REVISION		
REV	DESCRIPTION	DATE
B	ECN003603	8/3/2016

11. QUALIFICATION VIBRATION: SWITCH SHALL BE TESTED TO VIBRATION ENVIRONMENT OF MIL-STD-810F, METHOD 514.5, PROCEDURE 1A WITH POWER ON, AND APPROPRIATE CIRCUITS MONITORED, EXCEPT AS FOLLOWS:

(A) FUNCTIONAL LEVEL- TESTED SWITCH SHALL OPERATE WITHIN SPECIFIED PERFORMANCE FOR TWO (2) ONE-HALF HOUR PERIODS (ONE HALF HOUR BEFORE BEING SUBJECTED TO ENDURANCE LEVEL (B) AND ONE-HALF HOUR AFTER BEING SUBJECTED TO THE SAME ENDURANCE LEVELS) IN EACH AXIS AT THE LEVELS OF CURVE 1, AND WITH SINE TONES OF TABLE 1.

(B) ENDURANCE LEVEL- TESTED SWITCH SHALL OPERATE, ALTHOUGH NOT NECESSARILY WITHIN SPECIFIED PERFORMANCE FOR ONE (1) HOUR AT THE LEVELS OF CURVE 2 IN EACH AXIS, AND WITH SINE TONES OF TABLE 1.

CURVE 1 FUNCTIONAL	
FREQ (Hz)	ASD (G2/Hz)
20	0.0047
30	0.0100
750	0.0100
950	0.0010
2000	0.0010

CURVE 2 INITIAL ENDURANCE	
FREQ (Hz)	ASD (G2/Hz)
20	0.0216
30	0.0460
750	0.0460
950	0.0046
2000	0.0046

CURVE 3 ENDURANCE	
FREQ (Hz)	ASD (G2/Hz)
20	0.0216
30	0.0460
750	0.0460
830	0.0170
2000	0.0070

10. INSULATION RESISTANCE: 10 MEGOHMS MINIMUM AT 200 VDC @ SEA LEVEL.
9. DIELECTRIC STRENGTH: NO BREAKDOWN WHEN APPLYING 200 VRMS, 60 Hz FOR ONE MINUTE BETWEEN PINS AND THE SHELL. THIS TEST SHALL BE CONDUCTED DURING MANUFACTURING PROCEDURES BEFORE THE CASE GROUND IS CONNECTED.
8. ELECTRICAL POWER: 22-29 VDC SHALL OPERATE PER MIL-STD-704. MAXIMUM CURRENT DRAW 0.5 AMPS @ 28 VDC.
7. OPERATING LIFE: THE SWITCH SHALL HAVE A MINIMUM OPERATING LIFE OF 25,000 ON/OFF ACTUATOR CYCLES OCCURRING WITHIN 15,000 HOURS AND 25,000 TEMPERATURE CYCLES.
6. MEAN TIME BETWEEN FAILURE (MTBF): THE MTBF OF THE SWITCH SHALL NOT BE LESS THAN 50,000 HOURS AT ONE CYCLE PER HOUR.
5. TEMPERATURE REQUIREMENTS:
   STORAGE: -40˚F TO +185˚F
   OPERATING: +40˚F TO +160˚F, +148˚F NOMINAL
   PROOF: +300˚F
   ENVIROMENTAL: -40˚F TO +160˚F
4. PRESSURE REQUIREMENTS:
   PRESSURE SET POINTS: PER TABLE
   OPERATING: 100 PSIG
   PROOF: 300 PSIG
   BURST: 500 PSIG
3. MATERIAL: TYPE 304L/316L STAINLESS STEEL, PASSIVATED PER SAE-AMS-2700, METHOD 1, TYPE 6 OR 7, EXCEPT CONNECTOR RECEPTACLE.
2. WEIGHT: .50 LBS MAX (227 GRAMS)
1. DIMENSIONING AND TOLERANCING IN ACCORDANCE WITH ASME Y14.5M-1994

