# SPECIFICATIONS for ESI-105

## *ONE STUB MICRO INLINE COUPLER*

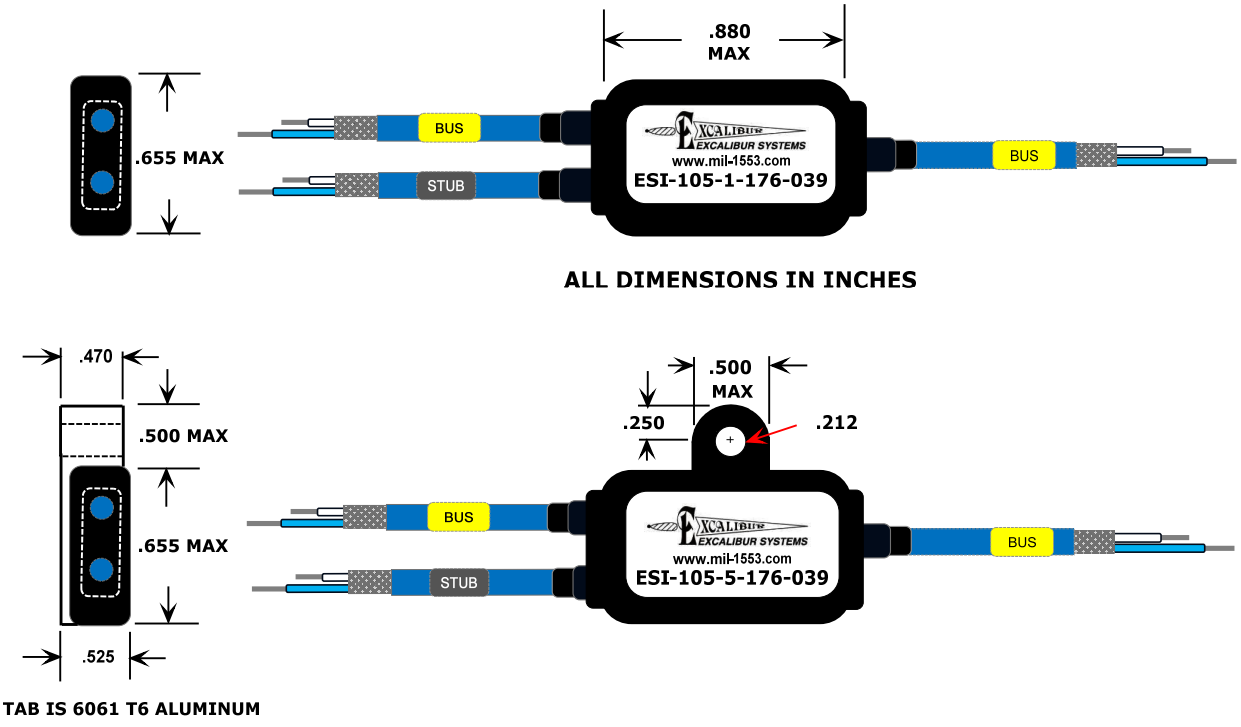



*figure 1*

## SCHEMATIC DIAGRAM

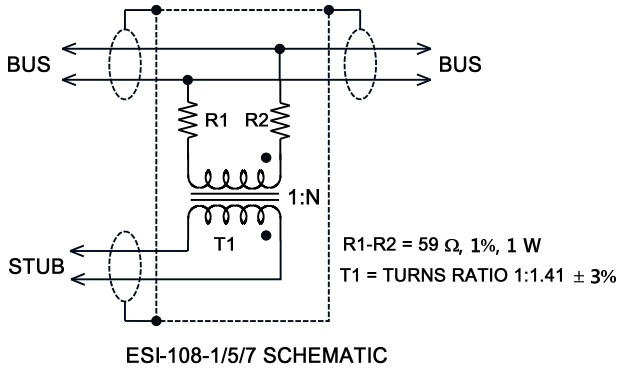



*figure 2*

# SPECIFICATIONS for ESI-105

## 1.0 REQUIREMENTS:

1.1 DOCUMENT DESCRIBES THE REQUIREMENTS FOR INLINE ONE STUB BUS COUPLERS FOR MIL-STD-1553 APPLICATIONS

## 2.0 MECHANICAL SPECIFICATIONS:

2.1 DESIGNS AND CONSTRUCTION – THE COUPLER SHALL WITHSTAND THE STATIC HANDLING, INSTALLATION, AND OPERATIONAL SERVICE AS SPECIFIED HEREIN. THE COUPLER SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF MIL-STD-454 FOR PROCESS, PARTS AND MATERIALS, DESIGN CONSTRUCTION AND WORKMANSHIP. THE ENCLOSURE SHALL BE A METAL ENCLOSURE WITH A PROTECTIVE ENVIRONMENTAL COVERING THAT IS FLAME, ACID AND FLUID RETARDANT

