



Positronic Industries
connectpositronic.com

MicroTCA POWER INPUT CONNECTORS

Combo-D
D-Sub

Size 20
Signal Contacts

Size 8
Power Contacts

Compliant to MTCA.0 R1.0 for
48 volt and 24 volt systems and
MTCA.1 R1.0 for 12 volt systems



Positronic Industries is known throughout the PCI Industrial Computer Manufacturers Group (PICMG) community as a value supplier of AdvancedTCA Zone 1 and Compact PCI power connectors, as well as a wide variety of other power distribution interconnects.

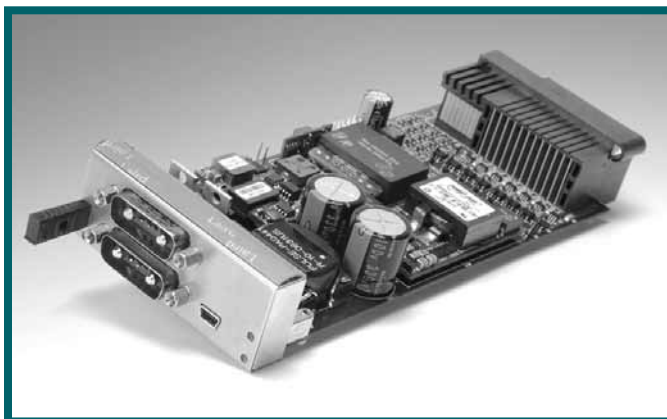
Positronic has been privileged to participate in PICMG specification work, including MicroTCA. Positronic is a proud supplier of power input connectors for use in MicroTCA power modules.

QB series offers board mount connectors for power modules, and cable connectors for bringing power to modules. QB series meet requirements of the MicroTCA Specification for 48V, 24V **and 12V** systems.

To learn more about PICMG or to get specifications, visit www.picmg.org.

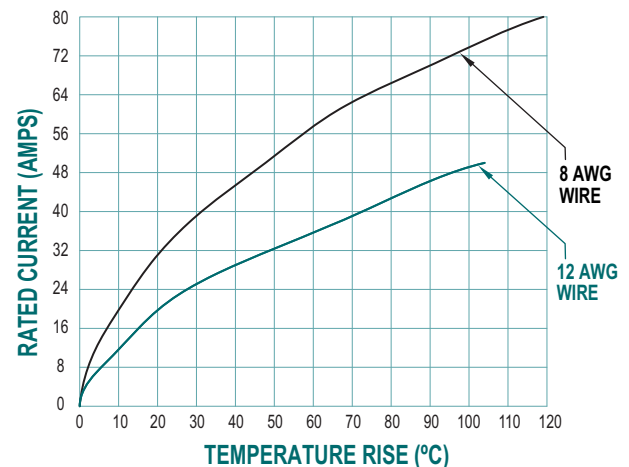


For RoHS options
see page 55-56.



MTCA power module shown above is compliments of
Actel Corp. (www.actel.com) and Signal Stream
Technologies, LLC. (www.signalstreamtechnologies.com).

TEMPERATURE RISE CURVE 7W2 VARIANT



Test conducted in accordance with UL1977. All power contacts under load.

8 AWG: Curve developed using QB7W2MR7T2/7W2MR7T20 and QB7W2S00000 connectors with FC4008D-1817.0 contacts terminated to 8 AWG wire.

12 AWG: Curve developed using QB7W2MR7T2/7W2MR7T20 and QB7W2S00000 connectors with FC4012D-1817.0 contacts terminated to 12 AWG wire.

TECHNICAL CHARACTERISTICS

MATERIALS AND FINISHES:

Insulator:	Glass filled polyester per MIL-M-24519 UL 94V-0, blue color.
Contacts:	Precision machined copper alloy.
Contact Plating:	
Signal:	Gold flash over nickel plate and 0.000050 [1.27μ] gold over nickel plate. Other finishes available upon request.
Power:	Gold flash over nickel. Other finishes available upon request.
Shells:	Steel or brass with tin plate; zinc plate with chromate seal; stainless steel pas- sivated. Other materials and finishes available upon request.
Brackets:	Copper alloy or steel with zinc plate and chromate seal or tin plate; phos- phor bronze with tin plate; stainless steel, passivated.
Push-On Fasteners:	Beryllium copper with tin plate.
Jackscrew Systems:	Brass or steel with zinc plate and chromate seal or clear zinc plate or tin plate; stainless steel, passivated.
Hoods:	Glass filled polyester, UL 94V-0, blue color.

MECHANICAL CHARACTERISTICS:

Signal Contacts, Fixed:	Size 20 contacts, male - 0.040 inch [1.02mm] mating diameter. Female contacts are PosiBand closed entry design.
Power Contacts, Fixed:	Size 8 contacts, male - 0.142 inch [3.61mm] mating diameter. Female contacts are closed entry "Large Surface Area" design.
Contact Retention in Insulator:	Signal: 9 lbs [40N]. Power: 22 lbs [98N].
Locking Systems:	Jackscrews.
Mechanical Operations:	200 operations, minimum.

ELECTRICAL CHARACTERISTICS:

SIZE 20 CONTACTS

Contact Current Rating:	7.5 amperes nominal.
Initial Contact Resistance:	0.008 ohms maximum.
Proof Voltage:	1000 V r.m.s.

SIZE 8 CONTACTS

POWER CONTACTS

Contact Current Rating - Tested per U.L. 1977:

QB7W2 MTCA.0 48V:	70 amperes nominal.
<i>See Temperature Rise Curve on page 49 for details.</i>	

QBH9W4 MTCA.0 24V:	85 amperes nominal.
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Table 7-32 of MTCA.0 R1.0 - MicroTCA specification, requires each power contact in the 24V input connector to carry 49 amps minimum at a 30°C temperature rise prior to derating. The Positronic QB9W4 connector meets this requirement.

QBH5W5 / QBH15W4 MTCA.1 12V:	75 amperes nominal.
-------------------------------------	---------------------

MTCA.1 R1.0 specification requires each power contact in the 12V input connector to carry 50 amps minimum at a 30°C temperature rise prior to derating. The QBH5W5 and QBH15W4 connectors meet this requirement.

Initial Contact Resistance:	0.0005 ohms max. per IEC 512-2, Test 2b.
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Proof Voltage:	1000 V r.m.s.
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CONNECTOR

Insulator Resistance:	5 G ohms.
Working Voltage:	300 V r.m.s.

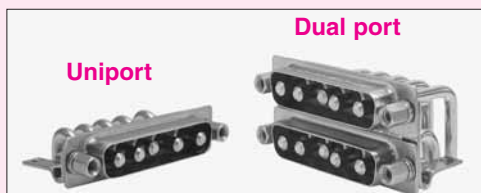
CLEARANCE AND CREEPAGE DISTANCE:

Between Power Contacts:	0.06 inch [1.5 mm], minimum
Between Signal Contacts:	0.02 inch [0.4 mm], minimum
Between Power and Signal Contacts:	0.06 inch [1.5 mm], minimum
Between Power Contacts and Shelf GND:	0.06 inch [1.5 mm], minimum
Between Signal Contacts and Shelf GND:	0.06 inch [1.5 mm], minimum

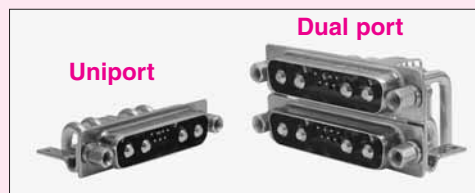
NEW!

