

INCH POUND

MIL-PRF-22885/10J
26 April 2004

SUPERSEDING
MIL-PRF-22885/10H
17 March 1999

PERFORMANCE SPECIFICATION SHEET

SWITCH, PUSH BUTTON, ILLUMINATED, INDICATOR LIGHT FOR, MODULAR, 4-LAMP

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.

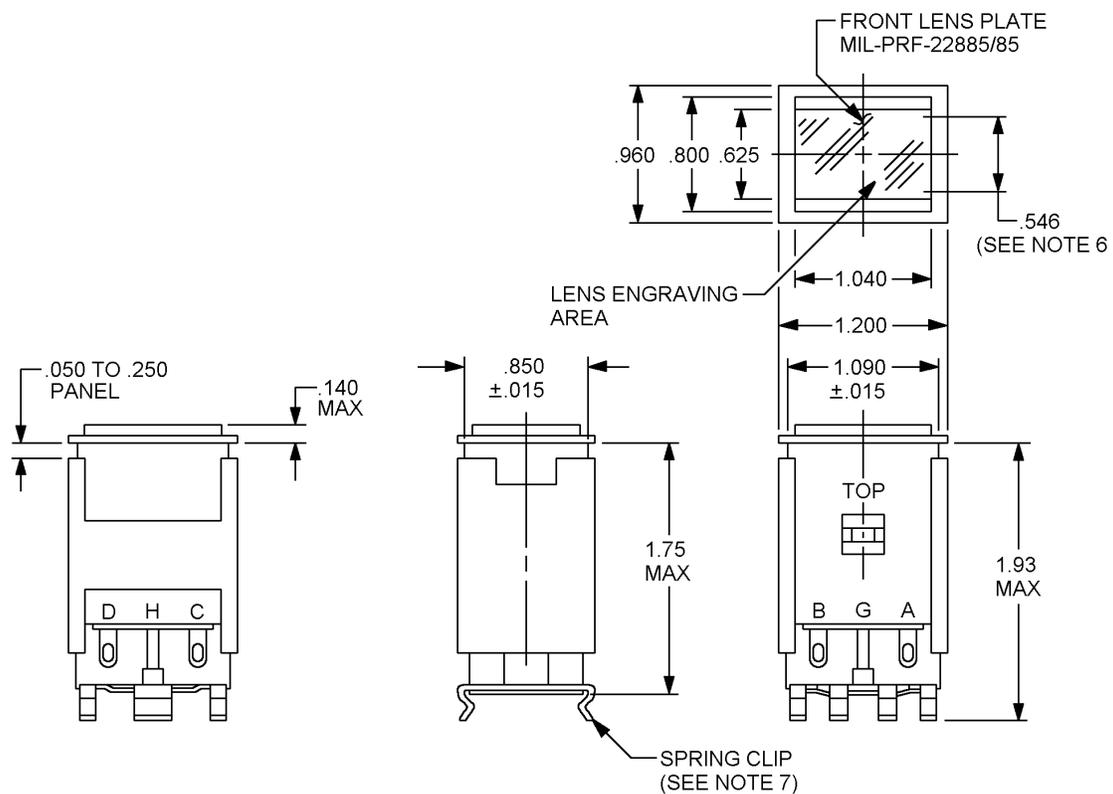
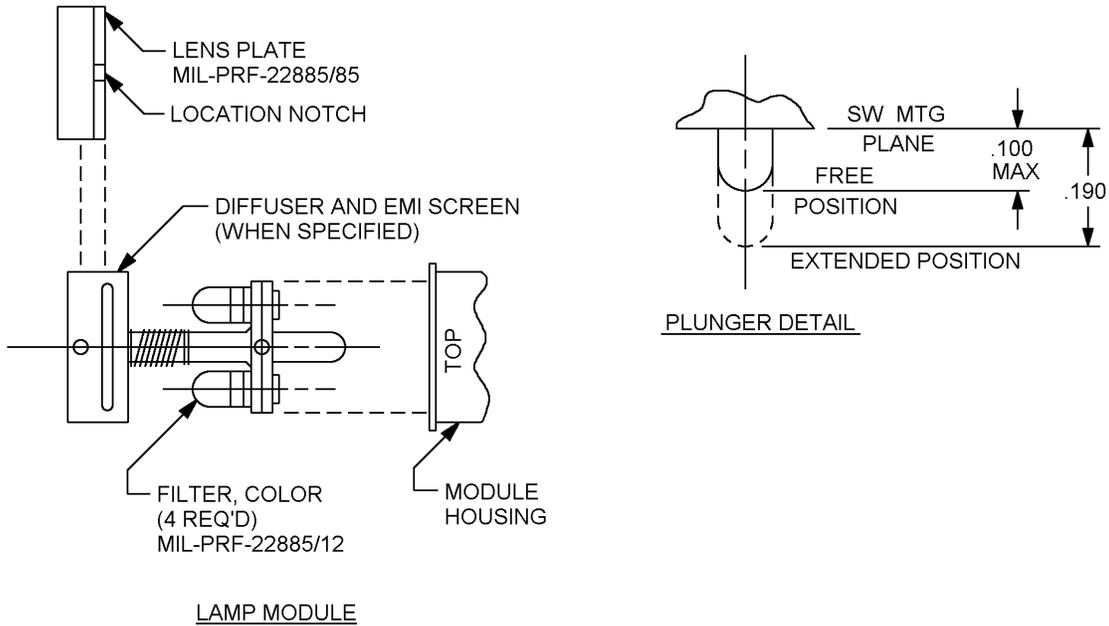


