Amphenol's D-Subminiature connectors are part of an industry standard for applications requiring robust and reliable connectors. These proven D-Subminiature connectors are one of the most popular Input/Output interconnects, addressing a wide variety of applications in Telecommunications, Data, Consumer, Industrial, Military, Instrumentation and Medical. Since many years Amphenol has been offering a wide range of D-Subminiature connectors to meet various design requirements including those in harsh environment.

Amphenol offers full power and mixed power versions which has been specifically developed for power applications in industrial and telecom market segment. PC board connectors are delivered with preloaded power contacts (10 - 40A). Cable crimp and solder power contacts are delivered with colour code plastic clips for an easy wire gauge identification.



FEATURES

- Power connectors available in various layouts from 2V2 to 36W4
- Power connectors available in full power and in mixed layout (signal + power)
- Contacts available from 10A to 75A
- Available in Straight, Angle, Solder Bucket, Crimp terminations
- Various PCB and Panel mounting accessory options available
- Hoods available in plastic, metalized and metallic form with locking screws
- Lead-free and RoHS compliant

BENEFITS

- Various layout options with in the standards shell size
- Can meet both standard and Power connector requirements
- Can meet medium to high power requirements
- Support both PCB & Cable mounting requirements
- Wide variety of choices for secure connection
- Supports cable connection; Prevents risks of pulling up and accidental un-mating
- Meets environmental, health and safety requirements

GENERAL CHARACTERISTICS

LAYOUTS

• Male insulator front view

Shell size		Layout
E	5W1	(,, 6,
	11W1	1 2 3 4 5 8 9 10
A	7W2	△ ,;;•••°
	3W3	A ² A ² A ²
	3V3	
	21W1	1 2 3 4 5
	17W2	1 2 3 4 5 6 7 A2 8 9 10 11 12 13 14 15
В	13W3	A3 A2 5 4 3 2 1 A1 A
	9W4	A
	5W5	A1

Shell size		Layout
	25W3	A1 A2 1 2 3 4 5 6 7 8 9 10 11 A3 12 13 14 15 16 17 18 19 20 21 22
	21WA4	A1 A2 1 2 3 4 5 6 7 8 9 A3 A4 1011121314151617
С	27W2	A1 1 2 3 4 5 6 7 8 9 10111213 A2
	8W8	A1 A2 A3 A4 A5 A6 A7 A8
	47W1	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 41 16 17 16 19 16 7 7 7 7 8 7 30 41 42 43 44 45 46
D	24W7	A1
	36W4	A1

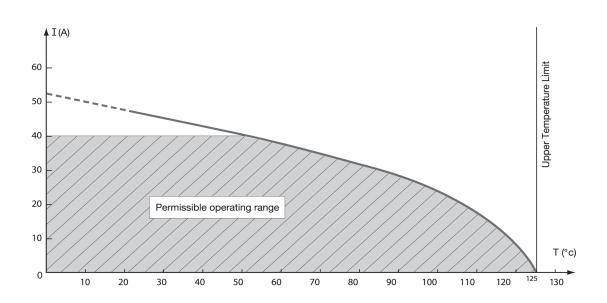
Standard contacts

Coaxial and power contacts

DERATING CURVES

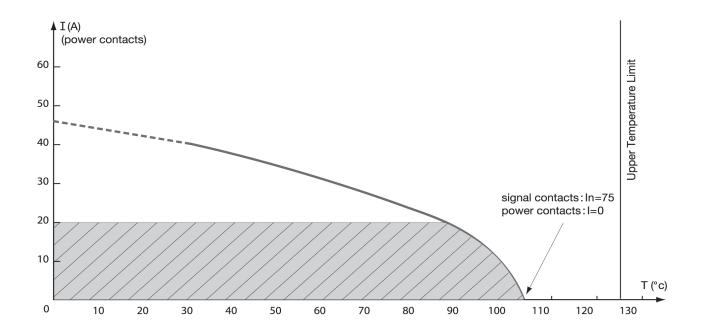
DERATING CURVE ON CONNECTOR DC8W8SA00LF

• Fitted with contacts 8638PSC4005LF (female) (I=40A)