AIR COOLED RUGGEDIZED MicroTCA® SYSTEMS

12 VOLT INPUT POWER CONNECTORS PER MTCA.1, R1.0



5W5
Five (5) Size 8 Contacts



15W4
Four (4) Size 8 Contacts and
Eleven (11) Size 22 Contacts

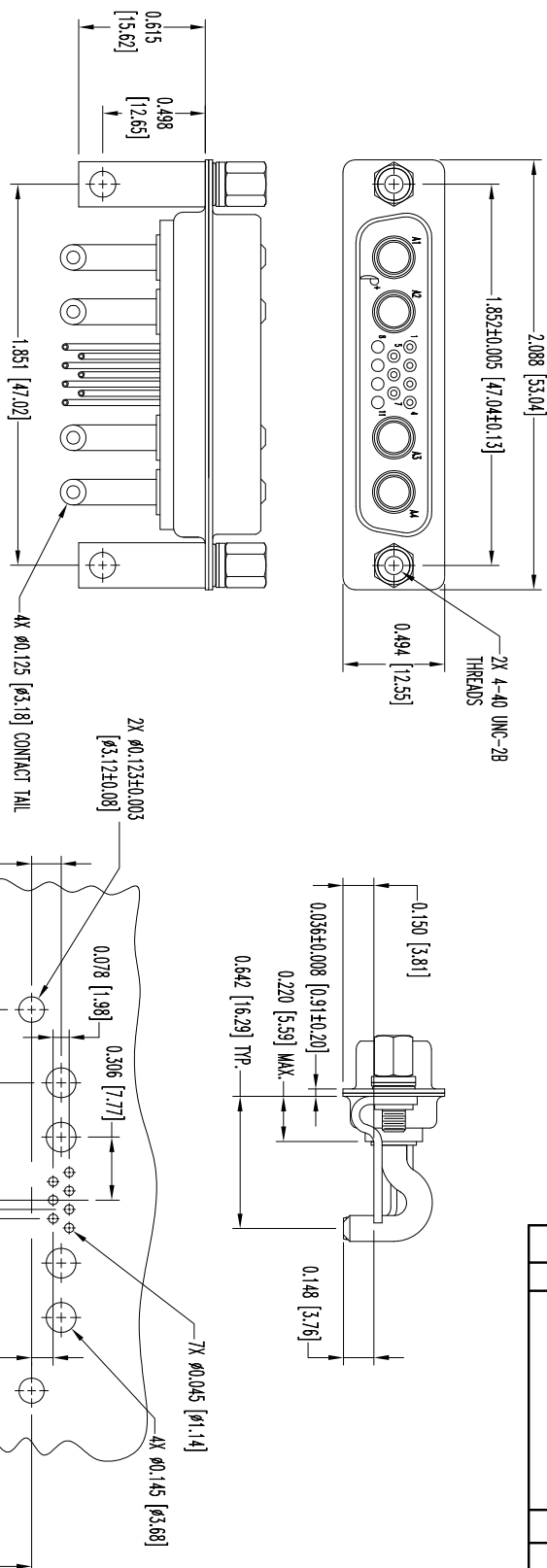
REVIEW THE FOLLOWING FIVE PAGES!

Contact Technical Sales for additional information.

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SK10923

DATE/REV	REVISION RECORD	APP	DR	CK
7/07/09	ECO 31320	RCW	BS	COLB



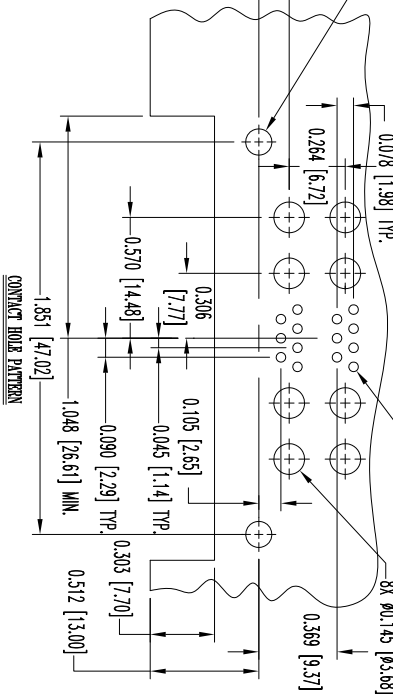
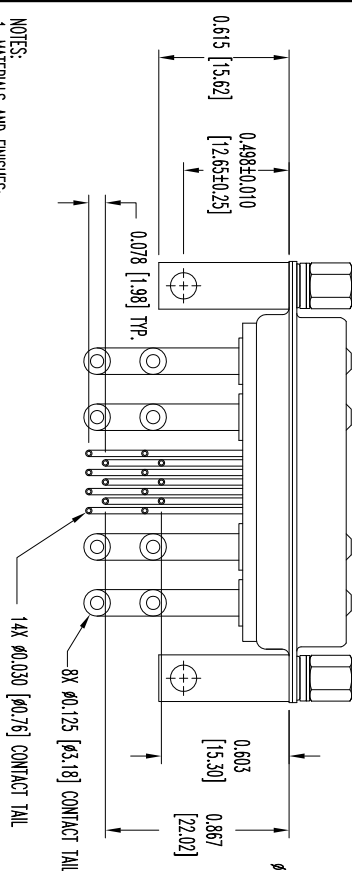
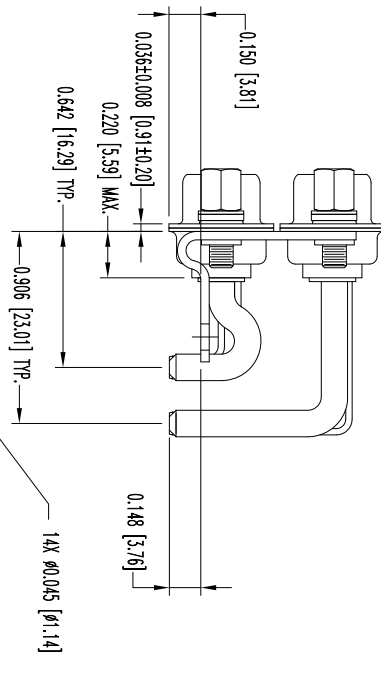
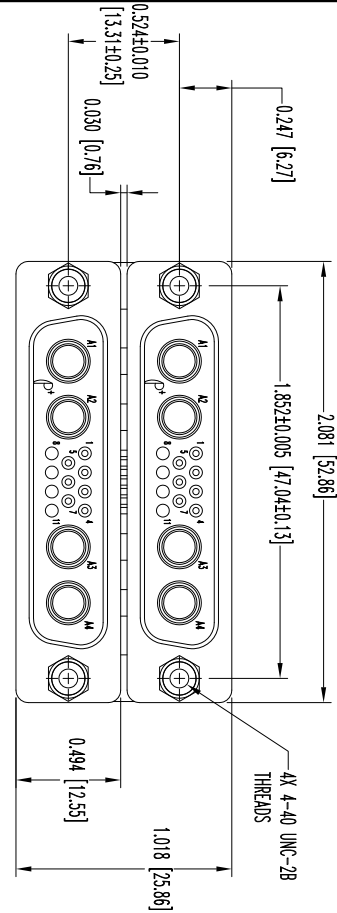
- NOTES:
- 1. MATERIALS AND FINISHES:**
 INSULATOR: GLASS FILLED POLYESTER PER MIL-M-24519, UL 94V-0, COLOR: BLUE.
 CONTACTS: COPPER ALLOY, GOLD FLASH OVER NICKEL PLATE.
 SHELLS: STEEL, ZINC PLATE WITH CHROMATE SEAL.
 MOUNTING BRACKETS: BRASS, ZINC PLATE WITH CHROMATE SEAL.
 JACKSCREWS: STEEL, ZINC PLATE WITH CHROMATE SEAL.
 - 2. ELECTRICAL CHARACTERISTICS:**
 SIGNAL CONTACTS:
 CONTACT CURRENT RATING: 10 AMPS NOMINAL.
 INITIAL CONTACT RESISTANCE: 0.008 OHMS MAX.
 POWER CONTACTS:
 CONTACT CURRENT RATING: 50 AMPS MIN. AT 30°C RISE.
 INITIAL CONTACT RESISTANCE: 0.0005 OHMS MAX.
 INSULATOR RESISTANCE: 5 G OHMS.
 WORKING VOLTAGE: 300 V r.m.s.
 TEMPERATURE RANGE: -55°C TO +125°C
 - 3. TEMPERATURE RANGE:** -55°C TO +125°C
 - 4. CONNECTOR IS ROHS COMPLIANT PER ROHS DIRECTIVE 2002/95/EC OF 27 JAN 2003.**
 - 5. DIMENSIONS ARE IN INCHES [MILLIMETERS]**

