

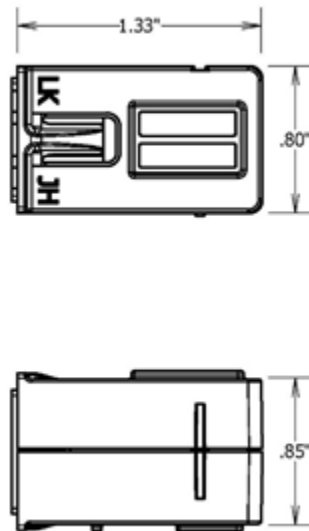
PERFORMANCE SPECIFICATION SHEET

MODULE, OPTIONAL ELECTRONIC COMPONENTS (OEC) COMPATIBLE WITH MIL-PRF-22885/117,
SWITCHING, LOGIC FUNCTION AND TERMINAL INTERCONNECTS, COMMON TERMINATION
SYSTEM (CTS)

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-PRF-22885.

This specification covers the general requirements for Modules used as complementing functionality to the manually operated illuminated push button switches, switch assemblies as described on MIL-PRF-22885/108 and MIL-PRF-22885/108 and associated subassemblies as described on MIL-PRF-22885/117. Additionally, this specification cover a modules with the exclusive functionality of a Terminal Interconnect (Terminal block).



NOTES:

1. Dimensions are in inches.
2. Unless otherwise specified, tolerances are ± 0.010 for three place decimals and ± 0.03 for two place decimals.
3. Each module requires a Common Termination System (CTS) connector that shall be designed and constructed to meet the performance requirements of MIL-PRF-22885/108 figure 10.
4. The CTS is M22885/10818440 per MIL-PRF-22885/108 and shall be acquired from a source listed on QPL-22885.
5. Exact shape of the module is optional provided dimensions specified are not exceeded.

FIGURE 1. Module A.

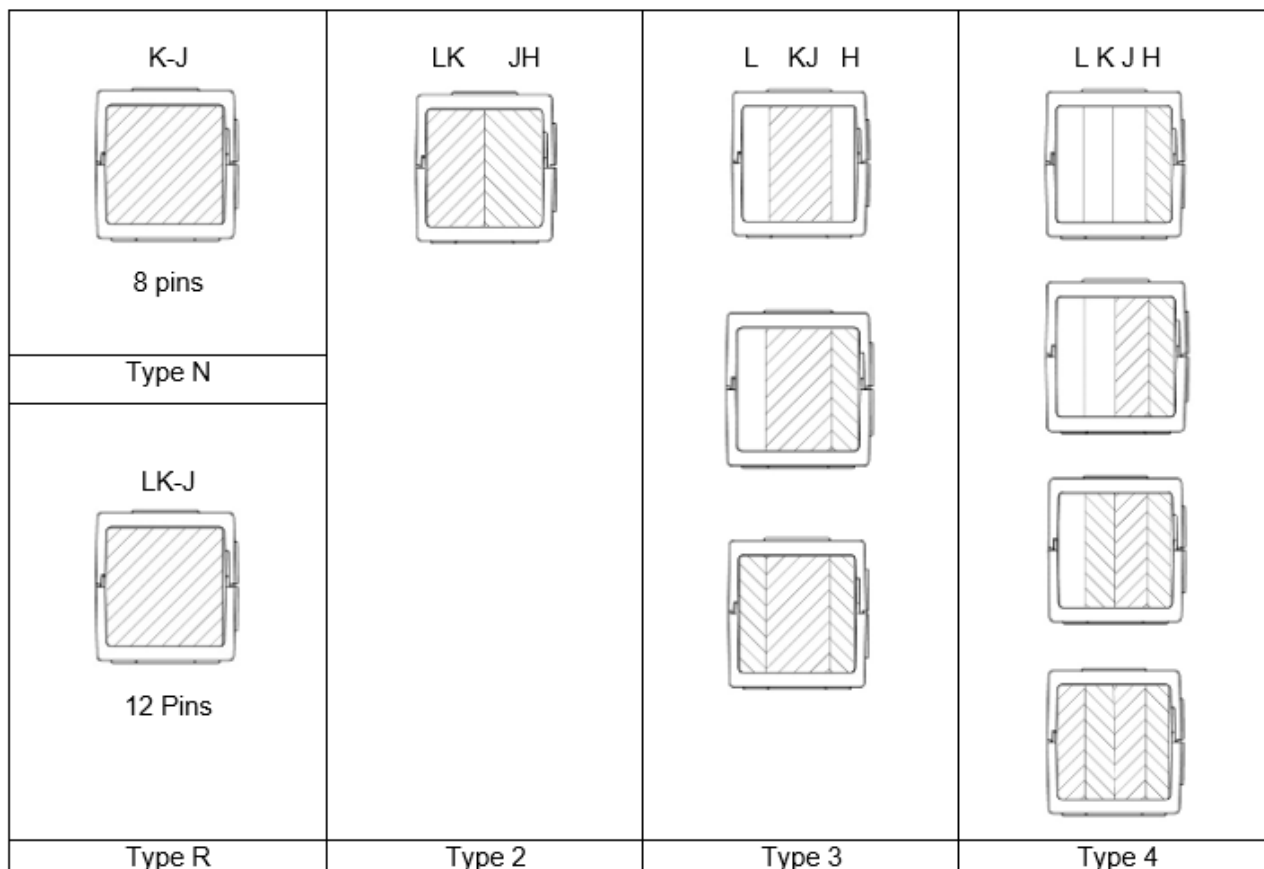


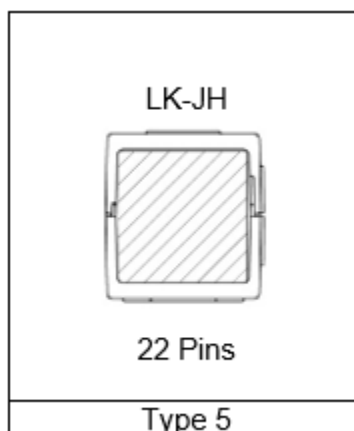
FIGURE 3. Types as defined on Table I.

