blue/White	
	White/Yellow	45	93	Yellow/White	
	White/Brown	46	94	Brown/White	
	White/Orange	47	95	Orange/White	
	Blue/Yellow	48	96	Yellow/Blue	



96-Pin 1.27 mm Pitch Female Connector (Mating Face)

End A

	Wire Color	Pin	Pin	Wire Color	
Cable 1	Black/Red	1	49	Red/Black	Cable 1
	Black/White	2	50	White/Black	
	Black/Green	3	51	Green/Black	
	Black/Blue	4	52	Blue/Black	
	Black/Yellow	5	53	Yellow/Black	
	Black/Brown	6	54	Brown/Black	
	Black/Orange	7	55	Orange/Black	
	Red/White	8	56	White/Red	
	Red/Green	9	57	Green/Red	
	Red/Blue	10	58	Blue/Red	
	Red/Yellow	11	59	Yellow/Red	
	Red/Brown	12	60	Brown/Red	
	Red/Orange	13	61	Orange/Red	
	Green/White	14	62	White/Green	
	Green/Blue	15	63	Blue/Green	
	Green/Yellow	16	64	Yellow/Green	
	Green/Brown	17	65	Brown/Green	
	Green/Orange	18	66	Orange/Green	
	White/Blue	19	67	Blue/White	
	White/Yellow	20	68	Yellow/White	
	White/Brown	21	69	Brown/White	
	White/Orange	22	70	Orange/White	
	Blue/Yellow	23	71	Yellow/Blue	
	Blue/Brown	24	72	Brown/Blue	
	Blue/Orange	25	73	Orange/Blue	
Cable 2	Black/Red	26	74	Red/Black	Cable 2
	Black/White	27	75	White/Black	
	Black/Green	28	76	Green/Black	
	Black/Blue	29	77	Blue/Black	
	Black/Yellow	30	78	Yellow/Black	
	Black/Brown	31	79	Brown/Black	
	Black/Orange	32	80	Orange/Black	
	Red/White	33	81	White/Red	
	Red/Green	34	82	Green/Red	
	Red/Blue	35	83	Blue/Red	
	Red/Yellow	36	84	Yellow/Red	
	Red/Brown	37	85	Brown/Red	
	Red/Orange	38	86	Orange/Red	
	Green/White	39	87	White/Green	
	Green/Blue	40	88	Blue/Green	
	Green/Yellow	41	89	Yellow/Green	
	Green/Brown	42	90	Brown/Green	
	Green/Orange	43	91	Orange/Green	
	White/Blue	44	92	Blue/White	
	White/Yellow	45	93	Yellow/White	
	White/Brown	46	94	Brown/White	
	White/Orange	47	95	Orange/White	
	Blue/Yellow	48	96	Yellow/Blue	



96-Pin 1.27 mm Pitch Female Connector (Mating Face)

Note. The cable screens are connected to the connector backshells

Cable Assy - Female to Unterminated

90-016D

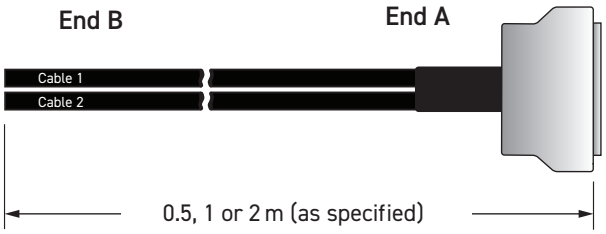
- High Specification, Highly Flexible Cable
- Fully Screened Cable Construction with Strain Relief
- Metal Spring Latches
- Wires Color Coded to Ensure Easy Connection

96-Pin Micro-D Cable Assy - Female to Unterminated

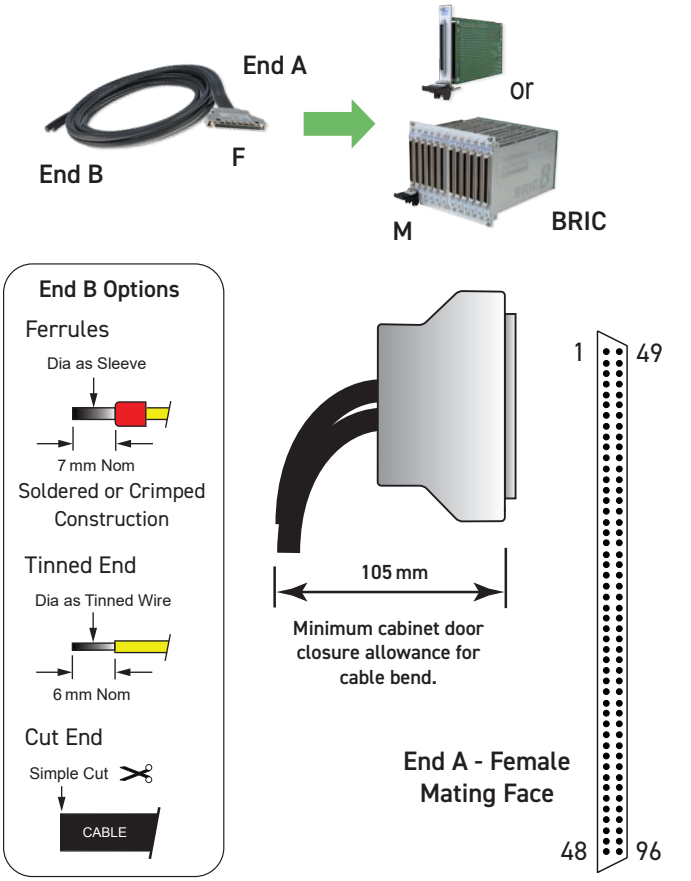
Technical Specification

Connector Type (End A):	96-Pin 1.27 mm Pitch Micro-D
Gender	Female
Securing Method	Metal spring latch
Unterminated End (End B):	
Wire End Options	Ferrules, Tinned, Cut End
Free Wire Length	130 mm nominal (Not Cut End)
Individual Wire Labelling	To connector pins. White/black screen pigtails are included for Ferrule/ Tinned versions
Maximum Current	1 A
Maximum Voltage	150 V
Insulation Resistance	Cable $1x10^{10}$ Ohm/3 m
Connector:	
Contact Material	Gold plated copper alloy
Contact Resistance	<35 mOhm
Cable Exit	Rear
Overall Size (Approx)	H78 x W12 x D40 mm
Cable Type:	2 off identified x 50-Pin twisted pair
Conductor: Material	Tinned stranded copper
Strands	7/36 (28AWG, 0.38 mm O/D)
Insulation	PVC
Outer Sleeve	PVC
Screened Construction	Dual shielded Cable screens connected to backshells
Additional Braided Sleeve	No
Cable O/D	8.1 mm
Minimum Bend Radius	25 mm
Door Closure Allowance	105 mm (see diagram)

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



Product Compatibility



Note: Wiring Schedule information can be found on the following page.

Product Order Codes

96-Pin 1.27 mm Pitch Micro-D Cable Assy, 1A, Metal Latch,	
Fem to Unterm, Cut End, 0.5 m Lg	40-972C-096-0.5m-FU
Fem to Unterm, Cut End, 1.0 m Lg	40-972C-096-1m-FU
Fem to Unterm, Cut End, 2.0 m Lg	40-972C-096-2m-FU

Part numbers for other versions:

A096SFR-*-5B***

End B:
F = Ferrules
T = Tinned End

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

Note: Other cable lengths can be supplied.

96-Pin 1.27 mm Pitch Micro-D Cable Assy - Female to Unterminated (40-972C-096-*m-FU & A096SFR-*-5B***)

End A

	Wire Color	Pin	Pin	Wire Color	
Cable 1	Black/Red	1	49	Red/Black	Cable 1
	Black/White	2	50	White/Black	
	Black/Green	3	51	Green/Black	
	Black/Blue	4	52	Blue/Black	
	Black/Yellow	5	53	Yellow/Black	
	Black/Brown	6	54	Brown/Black	
	Black/Orange	7	55	Orange/Black	
	Red/White	8	56	White/Red	
	Red/Green	9	57	Green/Red	
	Red/Blue	10	58	Blue/Red	
	Red/Yellow	11	59	Yellow/Red	
	Red/Brown	12	60	Brown/Red	
	Red/Orange	13	61	Orange/Red	
	Green/White	14	62	White/Green	
	Green/Blue	15	63	Blue/Green	
	Green/Yellow	16	64	Yellow/Green	
	Green/Brown	17	65	Brown/Green	
	Green/Orange	18	66	Orange/Green	
	White/Blue	19	67	Blue/White	
	White/Yellow	20	68	Yellow/White	
	White/Brown	21	69	Brown/White	
	White/Orange	22	70	Orange/White	
	Blue/Yellow	23	71	Yellow/Blue	
	Blue/Brown	24	72	Brown/Blue	
	Blue/Orange	25	73	Orange/Blue	
Cable 2	Black/Red	26	74	Red/Black	Cable 2
	Black/White	27	75	White/Black	
	Black/Green	28	76	Green/Black	
	Black/Blue	29	77	Blue/Black	
	Black/Yellow	30	78	Yellow/Black	
	Black/Brown	31	79	Brown/Black	
	Black/Orange	32	80	Orange/Black	
	Red/White	33	81	White/Red	
	Red/Green	34	82	Green/Red	
	Red/Blue	35	83	Blue/Red	
	Red/Yellow	36	84	Yellow/Red	
	Red/Brown	37	85	Brown/Red	
	Red/Orange	38	86	Orange/Red	
	Green/White	39	87	White/Green	
	Green/Blue	40	88	Blue/Green	
	Green/Yellow	41	89	Yellow/Green	
	Green/Brown	42	90	Brown/Green	
	Green/Orange	43	91	Orange/Green	
	White/Blue	44	92	Blue/White	
	White/Yellow	45	93	Yellow/White	
	White/Brown	46	94	Brown/White	
	White/Orange	47	95	Orange/White	
	Blue/Yellow	48	96	Yellow/Blue	