POSITRONIC INDUSTRIES INC.			
www.connectpositronic.com			
QD SERIES	SCALE	DRAWN BY	APPROVED BY
±0.015 [0.38]	N.T.S.	B. SHREVELEY	R. WILLIAMS
TITLE	DATE	DRAWING NUMBER	REV.
QBH1574M57R70T20/AA	7-16-09	SK10923	NC

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DATE	REV	REVISION RECORD	APP	DR	CK
6-22-09	NC	ECO 31215	TK	TK	TK

SK10856



- NOTES:
1. MATERIALS AND FINISHES:
INSULATORS: GLASS FILLED POLYESTER PER MIL-M-24519,
UL 94V-0, BLUE COLOR.
CONTACTS: PRECISION MACHINED COPPER ALLOY, GOLD FLASH OVER NICKEL PLATE.
SHEETS: STEEL WITH ZINC PLATE WITH CHROMATE SEAL.
MOUNTING BRACKETS: BRASS WITH ZINC PLATE WITH CHROMATE SEAL.
 2. ELECTRICAL CHARACTERISTICS:
SIGNAL CONTACTS: 10 AMPS NOMINAL.
INITIAL CONTACT RESISTANCE: 0.008 OHMS MAXIMUM.
POWER CONTACTS: 50 AMPS MINIMUM AT 30° C RISE.
INITIAL CONTACT RESISTANCE: 0.0005 OHMS MAXIMUM.
INSULATOR RESISTANCE: 5 G OHMS.
WORKING VOLTAGE: 300 V r.m.s.
TEMPERATURE RANGE: -55°C TO +125°C.
 3. CONNECTORS ARE ROHS COMPLIANT PER ROHS DIRECTIVE 2002/95/EC OF 27 JAN. 2003.
 4. DIMENSIONS ARE IN INCHES [MILLIMETERS].

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www.connectpositronic.com

POSITRONIC INDUSTRIES INC. PSC# 28188

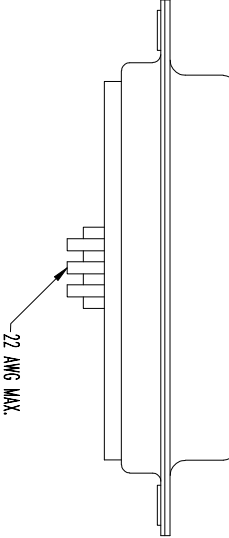
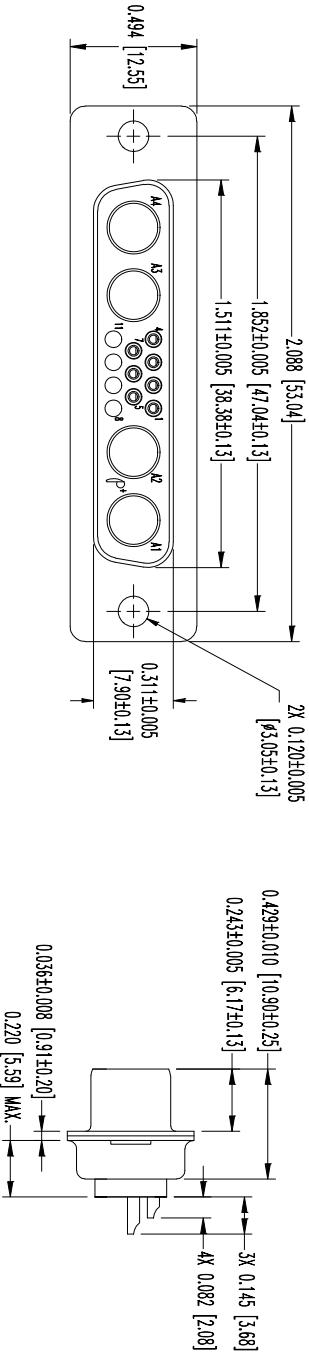
QD SERIES	SCALE	DRAWN BY	APPROVED BY	TITLE
QB SERIES	N.T.S.	TK	TK	QB15W4MR7T2/15W4MR7T20/AA
DATE	DRAWING NUMBER	REV.		
6-22-09	SK10856	NC		



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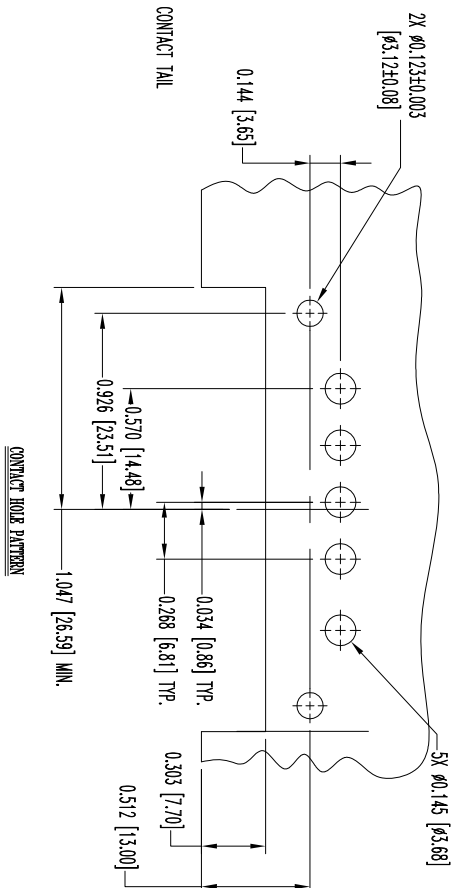
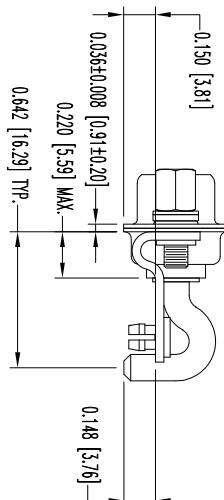
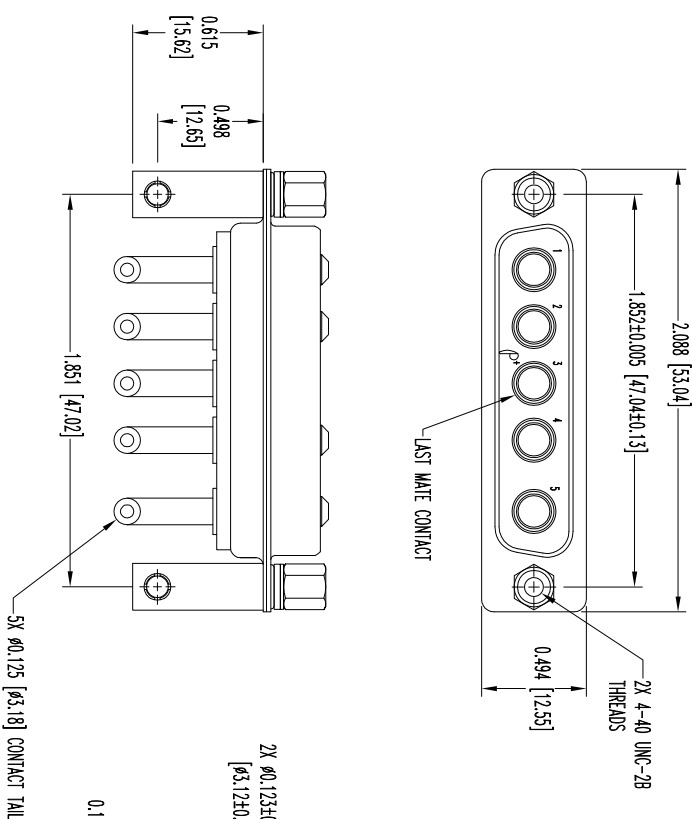
DATE	REV	REVISION	RECORD	APP	DR	CHK
6-23-09	NC	ECO	31215	TK	TK	TK
6-23-09	A	ECO	31397	RCM	TK	TK

SK10857



- NOTES:
1. MATERIALS AND FINISHES:
INSULATOR: GLASS FILLED POLYESTER PER MIL-W-24519, BLUE.
CONTACTS: BRASS, GOLD FLASH OVER NICKEL PLATE.
SHELS: STEEL, ZINC PLATED WITH DICHROMATE SEAL.
 2. ELECTRICAL CHARACTERISTICS:
SIGNAL CONTACTS: CONTACT CURRENT RATING: 10 AMPERES NOMINAL.
INITIAL CONTACT RESISTANCE: 0.008 OHMS MAXIMUM.
 3. CONNECTORS ARE RoHS COMPLIANT PER ROHS DIRECTIVE 2002/95/EC OF 27 JAN. 2003.
 4. DIMENSIONS ARE IN INCHES [MILLIMETERS].

