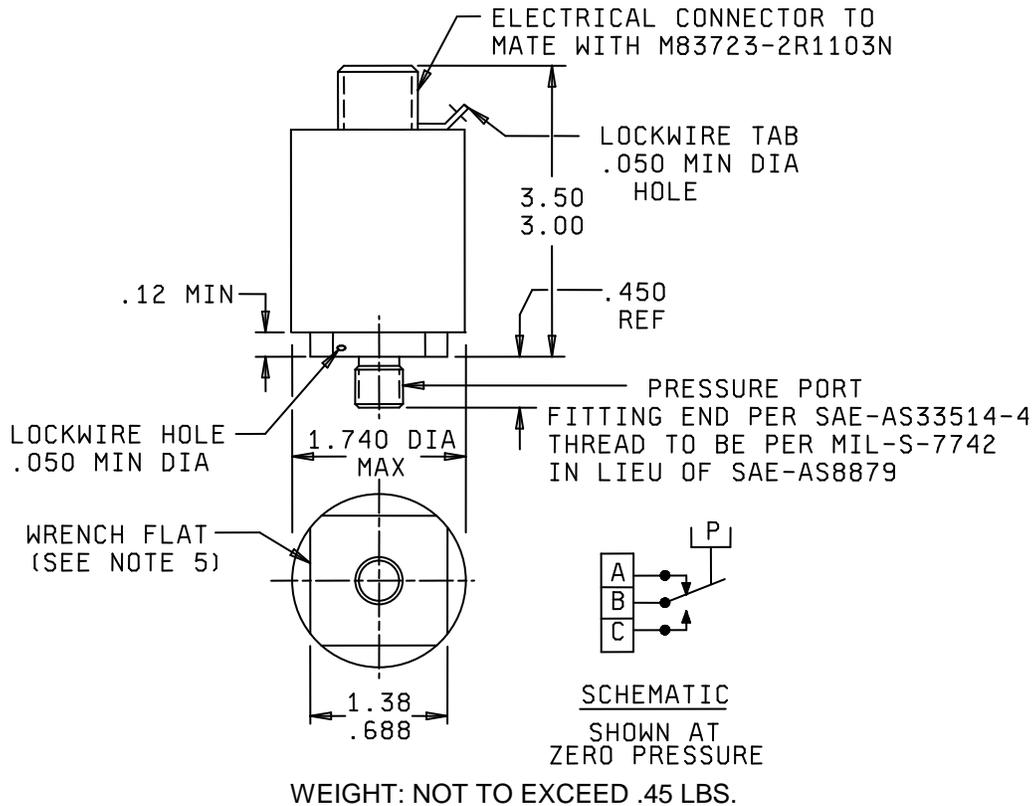


DETAIL SPECIFICATION SHEET
SWITCHES, PRESSURE, (GAGE),
TYPE II, 5 AMPERES

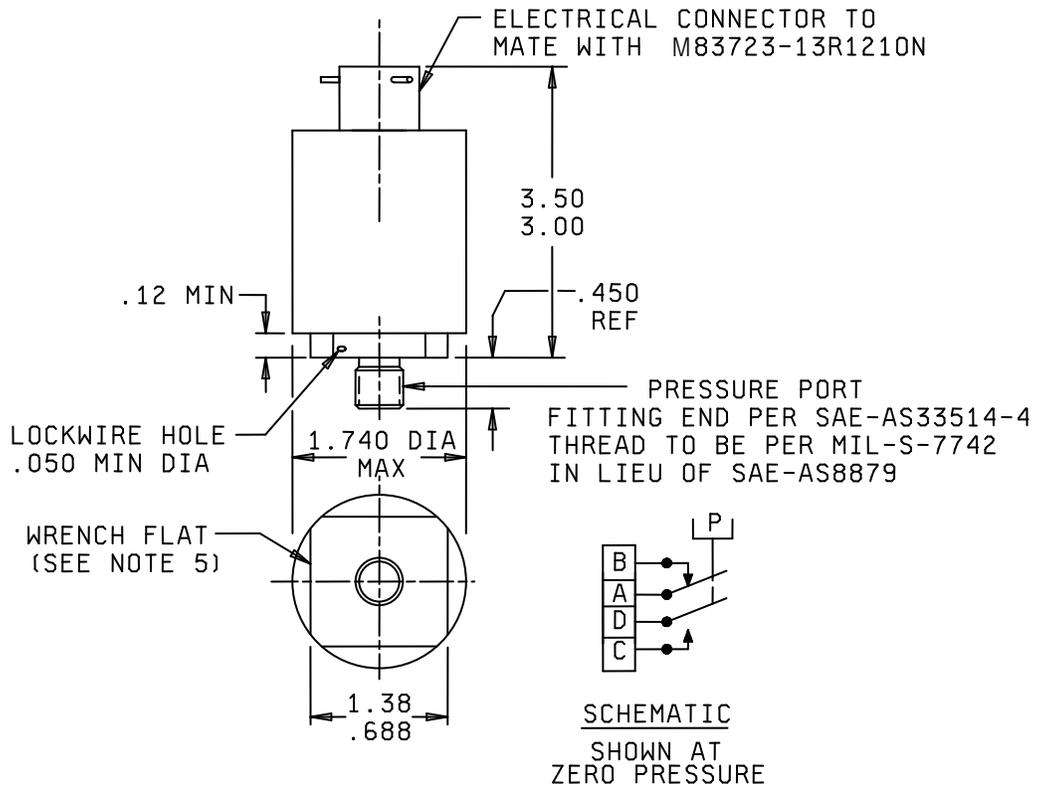
This specification is approved for use by all Departments and Agencies of the Department of Defense.

