MILITARY SPECIFICATION SHEET

SWITCHES, WAVEGUIDE, 1P2T, LATCHING

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-S-55041.

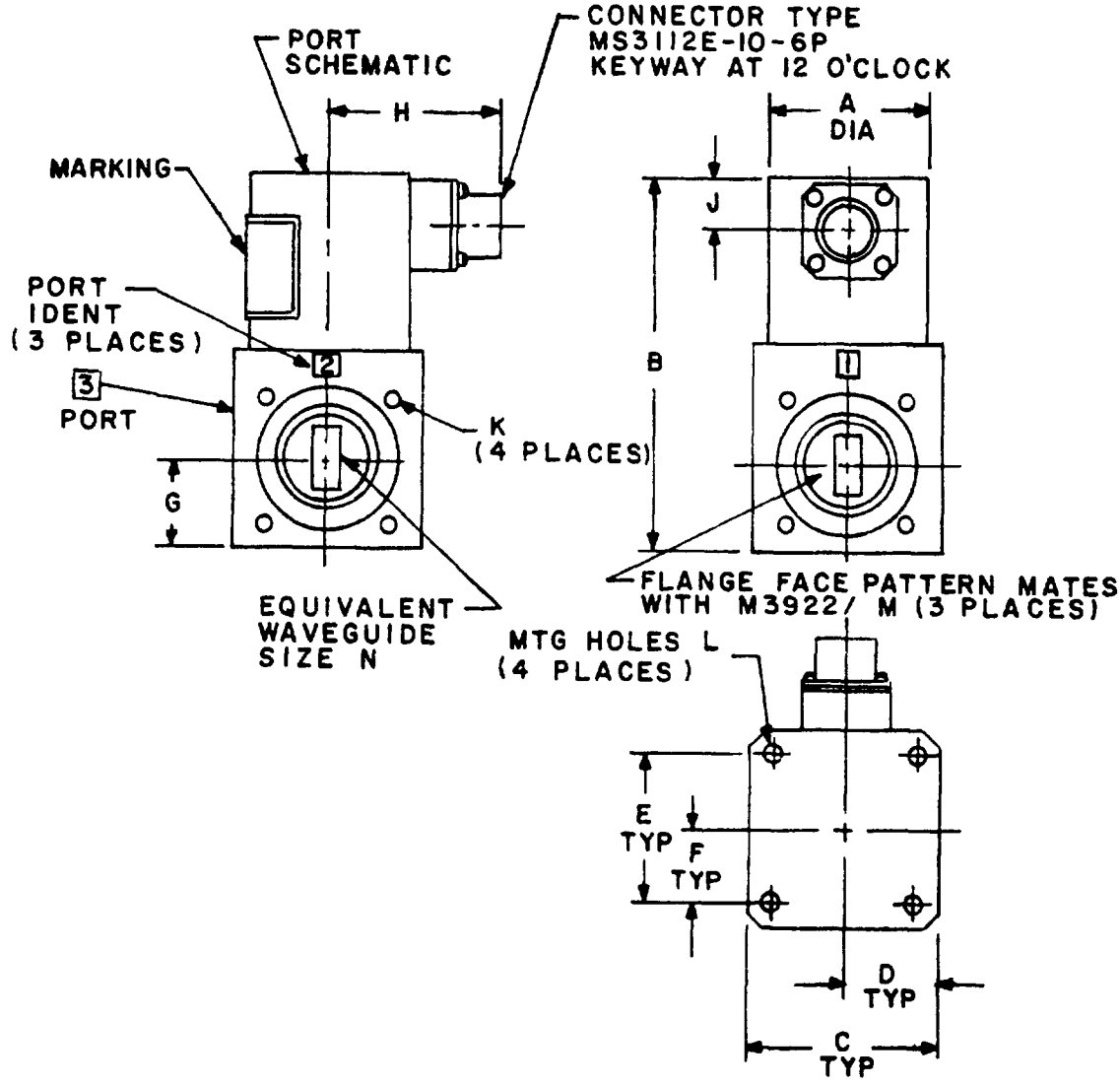
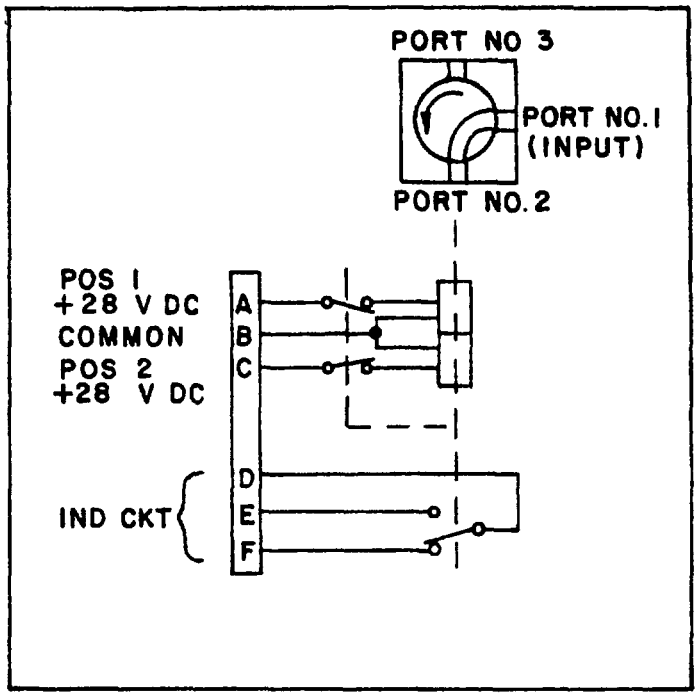


