

ENVIRONMENTAL QUALIFICATION FORM

NOMENCLATURE: UMA Pressure Transducer

TYPE/MODEL/PART NO: T1EUM[] [] [] [] [] [] TSO NUMBER: C45_b & C47_a

MANUFACTURER'S SPECIFICATIONS AND OTHER APPLICABLE SPECIFICATION:
remote mounted pressure sensors, 0 - 175 psi

MANUFACTURER: U.M.A., Inc.

ADDRESS: P.O. Box 100, 260 North Main St. Dayton, VA 22821

REVISION & CHANGE NUMBER OF DO-160: rev E

DATE TESTED: Feb - May 2006
Mar - Sept 2016

Conditions	Section	Description of Conducted Test	
Temperature and Altitude	4	Equipment tested to Category	C3
Low Temperature	4.5.1	Equipment tested to -40°C	C3
High Temperature	4.5.2 & 4.5.3	Equipment tested to 125°C	C3
In-Flight loss of cooling	4.5.5(E)	Category Z, no test performed (no cooling used)	Z
Altitude	4.6.1	No test performed	
Decompression	4.6.2	No test performed	
Overpressure	4.6.3	Equipment tested to Category	C3
Temperature Variation	5.0	Equipment tested to Category	A
Humidity	6.0	Equipment tested to Category	B
Operational Shock and Crash Safety	7.2	Equipment tested to Category operational shock only	A
Vibration:	8.0	Equipment tested to Category aircraft zone curves	S 4 L & W
Explosion	9.7.2	Equipment identified as Category environment by analysis, see Remarks	E 2
Waterproofness	10.0	Equipment identified as Category	R
Fluids Susceptibility	11.0	Equipment identified as Category See remarks	F
Sand and Dust	12.0	Equipment identified as Category no test required	X
Fungus	13.0	Equipment identified as Category no test required	X
Salt Spray	14.0	Equipment identified as Category no test required	X
Magnetic Effect	15.0	Equipment is Class	Z
Power Input	16.0	Equipment tested to Category no test performed, see Remarks	X

Voltage Spike	17.0	Equipment tested to Category no test performed, see Remarks	X
Audio Frequency Conducted Susceptibility- Power Inputs	18.0	Equipment tested to Category no test performed	X
Induced Signal Susceptibility	19.0	Equipment tested to Category	B
Radio Frequency Susceptibility (Radiated and Conducted)	20.0	Equipment tested to Category radiated and conducted.	R
Radio Frequency Emission	21.0	Equipment identified as Category no test required	X
Lightning Induced Transient Susceptibility	22.0	Equipment tested to Categories Pin & Cable insertion	A2E2
Lightning Direct Effects Test	23.0	Equipment identified as Category no test required	X
Icing	24.0	Equipment identified as Category no test required	X
Other Tests: Endurance per AS408A	para 7.6	10,000 cycles 0 - 80% full scale press.	

Remarks:
Sections 4, 5, 6, 7.2, 8, 19, 20, and 22 tested by Sypris Testing, Orlando FL, Feb. & May 2006
Sections 10, 11, 15, and Endurance were tested by UMA, May 2006
Section 9 by Engineering analysis
Section 11, Fluids Susceptibility: Sensor NOT tested for Skydrol Hydraulic Fluid (see Press. Range), 1,1,1-Trichloroethane based Cleaning Fluids (no longer available), AEA Deterging Fluids, Insecticides or Sulfage.
Sections 16 & 17, Power Input & Voltage Spike: Sensor requires regulated power from indicator.