The complete requirements for acquiring the switches described herein shall consist of this specification and the latest issue of MIL-DTL-9395.



Configuration 1

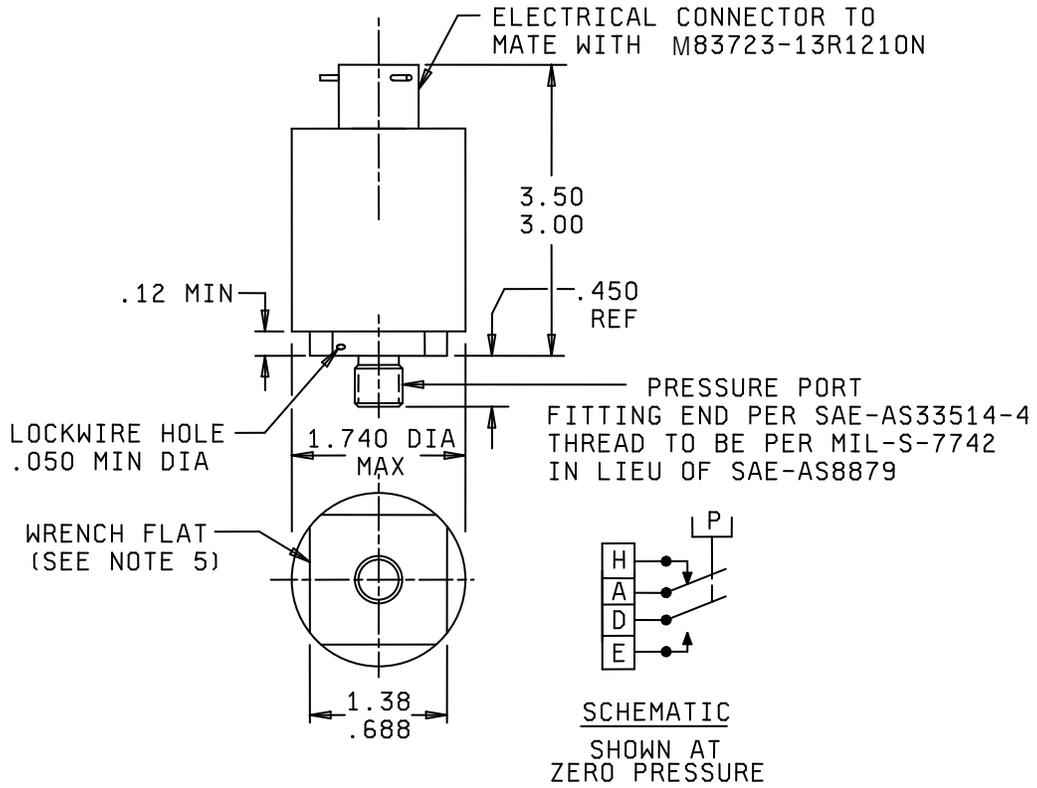
FIGURE 1. Switches.



WEIGHT: NOT TO EXCEED .45 lbs.

Configuration 2

FIGURE 1. Switches - Continued.

