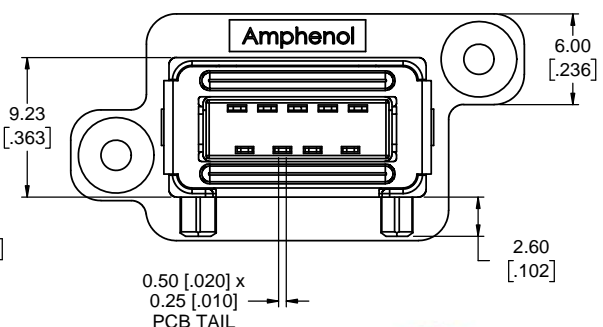
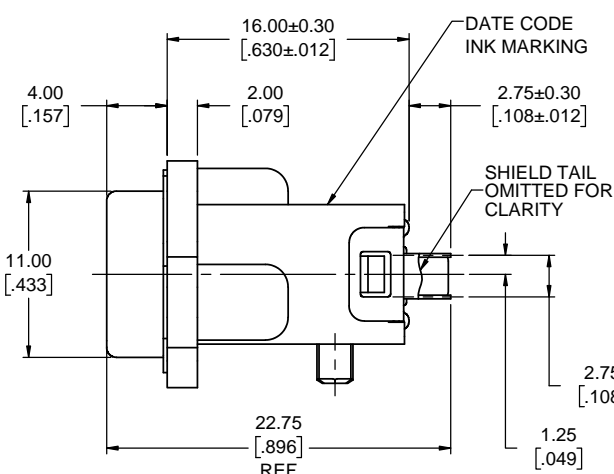
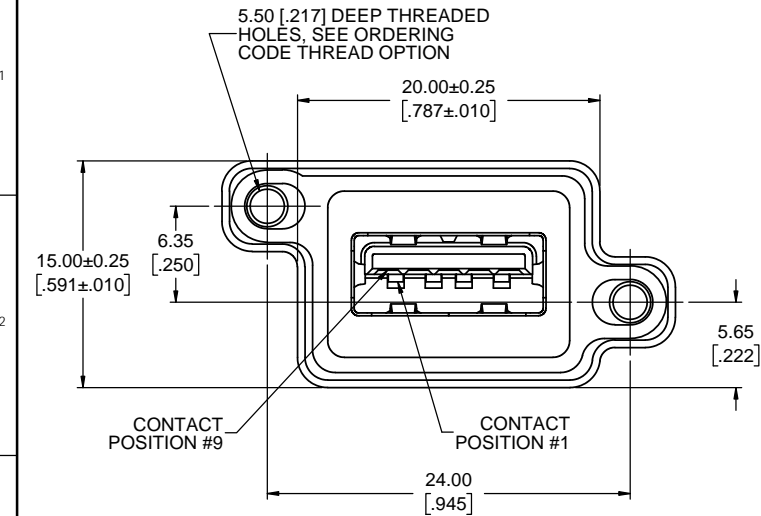


| REVISIONS |                              |          |       |
|-----------|------------------------------|----------|-------|
| REV       | DESCRIPTION, ECN, EAR NO.    | DATE     | APP'D |
| A         | PROPOSAL DRAWING (EAR 14408) | MAY24/16 | K.L.  |
| B         | PROPOSAL DRAWING (EAR 14408) | FEB28/17 | K.L.  |