96-Pin 1.27 mm Pitch Female Connector (Mating Face)

Note 1. The cable screens are connected to the connector backshells at End A
2. White/black insulated screen pigtails are included at the Unterminated End for Ferrule/Tinned versions
3. The Blue/Brown, Blue/Orange, Brown/Blue & Orange/Blue wires from Cable 2 are not connected to the 96-Pin connector. Please do not use them at the Unterminated end.

Adaptor Lead - Female to Male

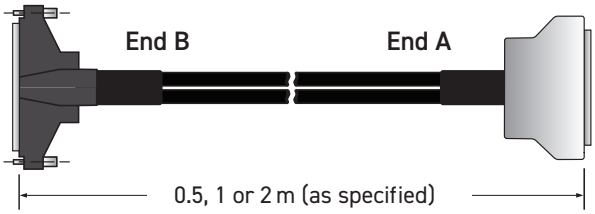
90-016D

- 96-Pin to 100-Pin Adaptor Lead
- High Specification, Highly Flexible Cable
- Fully Screened Cable Construction with Strain Relief
- Metal Spring Latches

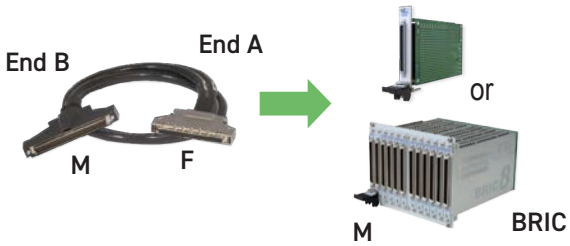
96-Pin Micro-D to 100-Pin Micro-D Adaptor Lead

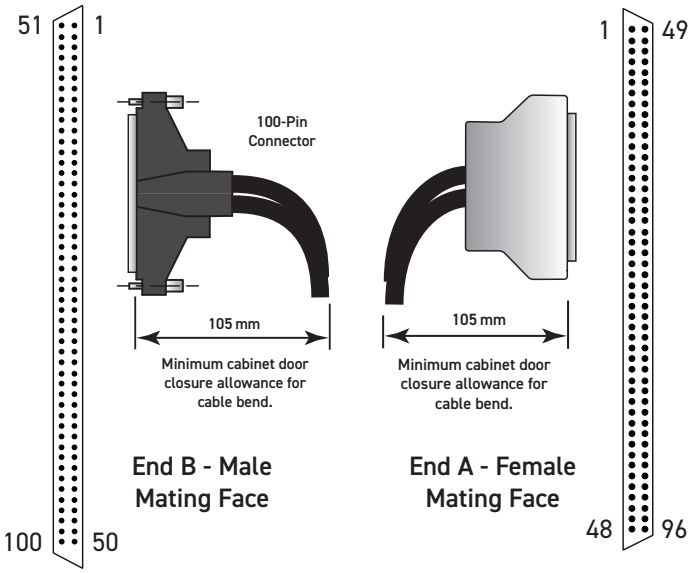
Technical Specification

Connector Type (End A):	96-Pin 1.27 mm Pitch Micro-D
Gender	Female
Securing Method	Metal spring latch
Overall Size (Approx)	H78 x W12 x D40 mm
Connector Type (End B):	100-Pin 1.27 mm Pitch Micro-D
Gender	Male
Securing Method	4-40 UNC Screwlocks, male
Overall Size (Approx)	H85 x W16.5 x D53 mm
Maximum Current	1 A
Maximum Voltage	150 V
Insulation Resistance	Cable $1x10^{10}$ Ohm/3 m
Connectors:	
Contact Material	Gold plated copper alloy
Contact Resistance	<35 mOhm
Cable Exit	Rear
Cable Type:	2 off identified x 50-Pin twisted pair
Conductor: Material	Tinned stranded copper
Strands	7/36 (28AWG, 0.38 mm O/D)
Insulation	PVC
Outer Sleeve	PVC
Screened Construction	Dual shielded
	Cable screens connected to backshells
Additional Braided Sleeve	No
Cable O/D	8.1 mm
Minimum Bend Radius	25 mm
Door Closure Allowance	105 mm (see diagram)



Product Compatibility





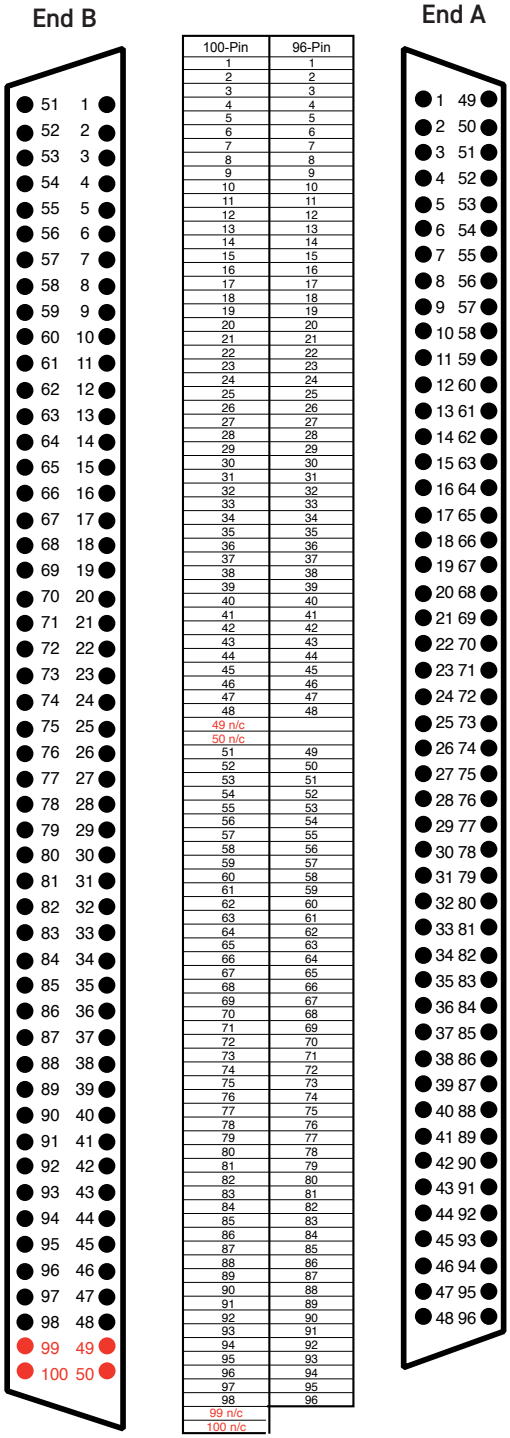
Note: Wiring Schedule information can be found on the following page.

Product Order Codes

96-Pin 1.27 mm Pitch Micro-D to 100-Pin 1.27 mm Pitch Micro-D Adaptor Lead, 1A, Female to Male,	
0.5 m Long	40-973C-096-0.5m-FM
1.0 m Long	40-973C-096-1m-FM
2.0 m Long	40-973C-096-2m-FM

Note: Please ensure the correct connector gender is ordered for the application. Other cable lengths can be supplied.