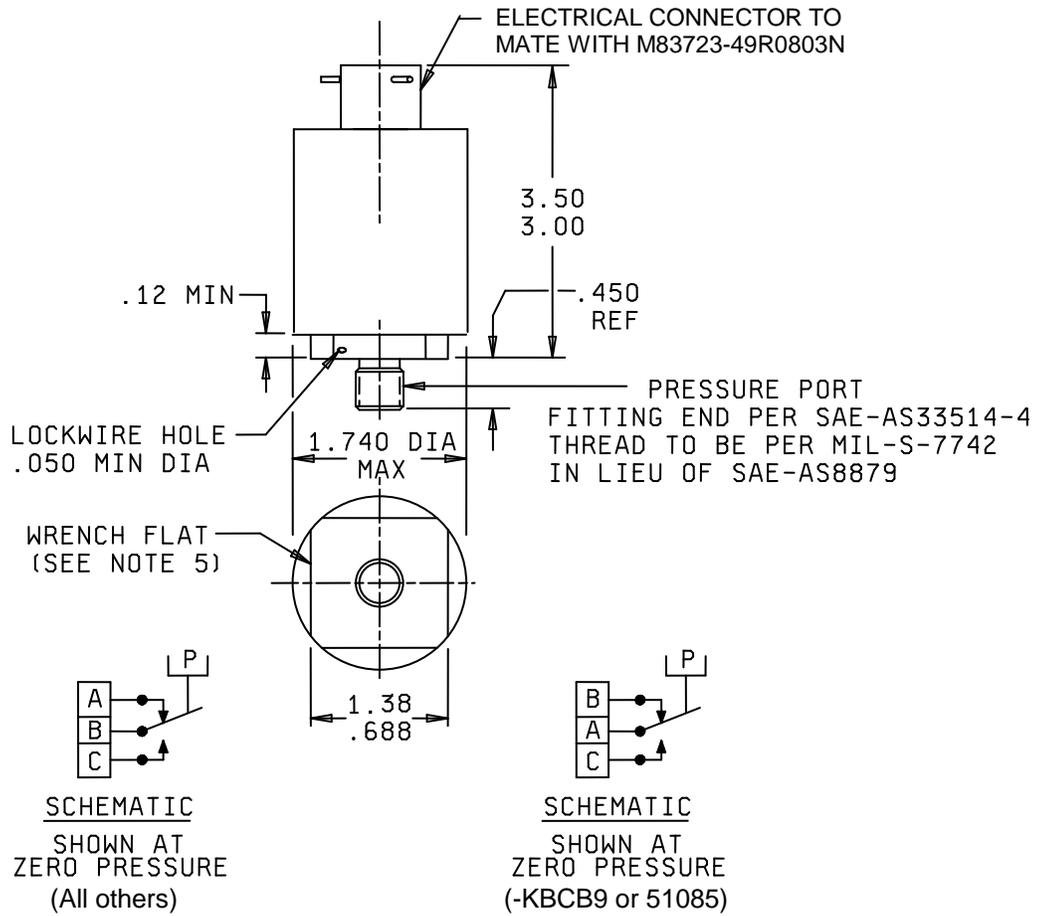


WEIGHT: NOT TO EXCEED .45 lbs.

Configuration 3

FIGURE 1. Switches - Continued.

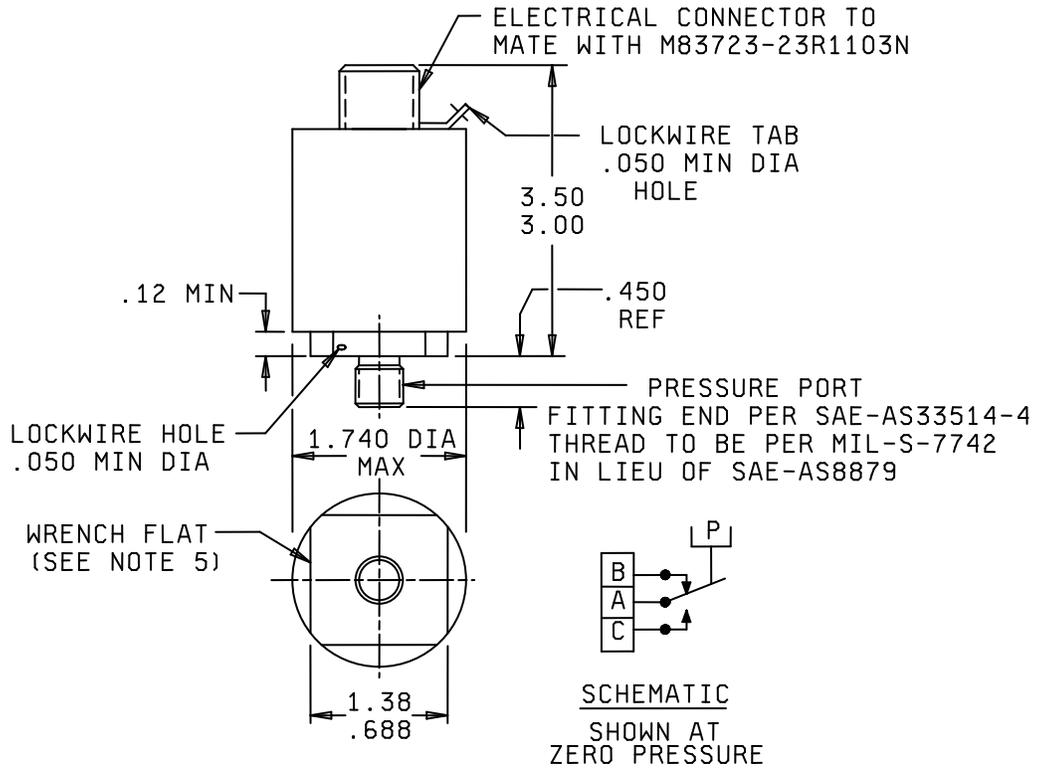
MIL-DTL-9395/30H



WEIGHT: NOT TO EXCEED .45 lbs.