NOTES: UNLESS OTHERWISE SPECIFIED

21. MEDIA: LIQUIDS AND GASES.
20. MATING CONNECTOR MUST PROVIDE ACCESS TO CLEAN, DRY, ATMOSPHERIC PRESSURE. PIN 6 ON THE SWITCH CONNECTOR IS AN ATMOSPHERIC PRESSURE PORT.
19. THREAD PROTECTION AND A CONNECTOR CAP SHALL BE INSTALLED AND SHIPPED WITH EACH SENSOR.
18. FINAL ACCEPTANCE TEST PROCEDURE PER FCI NO. 02EN021338.
17. PERMANENTLY MARKED IDENTIFICATION INFORMATION PER MIL-STD-130 APPROX WHERE SHOWN, SERIAL NO. (SN) TO BE ASSIGNED PER JOB ORDER/CUSTOMER ORDER.
16. QUALIFICATION SALT FOG: PER MIL-STD-810F, METHOD 509.4, OR EQUIVALENT.
15. QUALIFICATION HUMIDITY: PER MIL-STD-810F, METHOD 507.4, PROCEDURE I OR EQUIVALENT.
14. QUALIFICATION TEMPERATURE LOW: PER MIL-STD-810F, METHOD 502.4, PROCEDURE 1 OR EQUIVALENT.
13. QUALIFICATION TEMPERATURE HIGH: PER MIL-STD-810F, METHOD 501.4 PROCEDURE 1 OR EQUIVALENT.
12. QUALIFICATION SHOCK: PER MIL-STD-202G, METHOD 213, CONDITION C.

NOTES CONTD:

TABLE 1	
SINUSOIDAL VIBRATION	
FREQUENCY TONES	TWO (2) DISCRETE FREQUENCIES AT 2000 Hz AND 3000 Hz. IN ADDITION, THE FUNDAMENTAL RESONANT FREQUENCY DETERMINED FROM PARA 4.2.1 OF CUSTOMER DRAWING 123SCEC5226-1 AND HARMONICS EQUAL TO MULTIPLES OF THE RESONANT FREQUENCY FOR UP TO 3000 Hz
TEST LEVEL	2000 Hz, 3000 Hz- 10g RESONANT FREQUENCY AND HARMONICS- 20g
BANDWIDTH	APPLICABLE TO FUNDAMENTAL RESONANT FREQUENCY AND HARMONICS ONLY: ±5% OF THE VALUE OF THE FREQUENCY.
SWEEP RATE	EACH OF THE RESONANT FREQUENCY BANDS SHALL BE SWEPT SIMULTANEOUSLY AT THE LINEAR RATE OF ONE (1) SWEEP/MINUTE

STANDARD AEROSPACE PRODUCT ENVELOPE DRAWING

(024019-XX)	-------
NEXT ASSY	USED ON
APPLICATION	
THIRD ANGLE PROJECTION	

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES
DECIMALS: .X ±.1, .XX ±.03, .XXX ±.010
ANGULAR: ±1/2°
MATERIAL
MACH SURFACE FINISH: 125 RMS MAX
MACH RAD .030
DO NOT SCALE DRAWING
PARTS TO BE FREE OF BURRS & SHARP EDGES

APPROVALS		APPROVALS	
PRODUCT CERT APVL		DRAWN	8/3/2016
N/A		Manny Lozano	
CONTRACT	8/5/2016	CHECK	8/4/2016
Melissa Moisant		Andrew Brutlag	
MFG ENGR		ENGR	8/4/2016
N/A		Andrew Brutlag	
MATL MGMT		ENGR	
N/A		N/A	
MFG	8/8/2016	AERO QUAL	8/4/2016
Scott Miller		Andrew Brutlag	
QA	8/8/2016	NUC QUAL	
Burt Tanaka		N/A	

FCI® FLUID COMPONENTS INTERNATIONAL LLC
SAN MARCOS, CA 92078

TITLE
STANDARD PRESSURE SWITCH

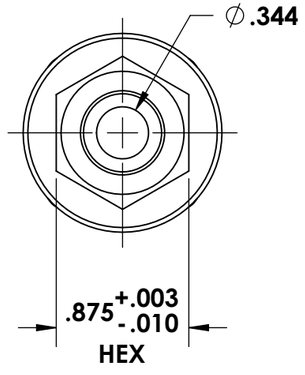
SIZE	CAGE CODE	DWG NO.	REV
B	64818	024018	B
		SCALE NONE	SHEET 1 OF 2

