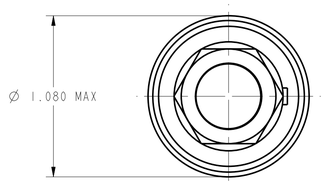
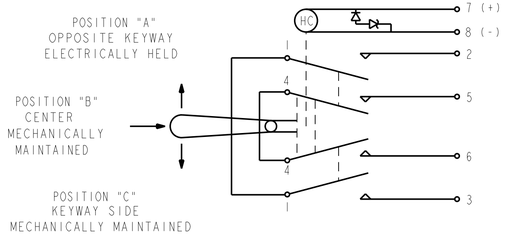
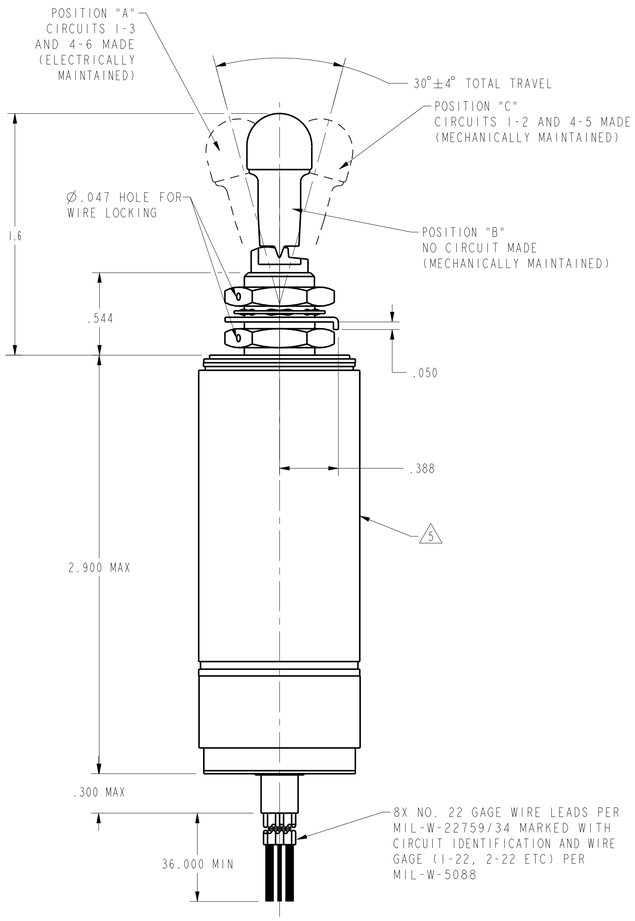
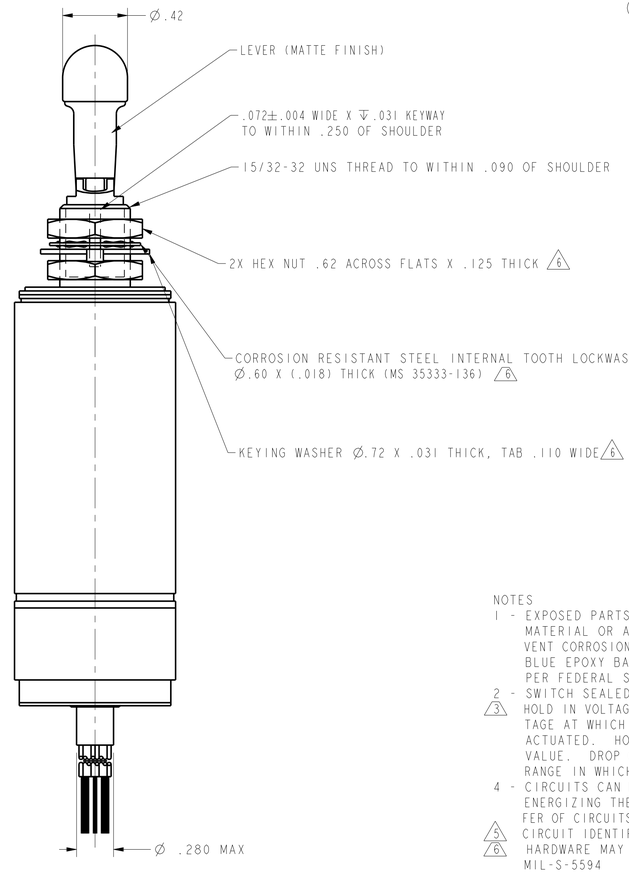




MOVEABLE CONTACT MOVES OPPOSITE
TO DIRECTION OF TOGGLE HANDLE

CIRCUIT DIAGRAM





NOTES
1 - EXPOSED PARTS ARE OF CORROSION RESISTANT MATERIAL OR ARE SUITABLY PROTECTED TO PREVENT CORROSION, ENCLOSURE FINISHED WITH BLUE EPOXY BASED ENAMEL COLOR NO. 25184 PER FEDERAL STANDARD 595
2 - SWITCH SEALED PER MIL-S-5594
3 - HOLD IN VOLTAGE: THE MINIMUM SPECIFIED VOLTAGE AT WHICH THE LEVER WILL REMAIN ACTUATED. HOLD IN MAY OCCUR AT A LOWER VALUE. DROP OUT VOLTAGE: THE VOLTAGE RANGE IN WHICH THE LEVER WILL BE RELEASED
4 - CIRCUITS CAN BE TRANSFERRED MANUALLY. ENERGIZING THE COIL WILL NOT CAUSE TRANSFER OF CIRCUITS
5 - CIRCUIT IDENTIFICATION IS SHOWN ON SWITCH
6 - HARDWARE MAY BE FURNISHED UNASSEMBLED PER MIL-S-5594
7 - SWITCHES DO NOT NECESSARILY OPERATE SIMULTANEOUSLY
8 - THE DIODES ARE JANTXV TYPE AND LIMIT THE EMI: SPIKES (TRANSIENTS OF DURATION LESS THAN 500 MICRO SECONDS) GENERATED BY THE SWITCH COIL SHALL NOT EXCEED 42 VOLTS
9 - CONTACT HONEYWELL-MICRO SWITCH IF ADDITIONAL INFORMATION ON LOW ENERGY LOADS IS REQUIRED OR FOR HELP WITH SPECIFIC APPLICATIONS
10 - CUSTOMER PART NUMBER 5PTV0505-1