Configuration 4

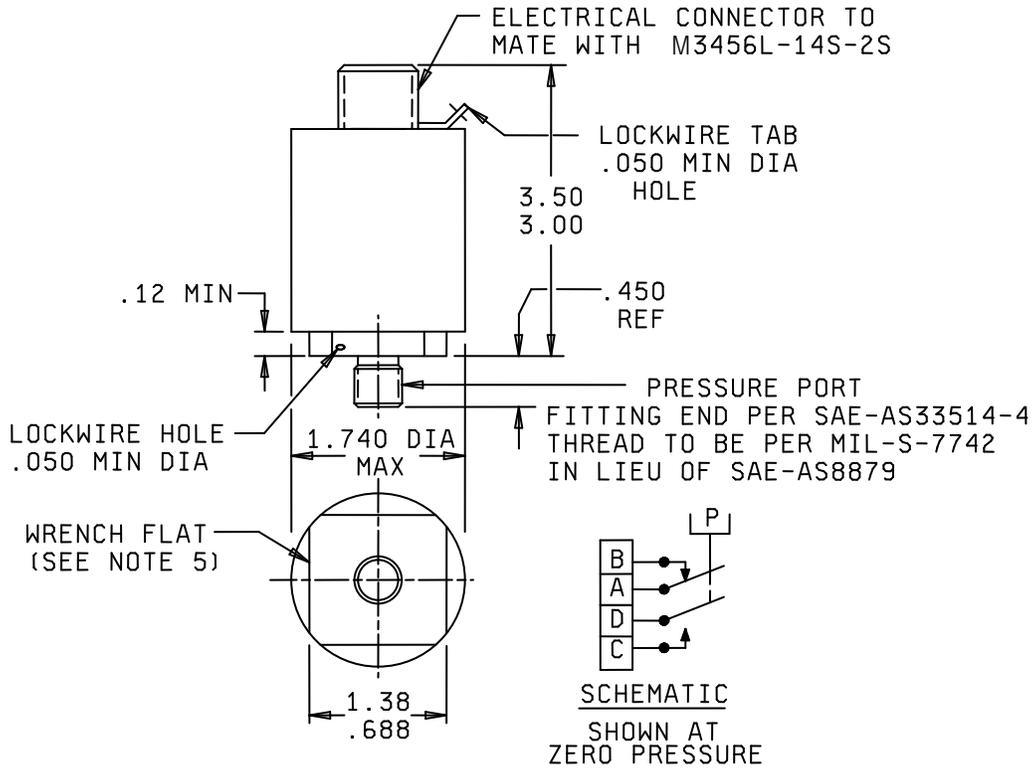
FIGURE 1. Switches - Continued.



WEIGHT: NOT TO EXCEED .45 lbs.

Configuration 5

FIGURE 1. Switches - Continued.

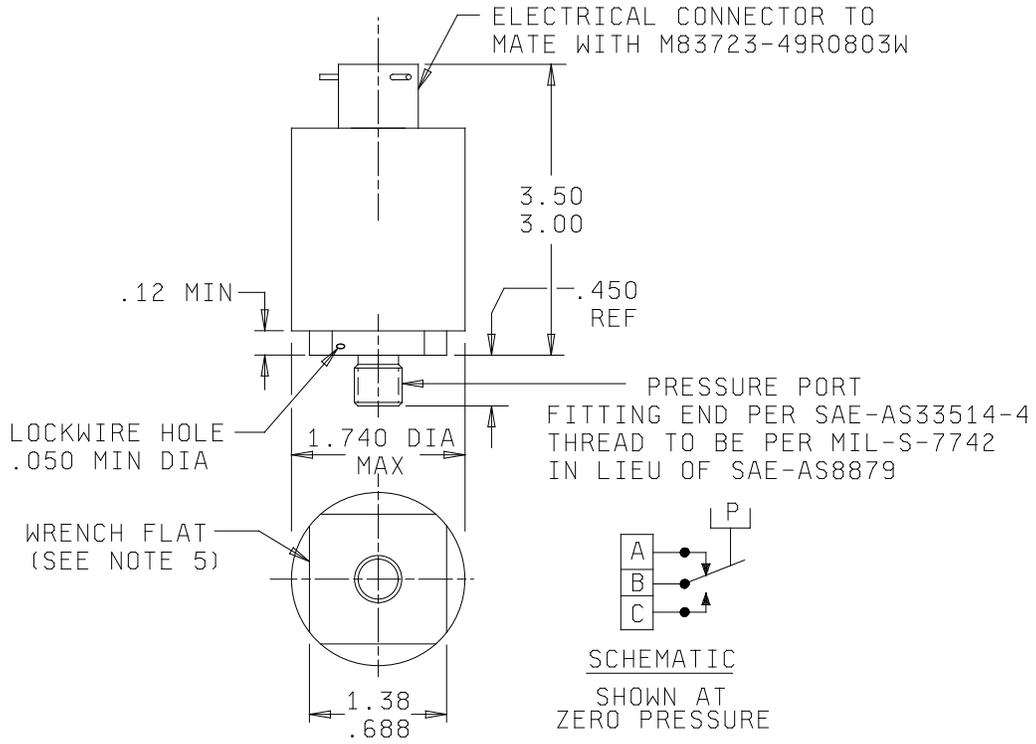


WEIGHT: NOT TO EXCEED .45 lbs.