		POSITRONIC INDUSTRIES INC.	
SPRINGFIELD, MISSOURI 65801			
DEQUAL TOL.	± 0.015 [0.38]	QB SERIES	N.T.S.
DATE	6-23-09	DRAWING NUMBER	SK10857
ANGULAR TOL.	± 3°	REV.	NC






NOTES

1. MATERIALS AND FINISHES:
INSULATORS: GLASS FILLED POLYESTER PER MIL-W-24519, UL 94V-0, COLOR: BLUE.
POWER CONTACTS: HIGH CONDUCTIVITY COPPER ALLOY, GOLD FLASH OVER NICKEL PLATE.
SHELLS: STEEL, ZINC PLATE WITH CHROMATE SEAL.
MOUNTING BRACKETS: BRASS, ZINC PLATE WITH CHROMATE SEAL.
JACKSCREWS: STEEL, ZINC PLATE WITH CHROMATE SEAL.
WASHERS: BRASS, ZINC PLATE WITH CHROMATE SEAL.
RIVETS: BRASS, ZINC PLATE WITH CHROMATE SEAL.
PUSH FASTENERS: BERYLLIUM COPPER WITH TIN PLATE.
2. ELECTRICAL CHARACTERISTICS:
POWER CONTACTS: 50 AMPS MIN AT 30°C RISE.
INITIAL CONTACT RESISTANCE: 0.0005 OHMS MAX.
INSULATOR RESISTANCE: 5 G OHMS.
WORKING VOLTAGE: 300 V rms.
3. TEMPERATURE RANGE: -55°C TO +125°C
4. CONNECTORS ARE ROHS COMPLIANT PER ROHS DIRECTIVE 2002/95/EC OF 27 JAN 2003.
5. DIMENSIONS ARE IN INCHES [MILLIMETERS].

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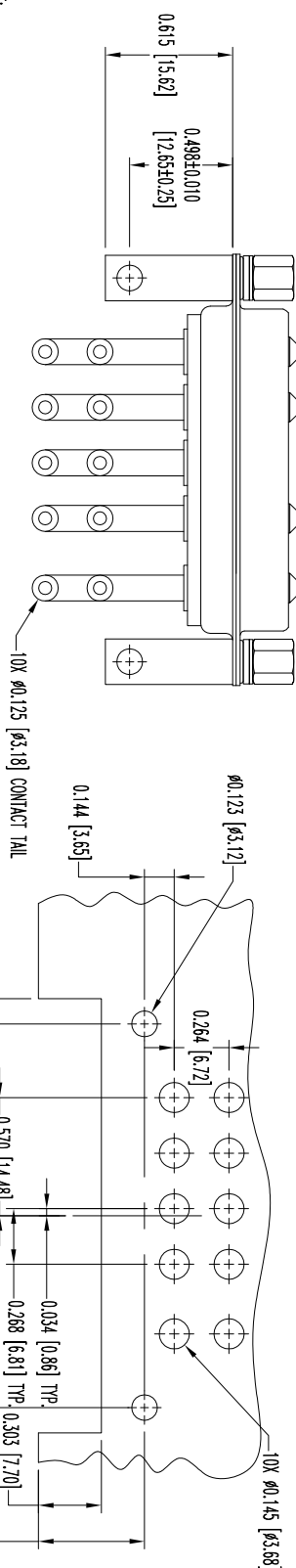
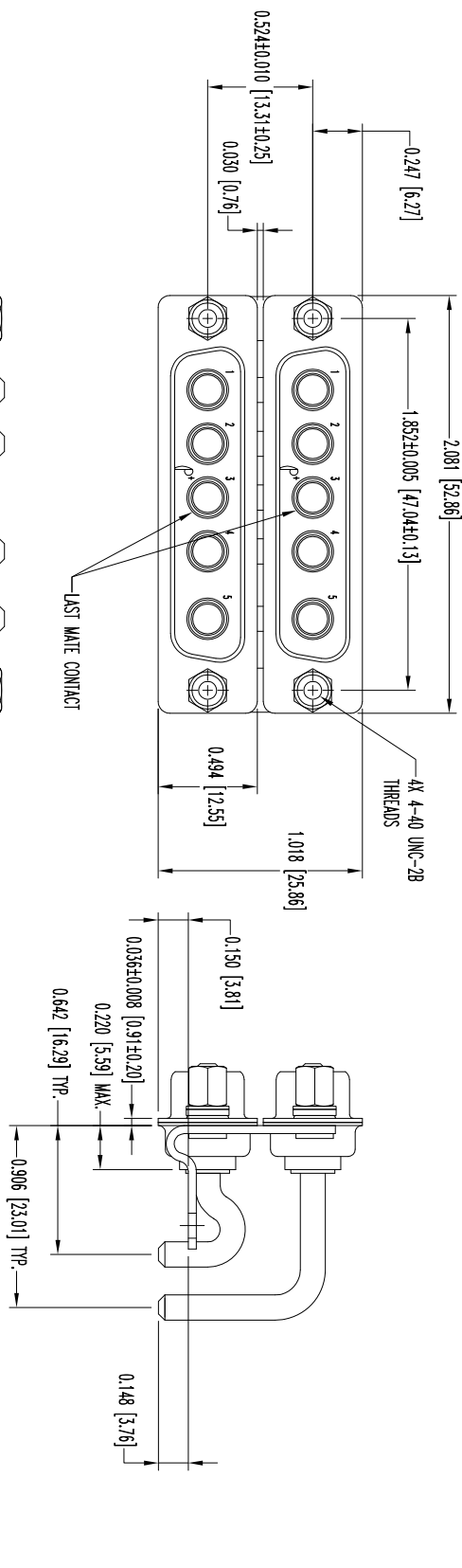
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4-9-69	NC	ECO 30914	RCW	TK	TK
7-22-69	A	ECO 31338	TK	BS	TK

		POSITRONIC INDUSTRIES INC. www.connectpositronic.com FSCM 261968	
 DECIMAL TOL. ± 0.015 [0.38]		QP SERIES	
TITLE QBH5W5M57R7N7P20/AA		SCALE N.T.S.	DRAWN BY T. KAPPELY
DATE 4-9-09		APPROVED BY RCM	
ANGLE/TOL. $\pm 0^\circ$		DRAWING NUMBER SK10527	
REV. A			



