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MEMORANDUM FOR MILITARY/INDUSTRY DISTRIBUTION

2 October 2024

SUBJECT: Initial Drafts of MIL-PRF-22885/9N, /10L, /13M, /58K, and /59G.
Project Numbers: 5930-2024-086 through -090.

The subject documents are now available for viewing and downloading from the DLA Land and Maritime - VA website:

<https://landandmaritimeapps.dla.mil/programs/milspec/initialdrafts.aspx>

The following is a synopsis of the changes:

- Updated to current MIL-STD-961 and Land and Maritime SOP requirements.
- Meet 508 compliance requirement.
- Reference documents updated.

Concurrence or comments are required at this Center no later than 1 November 2024. If comments are not received during the allotted coordination period, concurrence may be assumed. Late comments may be held for the next specification action. Comments from military departments must be identified as either "Essential" or "Suggested". Essential comments must be justified with supporting data. Military review activities should forward comments to their custodians or this office, as applicable, in sufficient time to allow for consolidating the department reply.

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MICHAEL A. RADECKI
Chief
Electronic Components Branch

NOTE: This draft, dated October 2, 2024 prepared by DLA-CC,
has not been approved and is subject to modification.
DO NOT USE PRIOR TO APPROVAL.
(Project 5930-2024-089)

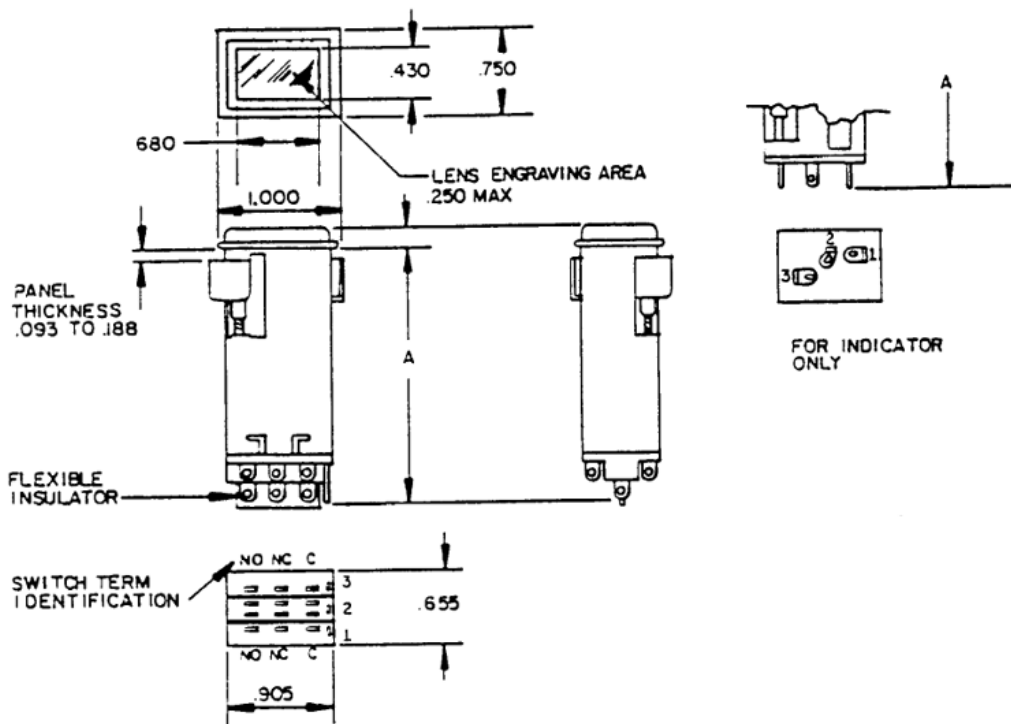
INCH-POUND
MIL-PRF-22885/58J
7 October 2019
SUPERSEDING
MIL-PRF-22885/58H
28 April 2004

PERFORMANCE SPECIFICATION SHEET

SWITCH, PUSHBUTTON, ILLUMINATED, 2-LAMP, SOLID MOUNT, 3 AMPERES, UNSEALED

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

The requirements for acquiring the switch described herein shall
consist of this specification sheet and [MIL-PRF-22885](#).

