

LOC		DIST		REVISIONS			
P	LTR	DESCRIPTION	DATE	DWN	APVD		
L		REV PER ECO 15-009710	6-23-15	CT	MS		

PART NO. VARIABLES:

# MTCPQKTXXXXXXXX

- KEYING CODE AA THRU DD (SEE TABLE I)
- G = SHIELD GROUND BUS BAR & GROUND BLOCK INSTALLED (SEE TABLE II FOR THE RECOMMENDED GROUND BLOCK PART NUMBERS)
- F = NO SHIELD GROUND BUS BAR OR GROUND BLOCK
- P = PIN INSERT (SEE TABLE III FOR THE RECOMMENDED PIN CONTACT PART NUMBERS)
- S = SOCKET INSERT (SEE TABLE III FOR THE RECOMMENDED SOCKET CONTACT PART NUMBERS)
- N = NO CONTACTS
- 0 = NO INSERTS
- 2 = 1" CONNECTOR, INSERT SIZE 22 (SEE TABLE IV)
- 6 = 1" CONNECTOR, INSERT SIZE 16 (SEE TABLE IV)
- 22 = 2" CONNECTOR, INSERTS SIZE 22 PRIMARY & SECONDARY (SEE TABLE IV)
- 26 = 2" CONNECTOR, INSERTS SIZE 22 PRIMARY & SIZE 16 SECONDARY (SEE TABLE IV)
- 62 = 2" CONNECTOR, INSERTS SIZE 16 PRIMARY & SIZE 22 SECONDARY (SEE TABLE IV)
- 66 = 2" CONNECTOR, INSERTS SIZE 16 PRIMARY & SECONDARY (SEE TABLE IV)
- P = PLUG
- R = RECEPTACLE
- F = FLENGED RECEPTACLE
- 1 = 1" INCH CONNECTOR
- 2 = 2" INCH CONNECTOR
- KIT
- MTC CONNECTOR, POWER BLOCK, QUICK DISCONNECT

SEE TABLE V



### PERFORMANCE

MTCPQ MEETS RAYCHEM SPECIFICATION C-6114.  
DESIGNED TO MEET ARINC-600 ENVIRONMENTAL REQUIREMENTS.



PLUG



RECEPTACLE

GROUNDING BLOCK  
(1-INCH SHOWN)

THIS DRAWING IS A CONTROLLED DOCUMENT.		DIN C.C.THOMAS 20APR2015	TE Connectivity	
DIMENSIONS: INCHES		CHK M. SPICER 4-20-15	NAME MTCP POWER BLOCK QUICK DISCONNECT CONNECTOR KIT	
TOLERANCES UNLESS OTHERWISE SPECIFIED:		APVD M. SPICER 4-20-15	RESTRICTED TO	
0. PLC ± .005	1. PLC ± .005	PRODUCT SPEC	SIZE A1	
2. PLC ± .005	3. PLC ± .005	APPLICATION SPEC	CAGE CODE 06090	
4. PLC ± .005	ANGLES ± .005	WEIGHT	DRAWING NO. MTCPQKTXXXXXXXX	
MATERIAL	FINISH	CUSTOMER DRAWING	SCALE NTS	SHEET 1 OF 3

**TABLE I: KEYING CODES**

POSITION OF PROJECTING TAB (TYP)		
	-A A-	
	-A B-	
	-A C-	
	-A D-	
	-B A-	
	-B B-	
	-B C-	
	-B D-	
	-C A-	
	-C B-	
	-C C-	
	-C D-	
	-D A-	
	-D B-	
	-D C-	
	-D D-	
	-X X-	
RECEPTACLE	CODE	PLUG

**TABLE II: SHIELD GROUNDING**

	1" ACCESSORY CONTACTS	2" ACCESSORY CONTACTS
PLUG	1X CHA-0307 OR 1X CHA-0303 10X M39029/58-360	1X CHA-0308 OR 1X CHA-0304 20X M39029/58-360
RECEPTACLE	1X CHA-0305 OR 1X CHA-0301 10X M39029/58-360	1X CHA-0306 OR 1X CHA-0302 20X M39029/58-360

CONTACTS SHOWN IN TABLE II AND III ARE NOT INCLUDED IN THE KIT. CUSTOMER HAS TO BUY THEM SEPARATELY.

**TABLE III: MTCP CRIMP CONTACTS**

	SIZE	RAYCHEM P/N	MILITARY P/N
PIN	16	CTA-0079	M39029/58-364
	22	CTA-0166	
SOCKET	16	CTA-0078	M39029/57-358
	22	CTA-0165	

GROUNDING BLOCKS ARE INSTALLED WITH A TIGHTENING TORQUE OF 8.0±0.4 INCH-POUNDS.

THIS DRAWING IS A CONTROLLED DOCUMENT.		DWG: C.C.THOMAS 20APR2015	TE Connectivity	
DIMENSIONS: INCHES		CHK: M. SPICER 4-20-15	NAME: MTCP POWER BLOCK QUICK DISCONNECT CONNECTOR KIT	
TOLERANCES UNLESS OTHERWISE SPECIFIED:		APP'D: M. SPICER 4-20-15	RESTRICTED TO: -	
0. PLC ± .005	1. PLC ± .005	APPLICATION SPEC: -		
2. PLC ± .005	3. PLC ± .005	SIZE: A1		
4. PLC ± .005	ANGLES ± .005	CAGE CODE: 06090		
MATERIAL: -	FINISH: -	DRAWING NO: MTCPQKXXXXXXXX		
CUSTOMER DRAWING		SCALE: NTS	SHEET: 2 OF 3	REV: L

