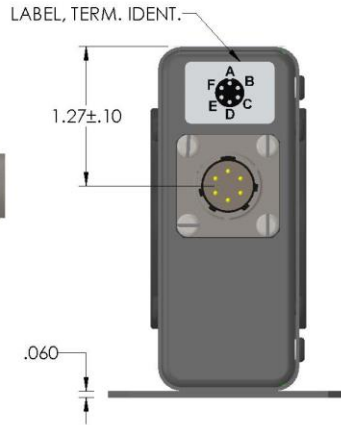
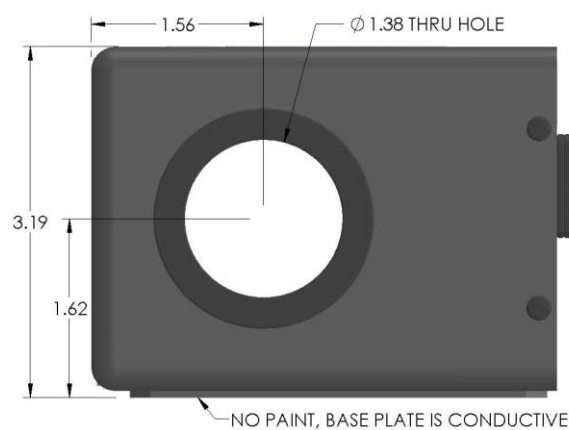
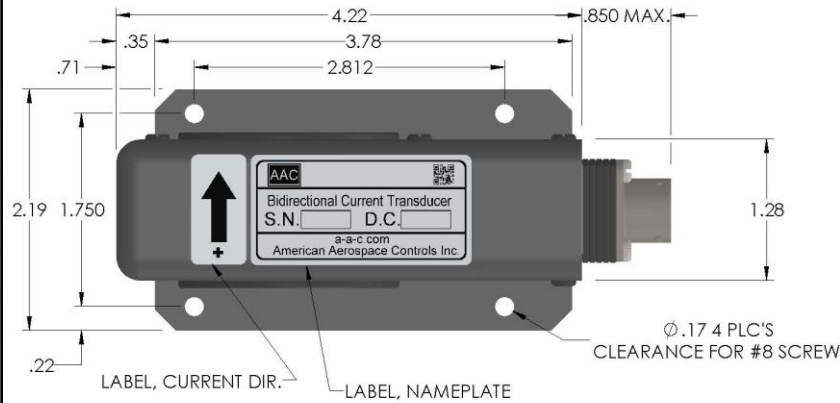


Dimensions in Inches, Tolerances: .XX ± .03 .XXX ± .010

**BIDIRECTIONAL CURRENT TRANSDUCER  
SERIES S651**



<u>PART NUMBER</u>	<u>INPUT CURRENT RANGE</u>	<u>OVER RANGE</u>
S651-100-C	0 TO ±100Adc	±100 TO ±125Adc
S651-200-C	0 TO ±200Adc	±200 TO ±250Adc

**INPUT**

RANGE ..... See Table  
 OVER RANGE CAPABILITY ..... See Table  
 CURRENT OVERLOAD ..... ± 5000 amps. DC continuous

**OUTPUT**

VOLTAGE SIGNAL ..... 0 to ± 5Vdc FS ( ±5 to ±6.25Vdc OR )  
 ACCURACY ..... ± 1% ( ±50mV ) Over -10°C to +65°C  
 LOW TEMP. OPERATION ..... @ -40°C to -10°C Accuracy / Linearity ±2.5% FS  
 ACCURACY OVER RANGE(OR) ..... 2.5% FS  
 LINEARITY ..... ±0.5% FS  
 RESPONSE (10 TO 90%) ..... 100 u-sec max.  
 OUTPUT LOAD CURRENT ..... 5mA max.  
 OUTPUT IMPEDANCE ..... 100 Ω max.

**POWER SUPPLY**

SUPPLY VOLTAGE ..... +22 to 32Vdc  
 CURRENT DRAIN ..... 140mA max.  
 REVERSE POLARITY PROTECTION... 10uA max. current drain without damage  
 TRANSIENT ..... 40V for 20 m-sec

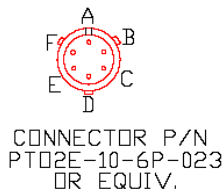
**ENVIRONMENTAL AND PHYSICAL CHARACTERISTICS**

OPERATING TEMPERATURE ..... -40°C to +65°C  
 STORAGE TEMPERATURE ..... -55°C to +71°C  
 OPERATING HUMIDITY ..... 0% to 95% RH  
 MOISTURE RESISTANCE ..... Will meet Method 106 of MIL-STD-202 & Method 507.1, Proc. 1 of MIL-STD-810  
 ALTITUDE ..... Operating: Sea Level to 27,000 FT.  
 Non-Operating: Sea Level to 70,000Ft.  
 VIBRATION ..... 20 to 40Hz + 6dB/ Octave 40 to 120Hz 0.02 G<sup>2</sup>/Hz, 120 to 150 Slope By End Point, 150 to 800Hz 0.04 G<sup>2</sup>/Hz, 800-2000 Hz -6dB/Octave  
 ACCELERATION ..... Operating ±5g's In All Axes, Both Directions  
 DIELECTRIC STRENGTH ..... 350V RMS Terminals 1-5 & Case.  
 INSULATION RESISTANCE ..... 1 MΩ @ 200Vdc  
 ATTITUDE ..... Unit Will Perform As Specified When Mounted In Any Position.  
 SHOCK ..... Operating: 20g, Peak Terminal Sawtooth Pulse 11 Milli seconds Duration, All Planes, Both Directions.  
 FINISH (color black) ..... Polyester powder coat, Baseplate is conductive.  
 WEIGHT ..... 1.5 lbs. max.

**COMPONENTS**

DERATING (EEE COMPONENTS) ..... Derated To The Intent of Naval Air Systems Command AS-4613.  
 MICROCIRCUITS ..... MIL-M-38510 Class B QPL or DESC DWG.  
 SEMICONDUCTORS ..... MIL-S-19500 (JANTX)  
 CAPACITORS ..... MIL-C-39003, MIL-C-39014 (Level R)  
 RESISTORS ..... MIL-R-39007, -39008, -39035,-55182 (Level R)  
 TRANSFORMERS & INDUCTORS ..... MIL-T-27 (Class S)

**TERMINAL IDENTIFICATION**



- A. SUPPLY VOLTAGE (+)
- B. SUPPLY (RTN)
- C. OUTPUT (RTN)
- D. OUTPUT SINGAL (+)
- E. CASE GROUND
- F. SPARE

<b>AAC</b>	<b>Drawing Number S651-942</b>	<b>Rev. N</b>
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