DERATING CURVE ON CONNECTOR DB13W3PA00LF

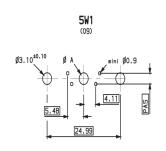
• Fitted with power contacts 8638PPS2005LF (I=20A) (I signal contacts=7,5A)

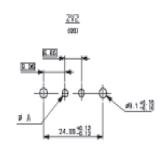


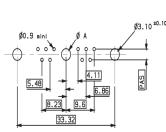
DIMENSIONS

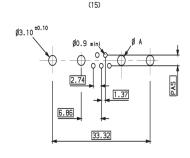
PC BOARD DRILLING

SOLDER TERMINATION								
VERSION	STEP	30A	40A					
VERSION	SIEP	ØΑ						
3	2.84	Ø 2 .40 ^{±0.10}	Ø 3.10 ^{±0.10}					
7	2.84	Ø 2.40 ^{±0.10}						
5	2.84	Ø 2.40 ^{±0.10}	Ø 3.10 ^{±0.10}					
			11 W1 (15)					
		Ø0.9 mini	Ø A					

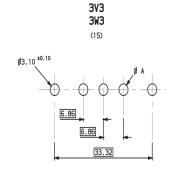


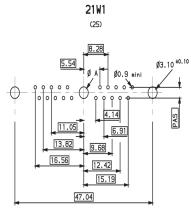


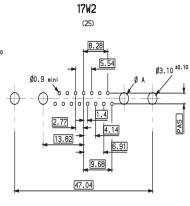


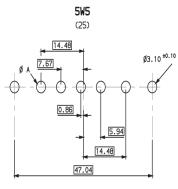


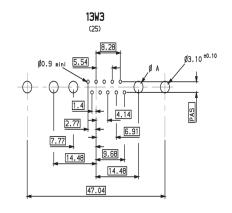
7W2

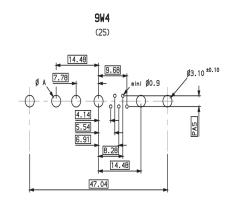






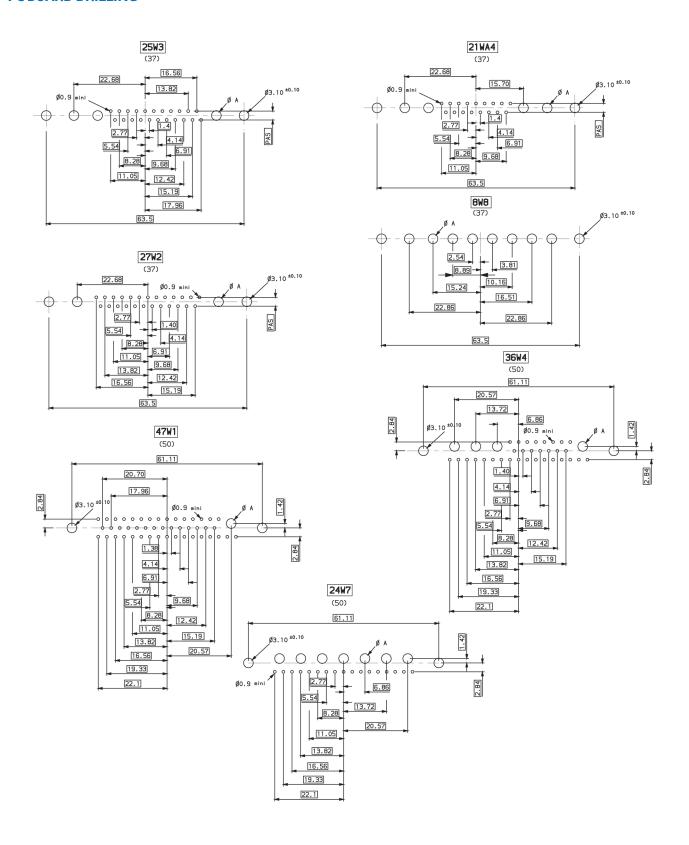






DIMENSIONS

PC BOARD DRILLING



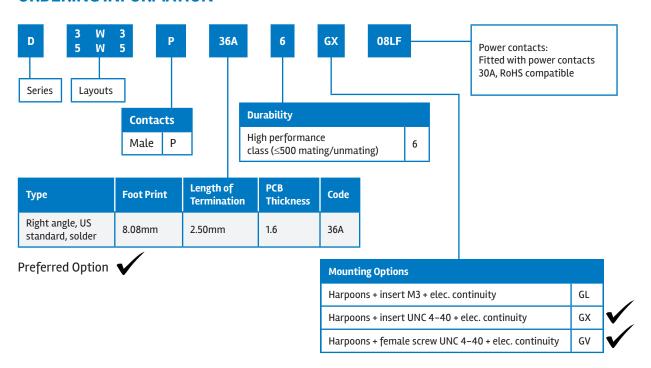
FULL POWER RIGHT ANGLE SOLDER TO BOARD

TI UL RECOGNISED FILE E66906 (R)

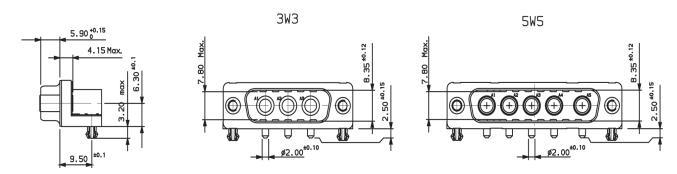
• This monobloc insulator design with stamped and formed signal contacts combines performance and cost effectiveness



