INCH-POUND

MIL-PRF-8932/3A
27 August 1998
SUPERSEDING
MIL-S-8932/3
12 August 1980

PERFORMANCE SPECIFICATION SHEET

SWITCHES, PRESSURE, BULKHEAD MOUNTED, AIRCRAFT, GAUGE, CLASS 3

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification sheet and MIL-PRF-8932.

REQUIREMENTS:

1. Dimensions, operating pressure ranges and tolerances. The dimensions, operating pressure ranges and tolerances shall be as specified in table I.

2. Pressure switch port designations. Each gauge pressure switch shall have two pressure ports as shown on figure 1 of MIL-PRF-8932. The designation letter “P” shall be stamped next to the higher-pressure connection and the designation "V" shall be stamped next to low pressure connection on the gauge switch. Where one port is used for vent (V) and case pressure release (CPR), the port shall be marked “V + CPR”. Where no case pressure release is required the port shall be marked “V”.

3. Proof pressure and drift. The test shall be conducted as follows:

a. The proof pressure and drift test shall be conducted as specified in 4.6.1 of MIL-PRF-8932, except that the “V’ or the “CPR” port (see figures 1 and 2) shall be at an ambient pressure equal to 14.5 ± 0.5 pounds per square inch while applying the normal system pressure and the proof pressure.

b. The test specified in (a) shall be repeated except that the “V” port shall be connected to a vacuum (less than 1 inch of mercury absolute) while applying the normal system pressure and the proof pressure.

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4. Sensor balance. Following the range of adjustment test as specified in 4.6.5 of MIL-PRF-8932, the following tests shall be performed in the order specified in 5.

5. Sensor matching gauge switch. The gauge switch pressure adjustment shall be set so that the switch actuates when the applied pressure is of a value equal to four-fifths of the normal system pressure specified in table I. The "V" port shall be open to the atmosphere.

a. A pressure shall be applied to the pressure port "P" and the switch operated as specified in the procedure for operation of MIL-PRF-8932. The actuation and deactuation pressures shall be recorded. The pressure difference shall be within the tolerances specified in table I.

b. The test specified in (a) shall be repeated except that a pressure equal to 15 pound per square inch absolute shall be applied to the "V" port. The difference between the actuation and deactuation pressure shall be recorded. The difference between them and the vent pressure shall not differ from the values noted in (a) by more than the tolerances specified in table I.

c. The test specified in (b) shall be repeated, except that 14 inches of mercury absolute shall be applied to the "V" port.

d. The test specified in (b) shall be repeated, except that 10 inches of mercury absolute shall be applied to the "V + CPR" port.

e. The test specified in (b) shall be repeated, except that 5 inches of mercury absolute shall be applied to the "V + CPR" port.

6. Intended use. The pressure switches covered by this specification are used in the production and maintenance of F-18 military aircraft. These aircraft are exposed for prolonged periods to extreme seagoing environments not encountered by commercial aircraft.

7. Superseding part numbers. The canceled part numbers and the corresponding superseding part numbers are as shown in table II.

8. Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to previous issue due to the extent of the changes.

TABLE I. Dimensions, operating pressure ranges, and tolerances.

Dash no.	Potential operating range PSI	Normal system pressure PSI	Tolerances ± PSI	Max. AC current amperes	Max. DC Current amperes	Max. weight Lbs	Schematic figures	Dim. K inch MAX	Dim. L inch	Dim. W inch
-33G	0.5 - 4.5	5	0.25	5	3	1.25	1	2.312	4.400	2.300
-34G	0.5 - 4.5	5	0.25	5	3	1.50	2	2.312	4.400	2.300
-39G	1.0 - 9.0	10	0.49	5	3	1.25	1	2.312	4.400	2.300
-40G	1.0 - 9.0	10	0.49	5	3	1.50	2	2.312	4.400	2.300
-43G	2.0-18.0	20	0.94	5	3	1.25	1	1.344	3.700	1.200
-44G	2.0-18.0	20	0.94	5	3	1.50	2	2.312	4.400	2.300
-47G	4.0-36.0	40	1.70	8	4	1.25	1	1.344	3.700	1.200
-48G	4.0-36.0	40	1.70	8	4	1.50	2	2.312	4.400	2.300
-51G	6.0-54.0	60	2.40	8	4	1.25	1	1.344	3.700	1.200
-52G	6.0-54.0	60	2.40	8	4	1.50	2	2.312	4.400	2.300
-53G	8.0-72.0	80	2.80	8	4	1.00	1	1.344	3.700	1.200
-54G	8.0-72.0	80	2.80	8	4	1.25	2	2.312	4.400	2.300
-55G	10.0-90.0	100	3.10	10	5	1.00	1	1.531	5.300	1.000
-56G	10.0-90.0	100	3.10	10	5	1.25	2	1.344	3.700	1.200
-59G	20.0-180.0	200	4.20	10	5	1.00	1	1.531	5.300	1.000
-60G	20.0-180.0	200	4.20	10	5	1.25	2	1.344	3.700	1.200

TABLE I. Dimensions, operating pressure ranges, and tolerances – (continued).

