

INCH-POUND

MIL-DTL-9395/10H

12 August 2024

SUPERSEDING

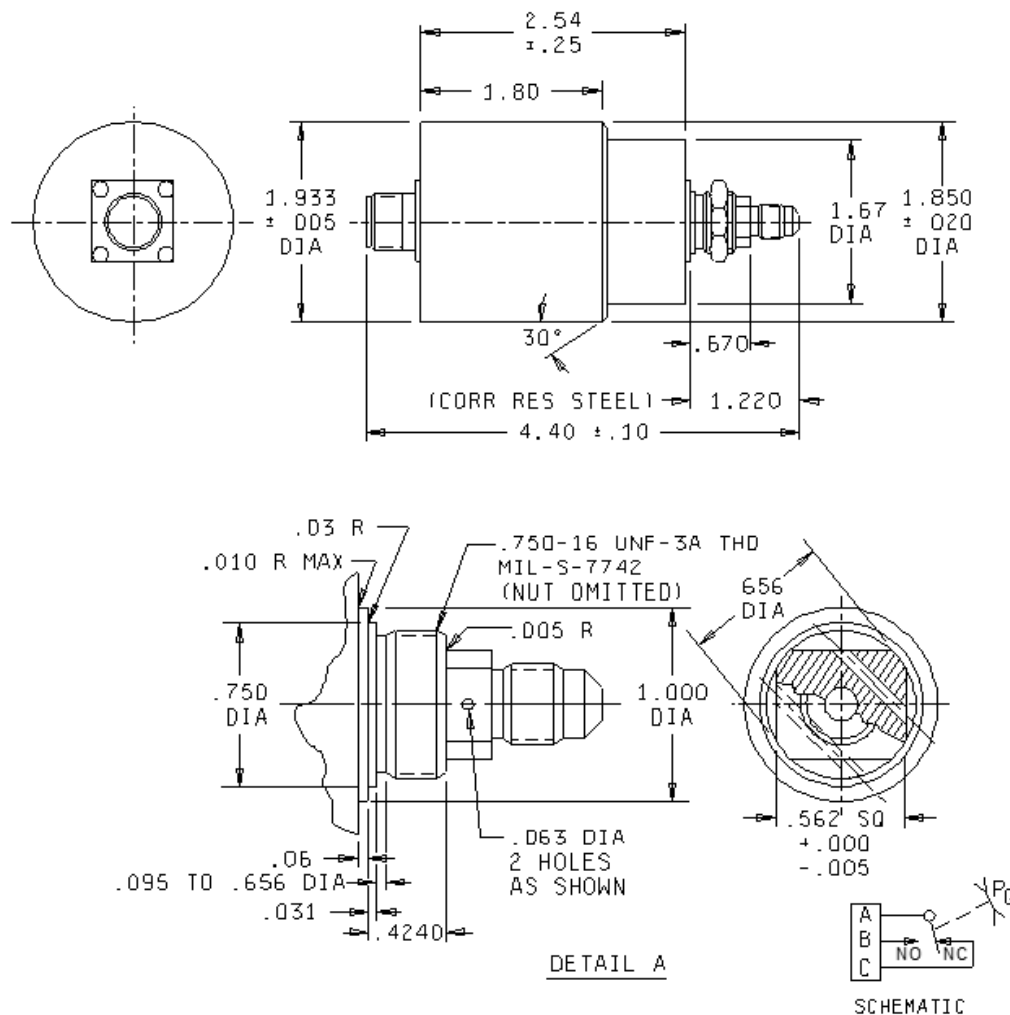
MIL-DTL-9395/10G

24 September 2018

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

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