ORDERING INFORMATION



SPECIFIC DIMENSIONS

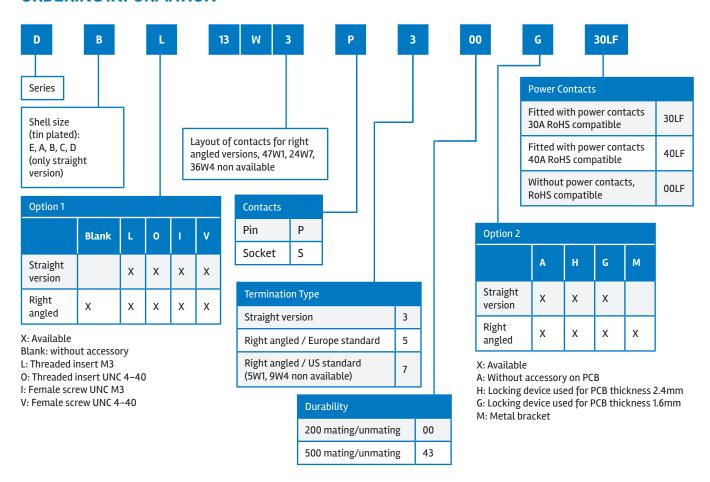


STRAIGHT AND RIGHT ANGLE PC BOARD VERSIONS





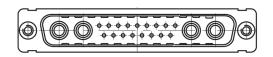
ORDERING INFORMATION

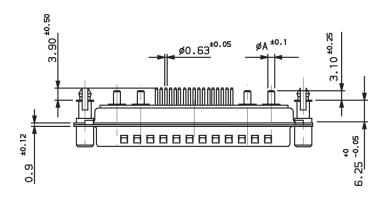


SPECIFIC DIMENSIONS

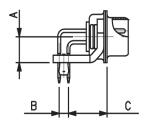
STRAIGHT VERSION

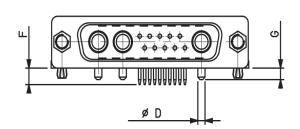
1	30A	40A
ØΑ	2.0	2.8

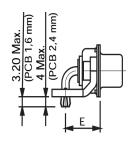




RIGHT ANGLE VERSION







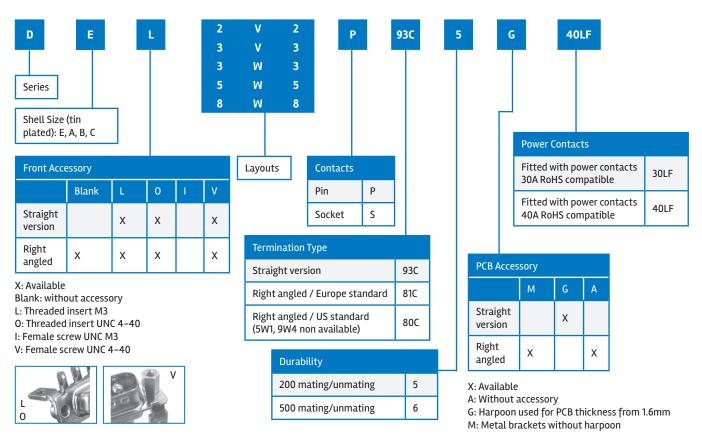
	Termination Type	Amp.	A ^{±0.10}	B ^{±0.20}	C ^{±0.20}	D ^{±0.10}	E ^{±0.20}	F ^{±0.50}	G ^{±0.30}
F	5	30A	7.20	2.54	10.30	2.00	11.65	4.00	3.60
Europe		40A	7.20	2.54	10.30	2.80	11.65	4.00	3.60
U.S	7	30A	6.30	2.84	8.08	2.00	9.50	3.90	3.60

FULL POWER RIGHT ANGLE AND STRAIGHT PRESS-FIT





ORDERING INFORMATION



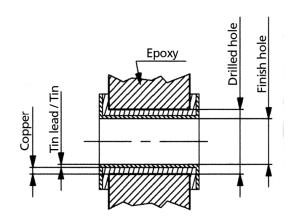






SPECIFIC DIMENSIONS

METALIZED HOLE DIMENSIONS



Termination	Туре		Press-fit Contacts	Press-fit Harpoons	
		Drill diameter	Ø 3.22 ^{±0.03}	Ø 3.22 ^{±0.03}	
		Drilled hole	Ø 3.19 – 3.25	Ø 3.19 – 3.25	
		Copper plating	25μm min. (recommended 50μ max.)	25μm min. (recommended 50μ max.)	Ø 3.22±0.03