96-Pin 1.27 mm Pitch Micro-D (Female) to 100-Pin 1.27 mm Pitch Micro-D (Male) Adaptor Lead



100-Pin	96-Pin
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
13	13
14	14
15	15
16	16
17	17
18	18
19	19
20	20
21	21
22	22
23	23
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37	37
38	38
39	39
40	40
41	41
42	42
43	43
44	44
45	45
46	46
47	47
48	48
49 n/c	
50 n/c	
51	49
52	50
53	51
54	52
55	53
56	54
57	55
58	56
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82	80
83	81
84	82
85	83
86	84
87	85
88	86
89	87
90	88
91	89
92	90
93	91
94	92
95	93
96	94
97	95
98	96
99 n/c	
100 n/c	

100-Pin Male and 96-Pin Female Connectors Showing Pin Linkage (Mating Faces Depicted)

End A

	Wire Color	Pin	Pin	Wire Color	
Cable 1	Black/Red	1	49	Red/Black	Cable 1
	Black/White	2	50	White/Black	
	Black/Green	3	51	Green/Black	
	Black/Blue	4	52	Blue/Black	
	Black/Yellow	5	53	Yellow/Black	
	Black/Brown	6	54	Brown/Black	
	Black/Orange	7	55	Orange/Black	
	Red/White	8	56	White/Red	
	Red/Green	9	57	Green/Red	
	Red/Blue	10	58	Blue/Red	
	Red/Yellow	11	59	Yellow/Red	
	Red/Brown	12	60	Brown/Red	
	Red/Orange	13	61	Orange/Red	
	Green/White	14	62	White/Green	
	Green/Blue	15	63	Blue/Green	
	Green/Yellow	16	64	Yellow/Green	
	Green/Brown	17	65	Brown/Green	
	Green/Orange	18	66	Orange/Green	
	White/Blue	19	67	Blue/White	
	White/Yellow	20	68	Yellow/White	
	White/Brown	21	69	Brown/White	
	White/Orange	22	70	Orange/White	
	Blue/Yellow	23	71	Yellow/Blue	
	Blue/Brown	24	72	Brown/Blue	
	Blue/Orange	25	73	Orange/Blue	
Cable 2	Black/Red	26	74	Red/Black	Cable 2
	Black/White	27	75	White/Black	
	Black/Green	28	76	Green/Black	
	Black/Blue	29	77	Blue/Black	
	Black/Yellow	30	78	Yellow/Black	
	Black/Brown	31	79	Brown/Black	
	Black/Orange	32	80	Orange/Black	
	Red/White	33	81	White/Red	
	Red/Green	34	82	Green/Red	
	Red/Blue	35	83	Blue/Red	
	Red/Yellow	36	84	Yellow/Red	
	Red/Brown	37	85	Brown/Red	
	Red/Orange	38	86	Orange/Red	
	Green/White	39	87	White/Green	
	Green/Blue	40	88	Blue/Green	
	Green/Yellow	41	89	Yellow/Green	
	Green/Brown	42	90	Brown/Green	
	Green/Orange	43	91	Orange/Green	
	White/Blue	44	92	Blue/White	
	White/Yellow	45	93	Yellow/White	
	White/Brown	46	94	Brown/White	
	White/Orange	47	95	Orange/White	
	Blue/Yellow	48	96	Yellow/Blue	

96-Pin 1.27 mm Pitch Female Connector (Mating Face)

Note 1. Pins 49, 50, 99, 100 are not connected on the 100-Pin connector
2. The cable screens are connected to the 96-Pin and 100-Pin connectors

Connector Block - Female

90-016D

- Connector & PCB Only or Connector, PCB & Backshell
- Cable Clamp in Backshell
- Easy to Use Rising Cage Screw Terminals

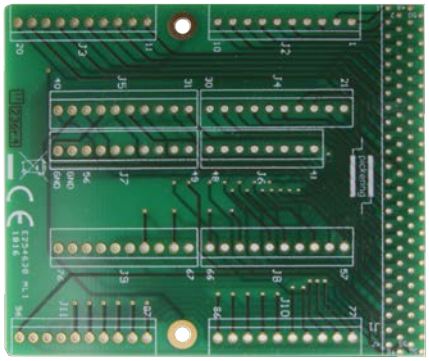
Connector blocks provide a convenient method of termination without the use of custom cabling. However, a higher resistance path, lower capacity ratings and lower voltage ratings are typical.

The screw terminals use a rising cage clamp mechanism to minimize risk of copper strand breakage. The metal shell includes an internal insulation barrier under the carrier board.

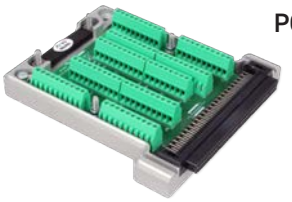
This connector block (with backshell) uses male screwlocks and will not mate to Pickering cables. When this product is used without a backshell users should make their own cable strain relief arrangements and ensure appropriate electrical safety precautions are observed.

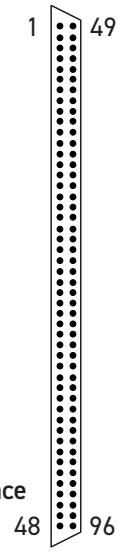
Technical Specification

Connector Type:	96-Pin 1.27 mm pitch Micro-D
Gender	Female
Securing Method:	
Product with Backshell	M2.5 screwlocks, male
Product without Backshell	Push fit
Wire Connection	Rising cage screw terminals. Screen (GND) connections are provided
Connector Block Ratings:	
Maximum Current	1 A
Maximum Voltage	200 V DC
Cable Exit	Rear - 10 x 30 mm
Overall Size (Approx)	H86 x W18 x D95 mm
96-Pin Micro-D:	
Contact Material	Gold plated copper alloy
Contact Resistance	<35 mOhm
Screw Terminals:	
Maximum Wire Size	20AWG
Recommended Insulation	PTFE
Additional Cable Clamp	Yes (in backshell)

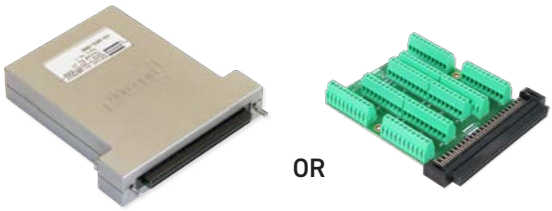


PCB Legend



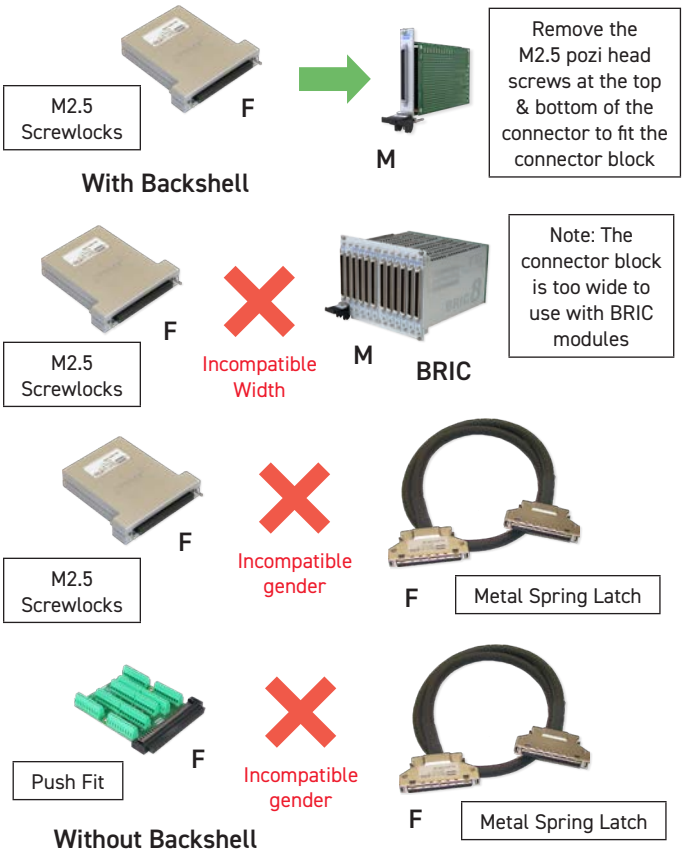


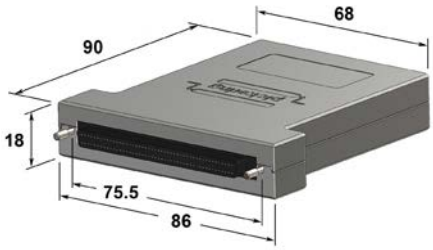
Female Mating Face



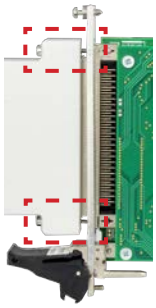
96-Pin Micro-D Connector Block

Product Compatibility





Connector Block Dimensions



Securing the Connector Block

Product Order Codes

96-Pin 1.27 mm Pitch Micro-D Shielded Connector Block, 1A,	
With Backshell, Female	40-965-096-F
Without Backshell, Female	92-965-096-F

Please consider Connector Block 44-965-096 for BRIC requirements.

BRIC Connector Block - Female

90-016D

- Connector, PCB and Backshell
- For Use with BRIC Modules
- Easy to Use Rising Cage Screw Terminals

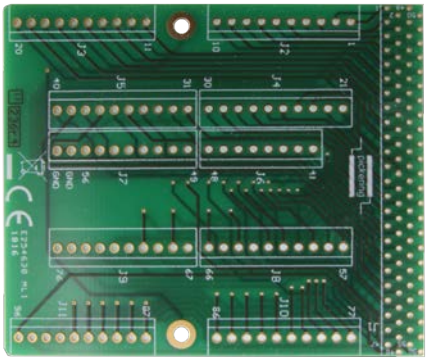
Connector blocks provide a convenient method of termination without the use of custom cabling. However, a higher resistance path, lower capacity ratings and lower voltage ratings are typical.

