

INCH POUND

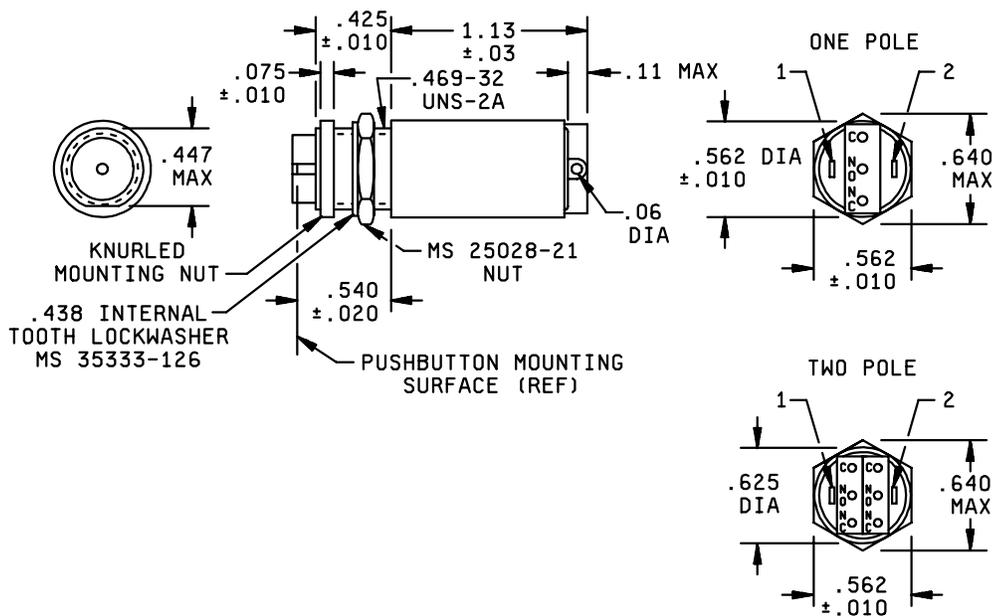
MIL-PRF-22885/79D
 1 March 2001
 SUPERSEDING
 MIL-PRF-22885/79C
 12 August 1990

PERFORMANCE SPECIFICATION SHEET

SWITCHES, PUSH BUTTON, ILLUMINATED,
 MOMENTARY, SPDT AND DPDT, ONE LAMP,
 7 AMPERE SILVER CONTACTS, 1 AMPERE GOLD CONTACT

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

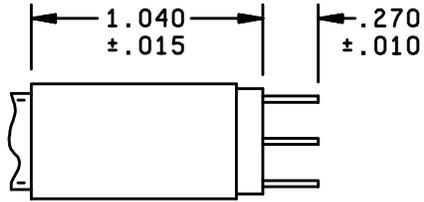
The requirements for acquiring the indicator lights described herein shall
 consist of this specification sheet and MIL-PRF-22885.



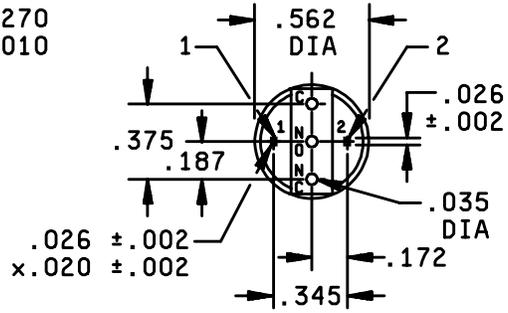
Inches	mm	Inches	mm
.010	.25	.447	11.36
.020	.51	.469	11.91
.03	.8	.540	13.72
.06	1.5	.562	14.27
.075	1.90	.625	15.88
.11	2.8	.640	16.26
.425	10.80	1.13	28.7
.438	11.13		

FIGURE 1. Basic switch body less lens.