FIGURE 1. Indicator light, modular, 4-lamp.

MIL-PRF-22885/10J



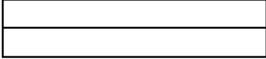
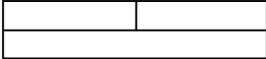
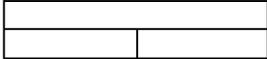
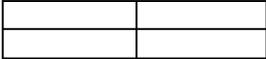
Inches	mm	Inches	mm
.015	.38	.800	20.32
.050	1.27	.850	21.59
.100	2.54	.960	24.38
.140	3.56	1.040	26.42
.190	4.83	1.090	27.69
.250	6.35	1.200	30.48
.546	13.87	1.75	44.4
.625	15.88	1.93	49.0

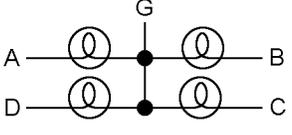
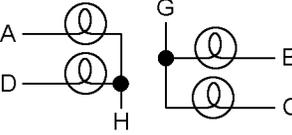
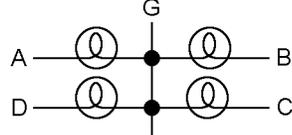
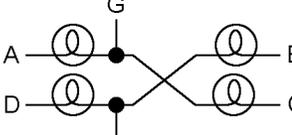
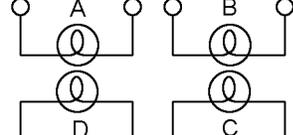
NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerance is ± 0.016 (.41 mm).
4. Terminals shall be permanently identified with letters as shown in table I
5. Circuit schematic shall be marked on the module housing as shown in table I.
6. Engraving area recommended for uniform lighting.
7. Switch clip design optional-must interface with MIL-PRF-22885/11 switch modules.
8. Terminal and plunger stop design is optional.
9. The design configuration is optional within envelope dimensions shown.

FIGURE 1. Indicator light, modular, 4-lamp - Continued.

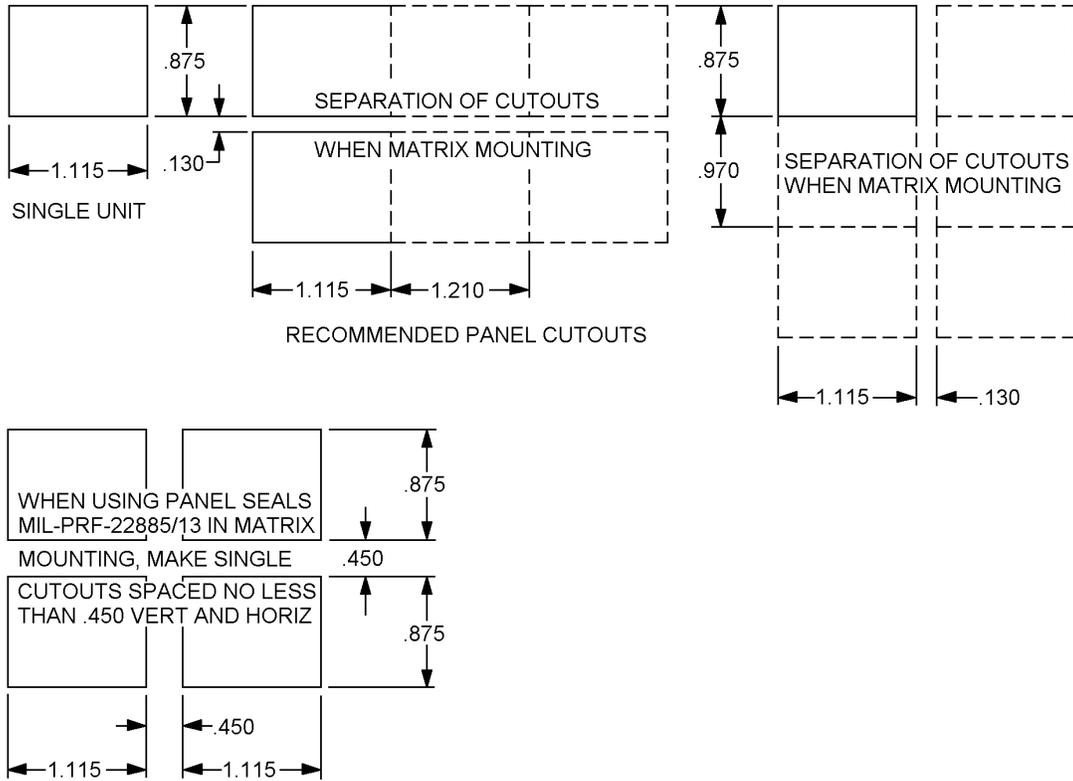
TABLE I. Lens style, lamp circuit and lamp terminal identification. 1/ 3/