## 3.0 ELECTRICAL SPECIFICATIONS:

3.1 **FREQUENCY RANGE:** 75 kHz – 1.0 MHz
3.2 **COMMON MODE REJECTION:** -45.0 dB MIN. @ 1.0MHz.
3.3 **DROOP:** 20% MAX. (250kHz)
3.4 **OVERSHOOT & RINGING:** +/- 1.0V PEAK
3.5 **TRANSFORMER RATIO:** 1:1.41 +/- 3%
3.6 **POWER RATING:** 1-WATT MIN. FOR ISOLATION RESISTORS
3.7 **DIELECTRIC STRENGTH:** 500 Vrms BETWEEN CABLE SHIELD AND BUS AND STUB CONDUCTORS AND BETWEEN BUS AND STUB CONDUCTORS.
3.8 **INSULATION RESISTANCE:** GREATER THAN 1000 MEGOHMS AT 250 VDC BETWEEN CONDUCTORS AND SHIELD.

## 4.0 ENVIRONMENTAL:

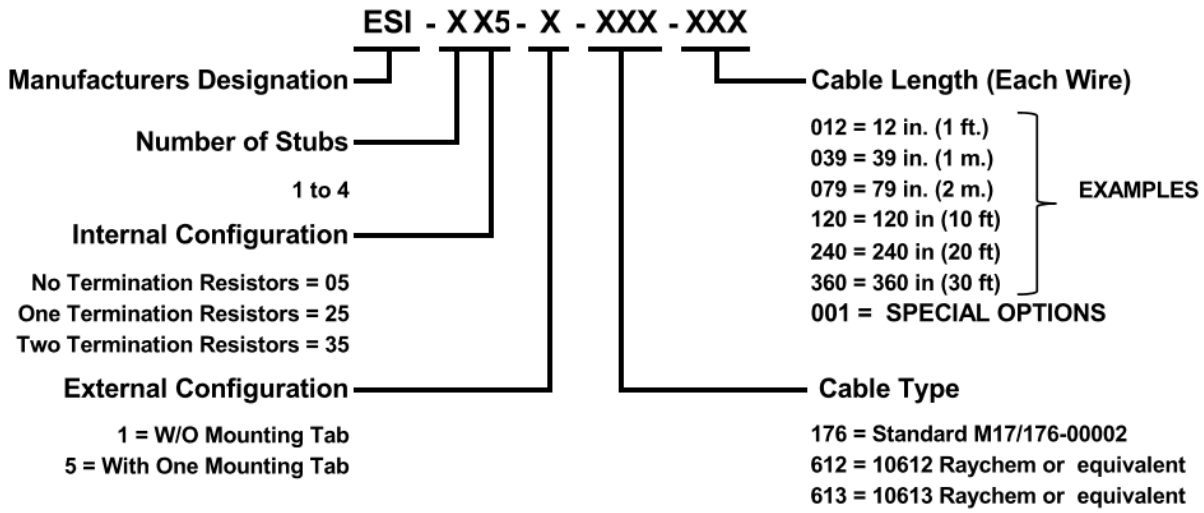
4.1 **OPERATING TEMPERATURE RANGE:** -55 deg. C to +125 deg. C
4.2 **DIELETRIC WITHSTAND:** MIL-STD-202, method 301; 500VAC, 2 mA leakage max.
4.3 **INSULATION RESISTANCE**: MIL-STD-202, method 302; 250 VDC, 1000MOhms min.
4.4 **PULL STRENGTH:** Steady load of 12 lbs. on each cable
4.5 **LIFE:** MIL-202, method 108; 1000 hours at 125º C
4.6 **VIBRATION:** MIL-STD-202, method 204, condition B, 12 hours per axis
4.7 **SHOCK:** MIL-STD-202, method 213, condition I
4.8 **THERMAL SHOCK:** MIL-STD-202 method 107, condition B, -65º C to 125º C 10 cycles
4.9 **MOISTURE RESISTANCE:** MIL-STD-202, method 106, 10 cycles
4.10 **RESISTANCE TO SOLVENTS:** MIL-STD-202, method 106
4.11 **ALTITUDE:** MIL-STD-202, condition B, 0 to 40,000 feet

## 5.0 MARKINGS:

5.1 ITEMS SHALL BE LEGIBLY AND PERMANENTLY MARKED WITH THE MANUFACTURER'S NAME OR TRADEMARK, PART NUMBER AND TERMINAL IDENTIFICATION.
5.2 STUB CABLES SHALL BE IDENTIFIED WITH BLACK SHRINK TUBING.

# PART NUMBER DESCRIPTION

*Ordering Information*




*These specifications are subject to change without notification*