P.C.B hole definition (note 1	non	Tin-lead plating	15μm max. (recommended 5μ min.)	15μm max. (recommended 5μ min.)	
and 2	RoHS	Finish hole (after reflow)	Ø 3.02 – 3.20	Ø 3.02 – 3.20	
		Tin plating	0.8 to 1.2μm	0.8 to 1.2μm	
	RoHS	Finish hole (after reflow)	Ø 3.08 – 3.20	Ø 3.08 – 3.20	

Note 1: These dimensions must be respected to ensure press-fit pin performance $\overline{\ }$

Note 2: According to IEC-352-S specification

Note 3: Vital requirement for press-fit pin performance

PRESS-FIT PERFORMANCE

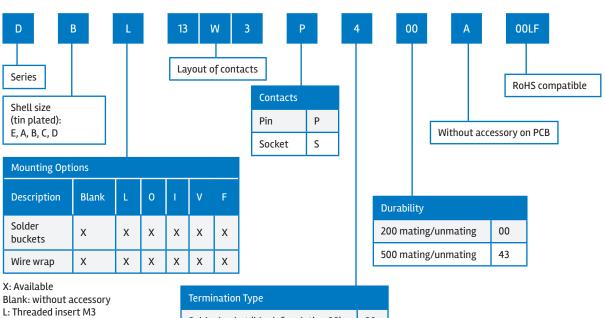
	Press-fit Contacts	Press-fit Harpoons
Insertion force	≤200 N (average insertion 160 N)	≤200 N (average insertion 160 N)
Extraction force	≥30 N	≥30 N

MIXED AND FULL POWER CABLE CONNECTORS





ORDERING INFORMATION



O: Threaded insert UNC 4-40

I: Female screw UNC M3

V: Female screw UNC 4-40

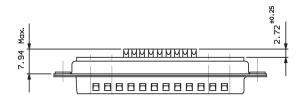
Termination Type

Solder bucket (blank for plating 00) 00

Wire wrap (3 levels) 4

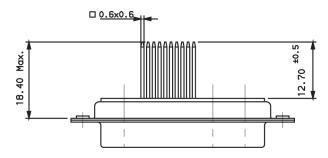
SPECIFIC DIMENSIONS

Solder Bucket



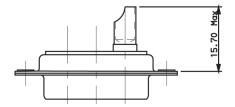
Wire Wrap

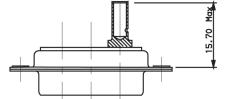
WW (3 levels)