ORDERING CODE: **MUSBR-3593-XX**

SERIES, RUGGED USB

USB 3.0 STANDARD 'A' RECEPTACLE, VERTICAL PCB TAIL

THREAD OPTION

3 = #4-40 UNC THREAD

M = M3 x 0.5 THREAD

DUST COVER OPTION

0 = NO DUST COVER SUPPLIED

1 = WITH GREY DUST COVER SUPPLIED

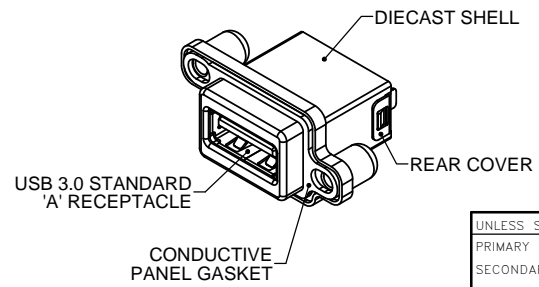
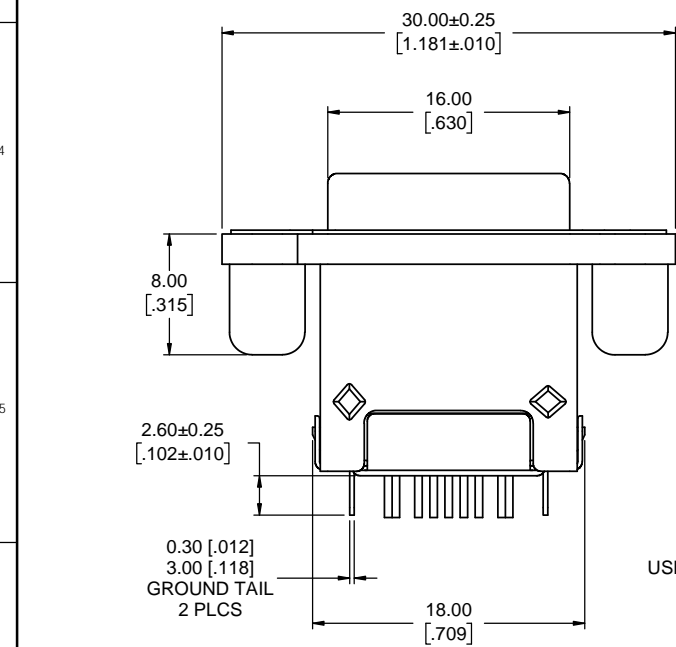
5 = WITH BLACK DUST COVER SUPPLIED

**SPECIAL CONNECTORS:**

MANY UNIQUE FEATURES ARE READILY AVAILABLE TO SUIT CUSTOMER REQUIREMENTS. CONSULT WITH AMPHENOL CANADA FOR DETAILS.

**NOTES:**

- MATERIAL:
  - ALL MATERIALS ARE RoHS COMPLIANT PER EU DIRECTIVE 2011/65/EU AND AMENDMENTS
  - OUTER SHELL - DIECAST ZINC ALLOY, MATTE TIN OVER NICKEL PLATED
  - CONTACTS - PHOSPHOR BRONZE & COPPER ALLOY, PLATED WITH 0.76 µm (30 µ") GOLD OVER 1.27 µm (50 µ") MINIMUM NICKEL ON THE MATING AREA WITH MATTE TIN PLATING ON THE TAILS.
  - HOUSINGS - ENGINEERING THERMOPLASTIC, HIGH TEMPERATURE RESISTANT, FLAMMABILITY RATING UL94V-0, MATING AREA - BLUE, OTHERS - BLACK
  - USB SHIELD & REAR COVER - STAINLESS STEEL, PASSIVATED
  - PANEL GASKET - CONDUCTIVE SILICONE RUBBER, BLACK
  - DUST COVER - SILICONE RUBBER WITH NICKEL PLATED BRASS BUSHING. SEE ORDERING CODE FOR DUST COVER COLOUR OPTIONS. SEE SHEET 2 FOR DUST COVER VIEWS.
- ENVIRONMENTAL PERFORMANCE PER IEC 60529 CODE IP67 FOR SEAL BETWEEN MATING AREA AND PCB SIDE OF CONNECTOR. GASKET PROVIDES SEAL TO INSIDE FACE OF ENCLOSURE PANEL. AVAILABLE DUST COVERS PROVIDE ADDED PROTECTION.
- CURRENT RATING: 1.8A MAX. FOR POSITIONS 1 & 4, 0.25A MAX. FOR REMAINING POSITIONS
- CONTACT RESISTANCE: 30 MILLIOHMS MAX. FOR POSITIONS 1 & 4, 50 MILLIOHMS MAX. FOR REMAINING POSITIONS.
- OPERATING TEMPERATURE: -40°C TO +105°C.
- DUST COVERS MAY BE ORDERED SEPARATELY. SPECIFY
  - PART NUMBER MUSB-2A111-014BP FOR THE GREY COVER OR
  - PART NUMBER MUSB-2A111-024BP FOR THE BLACK COVER.



