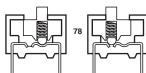




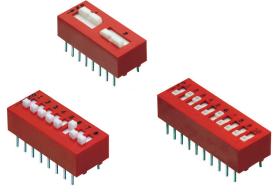
SERIES 78 SPST To 4PST Slide



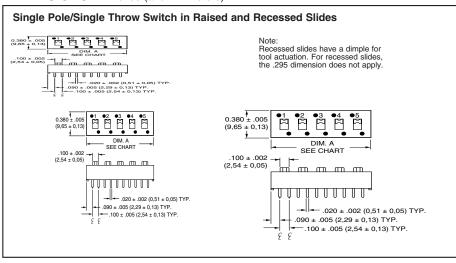


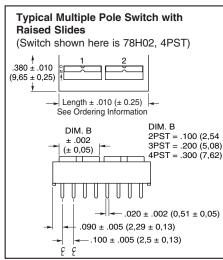
FEATURES

- Raised and Recessed Slides
- SPST, 2PST, 3PST, 4PST
- Sealed Base Standard
- Spring and Ball Contact
- Top Tape Seal Option

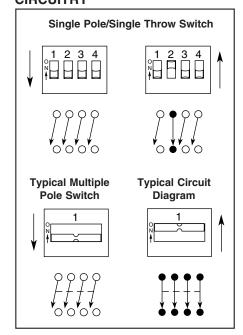


DIMENSIONS In inches (and millimeters)





CIRCUITRY



For switches with 5, 6, 7, 8, or 10PST circuitry, contact Grayhill.

*A top tape seal is required for switches that are machine soldered or heavily cleaned after hand soldering. To order top seal versions, add "S" before the "T" in the Grayhill part number.

ORDERING INFORMATION

Circuitry	No. of Positions	Length Inches	Length Metric	No./ Tube	Raised Slides*	Recessed Slides*
SPST	2 3 4 5 6 7 8 9 10	0.280" 0.380" 0.480" 0.580" 0.680" 0.780" 0.880" 0.980" 1.080"	7,1mm 9,7mm 12,2mm 14,7mm 17,3mm 19,8mm 22,4mm 24,9mm 27,4mm	35 27 21 18 15 13 12 10 9	78B02T 78B03T 78B04T 78B05T 78B06T 78B07T 78B08T 78B09T 78B10T	78RB02T 78RB03T 78RB04T 78RB05T 78RB06T 78RB07T 78RB08T 78RB09T 78RB10T
	12	1.280"	32,5mm	8	78B12T	78RB12T
2PST	1 2 3 4 5 6	0.280" 0.480" 0.680" 0.880" 1.080" 1.280"	7,1mm 12,2mm 17,3mm 22,4mm 27,4mm 32,5mm	35 21 15 12 9	78F01T 78F02T 78F03T 78F04T 78F05T 78F06T	Recessed Slides Not Available
3PST	1 2 3	0.380" 0.680" 0.980"	9,7mm 17,3mm 24,9mm	27 15 10	78G01T 78G02T 78G03T	
4PST	1 2	0.480" 0.880"	12,2mm 22,4mm	21 12	78H01T 78H02T	

Available from your local Grayhill Distributor. For prices and discounts, contact a local Sales Office, an authorized local Distributor or Grayhill.



SPECIFICATIONS: Standard Styles

Ratings Mechanical Life: Operations per switch position	76 2,000	78 2,000	90B 2,000	
Make-and-break Current Rating: Operations per switch position at these resistive loads 1 mA, 5 Vdc; 50 mA, 30 Vdc; or 150 mA, 30 Vdc: 10 mA, 30 Vdc; or 10 mA, 50 mVdc: 10 mA, 50 mVdc; or 25 mA, 24 Vdc; or 100 mA, 6 Vdc:	2,000 — —	2,000 — —	 2,000 2,000	
Contact Resistance: Initially: After life, at 10 mA, 50 mVdc, open circuit:	≤ 30 mΩ ≤ 100 mΩ	$\leq 30 \text{ m}\Omega$ $\leq 100 \text{ m}\Omega$	≤ 20 mΩ ≤ 100 mΩ	
Insulation Resistance: Minimum, at 100 Vdc between adjacent closed contacts and also across open switch contacts Initially (Mohms): After life (Mohms):	5,000 1,000	5,000 1,000	5,000 1,000	
Dielectric Strength: Minimum voltage (AC, RMS) measured between adjacent closed contacts and also across open switch contacts. Initially: After life:	750 V 500 V	750 V 500 V	500 V 500 V	
Current Carry Rating: Maximum rise of 20°C	5 A	4 A	3 A	
Switch Capacitance: At 1 megahertz	2 pF	2 pF	2 pF	
Operating Temperature Range:	-40°C to + 85°C	-40°C to + 85°C	-40°C to + 85°C	
Storage Temperature Range:	-55°C to + 85°C	-55°C to + 85°C	-55°C to + 85°C	

Mechanical Ratings

Vibration Resistance: Per Method 204, Test Condition B, 1 mS opening (10 mS allowed) Mechanical Shock: Per Method 213, Test Condition A. 1 mS opening (10 mS allowed) Thermal Shock Resistance: Per specification; no failures; passes contact resistance. Terminal Strength: Per specification Thermal Aging: 1,000 hours at 85°C; no failures.

Environmental Ratings

Meets all requirements of MIL-S-83504. Where Grayhill performance is superior, the MIL spec is listed in parentheses.

Moisture Resistance: Per MIL-STD-202, Method 106.

Soldering Information

Series 90 MIDIP and Series 76 recessed rocker (76RSB style) sealed switches have been tested to EIA Standard RS-448-2. Similar performance can be expected from other sealed Series 76 and 78 DIP switches.

Solderability: Per MIL-STD-202, Method 208 Resistance to Soldering Heat: 76RSB: Passes EIA Standard using two, four, and six second soldering time. 90: Per MIL-S-83504, six second test.

Fluxing: Per EIA RS-448-2 with flux touching switch body.

Cleaning: 76, 78 and 90 series tape sealed products: Passes immersion test using water/ detergent. Acceptable solutions include 1-1-1 trichlorethane, freon, (TF, TE, or TMS), isopropyl alcohol, detergent (140°F maximum). Terpene acceptable for Series 90 only. Solutions which are not recommended include acetone, methylene chloride, freon TMC.

Materials and Finishes

Shorting Member (Ball): Brass, gold-plated over nickel barrier.

Base Contacts: Copper alloy, gold-plated over nickel barrier.

Terminals: Copper alloy, matte tin plated over nickel barrier.

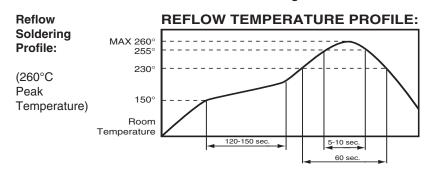
Non-Conductive Parts: Thermoplastic (UL94V-O) Potting Material: Epoxy, 76,78 only.

Protective Cover: 76,78, only-Polycarbonate. Tape Seal:

76, 78: Polyester film Polyimide film

Tape Seal Integrity: Passes gross leak test using 125°C flourinert for 20 seconds minimum. Reference MIL-STD-202, Method 112.

Recommended Soldering Conditions:



WAVE SOLDERING: 260°C maximum solder temperature for 5 seconds max.