FIGURE 1. Switch configuration and schematic, part numbers M55041/11-001 through 005.

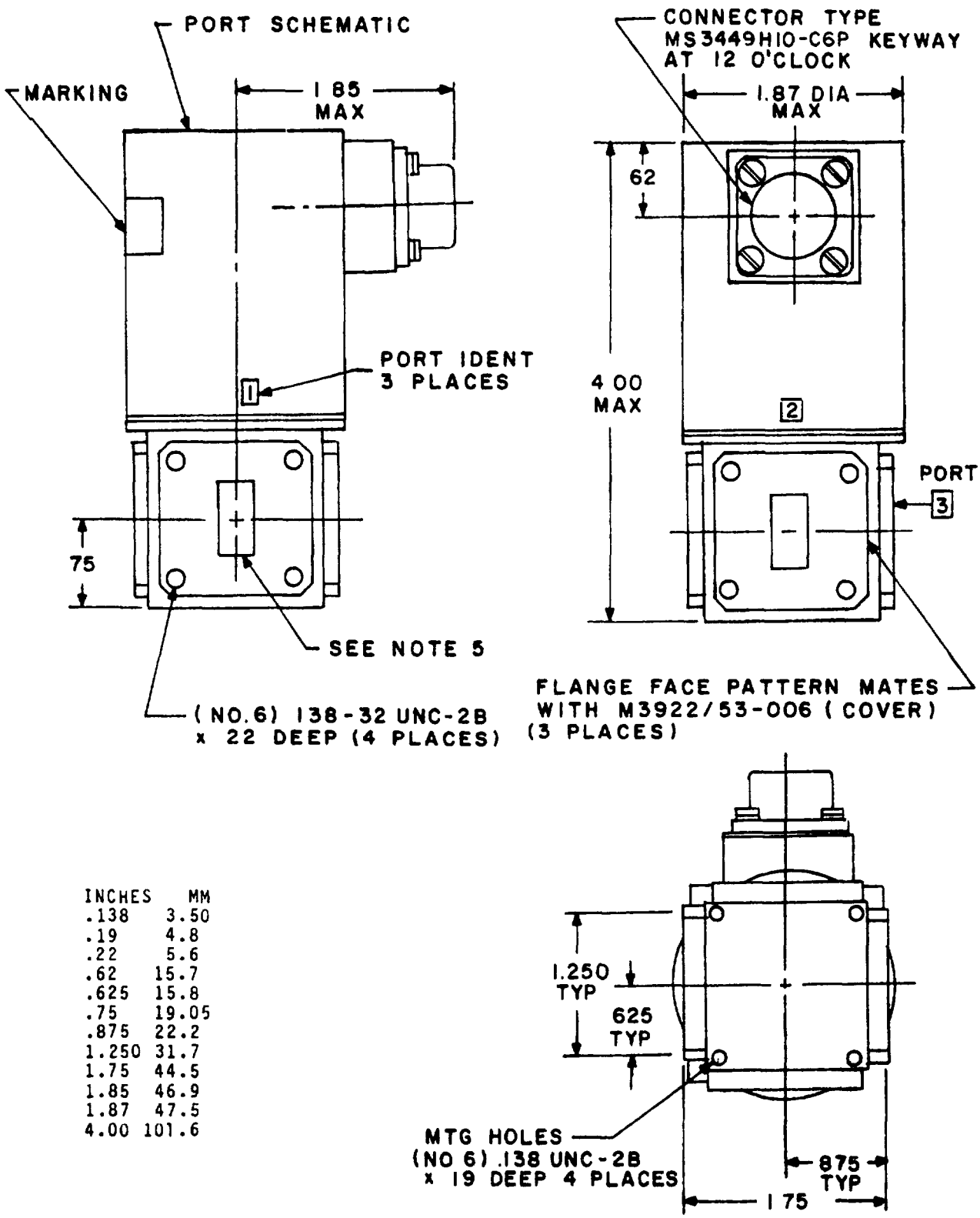
SCHEMATIC



SHOWN IN LATCHING POSITION(POSITION 1)