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SK10526

DATE	REV	REVISION RECORD	APP	DR	CK
4-9-09	NC	ECO 30914	RCW	TK	TK
7-22-09	A	ECO 31338	TK	BS	TK



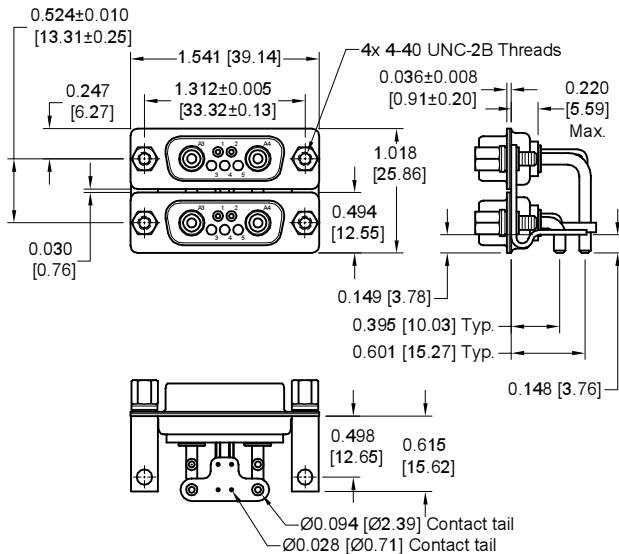
- NOTES:
1. MATERIALS AND FINISHES:
INSULATORS: GLASS FILLED POLYESTER PER MIL-W-24719, UL 94V-0, COLOR: BLUE.
CONTACTS: PRECISION MACHINED COPPER ALLOY, GOLD FLASH OVER NICKEL PLATE.
SHELLS: STEEL, ZINC PLATE WITH CHROMATE SEAL.
MOUNTING BRACKETS: BRASS, ZINC PLATE WITH CHROMATE SEAL.
2. ELECTRICAL CHARACTERISTICS:
POWER CONTACTS: 50 AMPS MIN AT 30°C RISE.
INITIAL CONTACT RESISTANCE: 0.0005 OHMS MAX.
INSULATOR RESISTANCE: 5 G OHMS.
WORKING VOLTAGE: 300 V r.m.s.
TEMPERATURE RANGE: -55°C TO +125°C
4. CONNECTORS ARE ROHS COMPLIANT PER ROHS DIRECTIVE 2002/95/EC OF 27 JAN 2003.
5. DIMENSIONS ARE IN INCHES [MILLIMETERS].

		POSITRONIC INDUSTRIES INC. www.connectpositronic.com		PSCM 28108	
		QB SERIES		SCALE	
DECIMAL TOL. \pm 0.015 [0.38]		N.T.S.		DRAWN BY T. KAPLEY	
TITLE QBH5W5MR7T2 / 5W5MR7T20 / AA		APPROVED BY RCM			
DATE 4-9-09		DRAWING NUMBER SK10526		REV. A	
ANGULAR TOL. \pm .5°					



RIGHT ANGLE (90°) PRINTED BOARD MOUNT CONNECTOR - 48 VOLT

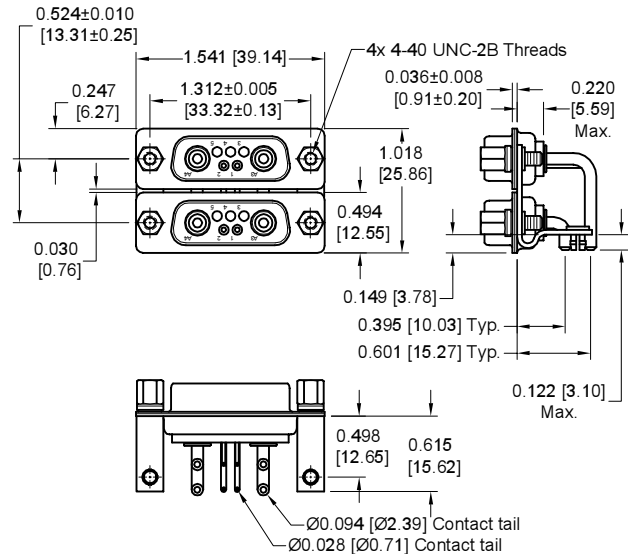
CONTACT POSITIONS A1 AND A2 ARE FIRST TO MATE. CONTACT POSITIONS 1 AND 2 ARE LAST TO MATE.



DUAL PORT

Typical part number:

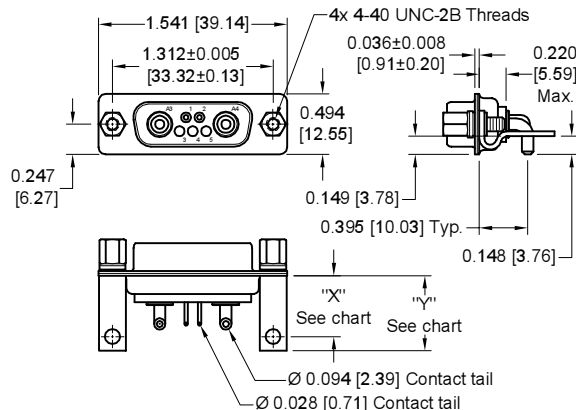
QB7W2MR7T2/7W2MR7T20/AA



INVERTED DUAL PORT

Typical part number:

QB7W2MN7T2/7W2MN7T20/AA-1845.0



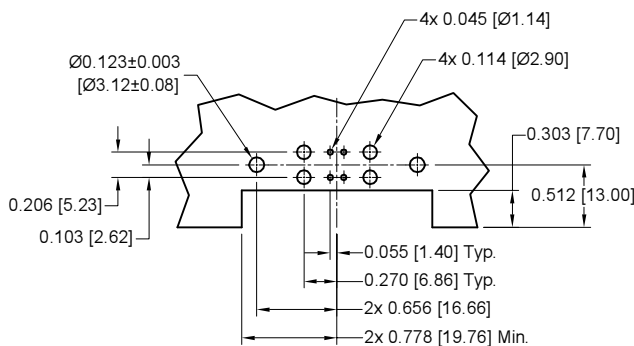
UNI PORT

The Dual Port and Uni Port connectors can also be supplied with standard D-subminiature mounting brackets, see page 53.

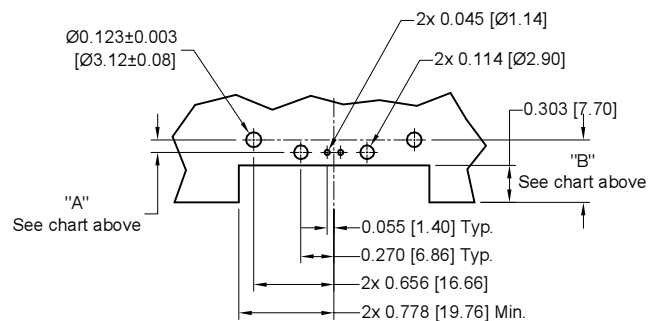
UNI PORT TYPICAL PART NUMBERS CODE 56

TYPICAL PART NUMBER	X	Y	A	B
QB7W2M56R70T20	0.498 [12.65]	0.615 [15.62]	0.103 [2.62]	0.512 [13.00]
QB7W2M56R70T20-1865.0	0.395 [10.03]	0.512 [13.00]	0.000 [0.00]	0.409 [10.39]