|                            |                        |           |          |
|----------------------------|------------------------|-----------|----------|
| UNLESS SPECIFIED OTHERWISE | DRAWN                  | B.COPPING | MAY24/16 |
| PRIMARY UNITS MILLIMETERS  | CHECKED                | K.LAMBIE  | MAY24/16 |
| SECONDARY INCHES           | M.E. APP'D             |           |          |
| REFERENCE IN PARENTHESES   | Q.A. APP'D             |           |          |
| GENERAL TOLERANCES         | DWG APPR.              |           |          |
| 1 DECIMAL PLACE            | ENG. REL. NO.          | EAR 14408 |          |
| 2 DECIMAL PLACES ±0.15     | REF.                   |           |          |
| 3 DECIMAL PLACES           | THIRD ANGLE PROJECTION |           |          |
| ANGULAR DEGREES            |                        |           |          |

**Amphenol Canada Corp.**  
www.amphenolcanada.com

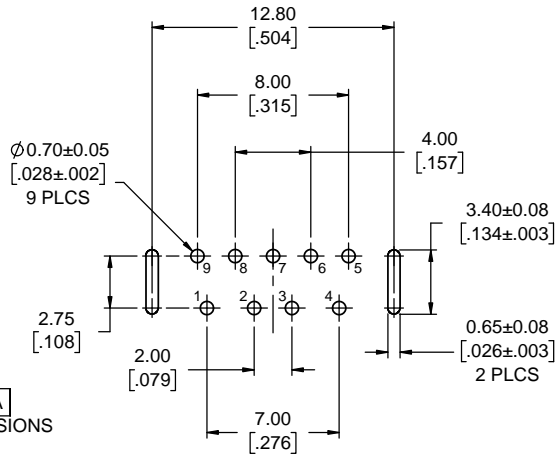
**MUSBR RUGGED USB CONNECTOR, 3.0 STANDARD 'A' RECEPTACLE, VERTICAL PCB TAIL, THREAD & DUST COVER OPTIONS, RoHS COMPLIANT**

DWG. NO. **P-MUSBR-3593-XX** REV **B**

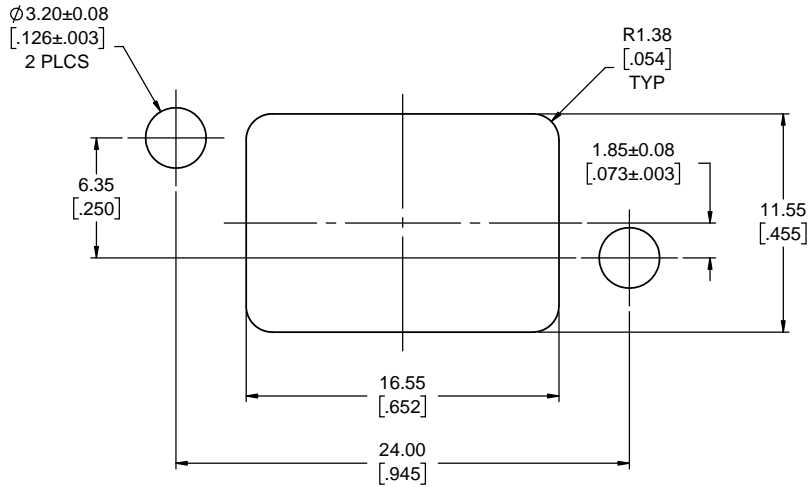
CODE ID NO. 03554 DWG SIZE: X SCALE: 4:1 SHEET 1 OF 2

| PIN ASSIGNMENT CHART |             |                                     |
|----------------------|-------------|-------------------------------------|
| POSITION #           | SIGNAL NAME | DESCRIPTION                         |
| 1                    | VBUS        | POWER                               |
| 2                    | D-          | USB 2.0<br>DIFFERENTIAL PAIR        |
| 3                    | D+          |                                     |
| 4                    | GND         | GROUND FOR POWER<br>RETURN          |
| 5                    | STDA_SSRX-  | SS RECEIVER<br>DIFFERENTIAL PAIR    |
| 6                    | STDA_SSRX+  |                                     |
| 7                    | GND_DRAIN   | GROUND FOR SIGNAL<br>RETURN         |
| 8                    | STDA_SSTX-  | SS TRANSMITTER<br>DIFFERENTIAL PAIR |
| 9                    | STDA_SSTX+  |                                     |
| SHELL                | SHIELD      | CONNECTOR METAL<br>SHELL            |