LENS STYLE (DIFFUSER CONFIGURATION)		
CODE A SOLID 	CODE B SPLIT VERTICALLY 	CODE C SPLIT HORIZONTALLY 
CODE D 3-WAY SPLIT 	CODE E 3-WAY SPLIT 	CODE F 4-WAY SPLIT 

LAMP CIRCUIT AND LAMP TERMINAL IDENTIFICATION		
CODE 1 	CODE 2 	CODE 3 
CODE 4 2/ 	CODE 5 	

- 1/ For reliability, it is recommended that selection of lens styles and lamp circuits be limited to those providing at least 2 lamps per display area.
- 2/ Inactive for new design.
- 3/ Lamp location and lens styles shown are as viewed from front panel with module position in accordance with figure 3.

MIL-PRF-22885/10J



Inches	mm
.130	3.30
.450	11.43
.875	22.22
.970	24.64
1.115	28.32
1.210	30.73

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerance is $\pm .010$ (.25 mm).

FIGURE 2. Recommended panel cutouts.

MIL-PRF-22885/10J

REQUIREMENTS:

Dimensions and configuration: See figures 1 and 2.

Complete indicator light shall consist of:

- 1 - Lamp module.
- 1 - Lens plate (MIL-PRF-22885/85), when specified (see table III).
- 4 - Lamps (T-1-3/4 midget-flange base) not included, order separately.
- 4 - Color filters (MIL-PRF-22885/12), when specified (see table III).
- 1 - Module housing.
- 1 - Plunger stop.
- 1 - Panel seal (MIL-PRF-22885/13) not included, order separately.
- 1 - EMI screen, when specified (see table III).

Enclosure design: 2 (dripproof), when MIL-PRF-22885/13 panel seal is utilized, otherwise 1 (unsealed) when used without panel seal.

Vibration grade: 2 (10 to 500 Hz).

EMI shielding: When specified (see table III), indicators shall be equipped with a fine mesh EMI screen installed between the lamps and diffuser, making electrical contact to the indicator light's housing. The screen to housing resistance shall not exceed 1 ohm through one complete cycle of operation with full overtravel. Test in accordance with the following:

- a. Test current - 100 ± 10 milliamperes.
- b. Open circuit test voltage 6 ± 1 V dc.
- c. Before and after electrical endurance in qualification and group C testing.

Color and luminance values: In accordance with MIL-PRF-22885/12 (brightness is reduced by approximately 50 percent when EMI screen is installed).

Lens transmittance: T (translucent).

Lamp module: The lamp insulator block (base) may be fabricated from thermoplastic material.

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 of the lamp filters (MIL-PRF-22885/12). The lens style shall be as shown in table I.

Lens plate material: When thermal shock test is performed in accordance with MIL-PRF-22885, the maximum temperature (nonoperating) shall be 71°C.

Color filters: Shall be in accordance with MIL-PRF-22885/12.

Adjustable mounting bracket: Shall accommodate panels from .05 to .250 inch in thickness.

Mounting flange: Front face of the mounting flange shall be of a material, which will allow the switch to meet the performance requirements, with a natural lusterless finish.