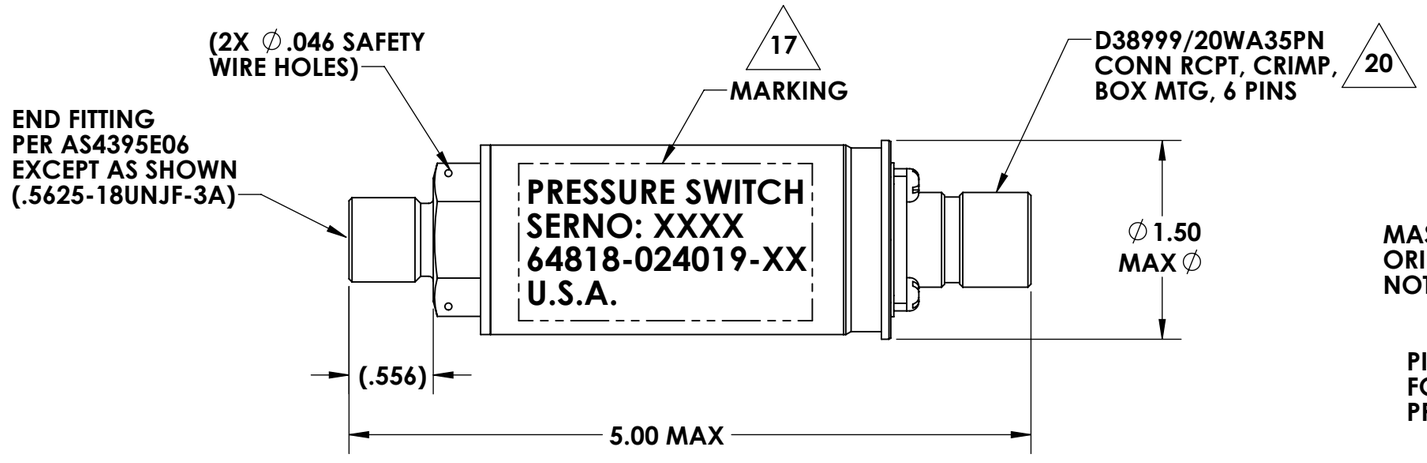
CONNECTOR PIN-OUT

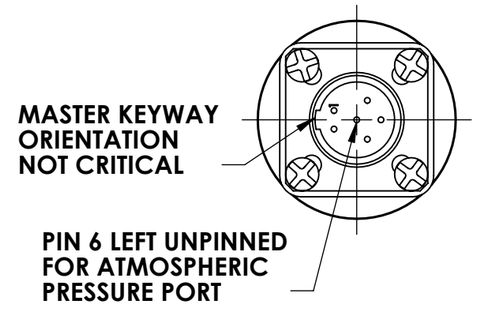
PIN 1	FACTORY USE ONLY
PIN 2	POWER IN (22 TO 29 VDC)
PIN 3	POWER RETURN
PIN 4	PRESSURE SWITCH
PIN 5	CHASSIS GROUND
PIN 6	ATMOSPHERIC PORT

CONFIGURATION BLOCK

FCI ASSY PART NO.	DESCRIPTION	PRESSURE SET POINT TABLE		
		OUTPUTS	OPEN- LEAKAGE <10 uA AT 28 VDC	CLOSE- SINK <= 350 mA AT <= 0.5 VDC
024019-01	SWITCH ASSEMBLY, PRESSURE	PIN 4	FOR PRESSURES BELOW 1 PSIG	FOR PRESSURES AT OR ABOVE 2.0 PSIG ±1 PSIG
024019-02			FOR PRESSURES BELOW 30 PSIG	FOR PRESSURES AT OR ABOVE 40 PSIG ±10 PSIG
024019-03			FOR PRESSURES BELOW 2 PSIG	FOR PRESSURES AT OR ABOVE 3.0 PSIG ±1 PSIG
024019-04			FOR PRESSURES BELOW 19 PSIG	FOR PRESSURES AT OR ABOVE 25 PSIG ±6 PSIG
024019-05			FOR PRESSURES BELOW 5 PSIG	FOR PRESSURES AT OR ABOVE 7.0 PSIG ±2 PSIG







STANDARD AEROSPACE PRODUCT
ENVELOPE DRAWING

SIZE	CAGE CODE	DWG NO.	REV
B	64818	024018	B
	SCALE 1:1	SHEET 2 OF 2	