The screw terminals use a rising cage clamp mechanism to minimize risk of copper strand breakage. The metal shell includes an internal insulation barrier under the carrier board.

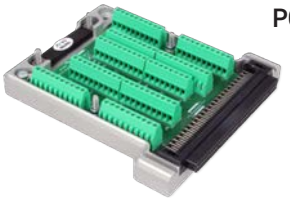
This connector block uses male screwlocks and will not mate to Pickering cables. If this product is used without a backshell users should make their own cable strain relief arrangements and ensure appropriate electrical safety precautions are observed.

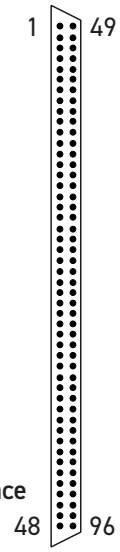
Technical Specification

Connector Type:	96-Pin 1.27 mm pitch Micro-D
Gender	Female
Securing Method:	
Product with Backshell	M2.5 screwlocks, male
Wire Connection	Rising cage screw terminals. Screen (GND) connections are provided
Connector Block Ratings:	
Maximum Current	1 A
Maximum Voltage	200 V DC
Cable Exit	Rear - 9.5 x 30 mm
Overall Size (Approx)	H86 x W12.3 x D95 mm
96-Pin Micro-D:	
Contact Material	Gold plated copper alloy
Contact Resistance	<35 mOhm
Screw Terminals:	
Maximum Wire Size	20AWG
Recommended Insulation	PTFE
Additional Cable Clamp	Yes (in backshell)



PCB Legend

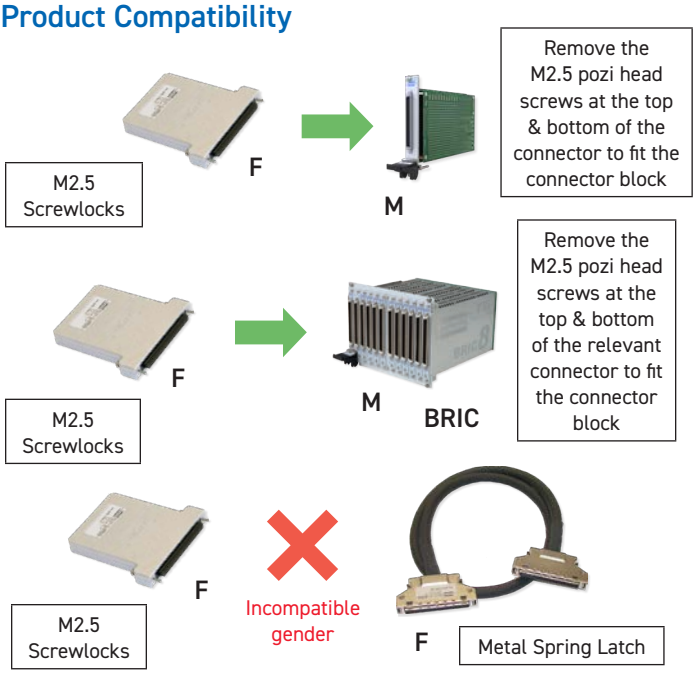


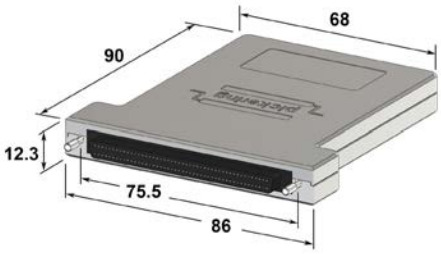


Female Mating Face

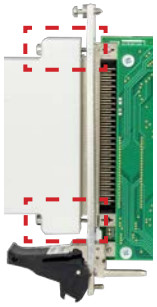
BRIC 96-Pin Micro-D Connector Block

Product Compatibility





Connector Block Dimensions



Securing the Connector Block

Product Order Codes

96-Pin 1.27 mm Pitch Micro-D Shielded Connector Block for BRIC Modules, 1A, With Backshell, Female	44-965-096-F

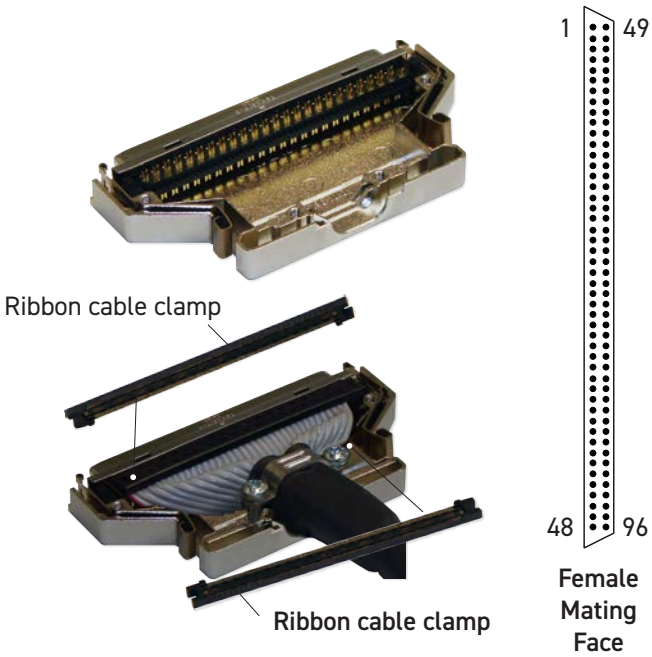
- Connector and Backshell
- Metal Spring Latches
- IDC for Ribbon Cable

This accessory is designed to allow users to directly terminate a ribbon cable to the connector.

It is difficult to terminate cable to the 96-Pin 1.27 mm Pitch Micro-D because of the high density and fine pitch. Pickering Interfaces recommend the use of purchased cable assemblies for applications where most or all of the contacts are in use.

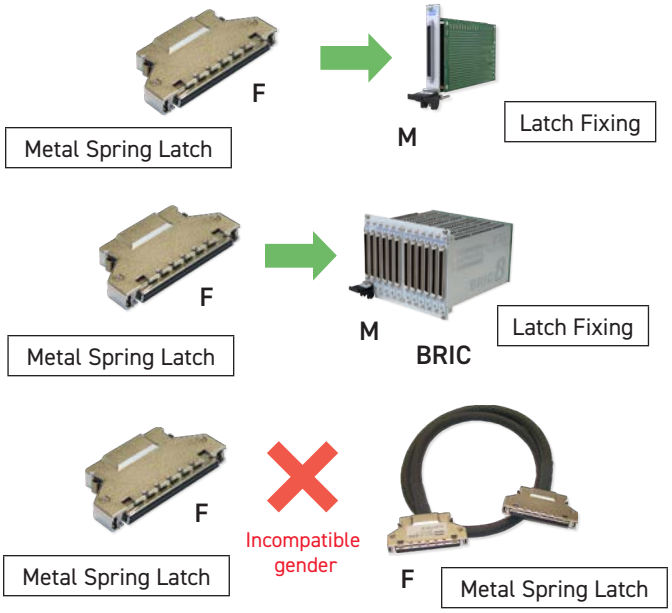
Technical Specification

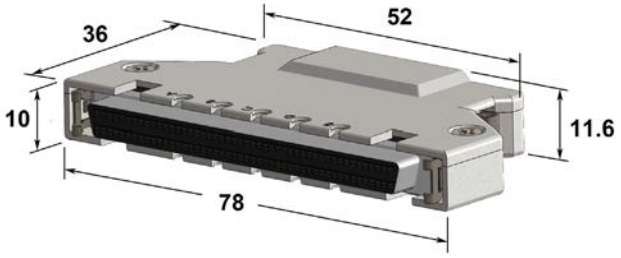
Connector Type:	96-Pin 1.27 mm pitch Micro-D
Gender	Female
Securing Method	Metal spring latch
Wire Connection	IDC for ribbon cable
Connector Ratings:	
Maximum Current	1 A
Maximum Voltage	250 V AC
Cable Exit	Rear - 13 x 7.5 mm
Overall Size (Approx)	H78 x W12 x D40 mm
96-Pin Micro-D:	
Contact Material	Gold plated copper alloy
Contact Resistance	<35 mOhm
IDC:	
Maximum Wire Size	28AWG
Recommended Insulation	Ribbon cable, multicore round & flat, 0.635 mm pitch
Additional Cable Clamp	Yes (in backshell). This clamp can also be used as a connection for the cable screen



96-Pin Micro-D Connector

Product Compatibility





Connector Dimensions

Product Order Codes

96-Pin 1.27 mm Pitch Micro-D Connector, 1A, IDC for Ribbon Cable, With Backshell, Female	40-961-096-F

Note: Please ensure the correct connector gender is ordered for the application.