Configuration 6

FIGURE 1. Switches - Continued.

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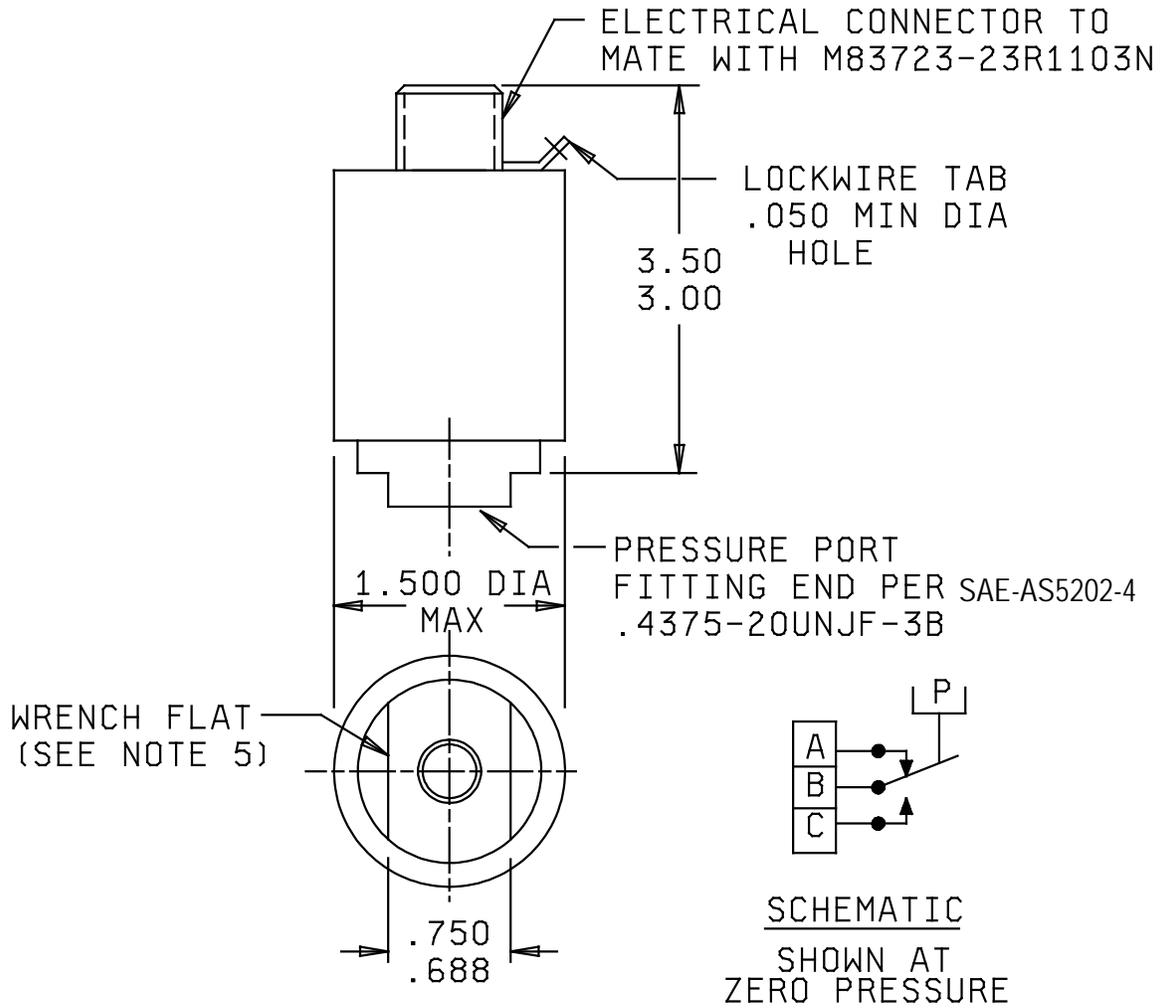


WEIGHT: NOT TO EXCEED .45 lbs.

Configuration 7

FIGURE 1. Switches – Continued.