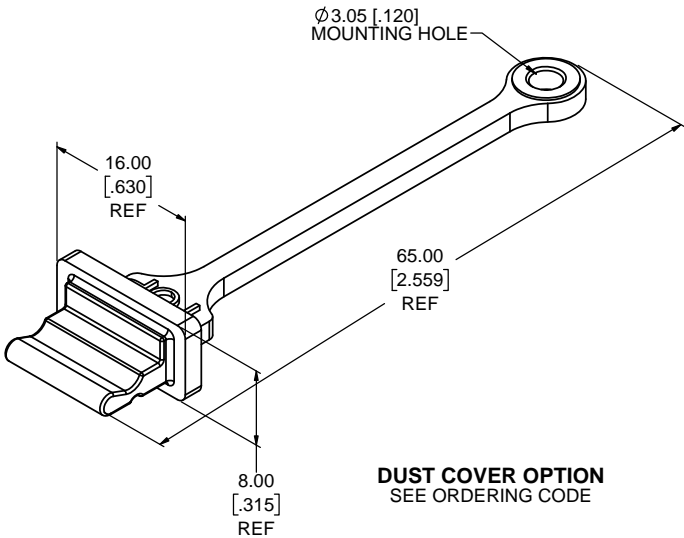
LOCATE HOLES  
 $\varnothing 0.13 \text{ [.005] DIA}$   
 POSITION DIMENSIONS  
 ARE BASIC



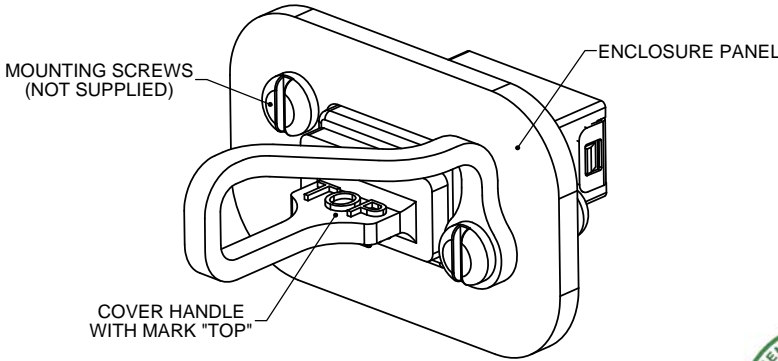
RECOMMENDED PCB LAYOUT  
 COMPONENT SIDE OF BOARD



RECOMMENDED PANEL CUTOUT  
 OUTSIDE VIEW OF PANEL



DUST COVER OPTION  
 SEE ORDERING CODE



DUST COVER APPLICATION VIEW



|                            |                        |           |          |
|----------------------------|------------------------|-----------|----------|
| UNLESS SPECIFIED OTHERWISE | DRAWN                  | B.COPPING | MAY24/16 |
| PRIMARY UNITS MILLIMETERS  | CHECKED                | K.LAMBIE  | MAY24/16 |
| SECONDARY UNITS INCHES     | M.E. APP'D             |           |          |
| REFERENCE IN PARENTHESES   | Q.A. APP'D             |           |          |
| GENERAL TOLERANCES         | DWG APPR.              |           |          |
| 1 DECIMAL PLACE            | ENG. REL. NO.          | EAR 14408 |          |
| 2 DECIMAL PLACES ±0.15     | REF.                   |           |          |
| 3 DECIMAL PLACES           | THIRD ANGLE PROJECTION |           |          |
| ANGULAR DEGREES            |                        |           |          |

|  |                 |            |              |
|--|-----------------|------------|--------------|
| Amphenol Canada Corp.<br>www.amphenolcanada.com  |                 |            |              |
| MUSBR RUGGED USB CONNECTOR,<br>3.0 STANDARD 'A' RECEPTACLE,<br>VERTICAL PCB TAIL, THREAD & DUST<br>COVER OPTIONS, RoHS COMPLIANT |                 |            |              |
| DWG. NO.   | P-MUSBR-3593-XX |            |              |
| CODE ID NO. 03554  | DWG SIZE: X     | SCALE: 5:1 | SHEET 2 OF 2 |

# Mouser Electronics

Authorized Distributor

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