NOTES:
1. Dimensions are in inches.
2. Metric equivalents are given for general information only and are based upon 1.00 inch = 25.4 mm.
3. Round corners of case may be squared.
4. Unless otherwise specified, tolerances are ±.010 (.25 mm) for three place decimals and ±.03 (.8 mm) for two place decimals.
5. DC polarity must be observed.

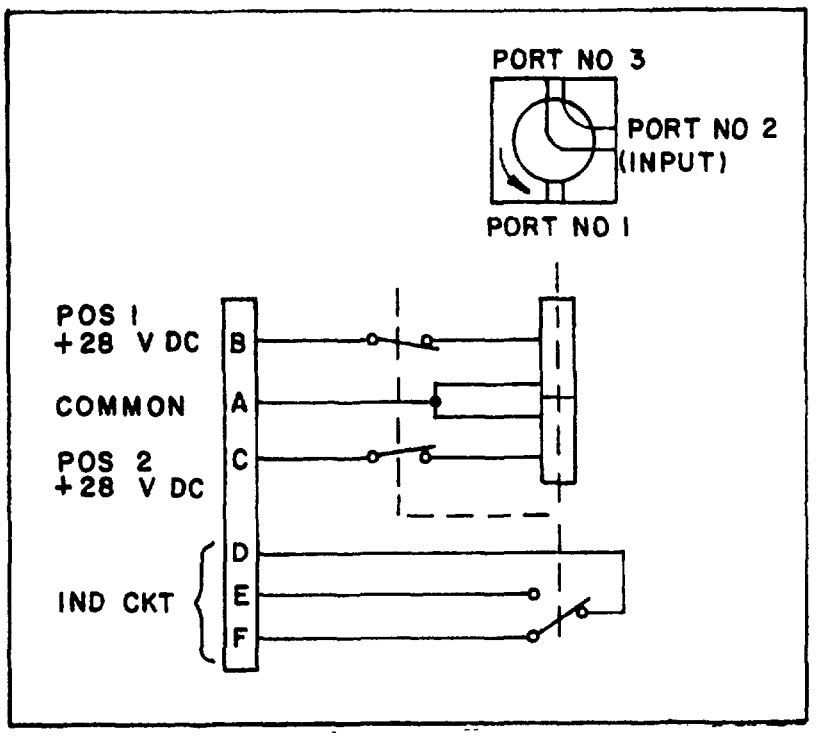
FIGURE 1. Switch configuration and schematic, part numbers M55041/11-001 through 005 - Continued.



INCHES	MM
.138	3.50
.19	4.8
.22	5.6
.62	15.7
.625	15.8
.75	19.05
.875	22.2
1.250	31.7
1.75	44.5
1.85	46.9
1.87	47.5
4.00	101.6

FIGURE 2. Switch configuration and schematic, part numbers M55041/11-006.

SCHEMATIC



SHOWN IN LATCHING POSITION (POSITION 1)

NOTES:
1. Dimensions are in inches.
2. Metric equivalents are given for general information only and are based upon 1.00 inch = 25.4 mm.
3. Round corners of case may be squared.
4. Unless otherwise specified, tolerances are ±.010 (.25 mm) for three place decimals and ±.03 (.8 mm) for two place decimals.
5. DC polarity must be observed.

FIGURE 2. Switch configuration and schematic, part numbers M55041/11-006 - Continued.

TABLE I. Dash numbers and dimensions.

Dash number	A Max	B ±.03	C ±.03	D ±.010	E ±.010	F ±.010	G ±.010	H Max	J Max	K	L	M	N
001	3.25	9.00	5.88	2.940	4.750	2.375	2.750	2.57	0.65	.250 - 20 X.40 deep	.250 - 20 X.50 deep	M3922/56-002	M85/1-041
002	3.25	7.50	4.25	2.125	3.500	1.750	2.000	2.57	0.65	.190 - 32 X.31 deep	.250 - 20 X.40 deep	M3922/57-001	M85/1-053
003	3.25	7.00	4.25	2.125	3.500	1.750	1.750	2.57	0.65	.250 - 20 X 40 deep	.190 - 32 X.30 deep	M3922/55-002	M85/1-065
004	2.25	5.10	2.38	1.190	2.000	1.000	1.245	2.07	0.65	.164 - 32 X.31 deep	.164 - 32 X.28 deep	M3922/53-003	M85/1-078
005	1.85	4.00	1.88	0.94	1.437	0.719	0.877	1.87	0.65	.138 - 32 X.22 deep	.164 - 32 X.25 deep	M3922/53-006	M85/1-091

TABLE II. Electrical performance characteristics.