RIGHT ANGLE (90°) PRINTED BOARD MOUNT CONTACT HOLE PATTERN - 48 VOLT



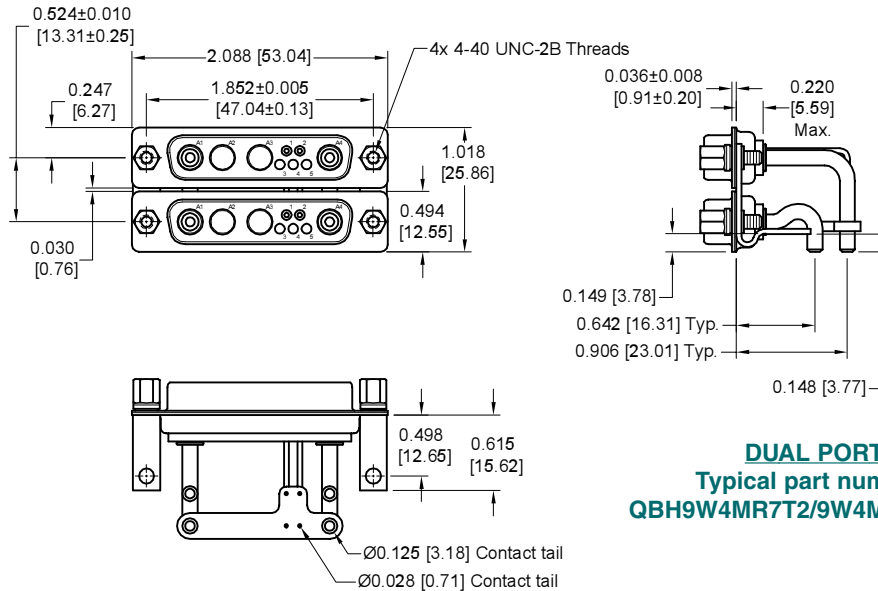
DUAL PORT



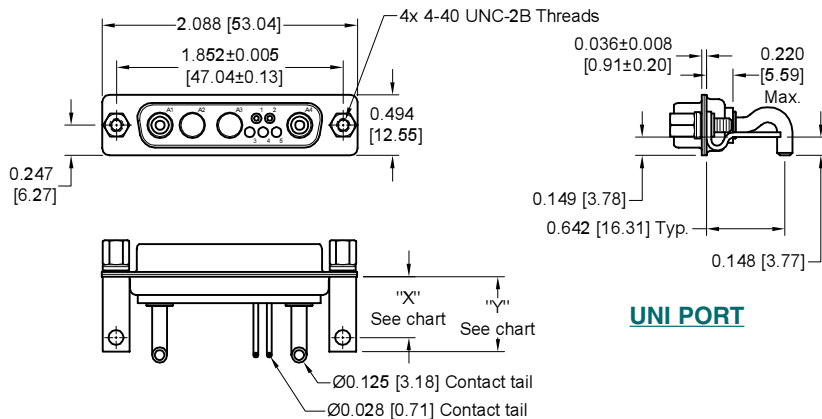
UNI PORT

RIGHT ANGLE (90°) PRINTED BOARD MOUNT CONNECTOR - 24 VOLT

CONTACT POSITIONS A1 AND A4 ARE FIRST TO MATE. CONTACT POSITIONS 1 AND 2 ARE LAST TO MATE.



DUAL PORT
Typical part number:
QBH9W4MR7T2/9W4MR7T20/AA



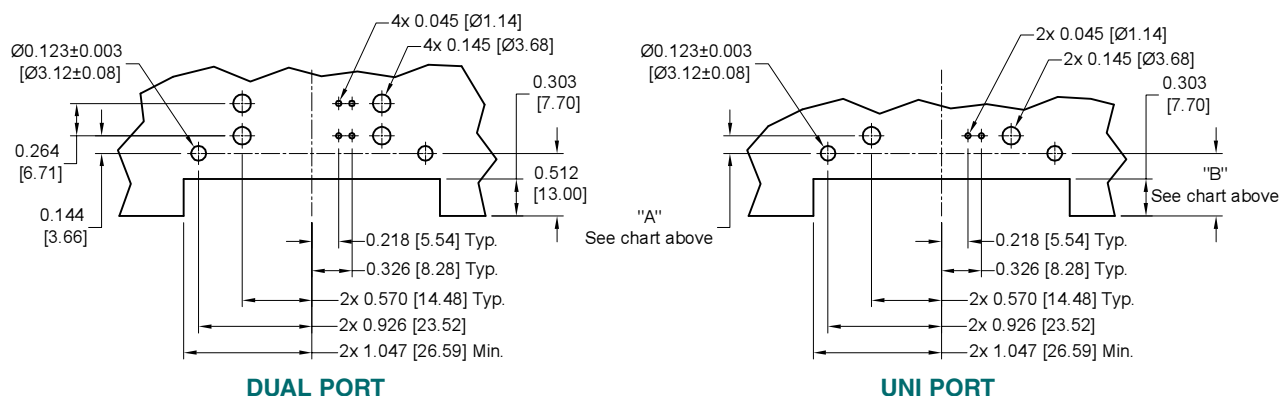
UNI PORT

The Dual Port and Uni Port connectors can also be supplied with standard D-subminiature mounting brackets, see page 53.

UNI PORT TYPICAL PART NUMBERS CODE 57

TYPICAL PART NUMBER	X	Y	A	B
QBH9W4M57R70T20/AA	0.498 [12.65]	0.615 [15.62]	0.144 [3.66]	0.512 [13.00]
QBH9W4M57R70T20/AA-1865.0	0.395 [10.03]	0.512 [13.00]	0.247 [6.27]	0.409 [10.39]

RIGHT ANGLE (90°) PRINTED BOARD MOUNT CONTACT HOLE PATTERN - 24 VOLT



DUAL PORT

UNI PORT

DIMENSIONS ARE IN INCHES [MILLIMETERS].
ALL DIMENSIONS ARE SUBJECT TO CHANGE.



Positronic Industries
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MicroTCA POWER INPUT CONNECTORS

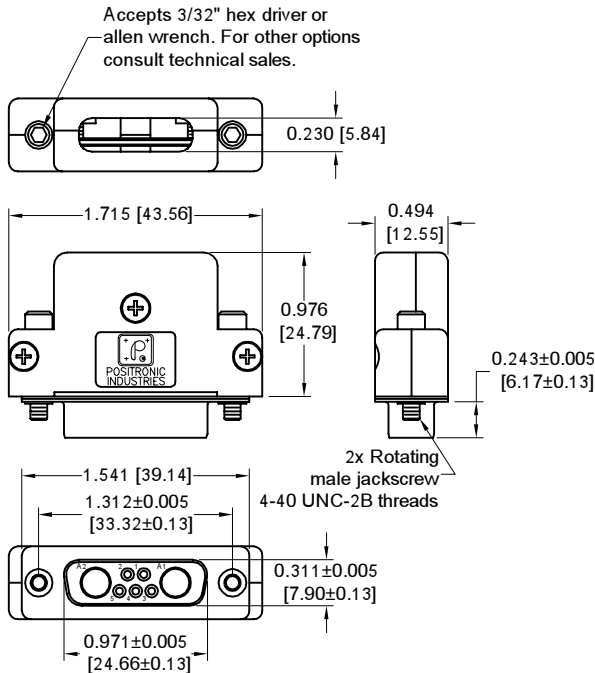
Combo-D
D-Sub

CABLE CONNECTOR

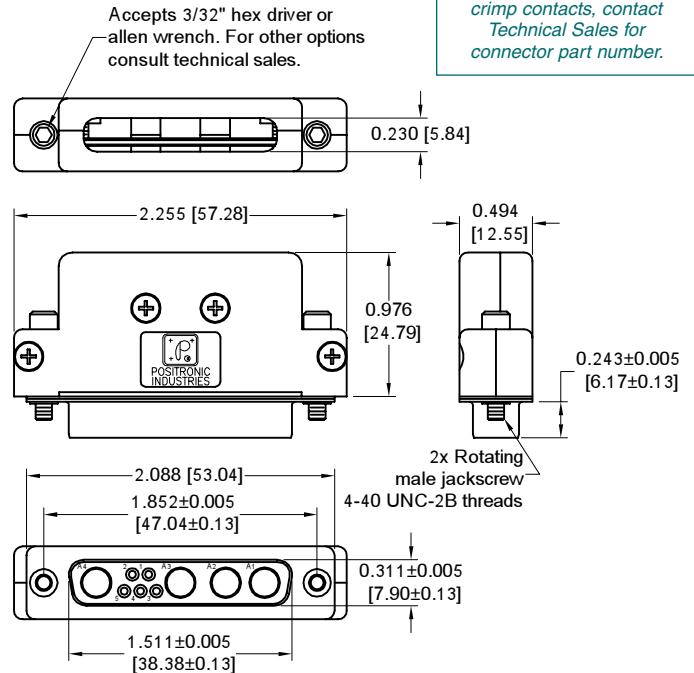
*1 CONTACTS ARE NOT SUPPLIED IN CONNECTOR AND NEED TO BE ORDERED SEPARATELY
SEE PAGES 54 FOR CONTACT PART NUMBERS

FEMALE CONTACTS ARE "TOUCH-SAFE" PER IEC 60950-1, FIGURE 2A.