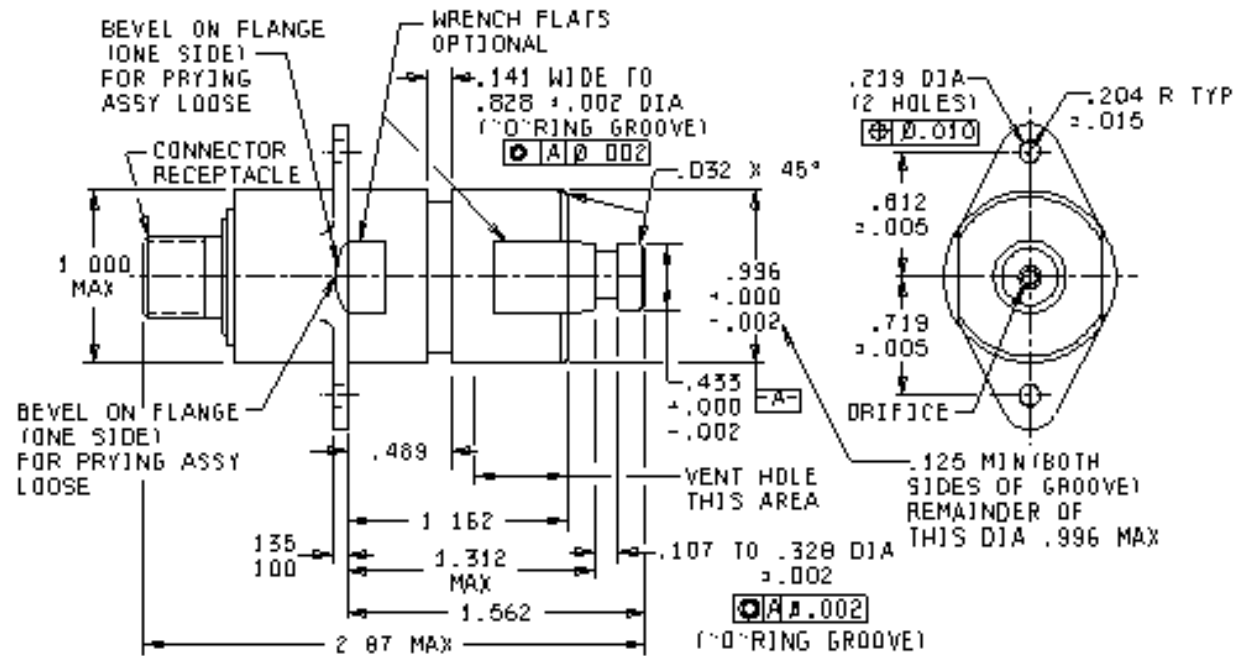
The requirements for acquiring the switches described herein shall consist of this document and [MIL-DTL-9395](#).



Configuration 1

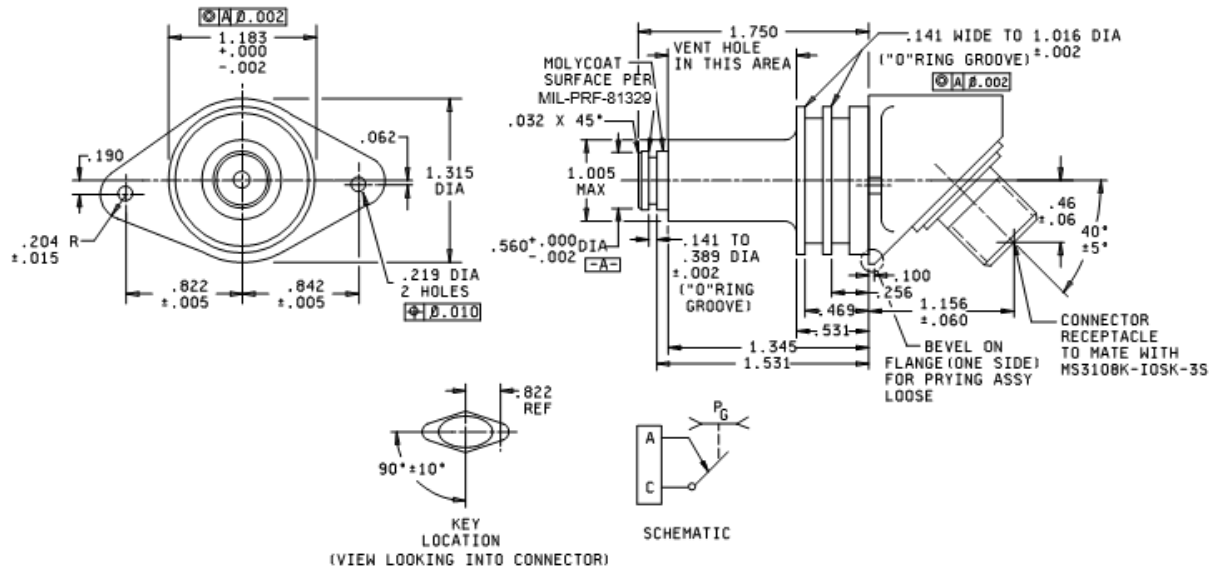
FIGURE 1. Switches.