Dash number	Figure number	Housing	Operating frequency range	Position indicator circuit	Interlock circuit	Nominal operating voltage	Pull-in voltage (less than)	Operating current (max) 3/
			GHz	amperes 3/		V dc	V dc	amperes
001	1	1/ 2/	2.60 - 3.95	0.1	N/A	28	20	1.5
002	1	1/ 2/	3.95 - 5.85	0.1	N/A	28	20	1.0
003	1	1/ 2/	5.85 - 8.20	0.1	N/A	28	20	1.0
004	1	1/ 2/	7.05 - 10.0	0.1	N/A	28	20	1.0
005	1	1/ 2/	12.4 - 18.00	0.1	N/A	28	20	1.0
006	2	1/ 2/	12.4 - 18.00	0.1	N/A	28	20	2.0

TABLE II. Electrical performance characteristics - Continued.

Dash number	Transient interference provisions	Isolation (min)	VSWR (max)	Insertion loss (max)	Switching time	Waveguide pressurization	RF power handling capability (peak)		Life cycles (X1000)	Weight (max)
		dB		dB	ms	lb_f/in^2	kW	duty cycle		
001	yes	60	1.10:1	0.08	500	20	2200	33×10^{-3}	200	17 oz
002	yes	60	1.10:1	0.08	500	20	1400	31×10^{-3}	200	9 oz
003	yes	60	1.10:1	0.1	150	20	560	26×10^{-3}	200	8.3 lbs
004	yes	60	1.10:1	0.15	100	20	275	27×10^{-3}	200	8.3 lbs
005	yes	60	1.10:1	0.15	100	20	120	24×10^{-3}	200	1.5 lbs
006	yes	60	1.10:1	0.1	125	45	43	1×10^{-3}	500	1.5 oz

1/ Enclosed, sand- and dust-proof when waveguide flanges are capped.

2/ Rotor and housing of aluminum alloy.

3/ At 28 V dc and 20°C to 25°C.

REQUIREMENTS:

Design and construction:

Dimensions and configuration: See figures and table I.

Power connectors: See figures.

Operation: Break before make.

Operating temperature range: -54°C to +95°C.

Electrical performance characteristics: See table II.

Part number: M55041/11- (and dash number from tables I and II).

Substitutability data: The switches covered by this specification sheet are substitutable for the user's or manufacturer's part numbers specified in table III. This information in no way implies that the manufacturer's part number or NSN is suitable as a substitute for the military part number.

TABLE III. Substitutability data.

Dash number	Manufacturer's code	Commercial type	NSN 5985-
001	82152	33D08400	01-073-1529
002	82152	33D06400	
002	81755	C8436-3	
003	81755	C8436-2	
003	82152	33D04400	
004	81755	C8436-1	
004	82152	33D03400	01-099-6613 00-009-3159
005	82152	33D00400	
006	09017	600959-01	
006	01456	62SR46-45P-2-28	

Custodians:
Army - ER
Navy - EC
Air Force - 85

Review activities:
Army - SM, MI
Air Force - 11, 17, 99
DLA - ES

User activities:
Navy - AS, MC, OS, SH
Air Force - 19

Agent:
DLA - ES

Preparing activity:
Navy - EC

(Project 5985-0975-7)

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STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

(See Instructions – Reverse Side)

1. DOCUMENT NUMBER	2. DOCUMENT TITLE
MIL-S-55041/11	Switches, Waveguide, 1P2T, Latching

3a. NAME OF SUBMITTING ORGANIZATION	4. TYPE OF ORGANIZATION *(Mark one)*
	☐ VENDOR
b. ADDRESS *(Street, City, State, ZIP Code)*	☐ USER
	☐ MANUFACTURER
	☐ OTHER *(Specify)*:

5 PROBLEM AREAS

a. Paragraph Number and Wording

b. Recommended Wording

c. Reason/Rationale for Recommendation

6 REMARKS

7a. NAME OF SUBMITTER *(Last, First, MI)* – Optional	b. WORK TELEPHONE NUMBER *(Include Area Code)* – Optional
c. MAILING ADDRESS *(Street, City, State, ZIP Code)* – Optional	8. DATE OF SUBMISSION *(YYMMDD)*

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