Solder version

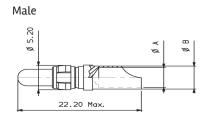
Crimp version

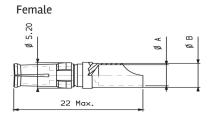




POWER SOLDER AND CRIMP CONTACTS

SOLDER CONTACTS







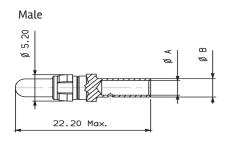
Toma	Max.	Clip	RoHS* Part Number	RoHS* Part Number	Wire		Strip	Ø A +0.1	d D . O F
Type	Current Rating	Colour	≥200 mating/ unmating	≥500 mating/ unmating	Size	Section mm2	length mm ^{±0.5}	+0	Ø B +0.5
Male	10A	Black	8638PPS1005LF	8638PPS1006LF	16	1.3	7	1.7	2.6
Male	15A	White	8638PPS1505LF	8638PPS1506LF	14	1.9	7	2.1	3
Male	20A	Red	8638PPS2005LF	8638PPS2006LF	12	3.2	7	2.8	3.65
Male	40A	Blue	8638PPS4005LF	8638PPS4006LF	8	9	7	4.4	5
Female	10A	Black	8638PSS1005LF	8638PSS1006LF	16	1.3	7	1.7	2.6
Female	15A	White	8638PSS1505LF	8638PSS1506LF	14	1.9	7	2.1	3
Female	20A	Red	8638PSS2005LF	8638PSS2006LF	12	3.2	7	2.8	3.65
Female	40A	Blue	8638PSS4005LF	8638PSS4006LF	8	9	7	4.4	5

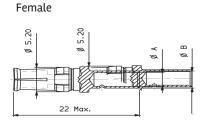
Clip material: Plastic withstanding 125°C Termination plating: Matt tin

^{*}RoHS compatible EU directive 2002/95/EC

POWER SOLDER AND CRIMP CONTACTS

CRIMP CONTACTS







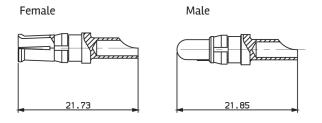
Toma	Max. Current	RoHS* Part Number	RoHS* Part Number	Wire		Strip	Ø A +0.1	Ø B +0.5	
Туре	Rating	Colour	≥200 mating/ unmating	≥500 mating/ unmating	Size	Section mm2	length mm ^{±0.5}	+0	כ.ט+ם ען
Male	10A	Black	8638PPC1005LF	8638PPC1006LF	16 to 18	0.9 to 1.3	7	1.8	2.55
Male	15A	White	8638PPC1505LF	8638PPC1506LF	12 to 14	2 to 3	7	2.8	3.7
Male	20A	Red	8638PPC2005LF	8638PPC2006LF	9	6	7	3.75	4.65
Male	40A	Blue	8638PPC4005LF	8638PPC4006LF	8 to 10	5 to 8	7	4.8	5.5
Female	10A	Black	8638PSC1005LF	8638PSC1006LF	16 to 18	0.9 to 1.3	7	1.8	2.55
Female	15A	White	8638PSC1505LF	8638PSC1506LF	12 to 14	2 to 3	7	2.8	3.7
Female	20A	Red	8638PSC2005LF	8638PSC2006LF	9	6	7	3.75	4.65
Female	40A	Blue	8638PSC4005LF	8638PSC4006LF	8 to 10	5 to 8	7	4.8	5.4

Clip material: Plastic withstanding 125°C Termination plating: Matt tin

^{*}RoHS compatible EU directive 2002/95/EC

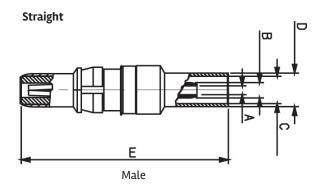
CONTACTS (OTHER VERSIONS)