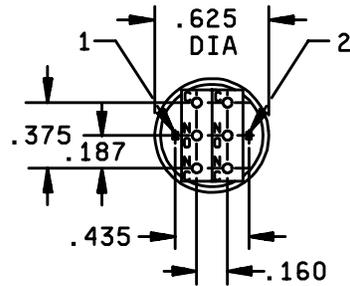
PRINTED CIRCUIT TERMINATION



ONE POLE



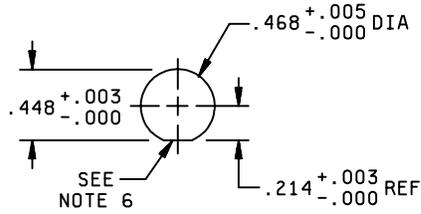
TWO POLE



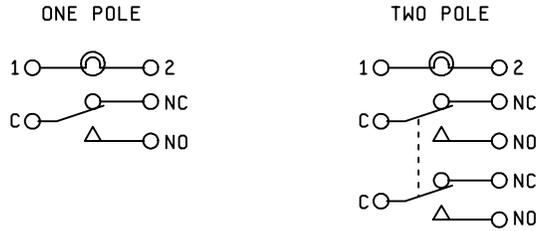
Inches	mm	Inches	mm
.002	.05	.187	4.75
.010	.25	.270	6.86
.015	.38	.345	8.76
.020	.51	.375	9.52
.026	.66	.435	11.05
.035	.89	.562	14.27
.160	4.06	.625	15.88
.172	4.37	1.040	26.42

FIGURE 1. Basic switch body less lens - Continued.

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RECOMMENDED PANEL MOUNTING HOLE DIMENSIONS



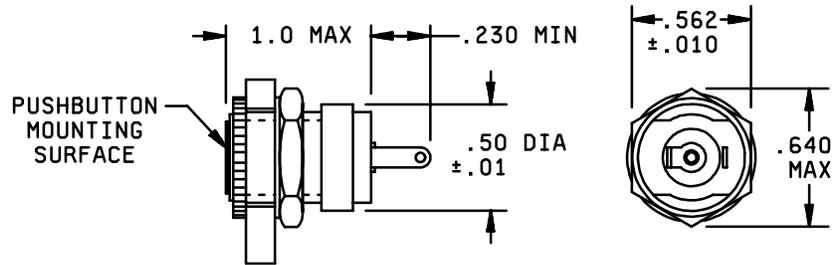
SCHEMATICS

Inches	mm
.003	.08
.005	.13
.214	5.44
.448	11.38
.468	11.89

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerances are $\pm .01$ (.3 mm) for two place decimals and $\pm .005$ (.13 mm) for three place decimals.
4. Unit mounts in panels from .010 (.25 mm) to .20 (5.1 mm) thick.
5. Basic contacts MIL-PRF-8805/4.
6. "D" pattern hole shown for body keying .468 dia. round hole may also be used.

FIGURE 1. Basic switch body less lens - Continued.



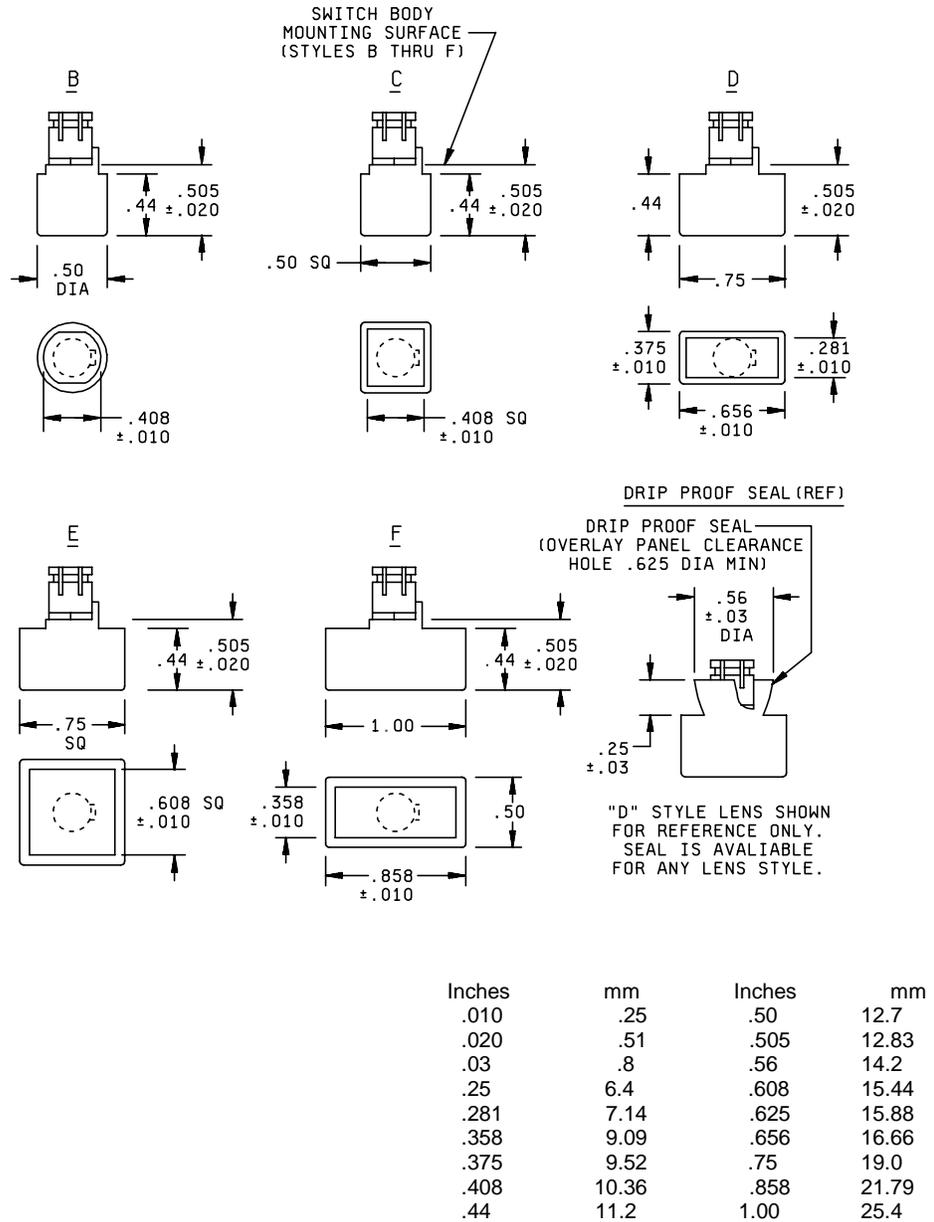
Inches	mm
.010	.25
.075	1.90
.230	5.84
.500	12.70
.562	14.27
.640	16.26