TABLE I. OECs in the module.

Type	Size of Component allowed per type	Occupied Positions
N	1 Series N OEC required	Per Figure 3
R	1 Series R OEC required	
2	2 Series C OECs Required	
3	1 Series C OEC Required plus optional 0 to 2 Series A OECs	
4	1 Series A OEC Required plus optional 1 to 3 Series A OECs	

Notes:

- 1) See Table II for SERIES IDs
- 2) Refer to MIL-PRF-22885/117 for Technical definition of each Series of OEC

Figure 4. Type as defined in Table III.TABLE II. Types of OECs in the module.

	Optional Electronic Component (OEC) Function	OEC Series	Mfg. ID	Mil Spec ID
Functional and Electrical Parameters per MIL-PRF-22885/117	Solid State Relay	A	SSR	4
	Combination- Solid State Relay 1/	C	SSRC	B
	Voltage Sensor 1/	A	VS	7
	Diode Pack	A	DP	3
	Terminal Block	A	TB	5
	Electronic Latch		EL	E
	Electronic Rotary	C	ER1	F
	Pulse Timer 1/	C	PT1	G
	Current Sensor 1/	A	CS	1
	Time Delay 1/	A	TD	6
	Square Wave Oscillator 1/	A	CT	2
	Defined Logic 1/	C	DL	D
	ARINC Single-Bit Converter 1/	N	SR429/1M	T
	ARINC Multi-Bit Converter 1/ 2/	N or R	SR429/4M	R
ARINC Multi-Bit Binary Decoder 1/ 2/	N or R	SR429/4D	S	

1/ These OEC have configurable options that will only be reflected on manufacturer part numbers.

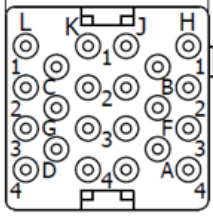
2/ These OEC can be series N or R depending of the number of pins.

Terminal Interconnects

Shall utilize the Module A from Figure 1 and the CTS as described in note 3 and 4 of Figure 1.

Terminal Interconnect splices the various positions of the Module up to max of 22 pins. See Table III.

TABLE III. Allowable Terminal Interconnects for Type 5 (see Figure 4).

	Type	Mfg. ID	# Nodes <u>1/</u>	Mil-spec ID
TB22: 22 (All Pins connected)	5	MPTB1	1	1
TB11: H1-4, B, F, A, J1-4 TB11: K1-4, C, G, D, L1-4	5	MPTB2	2	2
TB11: (H1-H4, B, F, A, J1-J4) TB7: (K1-K4, C, G, D) TB4: (L1-L4)	5	MPTB3	3	3
TB11: (H1-4, B, F, A, J1-4) TB4: (K1-K4) TB3: (C, G, D) TB4: (L-4)	5	MPTB4	4	4
TB4: (H1-4) TB3: (B, F, A) TB8: (J1-4, K1-4) TB3: (C, G, D) TB4: (L1-, L4)	5	MPTB5	5	5
TB4: (H1-4) TB3: (B, F, A) TB4: (J1-4) TB4: (K1-4) TB3: (C, G, D) TB4: (L1-, L4)	5	MPTB6	6	6

1/ Maximum Current rating is 7.5 Amps per node

2/ This drawing is for reference only and it is fully described on MIL-PRF-22885/108 figure 10.

TABLE IV. Group A Test Inspection.

Visual and mechanical examination (Size and weight) 1/
Operating Characteristics 2/
Dielectric Withstanding Voltage/3/4/5

- 1/ To be performed on each Lot and by Series of product.
- 2/ Functional test at typical operating voltage.
- 3/ Applicable between all leads and housing if metal surrounding OEC under test.
- 4/ Applicable between Terminal Interconnect Nodes.
- 5/ Dielectric withstanding voltage shall not be applied between OEC leads.

TABLE V. Group B Inspection testing.

	Test Sample PIN's and Sample Numbers																	
	MFG PN 1		MFG PN 2		MFG PN 3		MFG PN 4		MFG PN 5		MFG PN 6		MFG PN 7		MFG PN 8			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Sample ==>	M22885/ 116 - xxxx		M22885/ 116 - xxxx		M22885/ 116 - xxxx		M22885/ 116 - xxxx		M22885/ 116 - xxxx		M22885/ 116 - xxxx		M22885/ 116 - xxxx		M22885/ 116 - xxxx		M22885/ 116 - xxxx	
Visual	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
EMC/EMI per Table XXIX Mil-PRF-22885/117	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Shock I	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Drying Period																		
Insulation Resistance before Moisture																		
Moisture Resistance																		
Insulation Resistance after Moisture																		
Salt Spray																		
Electrical Endurance Inductive @ Altitude																		
Dielectric Withstanding @ Altitude																		
Electrical Endurance Resistive @ Sea Level																		
Dielectric Withstanding Voltage																		
Operating Characteristics																		
Dielectric Withstanding Voltage																		
Marking Visibility																		

Referenced documents:

MIL-PRF-22885
MIL-PRF-22885/108
MIL-PRF-22885/117
MIL-STD-202-101
MIL-STD-202-106
MIL-STD-202-213
MIL-STD-202-301
MIL-STD-202-302
MIL-STD-1285
QPL 22885

Custodians:

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

Preparing Activity:

DLA - CC

(Project 5930-2022-043)

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/>.