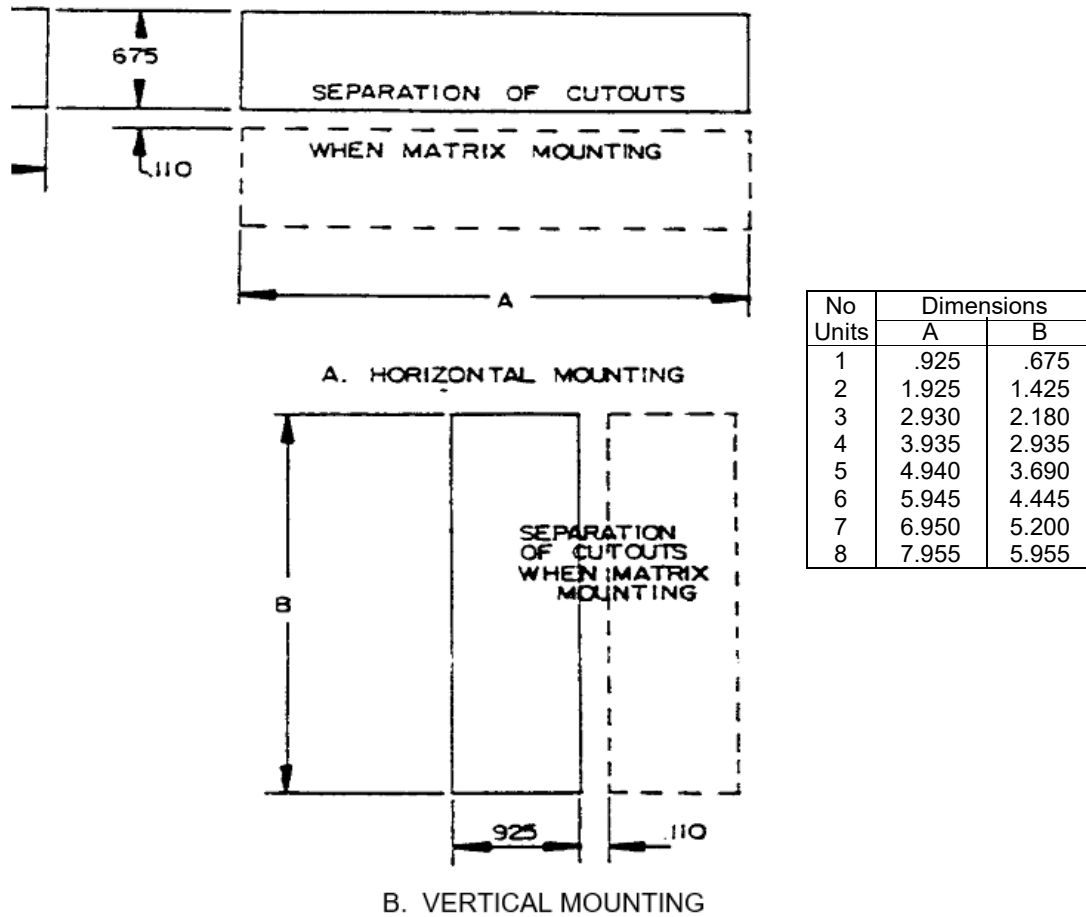


NOTES:

1. Dimensions are in inches.
2. Unless otherwise specified, tolerance is $\pm .010$.
3. On 2 PDT switches, terminals are furnished in 2 center positions only.
4. The design configuration is optional within envelope dimensions shown.
5. Terminals shall be permanently identified as shown.

FIGURE 1. Switch, 2-lamp, solid mount.





NOTES:

1. Dimensions are in inches.
2. Unless otherwise specified, the tolerance for three place decimals is $\pm .010$.

FIGURE 2. Recommended panel outputs.

FRONT VIEW - NUMBER CORRESPONDS TO LAMP TERMINAL

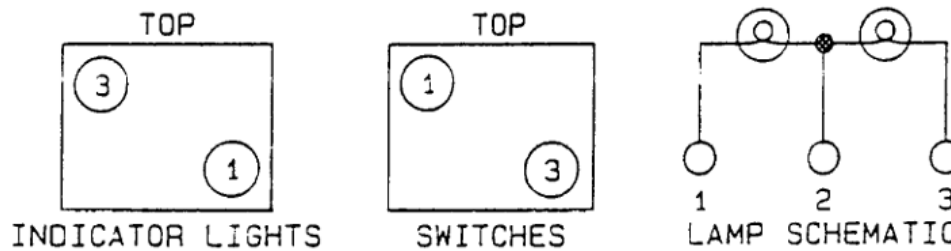


FIGURE 3. Lamp position and schematic.

REQUIREMENTS:

Dimensions and configuration: See figures 1 through 3 and table I through VI.

Design and construction:

Enclosure design: 1 (unsealed).

Switch or indicator unit shall consist of:

1 lamp module.

1 switch or indicator housing.

2 lamps, T-1-3/4, midget flanged base not included - order separately.

Lamp module: Includes lens assembly in accordance with [MIL-PRF-22885/59](#) as specified (see table VI), holder, and divider when applicable (see table III). The lamps and lens assembly shall be capable of being installed or removed from the panel front without the use of special tools.

Positive grounding: Applicable when specified (see table VI).

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

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.

Ratings: (Switch unit only.)

Electrical: See table II.

Operating force: 4.0 pounds maximum.

Weight: 2.0 ounces maximum.

Color: Shall appear white in the unlighted condition. In the lighted condition it shall appear in a color determined by the color filters (see [MIL-PRF-22885/59](#)).

Contact resistance: Not applicable after inductive load endurance tests.

Thermal shock: Temperature extremes shall be -55°C and +71°C (+55°C with lamps energized).

Vibration grade: 2 (10-500 Hz).