*1 Note: Connectors can be kitted with all applicable crimp contacts, contact Technical Sales for connector part number.



Typical part number: QB7W2S00QH0/AA

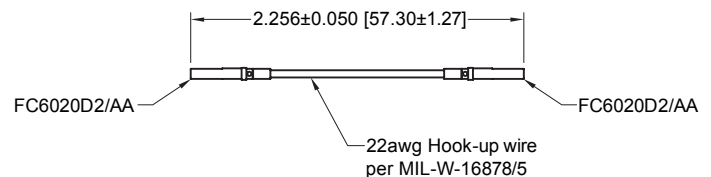


Typical part number: QB9W4S00QH0/AA

ELECTRICAL BRIDGE

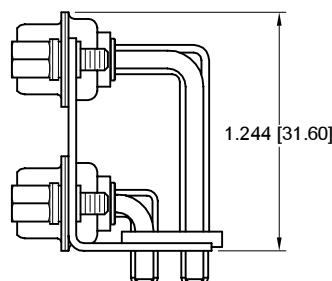
MicroTCA applications may require contact positions 1 and 2 be electrically bridged.

Order part number **CC2805/AA-V01**

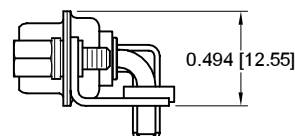


STANDARD D-SUBMINIATURE MOUNTING BRACKET

OPTIONAL MOUNTING BRACKET FOR DUAL PORT AND UNI PORT CONNECTORS



For more information on Dual Port connectors, see CBDP series on page 43.



For more information on Uni Port connectors, see CBD series on page 3.

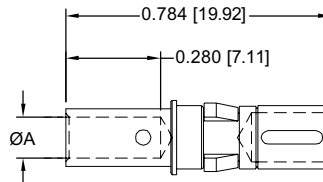
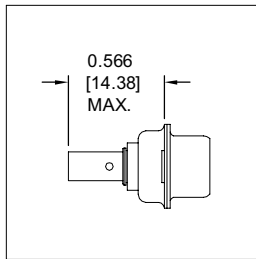
REMOVABLE CRIMP POWER CONTACTS

CODE 11 AND 12

*1 CONTACTS ARE NOT SUPPLIED IN CONNECTOR AND NEED TO BE ORDERED SEPARATELY

*1 FEMALE CONTACT

"CLOSED ENTRY" DESIGN, L.S.A.



PART NUMBER	WIRE SIZE [AWG] mm ²	ØA
FC4012D/AA-1817.0	12 [4.0]	0.101 [2.57]
FC4008D/AA-1817.0	8 [10.0]	0.181 [4.60]

*1 Note: Connectors can be kitted with all applicable crimp contacts, contact Technical Sales for connector part number.

MATERIAL: Copper alloy.

PLATING: (choose contact plating based on individual application requirements)

STANDARD FINISH: Gold flash over nickel plate.

OPTIONAL FINISHES: 0.000030 [0.76 µ] gold over nickel by adding "-14" suffix onto part number. Example: FC4012D/AA-14-1817.0.
0.000050 inch [1.27µ] gold over nickel by adding "-15" suffix onto part number. Example: FC4008D/AA-15-1817.0

*1 **NOTE:** Female contacts feature Large Surface Area (L.S.A.) closed entry contact design which provides maximum mating surfaces between male and female contact and reduced contact resistance during operation.

For crimping information and crimp tools, see Application Tools section, page 81-89.

REMOVABLE CRIMP SIGNAL CONTACTS

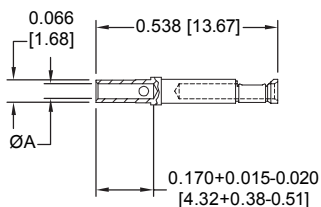
CODE 0, 11 AND 12

*1 CONTACTS ARE NOT SUPPLIED IN CONNECTOR AND NEED TO BE ORDERED SEPARATELY

CLOSED CRIMP BARREL

FEMALE CONTACT

"CLOSED ENTRY" DESIGN



PART NUMBER	WIRE SIZE AWG/[mm ²]	AØ
FC6020D2/AA	20 / 22 / 24 [0.5/0.3/0.25]	0.045 [1.14]

*1 Note: Connectors can be kitted with all applicable crimp contacts, contact Technical Sales for connector part number.

MATERIAL: Copper alloy.

PLATING: (choose contact plating based on individual application requirements)

STANDARD FINISH: Gold flash over nickel plate.

OPTIONAL FINISHES: 0.000030 [0.76 µ] gold over nickel by adding "-14" suffix onto part number. Example: FC6020D/AA-14.
0.000050 inch [1.27µ] gold over nickel by adding "-15" suffix onto part number. Example: Example: FC6020D/AA-15.

For crimping information and crimp tools, see Application Tools section, page 81-89.



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MicroTCA POWER INPUT CONNECTORS

Combo-D
D-Sub

MALE ORDERING INFORMATION - CODE NUMBERING SYSTEMS

SPECIFY COMPLETE CONNECTOR BY SELECTING AN OPTION FROM STEP 1 THROUGH 9

DUAL PORT CONNECTORS


STEP	1	2	3	4	5	6	7	8	9	10	
EXAMPLE	QB	7W2	M	R7T2	7W2	M	R7T2	0	/AA	-14	
UPPER CONNECTOR											
STEP 1 - BASIC SERIES QB Series (7W2 variant) QBH Series (5W5, 9W4 and 15W4 variant)											
STEP 2 - CONNECTOR VARIANTS 5W5, 7W2, 9W4, 15W4											
STEP 3 - CONNECTOR GENDER M - Male											
STEP 4 - LOCKING, POLARIZING, MOUNTING AND PUSH-ON FASTENER SYSTEMS 0 - None R6 - Bracket, Mounting, right angle (90°) Metal, Swaged to connector with 0.120 [3.05] Ø mounting hole with cross bar R7 - Bracket, Mounting, right angle (90°) Metal, Swaged to connector with 4-40 threads with cross bar R8 - Bracket, Mounting, right angle (90°) Metal, Swaged to connector with 4-40 locknut with cross bar N6 - Bracket, Mounting, right angle (90°) Metal, Swaged to connector with 0.120 [3.05] Ø mounting hole with cross bar and push-on fastener N7 - Bracket, Mounting, right angle (90°) Metal, Swaged to connector with 4-40 threads with cross bar and push-on fastener N8 - Bracket, Mounting, right angle (90°) Metal, Swaged to connector with 4-40 locknut with cross bar and push-on fastener T2 - Fixed Female Jackscrews											
					LOWER CONNECTOR OPTIONS ARE THE SAME AS FOR UPPER CONNECTOR STEPS 2, 3, AND 4					STEP 10 - SPECIAL OPTIONS FOR SPECIAL OPTIONS, SEE SPECIAL OPTIONS APPENDIX ON PAGE 89.	
					 STEP 9 - ENVIRONMENTAL COMPLIANCE OPTIONS /AA - Compliant per EU Directive 2002/95/EC (RoHS)					STEP 8 - SHELL OPTIONS 0 - Zinc Plated, with Chromate Seal. *S - Stainless Steel, passivated. X - Tin Plated. Z - Tin Plated and Dimpled (male connectors only).	
					NOTE: *1 For stainless steel dimpled male versions, contact Technical Sales.					NOTE: This step should be included to create a standard part number. Example: QB7W2MR7T2/7W2MR7T20/AA	

For crimping information and crimp tools, see Application Tools section, pages 81-89.