Cable Connector - Female

90-016D

- Connector and Backshell
- Metal Spring Latches
- IDC for Discrete Wires

This accessory is designed to allow users to directly terminate with IDC connections to the 96-Pin 1.27 mm Pitch Micro-D connector.

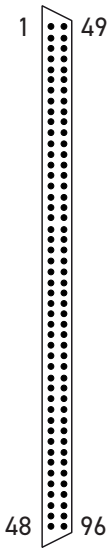
It is difficult to terminate cable to the 96-Pin 1.27 mm Pitch Micro-D because of the high density and fine pitch. Pickering Interfaces recommend the use of purchased cable assemblies for applications where most or all of the contacts are in use.

Technical Specification

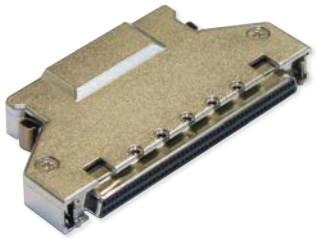
Connector Type:	96-Pin 1.27 mm pitch Micro-D
Gender	Female
Securing Method	Metal spring latch
Wire Connection	IDC for discrete wire
Connector Ratings:	
Maximum Current	1 A
Maximum Voltage	250 V AC
Cable Exit	Rear - 13 x 7.5 mm
Overall Size (Approx)	H78 x W12 x D40 mm
96-Pin Micro-D:	
Contact Material	Gold plated copper alloy
Contact Resistance	<35 mOhm
IDC:	
Maximum Wire Size	28AWG
Recommended Insulation	Multicore or single core
Additional Cable Clamp	Yes (in backshell). This clamp can also be used as a connection for the cable screen

Cable Management Bars

Internal View

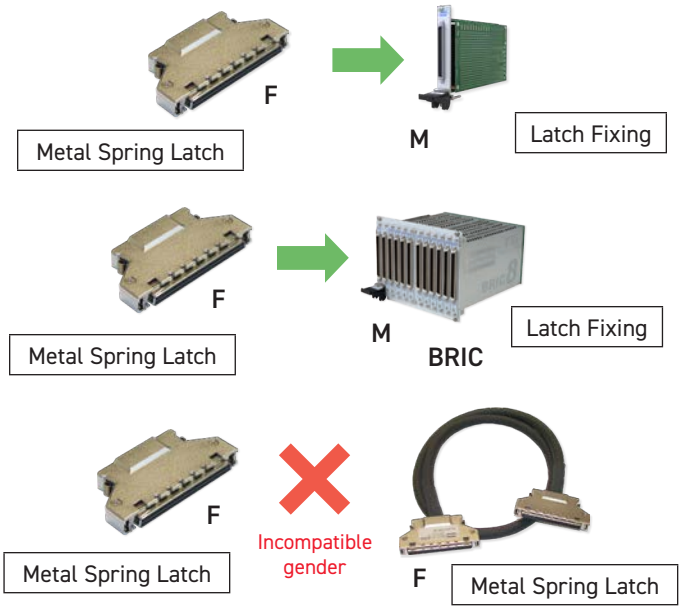


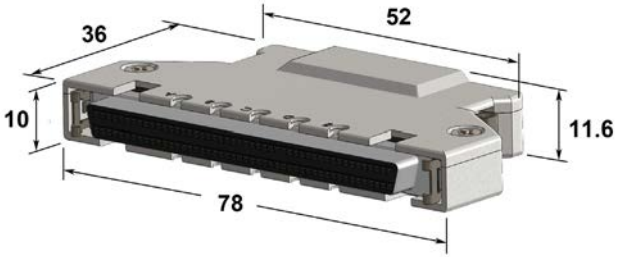
Female
Mating Face



96-Pin Micro-D Connector

Product Compatibility





Connector Dimensions

Product Order Codes

96-Pin 1.27 mm Pitch Micro-D Connector, 1 A, IDC for Discrete Wire Cable (Multicore or Individual Single Cores, not Ribbon), With Backshell, Female	40-962-096-F

Note: Please ensure the correct connector gender is ordered for the application.

Connector Block - Male

90-016D

- Connector & PCB Only or Connector, PCB & Backshell
- Cable Clamp in Backshell
- Easy to Use Rising Cage Screw Terminals

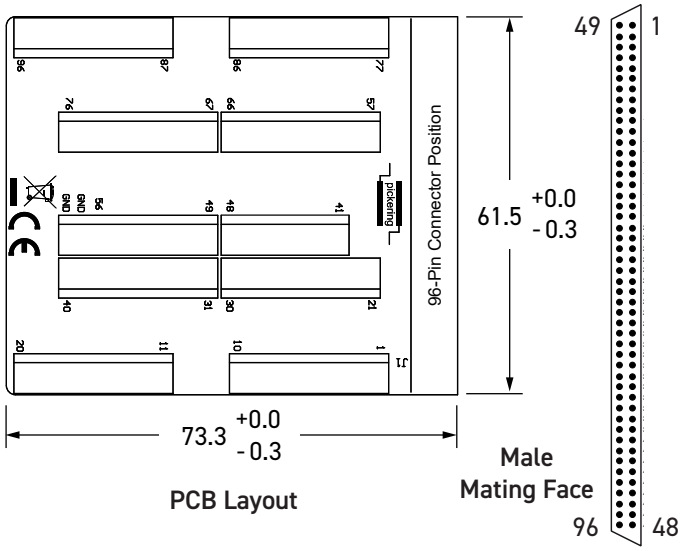
Connector blocks provide a convenient method of termination without the use of custom cabling. However, a higher resistance path, lower capacity ratings and lower voltage ratings are typical.

The screw terminals use a rising cage clamp mechanism to minimize risk of copper strand breakage. The metal shell includes an internal insulation barrier under the carrier board.

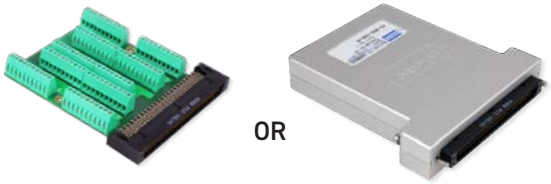
When this product is used without a backshell users should make their own cable strain relief arrangements and ensure appropriate electrical safety precautions are observed.

Technical Specification

Connector Type:	96-Pin 1.27 mm pitch Micro-D
Gender	Male
Securing Method:	
Product with Backshell	M2.5 screwlocks, male
Product without Backshell	Push fit
Wire Connection	Rising cage screw terminals Screen (GND) connections are provided
Connector Block Ratings:	
Maximum Current	1 A
Maximum Voltage	200 V DC
Cable Exit	Rear - 10 x 30 mm
Overall Size (Approx)	H86 x W18 x D95 mm
96-Pin Micro-D:	
Contact Material	Gold plated copper alloy
Contact Resistance	<35 mOhm
Screw Terminals:	
Maximum Wire Size	20AWG
Recommended Insulation	PTFE type
Additional Cable Clamp	Yes (in backshell)

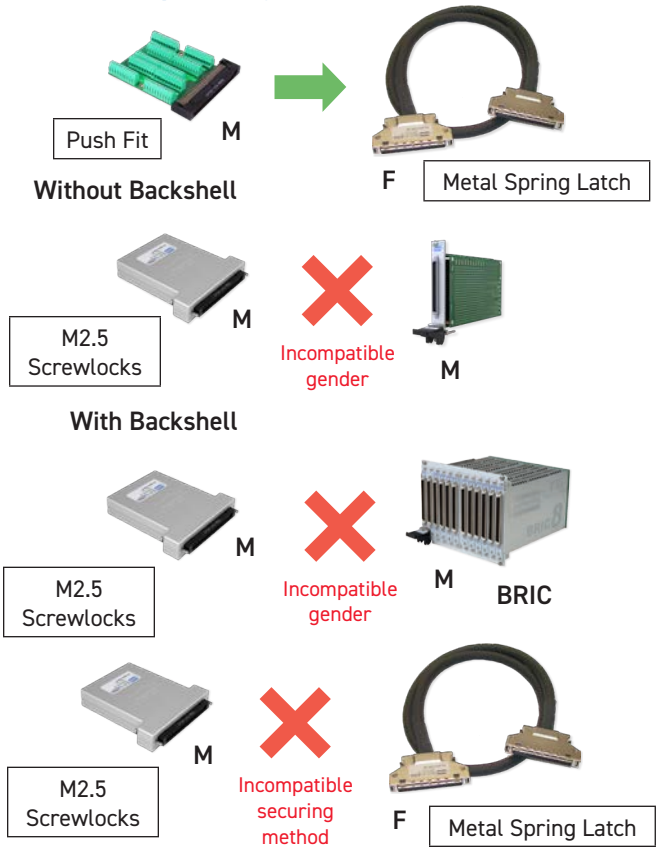


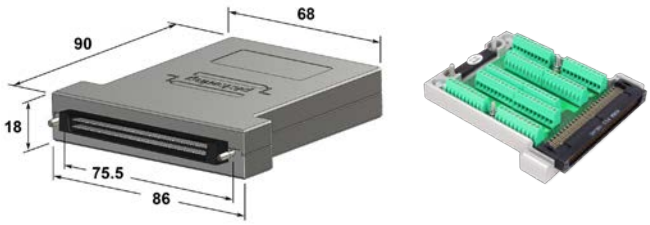
PCB Layout



96-Pin Micro-D Connector Block

Product Compatibility





Connector Block Dimensions

Product Order Codes

96-Pin 1.27 mm Pitch Micro-D Shielded Connector Block, 1A,	
With Backshell, Male	40-965-096-M
Without Backshell, Male	92-965-096-M

Please consider Connector Block 44-965-096 for BRIC requirements.