MIL-DTL-9395/30H

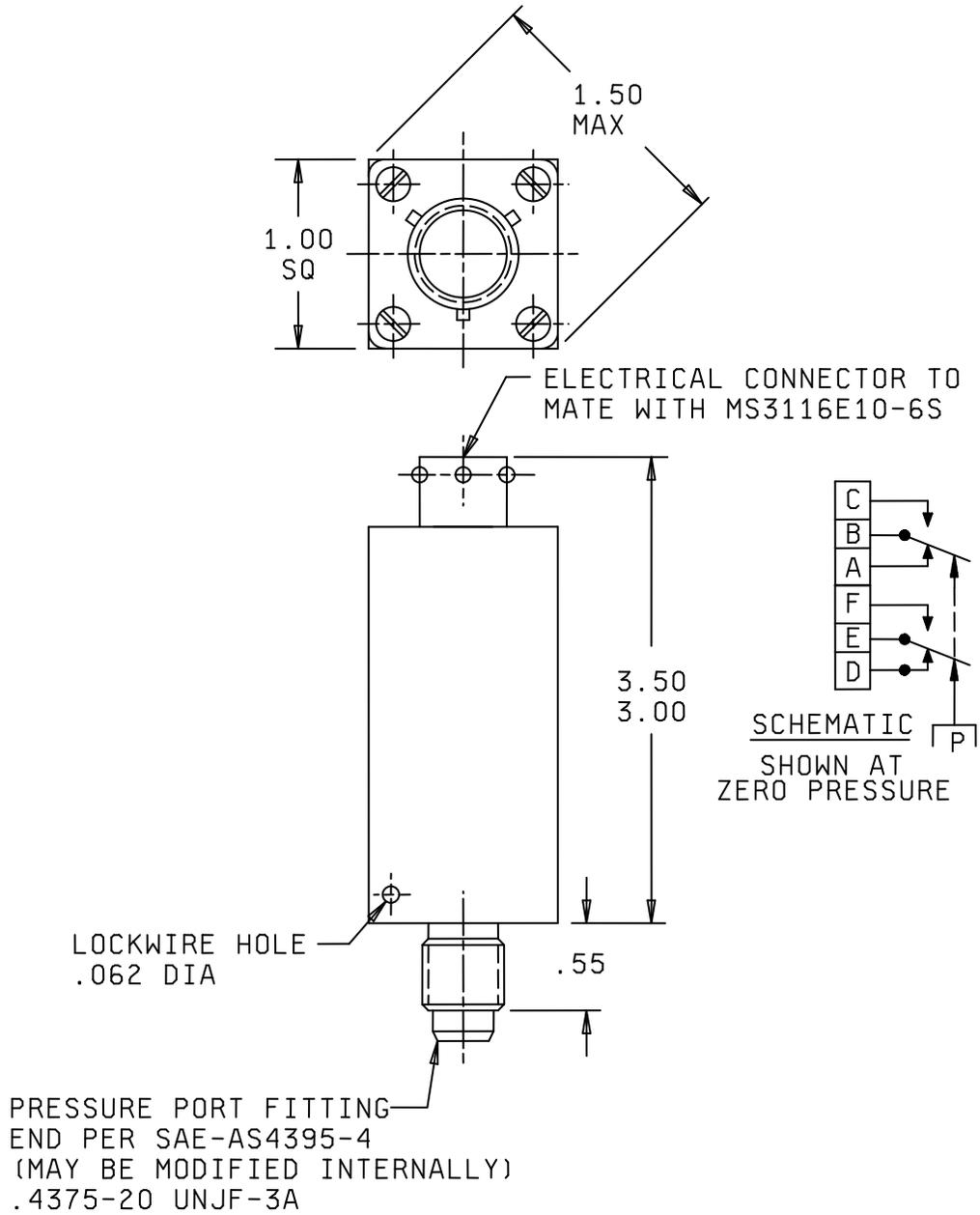


WEIGHT: NOT TO EXCEED .45 lbs.

Configuration 8

FIGURE 1. Switches - Continued.