Part or Identifying Number (PIN): The PIN's shall be M22885/58- (dash number from table VI).

Qualification inspection:

Group submission: The following applies when the momentary and alternate action switches are submitted for qualification at the same time.

TABLE I. Qualification inspection (group submission).

Sample part number	Test	Extent of approval
M22885/58-31W	Qualification inspection table of MIL-PRF-22885	All Part numbers
2 each M22885/58-04W M22885/58-25W	Visual and mechanical inspection	

1/ Separate additional lamp modules shall be utilized for each color for group VIII tests.

TABLE II. Electrical ratings.

Load	Sea level	
	28 V dc (amperes)	115 V ac
Resistive	3.0	3.0
Inductive	1.5	1.5
Lamp	1.5	1.0

TABLE III. Lens style.

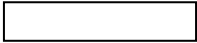
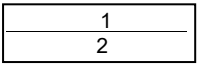
Code	Lens style	
A	Solid	
B	Split horizontally	
C	Split vertically	

TABLE IV. Color filter symbols.

Color	Symbol
Blue	B
Green	G
Red	R
White	W
Yellow	Y

TABLE V. Chromaticity limits and photometric brightness.

Colors	Chromaticity limits <u>1/</u> 2360° Kelvin		Switch photometric brightness (footlamberts) <u>2/</u>
	X	y	
Green	.260	.570	25 footlamberts minimum
	.300	.630	
	.160	.660	
	.200	.720	
Yellow	.562	.415	300 footlamberts minimum
	.570	SL <u>3/</u>	
	.596	.382	
	.605	SL <u>3/</u>	
Red	.695	.285	80 footlamberts minimum
	.703	SL <u>3/</u>	
	.655	.325	
	.660	SL <u>3/</u>	
Blue	.150	.260	10 footlamberts minimum
	.220	.260	
	.220	.320	
	.150	.320	
White	.400	.420	150 footlamberts minimum
	.460	.420	
	.460	.380	
	.400	.380	

1/ The chromaticities of the diffusing lenses or colored filters expressed as x and y coordinates on the CIE chromaticity diagram shall lie within areas bounded by the coordinates listed for each color, using a source illuminate of 2360° K.

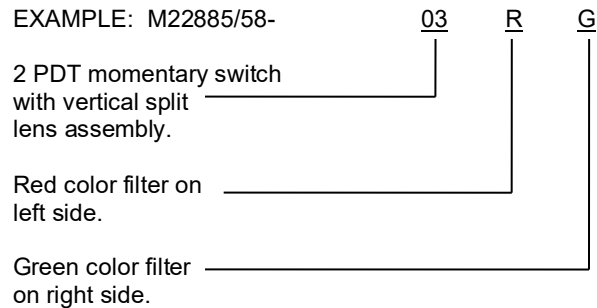
2/ Switch photometric brightness, when viewed from the front of the applicable light housing.

3/ SL: Spectrum locus (where intersected by other of coordinate pair).

TABLE VI. PIN's 1/

Without EMI screen M22885/58-		With EMI screen M22885/58-		Circuit characteristics and operation	Lens style code (see table III)
With front lens	Without front lens	With front lens	Without front lens		
01 (X)	13 (X)	31 (X)	46 (X)	2 PDT momentary	A
02 (XX)	14 (XX)	32 (XX)	47 (XX)	2 PDT momentary	B
03 (XX)	15 (XX)	33 (XX)	48 (XX)	2 PDT momentary	C
04 (X)	16 (X)	34 (X)	49 (X)	4 PDT momentary	A
05 (XX)	17 (XX)	35 (XX)	50 (XX)	4 PDT momentary	B
06 (XX)	18 (XX)	36 (XX)	51 (XX)	4 PDT momentary	C
07 (X)	19 (X)	37 (X)	52 (X)	2 PDT alternate	A
08 (XX)	20 (XX)	38 (XX)	53 (XX)	2 PDT alternate	B
09 (XX)	21 (XX)	39 (XX)	54 (XX)	2 PDT alternate	C
10 (X)	22 (X)	40 (X)	55 (X)	4 PDT alternate	A
11 (XX)	23 (XX)	41 (XX)	56 (XX)	4 PDT alternate	B
12 (XX)	24 (XX)	42 (XX)	57 (XX)	4 PDT alternate	C
25 (X)	28 (X)	43 (X)	58 (X)	Indicator	A
26 (XX)	29 (XX)	44 (XX)	59 (XX)	Indicator	B
27 (XX)	30 (XX)	45 (XX)	60 (XX)	Indicator	C

1/ PIN's are shown for units without color filters. When color filters are to be included, add the color symbols of table IV in place of (X) or (XX) with location sequence as shown in table III.



Changes from previous issue. 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.

Reference Documents:

[MIL-PRF-22885](#)
[MIL-PRF-22885/12](#)
[MIL-PRF-22885/59](#)

Custodians:

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

Preparing activity:

DLA - CC

(Project 5930-2024-089)

Review activities:

Army - AV, MI
Navy - AS, MC
Air Force - 19

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/>.