Dash no.	Potential operating range PSI	Normal system pressure PSI	Tolerances ± PSI	Max. AC current amperes	Max. DC current amperes	Max. weight Lbs	Schematic figures	Dim.K inch Max.	Dim. L inch	Dim. W inch
-63G	20.0-225.0	250	4.50	10	5	1.00	1	1.531	5.300	1.000
-64G	20.0-225.0	250	4.50	10	5	1.25	2	1.344	3.700	1.200
-65G	25.0- 450.0	500	8.00	10	5	1.00	1	1.531	5.300	1.000
-66G	25.0- 450.0	500	8.00	10	5	1.25	2	1.344	3.700	1.200
-73G	300.0- 675.0	750	10	10	5	1.00	1	1.531	5.300	1.000
-74G	300.0- 675.0	750	10	10	5	1.25	2	1.344	3.700	1.200
-75G	500.0- 900.0	1000	15	10	5	1.00	1	1.531	5.300	1.000
-76G	500.0- 900.0	1000	15	10	5	1.25	2	1.344	3.700	1.200
-77G	500.0-1350.0	1500	18	12	7	1.00	1	1.531	5.300	1.000
-78G	500.0-1350.0	1500	18	12	7	1.25	2	1.344	3.700	1.200
-79G	750.0-1800.0	2000	20	12	7	1.00	1	1.531	5.300	1.000
-80G	750.0-1800.0	2000	20	12	7	1.25	2	1.344	3.700	1.200
-81G	1000.0-2250.0	2500	23	15	10	1.00	1	1.531	5.300	1.000
-82G	1000.0-2250.0	2500	23	15	10	1.25	2	1.344	3.700	1.200
-83G	1800.0-2700.0	3000	25	15	10	1.00	1	1.531	5.300	1.000
-84G	1800.0-2700.0	3000	25	15	10	1.25	2	1.344	3.700	1.200
-85G	1000.0-2700.0	3000	30	15	10	1.00	1	1.531	5.300	1.000
-86G	1000.0-2700.0	3000	30	15	10	1.25	2	1.344	3.700	1.200
-87G	2000.0-4050.0	4500	50	15	10	1.00	1	1.531	5.300	1.000
-88G	2000.0-4050.0	4500	50	15	10	1.25	2	1.344	3.700	1.200

TABLE II. Superseding part numbers.

Superseded part no.	Canceled part no.	Superseded part no.	Canceled part no.
M8932/3-33G	MS25726-33G	M8932/3-63G	MS25726-63G
M8932/3-34G	MS25726-34G	M8932/3-64G	MS25726-64G
		M8932/3-65G	MS25726-65G
M8932/3-39G	MS25726-39G	M8932/3-66G	MS25726-66G
M8932/3-40G	MS25726-40G		
		M8932/3-73G	MS25726-73G
M8932/3-43G	MS25726-43G	M8932/3-74G	MS25726-74G
M8932/3-44G	MS25726-44G	M8932/3-75G	MS25726-75G
		M8932/3-76G	MS25726-76G
M8932/3-47G	MS25726-47G	M8932/3-77G	MS25726-77G
M8932/3-48G	MS25726-48G	M8932/3-78G	MS25726-78G
		M8932/3-79H	MS25726-79H
M8932/3-51G	MS25726-51G	M8932/3-80H	MS25726-80H
M8932/3-52G	MS25726-52G	M8932/3-81H	MS25726-81H
M8932/3-53G	MS25726-53G	M8932/3-82H	MS25726-82H
M8932/3-54G	MS25726-54G	M8932/3-83H	MS25726-83H
M8932/3-55G	MS25726-55G	M8932/3-84H	MS25726-84H
M8932/3-56G	MS25726-56G	M8932/3-85H	MS25726-85H
M8932/3-59G	MS25726-59G	M8932/3-86H	MS25726-86H
M8932/3-60G	MS25726-60G	M8932/3-87H	MS25726-87H
		M8932/3-88H	MS25726-88H
M8932/3-63g	MS25726-63G		
M8932/3-64G	MS25726-64G		