TABLE IV: MTCP CRIMP INSERTS					
CODE	GENDER	CONN. SIZE	CONTACT SIZE	TYPE	PART NUMBER
2	PIN	1 INCH	22	--	MTCP-122-20PQ
	SOCKET	1 INCH	22	--	MTCP-122-20S
6	PIN	1 INCH	16	--	MTCP-116-05P1 (*)
	SOCKET	1 INCH	16	--	MTCP-116-05S1 (*)
22	PIN	2 INCH	22	PRIMARY	MTCP-122-20PQ1
	SOCKET	2 INCH	22	PRIMARY	MTCP-122-20S1
	PIN	2 INCH	22	SECONDARY	MTCP-122-20PQ2
	SOCKET	2 INCH	22	SECONDARY	MTCP-122-20S2
26	PIN	2 INCH	22	PRIMARY	MTCP-122-20PQ1
	SOCKET	2 INCH	22	PRIMARY	MTCP-122-20S1
	PIN	2 INCH	16	SECONDARY	MTCP-116-05P2
	SOCKET	2 INCH	16	SECONDARY	MTCP-116-05S2
62	PIN	2 INCH	16	PRIMARY	MTCP-116-05P1
	SOCKET	2 INCH	16	PRIMARY	MTCP-116-05S1
	PIN	2 INCH	22	SECONDARY	MTCP-122-20PQ2
	SOCKET	2 INCH	22	SECONDARY	MTCP-122-20S2
66	PIN	2 INCH	16	PRIMARY	MTCP-116-05P1
	SOCKET	2 INCH	16	PRIMARY	MTCP-116-05S1
	PIN	2 INCH	16	SECONDARY	MTCP-116-05P2
	SOCKET	2 INCH	16	SECONDARY	MTCP-116-05S2

(\*) SIZE 16 INSERTS FOR THE 1" ( ONE INCH ) SHELL ARE IDENTICAL TO THE PRIMARY INSERTS FOR THE 2" ( TWO INCH ) SHELL. THIS APPLIES TO THE PLUG AND RECEPTACLE CONFIGURATION OF SIZE 16 INSERTS.

TABLE V: MTCP CONNECTOR SHELLS		
SHELL	SIZE	PART NUMBER
PLUG	1"	MTC100Q-SH1-P22*
	2"	MTC100Q-SH2-P22*
RECEP.	1"	MTC100Q-SH1-R22*
	2"	MTC100Q-SH2-R22*
RECEP.	1"	MTC100Q-SH1-F22*
	2"	

\* "A" SIDE MARKING

MTCP CRIMP CONNECTOR TOOLS				
COMPONENT	SIZE	TOOL TYPE	TOOL P/N	MANUFACTURER
INSERTS	22	INS./EXTR. METAL	CTA-0161	RAYCHEM CORP.
	16	INS./EXTR. METAL	CTA-0161	RAYCHEM CORP.
CONTACTS	22	INS./EXTR. PLASTIC	CTA-1160	RAYCHEM CORP.
	22	EXTRACTION METAL	ATBD 2062	ASTRO TOOL CO.
	22	INSERTION METAL	ATBD 1062	ASTRO TOOL CO.
	16	INS./EXTR. PLASTIC	M81969/14-03	MIL. SPEC.
	16	EXTRACTION METAL	DRK83-16	DANIELS MFG. CO.
	16	INSERTION METAL	DAK83-16	DANIELS MFG. CO.
	22	CRIMP BASIC	M22520/2-01	MIL. SPEC.
	22	PIN POSITIONER	CE-1605900	RAYCHEM CORP.
			K817-11	DANIELS MFG. CO.
	22	SOCKET POSITIONER	CE-1606000	RAYCHEM CORP.
			K818-11	DANIELS MFG. CO.
	16	CRIMP BASIC	M22520/1-01	MIL. SPEC.
	16	PIN POSITIONER	M22520/1-04	MIL. SPEC.
	16	SOCKET POSITIONER	M22520/1-04	MIL. SPEC.

RECEPTACLE SHELL COUPLING ATTACHMENT SCREW = 7/64 ALLEN WRENCH  
 PLUG SHELL COUPLING DRIVER = 7/64 ALLEN OR FLAT BLADE SCREWDRIVER  
 STRAIN RELIEF CABLE CLAMPS = #1 PHILLIPS SCREWDRIVER

GROUNDING BLOCK CONNECTOR				
CONTACTS	SIZE	TOOL TYPE	TOOL P/N	MANUFACTURER
	22D	INS./EXTR. PLASTIC	M81969/14-01	MIL. SPEC.
	22D	CRIMP BASIC	M22520/2-01	MIL. SPEC.
	22D	PIN POSITIONER	M22520/2-09	MIL. SPEC.

GROUNDING BLOCK ATTACHMENT SCREW = #1 PHILLIPS SCREWDRIVER

TABLE VI: DUST CAPS		
USED WITH	SIZE	PART NUMBER
PLUG	1"	D-659-0060
	2"	D-659-0062
RECEP.	1"	CHA-1603
	2"	CHA-1604

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DIMENSIONS: INCHES		CHK M. SPICER	4-20-15		
TOLERANCES UNLESS OTHERWISE SPECIFIED:		APP'D M. SPICER	4-20-15		NAME
0. PLC ± .010 1. PLC ± .010 2. PLC ± .010 3. PLC ± .010 4. PLC ± .010 ANGLES ± .5°		PRODUCT SPEC		MTCP POWER BLOCK QUICK DISCONNECT CONNECTOR KIT	
MATERIAL		APPLICATION SPEC		SIZE	RESTRICTED TO
FINISH		WEIGHT		A1 06090	06090
		CUSTOMER DRAWING		SCALE	SHEET 3 OF 3