Connector Block - Male

90-016D

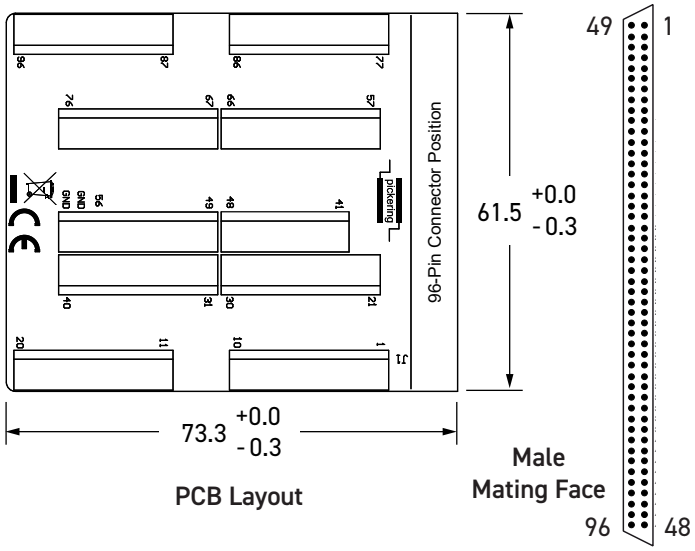
- For Connection at Cable End
- DIN Rail Mounted
- Easy to Use Rising Cage Screw Terminals

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.

Suitable for mounting on DIN Rails this connector block provides a simple method of connecting to high density 96-Pin 1.27 mm Pitch Micro-D cable connectors. The metal backshell includes an internal insulation barrier under the carrier board. Latch clips are supplied in order to provide strain relief between the connector and the cable.

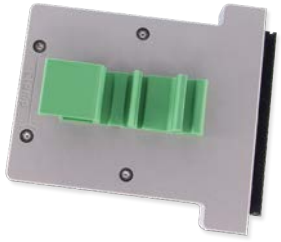
Technical Specification

Connector Type:	96-Pin 1.27 mm pitch Micro-D
Gender	Male
Securing Method	Latch clip
Wire Connection	Rising cage screw terminals Screen (GND) connections are provided
Connector Block Ratings:	
Maximum Current	1 A
Maximum Voltage	200 V DC
Cable Exit	Rear - 10 x 30 mm
Overall Size (Approx)	H86 x W18 x D95 mm
96-Pin Micro-D:	
Contact Material	Gold plated copper alloy
Contact Resistance	<35 mOhm
Screw Terminals:	
Maximum Wire Size	20AWG
Recommended Insulation	PTFE type
Additional Cable Clamp	Yes (in backshell)



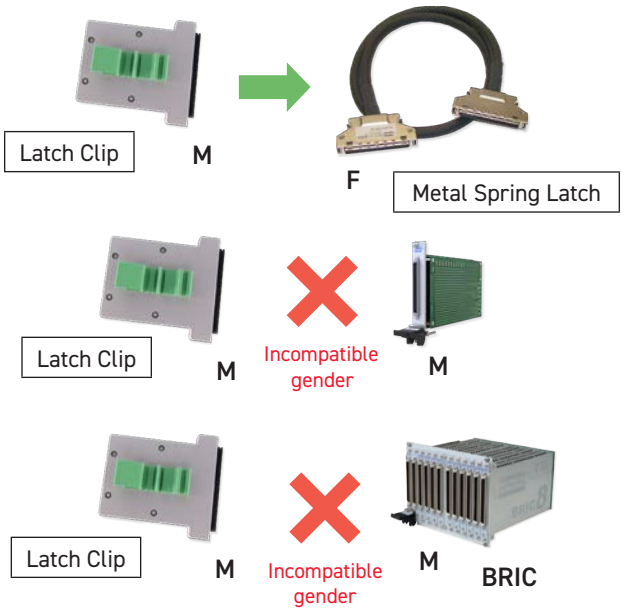
PCB Layout

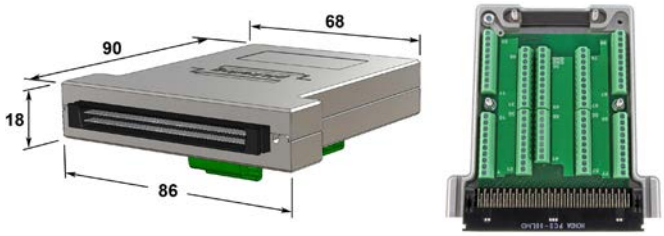
Male Mating Face



96-Pin Micro-D Connector Block

Product Compatibility





Connector Block Dimensions

Product Order Codes

96-Pin 1.27 mm Pitch Micro-D Shielded Connector Block with DIN Rail Mount, 1A, With Backshell, Male	40-966-096-M

Note: Please ensure the correct connector gender is ordered for the application.

PCB Connector, Right Angle - Male

90-016D

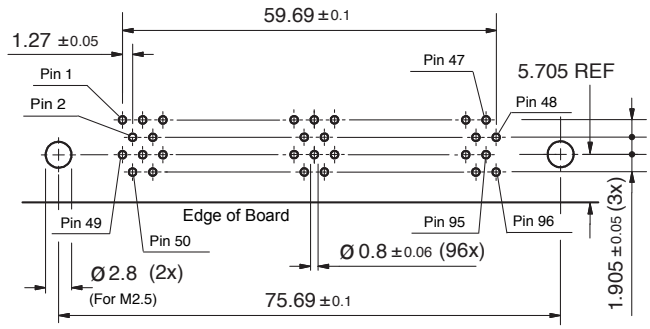
- Right Angle PCB Mount
- Latch Clip and M2.5 Screwlocks
- Ideal for User Created Termination Solutions

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.

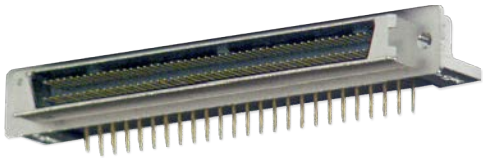
Technical Specification

Connector Type:	96-Pin 1.27 mm pitch Micro-D
Gender	Male
Securing Method	Latch clip and M2.5 screwlocks, female
PCB Mounting	Right angle PCB mount, solder
Connector Ratings:	
Maximum Current	1 A each pin
Maximum Voltage	250 V AC
96-Pin Micro-D:	
Contact Material	Gold plated copper alloy
Contact Resistance	<35 Ohm
PCB Legs:	
Leg Length	3.4 mm nom (See diagram)



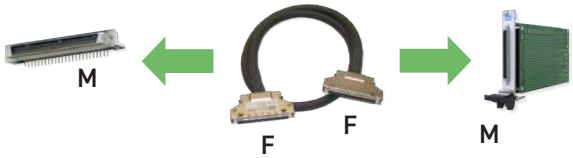
PCB Footprint of 96-Pin Right Angle Male Connector (Connector Side - Not to Scale)

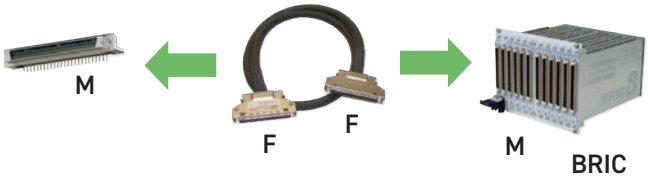
Note: Connector dimensional drawings can be found on the following page.