MALE ORDERING INFORMATION - CODE NUMBERING SYSTEMS

SPECIFY COMPLETE CONNECTOR BY SELECTING AN OPTION FROM STEP 1 THROUGH 9

UNI PORT CONNECTORS

STEP	1	2	3	4	5	6	7	8	9	10	
EXAMPLE	QB	7W2	M	56	R7	0	T2	0	/AA	-14	
STEP 1 - BASIC SERIES QB Series (7W2 variant) QBH Series (5W5, 9W4 and 15W4 variant)											
STEP 2 - CONNECTOR VARIANTS 5W5, 7W2, 9W4, 15W4											
STEP 3 - CONNECTOR GENDER M - Male											
STEP 4 - CONTACT TERMINATION 56 - Solder, Right Angle (90°) Printed Board Mount with Signal and 0.094 [2.39] Ø Power Contacts, 0.395 [10.03] Signal Contact Extension. <i>Available for 7W2 variant.</i> 57 - Solder, Right Angle (90°) Printed Board Mount with Signal and 0.125 [3.18] Ø Power Contacts, 0.642 [16.29] Signal Contact Extension. <i>Available for 5W5, 9W4 and 15W4 variants.</i>											
STEP 5 - MOUNTING STYLE R6 - Bracket, Mounting, right angle (90°) Metal, Swaged to connector with 0.120 [3.05] Ø mounting hole with cross bar R7 - Bracket, Mounting, right angle (90°) Metal, Swaged to connector with 4-40 threads with cross bar R8 - Bracket, Mounting, right angle (90°) Metal, Swaged to connector with 4-40 locknut with cross bar											
					 STEP 9 - ENVIRONMENTAL COMPLIANCE OPTIONS /AA - Compliant per EU Directive 2002/95/EC (RoHS)					STEP 10 - SPECIAL OPTIONS FOR SPECIAL OPTIONS, SEE SPECIAL OPTIONS APPENDIX ON PAGE 89.	
					NOTE: This step should be included to create a standard part number. Example: QB7W2M56R70T20/AA					STEP 8 - SHELL OPTIONS 0 - Zinc Plated, with Chromate Seal. *S - Stainless Steel, passivated. X - Tin Plated. Z - Tin Plated and Dimpled (male connectors only).	
					STEP 7 - LOCKING AND POLARIZING SYSTEMS T2 - Fixed Female Jackscrews.					STEP 6 - HOODS AND PUSH-ON FASTENERS 0 - None N - Push-on Fastener, for Right Angle (90°) Mounting Brackets	

NOTE: *1 For stainless steel dimpled male versions, contact Technical Sales.

FEMALE ORDERING INFORMATION - CODE NUMBERING SYSTEM

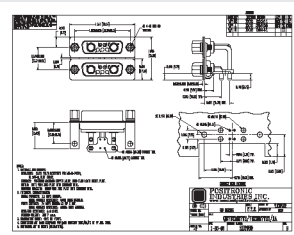
Specify Complete Connector By Selecting An Option From Step 1 Through 9

CABLE CONNECTORS

STEP	1	2	3	4	5	6	7	8	9	10
EXAMPLE	QB	7W2	S	0	0	Q	H	0	/AA	-14
STEP 1 - BASIC SERIES QB Series										
STEP 2 - CONNECTOR VARIANTS 7W2 9W4										
STEP 3 - CONNECTOR GENDER S - Female PosiBand Closed Entry Signal Contacts <i>Open Entry Signal Contacts are available and can be ordered separately, see page 73.</i>										
STEP 4 - CONTACT TERMINATION 0 - Connector ordered without contacts. Order signal and power contacts separately. See page 54 for contact part numbers. 1 - Signal contacts, 20 AWG-24 AWG [0.5mm ² -0.25mm ²]. 11 - Signal contacts, 20 AWG-24 AWG [0.5mm ² -0.25mm ²] with FC4012D-1817.0 power contacts. 12 - Signal contacts, 20 AWG-24 AWG [0.5mm ² -0.25mm ²] with FC4008D-1817.0 power contacts.										
STEP 5 - MOUNTING STYLE 0 - None										
STEP 6 - HOODS Q - Hood, Top Opening, Plastic										
STEP 7 - LOCKING AND POLARIZING SYSTEMS H - Rotating male jackscrew with internal hex for 3/32 hex drives.										
STEP 8 - SHELL OPTIONS 0 - Zinc Plated, with Chromate Seal. S - Stainless Steel, passivated. X - Tin Plated.										
STEP 9 - ENVIRONMENTAL COMPLIANCE OPTIONS /AA - Compliant per EU Directive 2002/95/EC (RoHS) Note: This step should be included to create a standard part number. Example: QB7W2S00QH0/AA										
STEP 10 - SPECIAL OPTIONS <i>FOR SPECIAL OPTIONS, SEE SPECIAL OPTIONS APPENDIX ON PAGE 89.</i>										

For crimping information and crimp tools, see Application Tools section, pages 81-89.

NOTE: Once you have made a connector selection, contact Technical Sales if you would like to receive a drawing in DXF, PDF format or a 3-dimensional IGES, STEP, or SOLIDWORKS file.



SK Drawing



3-dimensional model

Contact Technical Sales for ordering information for cable versions of the 5W5 and 15W4 variants.

POSITRONIC PRODUCTS

Power

Contact Sizes: 0, 8, 12, 16, 20 and 22
Current Ratings: To 100 amperes
Terminations: Crimp, wire solder, straight solder, right angle (90°) solder, straight press-fit and right angle (90°) press-fit
Configurations: Multiple variants in a variety of package sizes
Compliance: PICMG 2.11, PICMG 3.0, VITA 41



FEATURES: Hot swap capability • AC/DC operation in a single connector • Signal contacts for hardware management • Blind mating • Sequential mating • Large surface area contact mating system • Wide variety of accessories • Customer specified contact arrangements

D-subminiature

Contact Sizes: 8, 16, 20 and 22
Current Ratings: To 40 amperes nominal
Terminations: Crimp, wire solder, straight solder, right angle (90°) solder and straight press-fit
Configurations: Multiple variants in both standard and high densities
Qualifications: MIL-DTL-24308, Goddard Space Flight S-311-P, SAE AS 39029, IP65, IP67



FEATURES: Four performance levels available: professional, industrial, military and space-flight quality for best cost/performance ratio • Options include thermocouple contacts, air coupling, environmentally sealed and dual port package including mixed density • Broad selection of accessories

Rectangular

Contact Sizes: 16, 20 and 22
Current Ratings: To 13 amperes
Terminations: Crimp, wire solder, straight solder and right angle (90°) solder
Configurations: Multiple variants in both standard and high densities
Qualifications: MIL-DTL-28748, SAE AS 39029, CCITT V.35



FEATURES: Two performance levels available: industrial quality and military quality provide two performance to cost choices • Large surface area contact mating system • A wide variety of accessories • Broad selection of contact variants and package sizes

Circular

Contact Sizes: 12, 16, 20 and 22
Current Ratings: To 25 amperes nominal
Terminations: Crimp, wire solder, straight solder and right angle (90°) solder
Configurations: Multiple variants
Qualifications: Environmental protection to IP67



FEATURES: Non-corrodible / lightweight composite construction • EMI/RFI shielded versions • Thermocouple contacts • Environmentally sealed versions • Rear insertion/front release of removable contacts • Two level sequential mating • Overmolding available on full assemblies

Cable

All Positronic connector products can be supplied as part of cable assemblies whose technical characteristics would reflect those of the connectors being used within the assembly.



FEATURES: Shorten the supply chain and reduce additional costs and delays by "cablizing" • Overmolding available • Shielded and environmentally sealed versions available • Power cables and access boxes which meet the SAE J2496 specification

Hermetic

Contact Sizes: 8, 12, 16, 20 and 22
Current Ratings: To 40 amperes nominal
Terminations: Feedthrough is standard; flying leads and board mount available upon request
Configurations: See D-subminiature and circular configurations above
Qualifications: Space-D32



FEATURES: Intended for use as an electrical feedthrough in high vacuum applications • Leakage rate: 5×10^{-9} mbar.l/s @ vacuum 1.5×10^{-5} atm • Signal, power, coax and high voltage versions available • Connectors can be mounted on flange assembly per customer specification

For more information, visit www.connectpositronic.com or call your nearest Positronic sales office as given on the back of this catalog.

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