CONFIGURATION	ELECTRICAL CONNECTOR TO MATE WITH	SCHEMATIC	KEY LOCATION (VIEW LOOKING INTO CONNECTOR)
2	AMPHENOL 115-5035 OR EQUIV		
5	MS3106R-10SL-35		
6	AMPHENOL 115-5035 OR EQUIV		
7	MS3106R-10SL-35		

FIGURE 1. Switches - Continued.



Configuration 3

NOTES:

1. Dimensions are in inches.
2. Unless otherwise specified, tolerances are $XX \pm .03$ and $XXX \pm .010$.
3. All "O" ring grooves 32 rms maximum surface finish.
4. Contour of switches optional provided maximum dimensions specified are not exceeded.
5. MS3106-IOSL-35 details are found in [SAE-AS31061](#) and MS3108-IOSK-3S details are found [SAE-AS31081](#)

FIGURE 1. Switches - Continued.

REQUIREMENTS:

Dimensions and electrical schematic: See figure 1.

Weight (maximum):

- .7 lb (configuration 1).
- .2 lb (configuration 2, 3, 5, 6, 7).

Proof pressure: 800 lb_f/in^2 .

System pressure: 500 lb_f/in^2 .

Burst pressure: 1,200 lb_f/in^2 .

Dead band: 25 lb_f/in^2 .

Electrical ratings:

Operating voltage - 28 V dc.

Current rating - 10 amperes inductive (configuration 1) or 2 amperes inductive (configuration 2, 3, 5, 6, 7).

5 amperes lamp load (configuration 1).

10 amperes resistive (configuration 1).

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Seal:

Electrical chamber: Watertight.
Pressure chamber: Watertight.
Reference chamber: Watertight.

Electrical connector, electrical connector mating, and key location: See figure 1.

Pressure port: See figure 1.

Media: Oil IAW [MIL-PRF-7808](#).

High temperature (operating): B (+275°F) for configuration 1; or C (+350°F) for configuration 2, 3, 5, 6, 7.

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

Altitude: D (100,000 feet).

Shock: A (50 G).

Vibration: S (test condition D, of [MIL-STD-202-204](#), except 10 - 2000 Hz, 40 G).

Life (mechanical): A (100,000 cycles).

Life (electrical): C (50,000 cycles).

Acceleration: C (8 G) for configuration 1; or D (12 G) for configuration 2, 3, 5, 6, 7.

Pulsation amplitude: E (10 percent) for configuration 1; or 50 percent of system pressure for configuration 2, 3, 5, 6, 7.

Pulsation frequency: C (200 $\pm$ 20 Hz) for configuration 1; or D (500 $\pm$ 50 Hz) for configuration 2, 3, 5, 6, 7.

Pulsation rise: E (250,000 lb_f/in²/sec) for configuration 1 or G (1,000,000 lb_f/in²/sec for configuration 2, 3, 5, 6, 7.

Connector torque: Applicable (15 ft lb - both directions).

QUALIFICATION:

Single submission: Restricted to switch submitted.

Group submission: See table IV.

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PART NUMBER: The part number shall consist of the prefix "M9395/10-" followed in turn by a character from table I, a character from table II and a character from table III denoting the high pressure setting, and a character from table II and a character from table III denoting the low pressure setting. Part number M9395/10-AJKGE identifies a pressure switch of configuration 1 which actuates at $85 \pm 20 \text{ lb}_f/\text{in}^2$, and deactuates at $60 \pm 10 \text{ lb}_f/\text{in}^2$.

EXAMPLE:

