

| LOC | | DIST | | REVISIONS | | | |
|-----|-----|-----------------------|---------|-----------|------|--|--|
| P | LTR | DESCRIPTION | DATE | DNW | 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 | | TOLERANCES UNLESS OTHERWISE SPECIFIED: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <tr><td>0. PLC</td><td>± .005</td></tr> <tr><td>1. PLC</td><td>± .005</td></tr> <tr><td>2. PLC</td><td>± .005</td></tr> <tr><td>3. PLC</td><td>± .005</td></tr> <tr><td>4. PLC</td><td>± .005</td></tr> <tr><td>ANGLES</td><td>± .005</td></tr> </table> | | 0. PLC | ± .005 | 1. PLC | ± .005 | 2. PLC | ± .005 | 3. PLC | ± .005 | 4. PLC | ± .005 | ANGLES | ± .005 | <table border="1"> <tr><td>APVD</td><td>M. SPICER</td></tr> <tr><td>PRODUCT SPEC</td><td></td></tr> <tr><td>APPLICATION SPEC</td><td></td></tr> <tr><td>WEIGHT</td><td></td></tr> </table> | | APVD | M. SPICER | PRODUCT SPEC | | APPLICATION SPEC | | WEIGHT | | <table border="1"> <tr><td>SIZE</td><td>A1</td></tr> <tr><td>CAGE CODE</td><td>06090</td></tr> <tr><td>DRAWING NO</td><td>MTCPQKTXXXXXXXX</td></tr> <tr><td>RESTRICTED TO</td><td></td></tr> </table> | | SIZE | A1 | CAGE CODE | 06090 | DRAWING NO | MTCPQKTXXXXXXXX | RESTRICTED TO | |
| 0. PLC | ± .005 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1. PLC | ± .005 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2. PLC | ± .005 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3. PLC | ± .005 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4. PLC | ± .005 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ANGLES | ± .005 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| APVD | M. SPICER | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PRODUCT SPEC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| APPLICATION SPEC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WEIGHT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SIZE | A1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CAGE CODE | 06090 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DRAWING NO | MTCPQKTXXXXXXXX | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| RESTRICTED TO | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MATERIAL: - FINISH: - | | CUSTOMER DRAWING | | SCALE: NTS SHEET 1 OF 3 REV: L | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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: MTCPQKXXXXXXXXX | | |
| 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 |

| | | | | | |
|---|--|------------------------------|-----------|---|---------------|
| THIS DRAWING IS A CONTROLLED DOCUMENT. | | DIN C.C.THOMAS 4-20-15 | 20APR2015 | | |
| DIMENSIONS: INCHES | | CHK M. SPICER | 4-20-15 | | |
| TOLERANCES UNLESS OTHERWISE SPECIFIED: | | APP'D M. SPICER | 4-20-15 | | NAME |
| 0. PLC ± .005 1. PLC ± .005 2. PLC ± .005 3. PLC ± .005 4. PLC ± .005 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 |