SPECIFICATION DETAILS:	
STANDARD:	CONFORMS TO MIL-S-5594
CONSTRUCTION:	
ENCLOSURE DESIGN	SEALED TO 1 X 10-6 ATM*CC/S PER MIL-S-5594 PARA.3.12 & 4.9.8
SEAL MATERIAL	SILICONE RUBBER
CONTACT MATERIAL & CONFIGURATION	GOLD BIFURCATED CONTACTS 5
CIRCUIT CONFIGURATION	4X S P D T
TERMINATION	BOTTOM EXIT LEADWIRES
WEIGHT	10 ozf (2.8N) MAX
EXPOSED METALS	CORROSION RESISTANT OR SUITABLY PROTECTED TO PREVENT CORROSION
ENCLOSURE PAINT	BLUE EPOXY BASED ENAMEL COLOR NO. 25184 PER FEDERAL STANDARD 595
ELECTRICAL CHARACTERISTICS:	

ELECTRICAL RATINGS	VOLTAGE	INDUCTIVE	RESISTIVE
-SEA LEVEL	28 VDC	.5 A	1 A
-65,000 FEET	28 VDC	.5 A	1 A

DIELECTRIC STRENGTH & INSULATION RES	DIELECTRIC STRENGTH (≈ 60 Hz FOR 5 SEC)	INSULATION RESISTANCE
-BETWEEN ALL TERMINALS AND EXPOSED NON-CURRENT CARRYING METAL OR GROUNDED PARTS	1000V RMS, 1000μA (MAX LKG)	N/A
-BETWEEN ALL TERMINALS OF MUTUALLY INSULATED CIRCUITS, INCLUDING BETWEEN POLES	1000V RMS, 1000μA (MAX LKG)	N/A
-BETWEEN ALL UNCONNECTED TERMINALS OF THE SAME POLE	1000V RMS, 1000μA (MAX LKG)	N/A

SWITCH RESISTANCE	N/A
RECOMMENDATION OR USE IN APPL LESS THAN .5 amps AND/OR 12 volts	YES 9
MECHANICAL CHARACTERISTICS: 3	
STEADY STATE LIMITS	20-29 VDC
HOLD IN VOLTAGE	15 VDC
DROP OUT VOLTAGE	0-15 VDC
OPERATING FORCE AT 30 VDC	7 lbf (31, 1 N) MAX
OVERRIDE FORCE AT 30 VDC	10 lbf (44, 5 N) MAX
SOLENOID RESISTANCE AT 30 VDC AND 68° F (20° C)	220 OHMS MIN
MOUNTING STRENGTH	15 lbf-IN (1,7 NM) MAX
ACTUATING STRENGTH	25 lbf (111,2N) PER MIL-S-5594 PARA.3.8 & 4.9.4.A 15 lbf (66,7N) PER MIL-S-5594 PARA.3.8 & 4.9.4.B
LIFE:	
MECHANICAL LIFE	40,000 CYCLES MIN PER MIL-S-5594 PARA.3.10 & 4.9.6
ELECTRICAL LIFE AT FULL RATED LOAD	20,000 CYCLES MIN PER MIL-S-5594 PARA.3.11 & 4.9.7
ENVIRONMENTAL:	
TEMPERATURE RANGE	-85° F (-65° C) TO +160° F (+71° C)
ALTITUDE RANGE	SEA LEVEL TO 65,000 FT
SHOCK	PER MIL-S-5594 PARA. 3.14 & 4.9.10
VIBRATION	PER MIL-S-5594 PARA. 3.13 & 4.9.9
MOISTURE RESISTANCE	PER MIL-S-5594 PARA. 3.17 & 4.9.13
ACCELERATION	PER MIL-S-5594 PARA. 3.15 & 4.9.11
SALT SPRAY	PER MIL-S-5594 PARA. 3.16 & 4.9.12
SAND AND DUST	PER MIL-S-5594 PARA. 3.18 & 4.9.14
EXPLOSION	PER MIL-S-5594 PARA. 3.19 & 4.9.15

ANSI Y14.5M-1982 APPLIES

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FED. MFG. CODE 91929
MICRO SWITCH
a Honeywell Division

SWITCH - TOGGLE
(MAGNETIC HOLE-IN)

CATALOG LISTING
29ET16-3B-B

THIRD ANGLE PROJECTION
SCALE 2 : 1
DO NOT SCALE PRINT
UNLESS OTHERWISE SPECIFIED TOLERANCES ARE
ONE PLACE (.0) +.030
TWO PLACE (.00) +.015
THREE PLACE (.000) +.005
ANGLES +
WEIGHT

PTC/CAD 2D
DRAWN TSM 20NOV00
CHECK SAV 20NOV00
AS CHECK
SAV 29MAR06 CHECK
ISSUE 3
DRAWING NUMBER M
29ET16-3B-B
PAGE 1 OF 1
RELEASE NO. 201758
REPLACES -

REVISIONS
A 202826 TSM 03FEB21
B 0020570 BNA 29MAR06