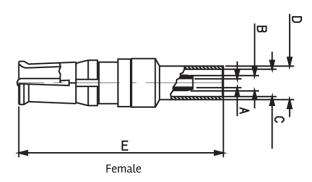
POWER CONTACTS - METAL CLIP



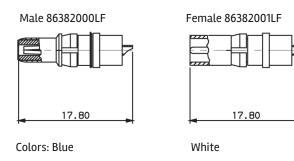
Wire	Max. Current	Part Numbers					
Size	Max. Current	Male	Female				
AWG8	40A	86303098NLF	86303099NLF				
AWG12	20A	86303056NLF	86303057NLF				
AWG14	15A	86303060NLF	86303061NLF				
AWG16	10A	86303064NLF	86303065NLF				

COAXIAL CONTACTS





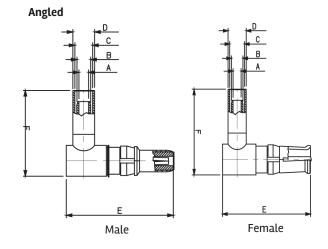
HIGH VOLTAGE CONTACTS

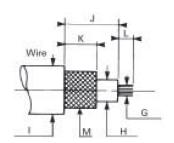


These removable contacts are suitable for the contact cavities of the DMW series and DW series.

The coxial contacts are in compliance with:

- NFC 93569
- KMX4 specification





TECHNICAL INFORMATION

ELECTRICAL PERFORMANCE

• Dielectric Withstanding Voltage: 2800V RMS

• Break Down Voltage: 3200V RMS • Insulation Resistance: $10^6 M\Omega$ • Contact Resistance: $\leq 5 m\Omega$

Max. Current Rating: 5AMaterial: TEFLON

ENVIRONMENTAL

• Operating temperature range: -55° C to +125° C

MECHANICAL PERFORMANCE

• Mating force per set of contact: 3 N

• Mating endurance: 200

CONTACTS (OTHER VERSIONS)

STANDARD COAXIAL CONTACTS

		Part Numbers	Part Numbers					Contacts Dimension					
Contact Type		Soldered Screen	NFC 93569 KMX4	Crimped Screen	NFC 93569 KMX4	A±0.10	B ^{±0.15}	C±0.2	D ^{±0.15}	E ^{±0.4}	F ^{±0.4}		
	male	DM537405000NCLF	KMX4M11D02	DM53740NCLF	KMXM12D02	1	1.75	2.32	3.20	23.60			
Ctraight	male	DM537405008NCLF	-	-	-					21.80			
Straight -	female	DM537425000NCLF	KMX4F11D02	DM53742NCLF	KMX4F12D02					23.60			
	female	DM537425006NCLF	-	-	-					21.80			
Dight angle	male	DM537415000NCLF	KMX4M11C02	DM53741NCLF	KMX4M12C02					18.64	15.30		
Right angle	female	DM537435000NCLF	KMX4F11C02	DM537432NCLF	KMX4F12C02					18.64	15.30		
Ctualisht	male	DM537405001NCLF	KMX4M11D01	DM537401NCLF	KMX4M12D01	1.70	2.46	3	3.84	23.60			
Straight	female	DM537425001NCLF	KMX4F11D01	DM537421NCLF	KMX4F12D01					23.60			
Dight angle	male	DM537415001NCLF	KMX4M11C01	DM537411NCLF	KMX4M12C01					18.64	15.30		
Right angle	female	DM537435001NCLF	KMX4F11C01	DM537433NCLF	KMX4F12C01					18.64	12.50		

SPECIFIC COAXIAL CONTACTS

Contact Type		Part Numbers					Contacts Dimension					
		Soldered Screen	NFC 93569 KMX4	Crimped Screen	NFC 93569 KMX4	A ^{±0.10}	B±0.15	C ^{±0.2}	D ^{±0.15}	E ^{±0.4}	F ^{±0.4}	
Ctualidht	male	DM537405002NCLF	-	DM537403NCLF	-	2.75	4.40	5.45	5.95	26.30		
Straight	female	DM537425002NCLF	-	DM537423NCLF	-					26.30		
Ctualidat	male	DM537405005NCLF	-	DM537405NCLF	-	3.15	4.40	5.45	5.95	23.60		
Straight	female	DM537425004NCLF	-	DM537425NCLF	-					23.60		
Right angle	female	DM537435004NCLF	-	DM537436NCLF	-					18.64	17.50	