MIL-DTL-9395/30H

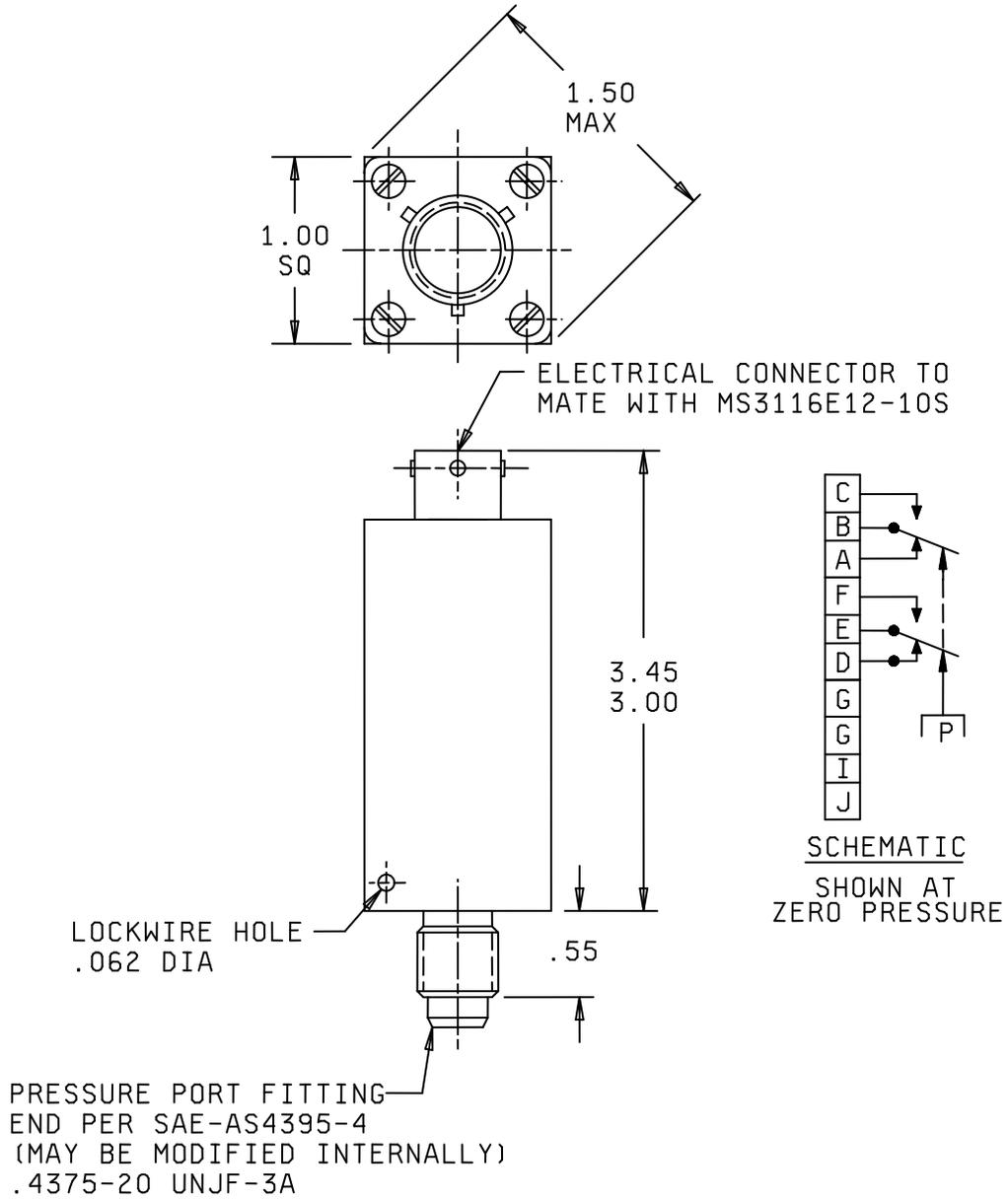


WEIGHT: NOT TO EXCEED .20 lbs.

Configuration 9

FIGURE 1. Switches - Continued.

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WEIGHT: NOT TO EXCEED .20 lbs.

Configuration 10

FIGURE 1. Switches - Continued.

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INCHES	MM
.005	.13
.050	1.27
.062	1.57
.12	3.0
.450	11.43
.55	14.0
.688	17.48
.750	19.05
1.00	25.4
1.38	35.1
1.50	38.1
1.740	44.20
3.00	76.2
3.45	87.6
3.50	88.9

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only and are based upon 1.00 inch = 25.4 mm.
3. Unless otherwise specified, tolerance is ± 0.005 (.13 mm).
4. Exact shape of switch is optional provided outline dimensions specified are not exceeded and mounting holes and connector locations are as specified.
5. A minimum of two wrench flats is needed.

FIGURE 1. Switches - Continued.

REQUIREMENTS:

Dimensions, weight, and electrical schematic: See figure 1.

Calibration: See tables I, II, III, and IV.

Proof pressure: 4500 lb_f/in².

System pressure: 3000 lb_f/in².

Burst pressure: 7500 lb_f/in².

Electrical ratings:

Operating voltage: - 28 Vdc.

Current rating - 5 amperes inductive (L/R = .026)
2 amperes lamp load.

Seal:

Pressure chamber: Media proof. Subject switches to proof pressure for 2 minutes using hydraulic fluid per MIL-PRF-5606 with chamber pressure continuously being monitored. Isolate the chamber at proof pressure, with the chamber disconnected from the pressure source. Under that condition, the pressure shall not drop more than 5 lb_f/in² for the first 30 seconds to allow for stabilization of test equipment. No pressure loss is allowed thereafter for the remainder of the 2 minutes.

Electrical chamber: Watertight. In the event of primary seal failure, hydraulic fluid shall not enter the electrical chamber.

Electrical connector: See figure 1.

Pressure port: See figure 1.

Media: Hydraulic fluid per MIL-PRF-5606.

High temperature (operating and nonoperating): B (+275°F).

Low temperature (operating and nonoperating): D (-65°F).

Altitude: C (except 80,000 feet).

Shock: C (100 G).

Vibration: S (test condition C, method 204 of MIL-STD-202).

Life (mechanical): F (50,000 cycles).

Life (electrical): B (25,000 cycles).

Acceleration: C (8 G).

Pulsation amplitude: E (10 percent).

Pulsation frequency: D (500 ±50 Hz).

Pressure rise: F (500,000 lb_f/in²/sec).

Dielectric withstanding voltage (at reduced barometric pressure): Applicable at 250 Vrms.

Connector torque: Applicable.

QUALIFICATION:

Single submission: Restricted to switch submitted.

Group submission: See table V.

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PART NUMBER: Consists of the prefix "M9395/30-" followed by a five-character code. The code identifies the configuration and pressure setting mode (code from table I); high-pressure setting to within 100 lb_f/in² (code from table II) followed by high-pressure setting to within 25 lb_f/in² and applicable tolerance (code from table III). The five-character code used in the following example identifies a switch of configuration 1 which actuates on increasing pressure at 300 ±25 lb_f/in², and deactuates on decreasing pressure at 150±25 lb_f/in².