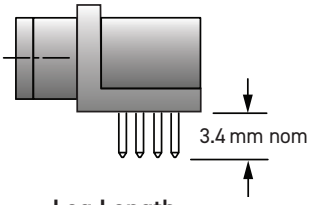


96-Pin Micro-D PCB Connector

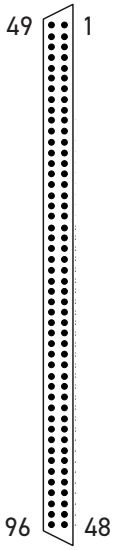
Product Compatibility







Leg Length



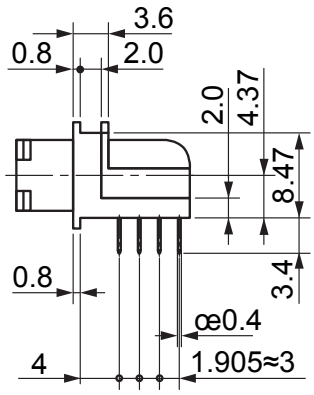
Male Mating Face

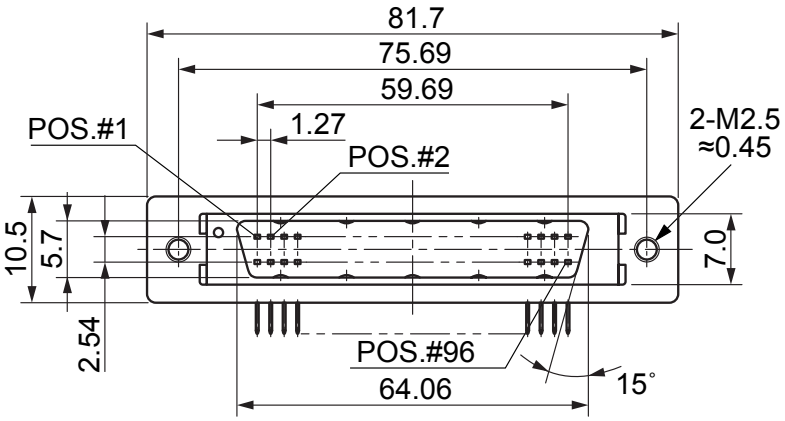
Product Order Codes

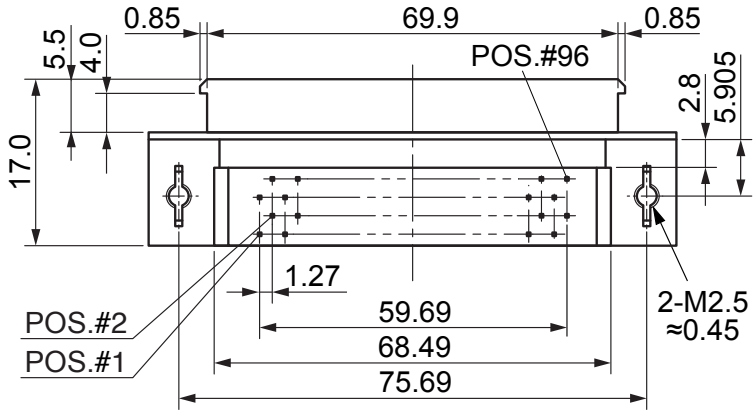
96-Pin 1.27 mm Pitch Micro-D Connector, 1A, Right Angle PCB Mount, Male	40-963-096-RM

Note: Please ensure the correct connector gender is ordered for the application.

Connector Dimensions







PCB Connector, Straight - Male

90-016D

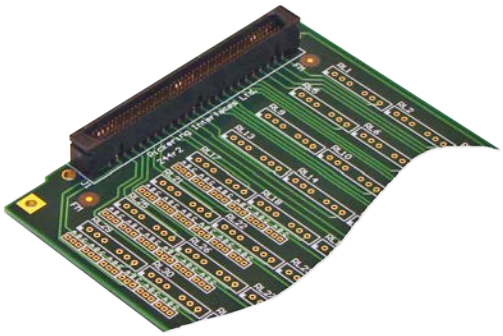
- Straight PCB Mount
- Ideal for User Created Termination Solutions

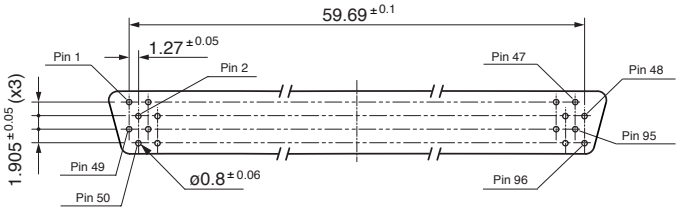
This accessory allows a user to create their own PCB based termination solution mounted on the end of a cable. Suitable cables for this product are contained elsewhere in this data sheet. Interfacing PCBs should be designed with suitable clearances for the voltage the application requires.

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

Technical Specification

Connector Type:	96-Pin 1.27 mm pitch Micro-D
Gender	Male
Securing Method	Latch clip
PCB Mounting	Straight PCB mount, solder
Connector Ratings:	
Maximum Current	1 A each pin
Maximum Voltage	250 V AC
96-Pin Micro-D:	
Contact Material	Gold plated copper alloy
Contact Resistance	<35 mOhm
PCB Legs:	
Leg Length	3.4 mm nom (See diagram)



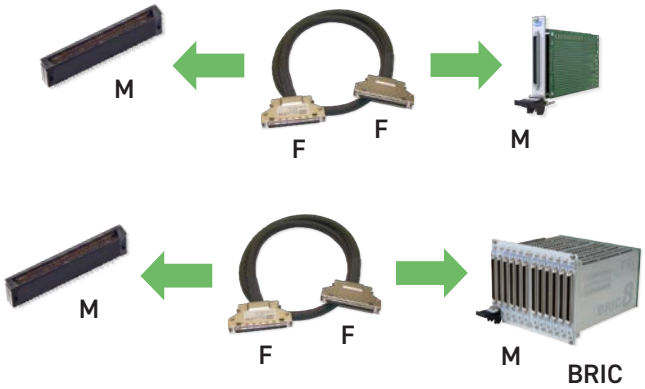


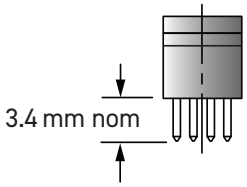
PCB Footprint of 96-Pin Straight Male Connector
(Connector Side - Not to Scale)

Note: Connector dimensional drawings can be found on the following page.

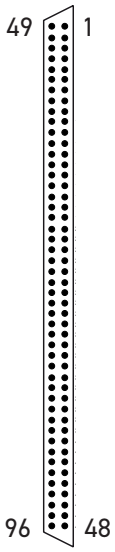
96-Pin Micro-D PCB Connector

Product Compatibility





Leg Length



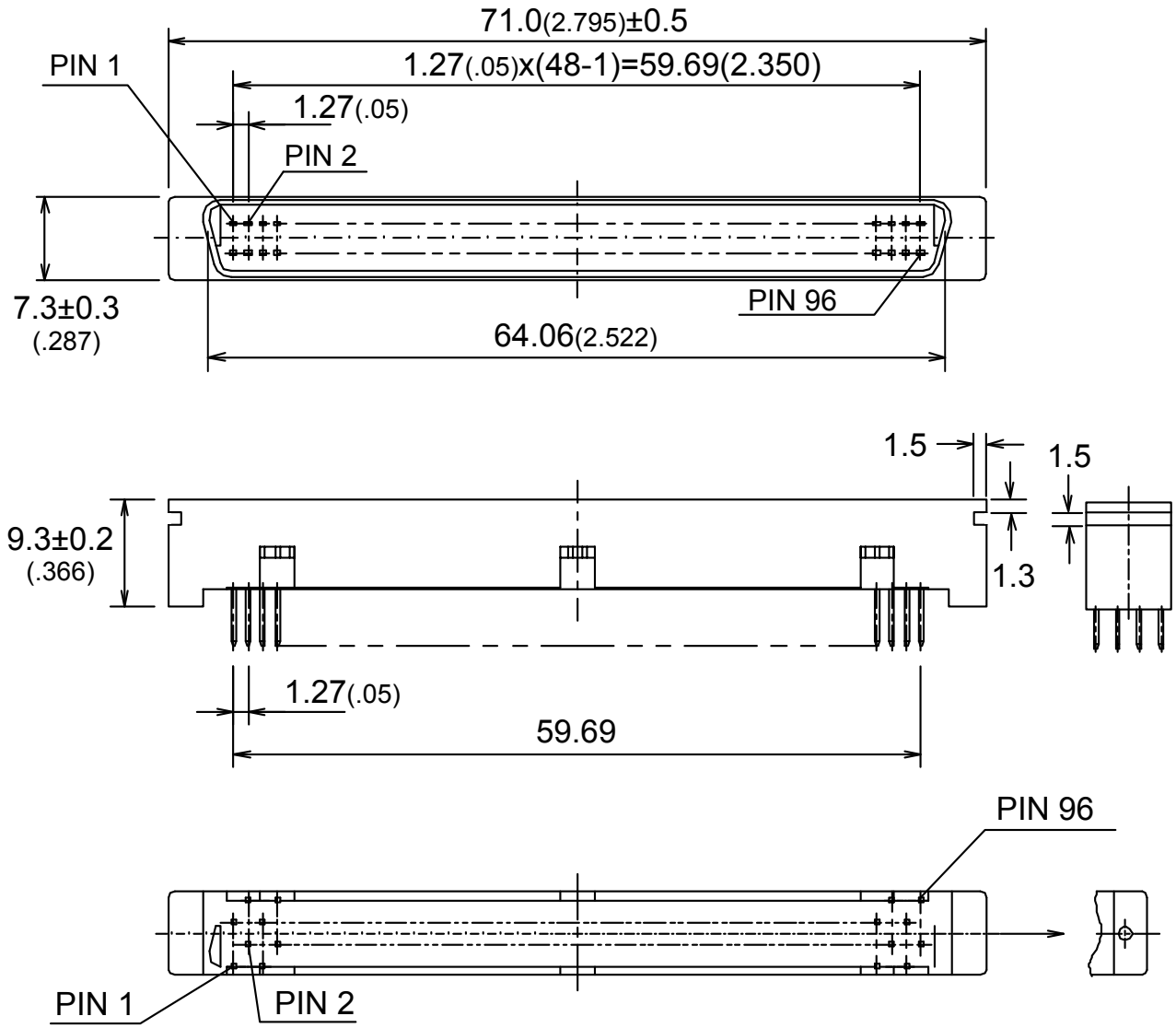
Male
Mating Face

Product Order Codes

96-Pin 1.27 mm Pitch Micro-D Connector, 1A, Straight PCB Mount, Male	40-963-096-SM

Note: Please ensure the correct connector gender is ordered for the application.