STANDARD COAXIAL CONTACTS

		Part Numbers		Cable					
Contact Type		Soldered Screen	NFC 93569 KMX4	Crimped Screen	NFC 93569 KMX4	MILC NFC 17E 93550		Impedance	
	male	DM537405000NCLF	KMX4M11D02	DM53740NCLF	KMXM12D02	RG178BU	KX21A	50Ω ±2	
Straight	male	DM537405008NCLF	-	-	-				
Straight	female	DM537425000NCLF	KMX4F11D02	DM53742NCLF	KMX4F12D02				
	female	DM537425006NCLF	-	-	-				
Dight angle	male	DM537415000NCLF	KMX4M11C02	DM53741NCLF	KMX4M12C02				
Right angle	female	DM537435000NCLF	KMX4F11C02	DM537432NCLF	KMX4F12C02				
Ctuaiosht	male	DM537405001NCLF	KMX4M11D01	DM537401NCLF	KMX4M12D01	RG316U	KX22A	50Ω ±2	
Straight	female	DM537425001NCLF	KMX4F11D01	DM537421NCLF	KMX4F12D01				
Dight angle	male	DM537415001NCLF	KMX4M11C01	DM537411NCLF	KMX4M12C01				
Right angle	female	DM537435001NCLF	KMX4F11C01	DM537433NCLF	KMX4F12C01				

Contact Type		Part Numbers					Wire						
		Soldered Screen	NFC 93569 KMX4	Crimped Screen	NFC 93569 KMX4	G	Н	ı	J	К	L	M (max.)	
	male	DM537405000NCLF	KMX4M11D02	DM53740NCLF	KMXM12D02	0.30	0.90	1.80	7.90	6.35	2.00	1.40	
Ctraight	male	DM537405008NCLF	-	-	-								
Straight	female	DM537425000NCLF	KMX4F11D02	DM53742NCLF	KMX4F12D02								
	female	DM537425006NCLF	-	-	-								
Right	male	DM537415000NCLF	KMX4M11C02	DM53741NCLF	KMX4M12C02				9.50	5.95	1.60		
angle	female	DM537435000NCLF	KMX4F11C02	DM537432NCLF	KMX4F12C02								
Ctraight	male	DM537405001NCLF	KMX4M11D01	DM537401NCLF	KMX4M12D01	0.50	1.50	2.50	7.90	6.35	2.00	2.05	
Straight	female	DM537425001NCLF	KMX4F11D01	DM537421NCLF	KMX4F12D01								
Right	male	DM537415001NCLF	KMX4M11C01	DM537411NCLF	KMX4M12C01				9.50	5.95	1.60		
angle	female	DM537435001NCLF	KMX4F11C01	DM537433NCLF	KMX4F12C01								

SPECIFIC COAXIAL CONTACTS

Contact Type		Part Numbers		Cable				
		Soldered Screen	NFC 93569 KMX4	Crimped Screen	NFC 93569 KMX4	MILC 17E	NFC 93550	Impedance
Straight	male	DM537405002NCLF	-	DM537403NCLF	-	RG180BU		95Ω±2
Straight	female	DM537425002NCLF	-	DM537423NCLF	-			
Ctualisht	male	DM537405005NCLF	-	DM537405NCLF	-	RG58CU	KX15	50Ω±2
Straight	female	DM537425004NCLF	-	DM537425NCLF	-			
Right angle	female	DM537435004NCLF	-	DM537436NCLF	-			

		Part Numbers					Wire						
Contact Ty	/pe	Soldered Screen	NFC 93569 KMX4	Crimped Screen	NFC 93569 KMX4	G	Н	T	J	К	L	M (max.)	
Ctualabt	male	DM537405002NCLF	-	DM537403NCLF	-	0.30	2.60	3.58	9.70	7.90	2.00	3.14	
Straight	female	DM537425002NCLF	-	DM537423NCLF	-								
Ctualidat	male	DM537405005NCLF	-	DM537405NCLF	-	0.90	2.95	4.95	9.50	7.90	2.00	3.81	
Straight	female	DM537425004NCLF	-	DM537425NCLF	-								
Right angle	female	DM537435004NCLF	-	DM537436NCLF	-				10.70		2.40		