NOTES:

1. Dimensions and configuration are same as switch body in figure 1 except as shown.
2. Metric equivalents are given for general information only.

FIGURE 2. Indicator body less lens.

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NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerances are ±.010 (.25 mm) for two place decimals and ±.005 (13 mm) for three place decimals.
4. Pushbutton housing is black and illuminates in a forward direction.
5. Lens surface concave approximately .03 inches (.8 mm) on B, C and D pushbutton only.

FIGURE 3. Lens styles.

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REQUIREMENTS:

Design and configuration: See figures 1, 2, and 3.

Housing finish: Anodize per MIL-A-8625.

Operating characteristics:

Actuation force: 22 ±4 ounces.

Actuation travel: .200 maximum.

Lens extraction force: 2 to 8 pounds.

Mounting torque: 5 ±.5 inch-pounds.

Weight: 18.3 grams maximum.

Electrical ratings: See tables I and II.

Enclosure design: See table V.

Vibration grade: 3 (10-2, 000Hz)

Shock: Method I.

Temperature characteristic: 1 (-55° to +85°C).

Operation: A (momentary action).

Lens transmittance: T (translucent).

Luminance values: See table IV.

Lens: Shall be of translucent white color in the unlighted condition. In the lighted condition, it shall appear in a color determined by the color filter.

TABLE I. Silver contacts per MIL-PRF-8805/4.

Load	Sea level		50,000 feet 28 V dc
	28 V dc	115 V ac, 60 Hz	
	(amperes)	(amperes)	(amperes)
Resistive	7	7	4
Inductive	4	7	2.5
Lamp	2.5	2	2.5

TABLE II. Gold contacts per MIL-PRF-8805/4 filled or diffused.

Load	Sea level 28 V dc (amperes)	50,000 feet 28 V dc (amperes)
Resistive	1	1
Inductive	.5	.5

Complete switch shall consist of:

1. Pushbutton assembly in accordance with figure 3.
2. Lamp, one T-1 ¾ midget flange based incandescent lamp - not supplied, order separately.
3. Switch or indicator body in accordance with figure 1 or 2.

Part numbers:

Complete switch (one pole, solder terminals): See table VI.

Switch or indicator body only: See table VI.

Pushbutton only: See table VII.

QUALIFICATION:

All applicants for qualification approval shall demonstrate that each of their items conforms to all the requirements specified in the applicable documents, singularly and in combination with all other previously qualified items, regardless of manufacturer.