MIL-PRF-22885/10J

Plunger stop: Shall be readily adjustable or removable in the field without the need of special tools. Plunger stop shall be removed when switching action is required when indicator light is coupled to a switch assembly.

Plunger stop test: With the plunger stop functionally installed in the lamp module, and the lamp module mounted by its normal mounting means, a static force of 25 pounds shall be applied to the legend plate for 1 minute.

Shock: Method I.

Weight: 2.1 ounces maximum (includes color filters and panel seal).

Part Number: M22885/10-(dash number from table III). For acquisition of Government spares, MIL-PRF-22885/10 (without color filters), MIL-PRF-22885/12, and MIL-PRF-22885/13, as applicable, shall be used. Provisioning documentation shall show parts breakdown by associated military part number.

Marking: Color filter symbols shall not appear in the part number marked on the items, but may be marked on shipping containers.

Qualification inspection: Qualification inspection required in accordance with MIL-PRF-22885/9, using switch assemblies in accordance with MIL-PRF-22885/11.

Group A inspection: Shall be in accordance with table II.

TABLE II Group A inspection.

Inspection	Requirement and inspection reference
Examination	MIL-PRF-22885
Lamp circuit	MIL-PRF-22885
Dielectric withstanding voltage	MIL-PRF-22885

Intended use: Lighted indicator or switch actuator. Will accommodate the following:

Switch assembly (MIL-PRF-22885/11).

Color filters (MIL-PRF-22885/12).

Panel seal (MIL-PRF-22885/13).

Lamps - Midget-flange-base T-1-3/4.

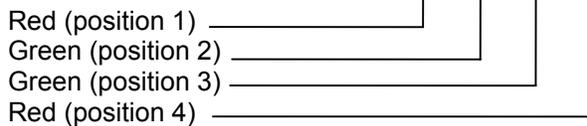
MIL-PRF-22885/10J

TABLE III. Dash numbers.

Dash number <u>1/</u>						Lens style	Lamp circuit schematic code
Without EMI screen			With EMI screen				
Narrow front lens plate <u>2/</u> M22885/ 85-01	Extended front lens plate M22885/ 85-02	Front lens plate not included	Narrow face lens plate M22885/ 85-01	Extended face lens plate M22885/ 85-02	Front lens plate not included		
01	09	16	47	61	75	A	1
02 <u>3/</u>	--	--	--	--	--	A	4
03	10	17	48	62	76	B	1
04	11	18	49	63	77	B	2
05	12	19	50	64	78	C	1
06	13	20	51	65	79	C	3
07	14	21	52	66	80	A	3
02 <u>3/</u>	15 <u>3/</u>	22 <u>3/</u>	--	--	--	A	2
23	31	39	53	67	81	D	1
24	32	40	54	68	82	D	3
25	33	41	55	69	83	D	5
26	34	42	56	70	84	E	1
27	35	43	57	71	85	E	3
28	36	44	58	72	86	E	5
29	37	45	59	73	87	F	1
30	38	46	60	74	88	F	5

1/ Part numbers shown are for units without color filters. When color filters are required, add the color symbols of MIL-PRF-22885 with the location sequence as shown in the following example and figure 3:

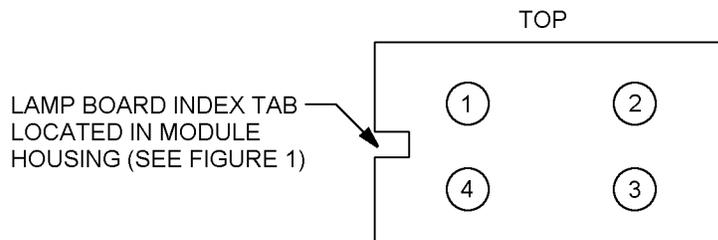
Example: M22885/10 - 49 R G G R



For direct government stocking, do not use color symbols; color filters should be procured separately.

2/ Dash numbers are interchangeable with and replace former dash numbers which contained an additional zero.

3/ Inactive for new design.



NOTE: Numbers shown indicate sequence of color symbols in part number.

FIGURE 3. Color filter location with respect to modular indicator light (housing).

Reference Documents:

MIL-PRF-22885
MIL-PRF-22885/9
MIL-PRF-22885/11
MIL-PRF-22885/12
MIL-PRF-22885/13
MIL-PRF-22885/85

Custodians:

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

Preparing activity:

DLA - CC

(Project 5930-1804)

Review activities:

Army - AR, AT, AV, CR4, MI
Navy - AS, MC, SH
Air Force - 19, 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 www.dodssp.daps.mil.