Connector Dimensions



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.

PCB Connector, Right Angle - Female

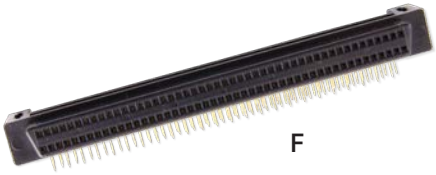
90-016D

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

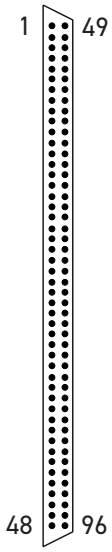
Interfacing PCBs should be designed with suitable clearances for the voltage the application requires.

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

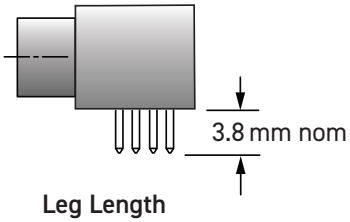
This Connector is Not Suitable for Connection to a Pickering Switching Product



F



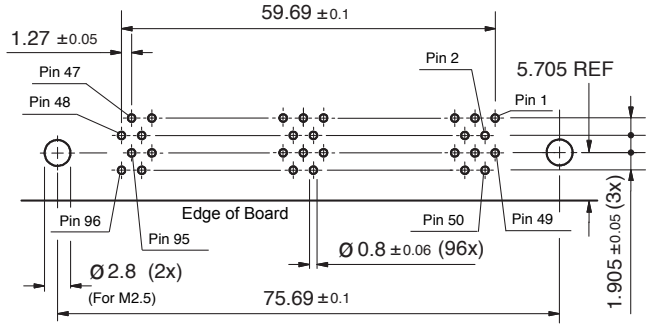
Female Mating Face



Leg Length

Technical Specification

Connector Type:	96-Pin 1.27 mm pitch Micro-D
Gender	Female
Securing Method	Push fit
PCB Mounting	Right angle PCB mount, solder
Connector Ratings:	
Maximum Current	1 A each pin
Maximum Voltage	250 V AC
96-Pin Micro-D:	
Contact Material	Gold plated copper alloy
Contact Resistance	<35 mOhm
PCB Legs:	
Leg Length	3.8 mm nom (See diagram)



PCB Footprint of 96-Pin Right Angle Female Connector (Connector Side - Not to Scale)

Product Order Codes

96-Pin 1.27 mm Pitch Micro-D Connector, 1A, Right Angle PCB Mount, Female	40-963-096-RF

Note: Please ensure the correct connector gender is ordered for the application.

PCB Connector, Straight - Female

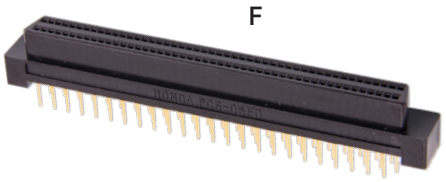
90-016D

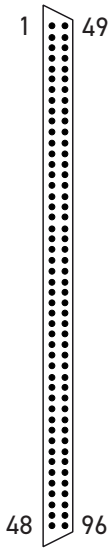
- Straight PCB Mount
- Ideal for User Created Termination Solutions

Interfacing PCBs should be designed with suitable clearances for the voltage the application requires.

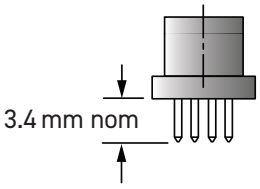
Note: This product is not suitable for directly mounting onto the front panel of a Pickering switching product or standard Pickering cable.

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





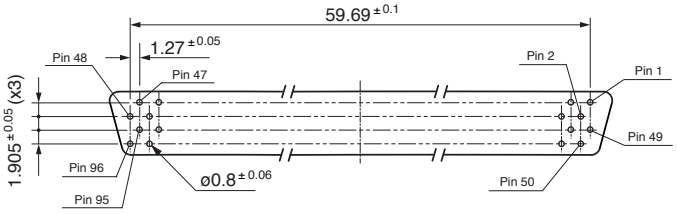
Female Mating Face



Leg Length

Technical Specification

Connector Type:	96-Pin 1.27 mm pitch Micro-D
Gender	Female
Securing Method	Push fit
PCB Mounting	Straight PCB mount, solder
Connector Ratings:	
Maximum Current	1 A each pin
Maximum Voltage	250 V AC
96-Pin Micro-D:	
Contact Material	Gold plated copper alloy
Contact Resistance	<35 mOhm
PCB Legs:	
Leg Length	3.4 mm nom (See diagram)



PCB Footprint of 96-Pin Straight Female Connector (Connector Side - Not to Scale)

Product Order Codes

96-Pin 1.27 mm Pitch Micro-D Connector, 1A, Straight PCB Mount, Female	40-963-096-SF

Note: Please ensure the correct connector gender is ordered for the application.

Appendix

This appendix gives details of recent part number changes.

ECN1758 Dated 11th August 2022, ECN1772 Dated 13th September 2022

These Change Notes covered changes to the multicore cable forming some of the cable assemblies. The cables now utilise two 50-Pin cables, with individual wires changing from 7/38 (30AWG) to 7/36 (28AWG), and a different color coding being used. The existing multicore cable had become obsolete.

Items that changed and the corresponding updated part numbers are detailed below:

Product changes in data sheet order		Data Sheet 90-016D Issue 10.3 Apr 2022	Data Sheet 90-016D Issue 11.0 Aug 2022	Data Sheet 90-016D Issue 11.1 Oct 2022
		Product Part Numbers	Product Part Numbers	Product Part Numbers
 Now using 2 x 50-Pin cables	Cable Assy, 96-Pin 1.27 mm Pitch Micro-D, Female to Female, 1A	40-970B-096-*m-FF	40-970C-096-*m-FF	40-970C-096-*m-FF
 Now using 2 x 50-Pin cables	Cable Assy, 96-Pin 1.27 mm Pitch Micro-D, Female to Unterminated, 1A	A096SFR-F-5A*** A096SFR-T-5A*** 40-972B-096-*m-FU	A096SFR-F-5B*** A096SFR-T-5B*** 40-972C-096-*m-FU	A096SFR-F-5B*** A096SFR-T-5B*** 40-972C-096-*m-FU
 Now using 2 x 50-Pin cables	Adaptor Lead, 96-Pin 1.27 mm Pitch Micro-D to 100-Pin 1.27 mm Pitch Micro-D Female to Male, 1A	40-973B-096-*m-FM	40-973C-096-*m-FM	40-973C-096-*m-FM

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.

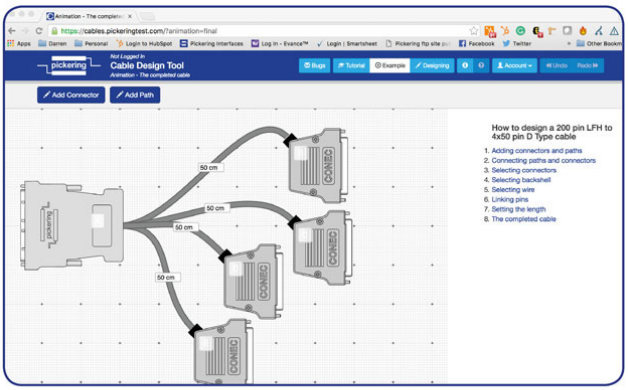
All products are designed to ensure easy and problem free connection.

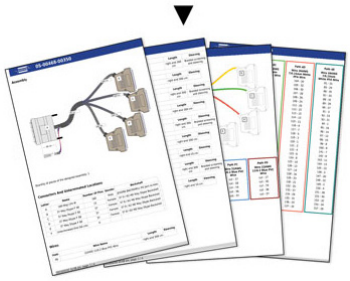
We offer a fast turn round of custom items to keep your ordering and integration time scales to a minimum.

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