Group submission:

- a. When the basic sensitive switches are qualified to MIL-PRF-8805 and the gold and silver contact switches are submitted for qualification, at the same time switches shall be tested in accordance with table III.
- b. When the basic sensitive switches are not qualified to MIL-PRF-8805, the switch type for which qualification is sought, shall be submitted to the complete tests in accordance with MIL-PRF-22885.

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TABLE III. Qualification inspection (group submission).

Part number	Inspection table of MIL-PRF-22885		Extent of approval
	Group	Number of samples	
M22885/79-154 with M22885/79-148 Pushbutton	I	(All sample units)	All part numbers
	II	4 (from group I) <u>1/</u>	
	III	2 (from group I)	
	VI	2 (from group I) <u>2/</u>	
	VII	2 (from group I)	
	VIII	50 <u>3/</u>	
	I	(All sample units)	
	II	4 (from group I) <u>1/</u>	
	VI	2 (from group I) <u>2/</u>	

1/ Insulation resistance: following step 6 of the final cycle of the moisture resistance test, the insulation resistance measurement shall not be less than 5 megohms.

2/ Sea level, resistance dc load only.

3/ Pushbutton only, 2 each color and style, tested in any switch body.

TABLE IV. Luminance.

Color code	Lens style	Luminance <u>1/</u> (foot-lamberts minimum average)
Green	B	37
	C	34
	D	26
	E	25
	F	20
	Red	B
C		155
D		133
E		118
F		100
White		B
	C	441
	D	300
	E	265
	F	166
	Yellow	B
C		579
D		470
E		375
F		275
Blue		B
	C	37
	D	34
	E	25
	F	22

1/ When illuminated by one MS25237-327 lamp of 0.34 ±.02 mean spherical candle power. Readings are for all lens styles.

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TABLE V. Part numbers for complete switch (one pole, solder terminals). ^{1/}

Part number M22885/79-		Lens style	Color code	Switch contacts
Without dripproof seal	With dripproof seal			
001	051	B	G	Silver
002	052	B	R	
003	053	B	W	
004	054	B	Y	
005	055	B	B	
006	056	C	G	
007	057	C	R	
008	058	C	W	
009	059	C	Y	
010	060	C	B	
011	061	D	G	
012	062	D	R	
013	063	D	W	
014	064	D	Y	
015	065	D	B	
016	066	E	G	
017	067	E	R	
018	068	E	W	
019	069	E	Y	
020	070	E	B	
021	071	F	G	
022	072	F	R	
023	073	F	W	
024	074	F	Y	
025	075	F	B	
026	076	B	G	Gold
027	077	B	R	
028	078	B	W	
029	079	B	Y	
030	080	B	B	
031	081	C	G	
032	082	C	R	
033	083	C	W	
034	084	C	Y	
035	085	C	B	
036	086	D	G	
037	087	D	R	
038	088	D	W	
039	089	D	Y	
040	090	D	B	
041	091	E	G	
042	092	E	R	
043	093	E	W	
044	094	E	Y	
045	095	E	B	
046	096	F	G	
047	097	F	R	
048	098	F	W	
049	099	F	Y	
050	100	F	B	

^{1/} For other than direct government procurement. For direct government stocking switch bodies and pushbuttons should be procured separately (see tables VI and VII).

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TABLE VI. Part numbers for switch or indicator body only.

Part number M22885/79-		Circuit	Contacts
Solder terminals	PC terminals		
101	156	1 Pole	Silver
102	157	1 Pole	Gold
154	158	2 Pole	Silver
155	159	2 Pole	Gold
103	---	Indicator	

TABLE VII. Part numbers for pushbutton only.

Part number M22885/79-		Lens style	Color code
Without dripproof seal	With dripproof seal		
153	128	B	G
104	129	B	R
105	130	B	W
106	131	B	Y
107	132	B	B
108	133	C	G
109	134	C	R
110	135	C	W
111	136	C	Y
112	137	C	B
113	138	D	G
114	139	D	R
115	140	D	W
116	141	D	Y
117	142	D	B
118	143	E	G
119	144	E	R
120	145	E	W
121	146	E	Y
122	147	E	B
123	148	F	G
124	149	F	R
125	150	F	W
126	151	F	Y
127	152	F	B

M22885/79-XXX

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Custodians:

Army - CR
Navy - EC
Air Force - 11
DLA - CC

Preparing activity:

DLA - CC

Review activities:

Army - AR, AV, MI
Navy - AS, MC, OS
Air Force - 19,99

(Project 5930-1716-12)