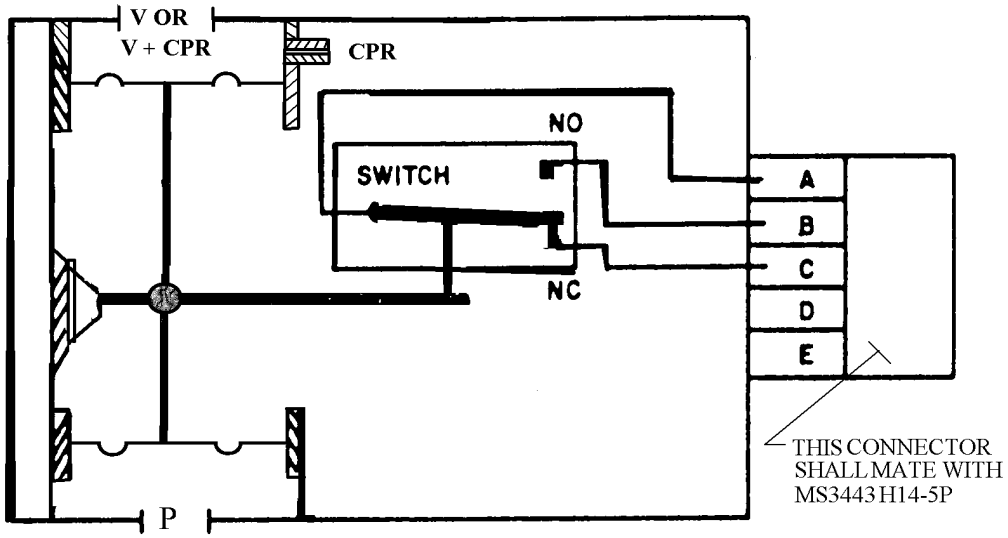

FIGURE 1. Gauge pressure switch schematic, pressure port open.
(2 CONTACTS)

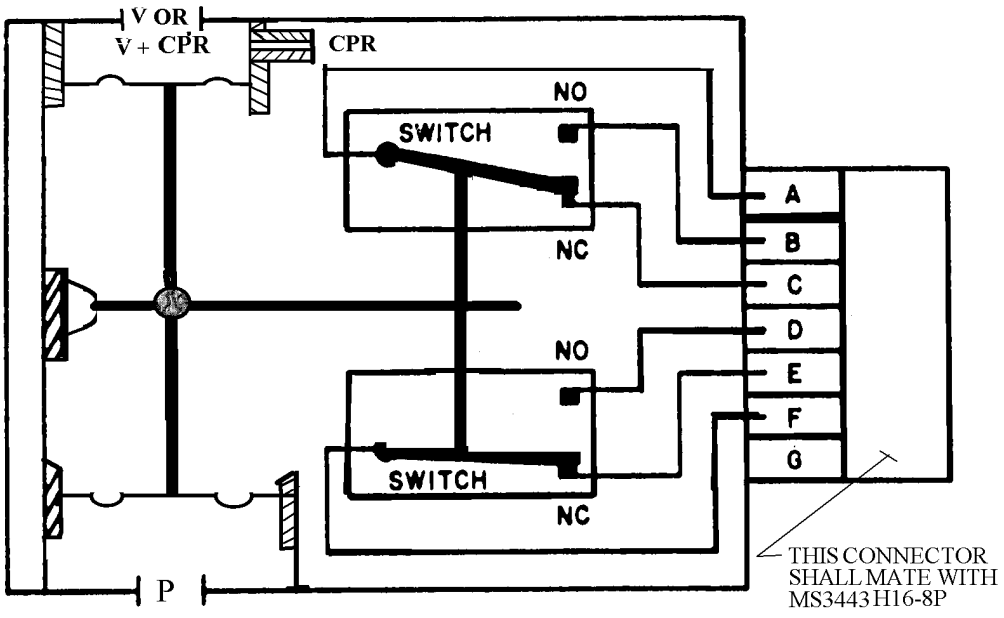

FIGURE 2. Gauge pressure switch schematic, pressure port open.
(4 CONTACTS)

CONCLUDING MATERIAL

Custodians:
Army - AV
Navy - AS
Air Force - 99

Review activities:
Army - MI
Navy - MC
Air Force - 71
DLA-CC

Preparing activity:
Navy - AS

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