EXAMPLE:

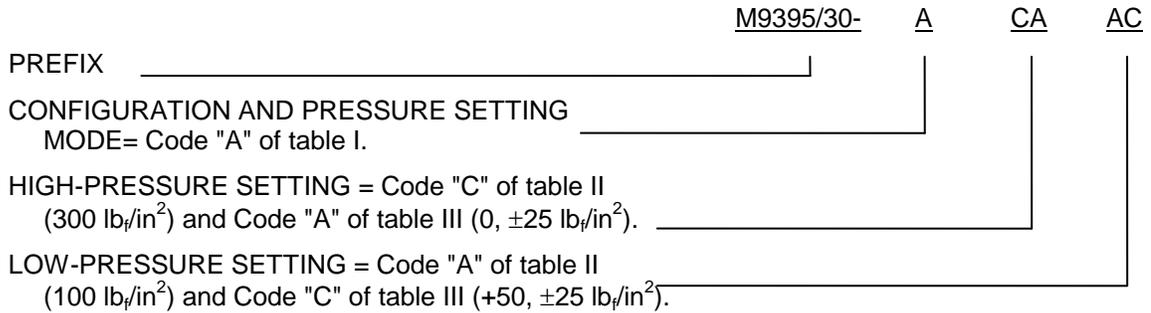


TABLE I. Codes for combinations of configurations and pressure setting modes.

	Configuration										Pressure setting mode	
	1	2	3	4	5	6	7	8	9	10	high setting	Low setting
Code	A	D	G	K	N	R	U	X	1	4	At (or max) <u>1/</u>	At (or min) <u>1/</u>
Code	B	E	H	L	P	S	V	Y	2	5	At (or max) <u>1/</u>	Differential <u>2/</u>
Code	C	F	J	M	Q	T	W	Z	3	5	Differential <u>2/</u>	At (or min) <u>1/</u>

1/ Setting values are designated by codes from tables II and III.

2/ Setting values are designated by codes from table IV.

TABLE I. Codes for combinations of configurations and pressure setting modes.

Code	Pressure (lb _f /in ²)	Code	Pressure (lb _f /in ²)	Code	Pressure (lb _f /in ²)
A	100	L	1100	W	2100
B	200	M	1200	X	2200
C	300	N	1300	Y	2300
D	400	P	1400	Z	2400
E	500	Q	1500	1	2500
F	600	R	1600	2	2600
G	700	S	1700	3	2700
H	800	T	1800	4	2800
J	900	U	1900	5	2900
K	1000	V	2000	6-	3000

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TABLE III. Codes for pressure settings to within 25 lb_f/in² and tolerances.

	Unit				Tolerance (lb _f /in ²)
	0	+25	+50	+75	
Code	A	B	C	D	±25
Code	E	F	G	H	±50
Code	J	K	L	M	±75
Code	N	P	Q	R	±100
Code	S	T	U	V	±150
Code	W	X	Y	Z	±200
Code	1	2	3	4	±300
Code	5	6	7	8	±400
Code	9	0	I	-	Min or Max

TABLE IV. Codes for differential pressure settings.

Code	Differential value (lb _f /in ²)	Code	Differential value (lb _f /in ²)
A	0	M	275
B	25	N	300
C	50	P	325
D	75	Q	350
E	100	R	375
F	125	S	400
G	150	T	425
H	175	U	450
J	200	V	475
K	225	W	500
L	250		

TABLE V. Extent of qualification .

Part number	Number of samples required	Tests	Qualifies
M9395/30-AADAA	1 each inductive	Complete per qualification inspection of MIL-DTL-9395	ALL configurations
↓ -KADAA	1 each lamp		
↓ -14ZXV	1 each inductive		
↓ -44ZXV	1 each lamp		

NOTES:

1. Pressure switches supplied to this specification sheet shall be designed to operate normally with the system pump ripple at 3000 lb_f/in² at 0 to 700 Hz and average transient of 3000 ±500 lb_f/in² at 10 Hz peaking to 4050 lb_f/in².
2. Design limitations (actuation values and tolerances, deadband and deactuation values and tolerances) should be coordinated with manufacturer(s) listed on the QPL for this spec sheet before specifying a particular "M" number. The fact that operating characteristics can be coded does not necessarily mean that it can be manufactured or procured.

The margins of this specification are marked with vertical lines to indicate where modifications from this revision were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations.

Reference Documents:

MIL-PRF-5606	SAE-AS4395
MIL-S-7742	SAE-AS5202
MIL-DTL-9395	SAE-AS33514
MIL-STD-202	

Custodians:

Army - CR
Navy - EC
Air Force - 85
DLA - CC

Preparing activity:
DLA - CC

(Project 5930-2011-108)

Review activities:

Army - AV
Navy - MC, SH
Air Force - 99

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <https://assist.dla.mil/>.