μTCA – HIGH POWER I/O PCB CONNECTORS

OVERVIEW

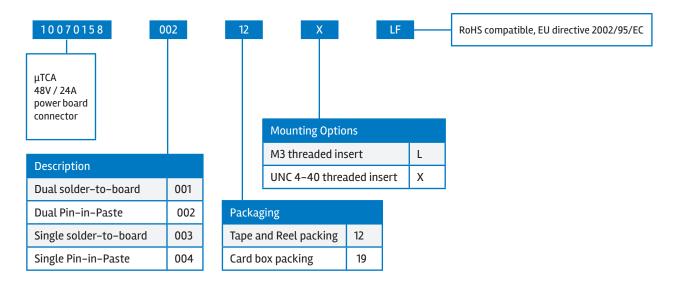
This power module I/O connectors for 48V applications are designed in accordance with μTCA specifications. The robust D-Subminiature concept based on simplified and cost effective Delta D design combines power contacts able to handle up to 24A with signal contacts. PCB connectors are proposed in traditional solder-to-board and Pin-in-Paste versions for optimized applied cost. Specific to the design of FCI is the fact that the connector's compact footprint allows for more space on the PCB for other components.



FEATURES

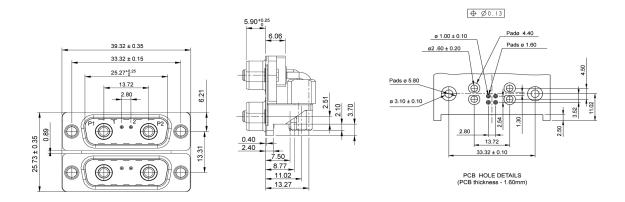
- 48V / 24A (shell size A)
- FMLB (First Mate Last Brake) functionality for hot plugging
- Field reparable

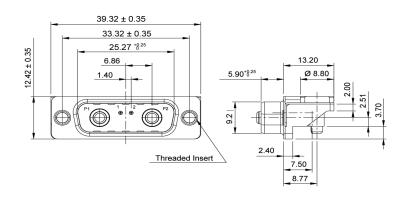
ORDERING INFORMATION

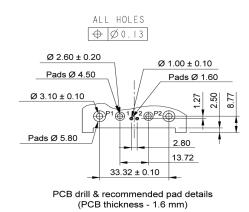


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PRODUCT DRAWING







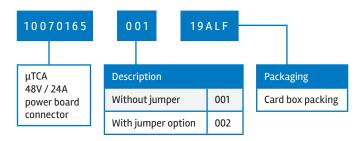
μTCA – HIGH POWER I/O CABLE CONNECTORS

FEATURES

- Field reparable
- Touch proof
- Stackable hoods with high retention devices
- Cost saving jumper option for signal contacts



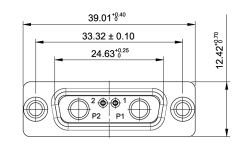
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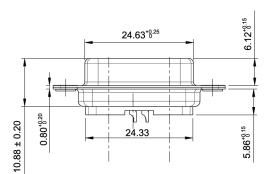


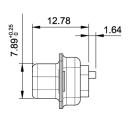
POWER CONTACTS

Description	Part Number				
30A crimp contacts	8638PSC3005LF				
40A solder bucket contacts	8638PSS4005LF				

PRODUCT DRAWING

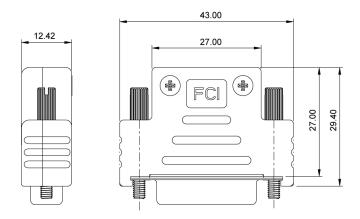






μTCA – HIGH POWER I/O CABLE CONNECTORS

HOOD (STACKABLE HOOD AND SLIM DESIGN)



Description	Part Number
HOOD (stackable hood and slim design)	10070163 - 001LF

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