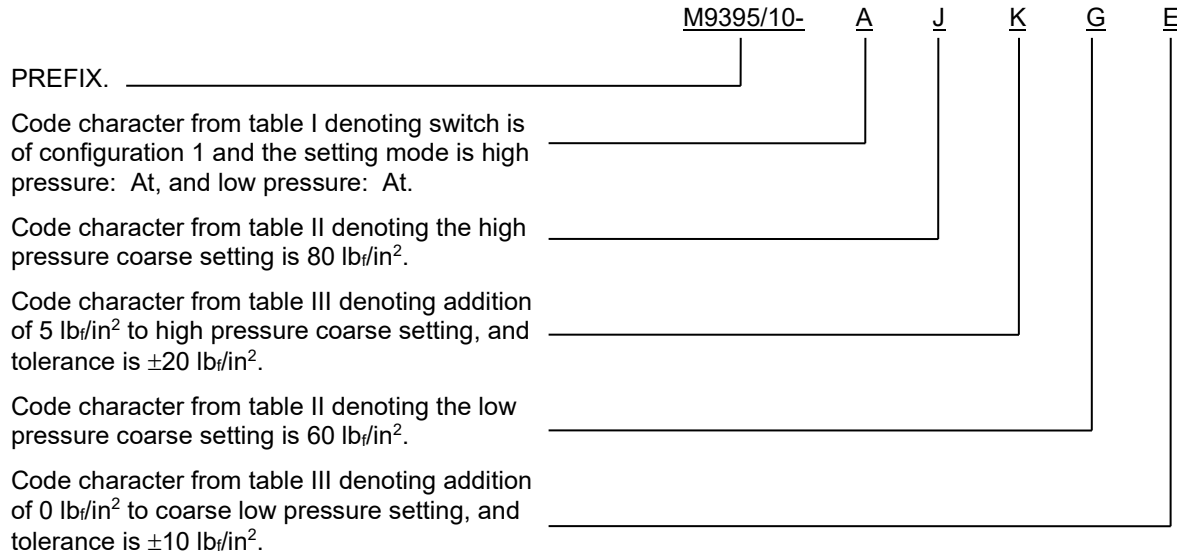


TABLE I. Code character for combination of configuration and setting mode.

Configuration	Code character		
	Pressure setting mode		
	High pressure: At Low pressure: At	High pressure: At Low pressure: Differential	High pressure: Differential Low pressure: At
1	A	B	C
2	D	E	F
3	G	H	J
4 (unused)	---	---	---
5	K	L	M
6	N	P	Q
7	R	S	T

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TABLE II. Code character for coarse pressure setting (within 10 lb_f/in²).

Code character	Coarse Setting (lb _f /in ²)	Code character	Coarse Setting (lb _f /in ²)	Code character	Coarse Setting (lb _f /in ²)
A	0	M	110	Y	220
B	10	N	120	Z	230
C	20	P	130	1	240
D	30	Q	140	2	250
E	40	R	150	3	260
F	50	S	160	4	270
G	60	T	170	5	280
H	70	U	180	6	290
J	80	V	190	7	300
K	90	W	200		
L	100	X	210		

TABLE III. Code character for combination of fine pressure setting addition and tolerance.

Fine pressure setting (to be added to coarse pressure setting) (lb _f /in ²)	Code character												
	Tolerance (lb _f /in ²)												
	Min	±5	±10	±15	±20	±25	±30	±40	±50	±60	±80	±100	Max
0	A	C	E	G	J	L	N	Q	S	U	W	Y	1
5	B	D	F	H	K	M	P	R	T	V	X	Z	2

TABLE IV. Extent of qualification.

Part number	Number of samples required	Tests	Qualifies
MS9395/10-AECBC	1 each lamp	Complete per qualification inspection of MIL-DTL-9395	All configurations
MS9395/10-GECBC	1 each inductive		
MS9395/10-A7LYE	1 each inductive		
MS9395/10-G7LYE	1 each inductive		

SUPERSESSON AND USAGE DATA: See table V.

TABLE V. Supersession and usage data.

New part number	Old part number	Used on
MS9395/10-AJKGE	MIL-DTL-9395/10-01	KC-135, B-52F F-101, F-102
MS9395/10-DRIFA	MIL-DTL-9395/10-02	F-4, B-57
MS9395/10-GRIFA	MIL-DTL-9395/10-03	EC/RC 135
MS9395/10-KRIFA	MIL-DTL-9395/10-05	B-52G
MS9395/10-NRIFA	MIL-DTL-9395/10-06	C-141
MS9395/10-RRIFA	MIL-DTL-9395/10-07	C-5A

The margins of this specification are marked with vertical lines to indicate where changes from the previous issue 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 and relationship to the previous issue.

Referenced Documents:

[MIL-S-7742](#)
[MIL-PRF-7808](#)
[MIL-DTL-9395](#)
[MIL-PRF-81329](#)
[MIL-STD-202-204](#)
[SAE-AS31061](#)
[SAE-AS31081](#)

Custodians:

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

Preparing activity:
DLA - CC

(Project 5930-2024-048)

Review activities:

Navy - MC, SH

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/>.