

Series Digiswitch®

Series 9000 is QPL approved to MIL-S-22710/12
8, 10, 12 or 16 standard dial positions

Rear mounted

Switch O.D. size 15.24 (.600) wide x 48.77 (1.92) high
Representatives or factory direct

When ordering qualified switches in accordance to MIL-S-22710 you must state this requirement on your order for proper processing by the factory.

DESCRIPTION

The Series 9000 Digiswitch® offers more options, output codes and special termination features than any other sealed switches in their size ranges.

FEATURES

- Series 9000 is QPL approved to MIL-S-22710/12
- *Special dial characters
- Factory installed dial stops
- *5.08 (.200) and 10.16 (.400) spacers with or without markings and lighted decimal point.
- Replaceable lighting
- *RFI shielding
- *19.05 (.750) or 25.4 (1.0) message units
- Special switch modules for Digividers™ and Digidecades™
- *Provisions for mounting components
- Field assembly or factory assembled to customer specifications

*See switch parameters section for details or consult factory.

SPECIFICATIONS

MECHANICAL

Operating force: 7 to 10 ounces.

Life: Over 1,000,000 detent operations.

Weight: 1 ounce (approximately).

Standard color and finish: Non-glare, matte black case and end brackets. Satin black wheel and dial with white dial characters.

ELECTRICAL:

Rated electrical loads: 28V AC or 28V DC at 125 milliamps per specification MIL-S-22710. Non-switching 3 amps maximum.

Contact resistance: 100 milliohms maximum initial.

Insulation resistance: 1000 megohms.

Dielectric strength: 1000 VRMS.

ENVIRONMENTAL:

Shock: 100 G's per MIL-STD-202, Method 213, Test Condition I.

Vibration: 15 G's at 70-2000Hz; .06" double amplitude at 10-70Hz. (Ref.: MIL-STD-202, Method 204, Test Condition B.)

Operating temperature: -65°C to +85°C, unlighted, -65°C to +71°C, 5V, -65°C to +65°C, 28V, lighted.

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

Thermal shock: Per MIL-STD-202, Method 107, Test Condition A.

Salt spray: Per MIL-STD-202, Method 101, Test Condition B.

Explosion proof: Per MIL-STD-202, Method 109.

Sand and dust: Per MIL-STD-202, Method 110, Test Condition B.

MATERIALS:

Plastic parts: Thermoplastic (polycarbonate, nylon or teflon).

Printed circuit board: Laminate per MIL-P-13949, Type GF, plated with nickel per Fed. Spec. QQ-N-290, Class 2, and gold plated per MIL-G-45204, Type II, Class I.

Contacts: Precious metal alloy.

Brush base and detent spring: Beryllium copper.

Hardware: Corrosion protected or corrosion resistant steel.

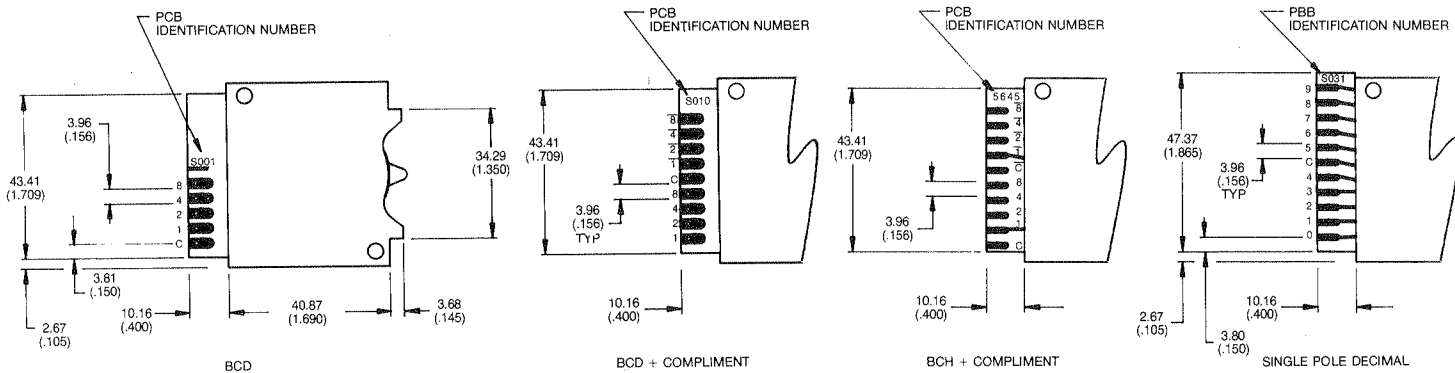
IMPORTANT NOTICE:

Do not allow flux or cleaning agent to enter switch. Use only 40% isopropyl alcohol in distilled water for cleaning agents. For additional information about recommended cleaning methods, contact Digitan.

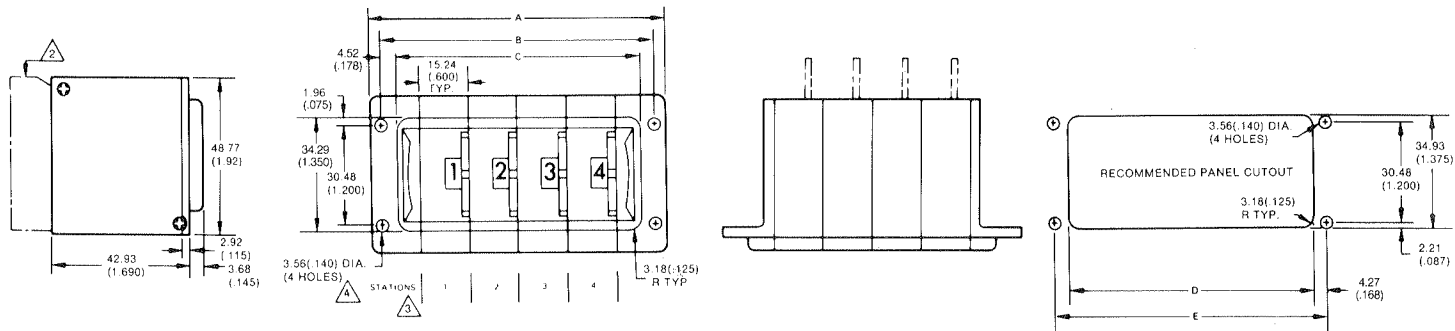
TRUTH TABLE CODES SERIES 9000

Truth Tables Positions	001 2	002 8	003 8	004 8	006 8	007 8	008 10	011 10	013 10	014 10	016 10	017 10	021 10	022 10	023 10	024 10	025 10	038 10	039 10	041 12	043 12	047 16	048 16	049 16	050 16
Code Series	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PC Terminations per Truth Table Code	S P W C L	S P W C L	S — — — —	S P W C L	S P W C L	S — — — —	S P W C L	S — — — —	S P W C L	S — — — —	S P W C L	S P W C L	S P W C L	— — — —	— — — —	S — — —	S — — —	S P W C L	S P W C L	S P W C L	S P W C L	S P W C L	S P W C L	S P W C L	S P W C L

**Printed circuit board code is BCD plus complement. Available with components



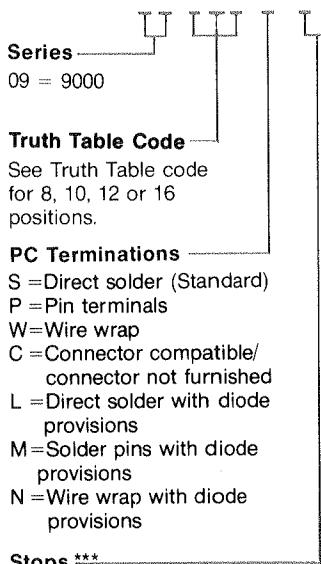
TYPICAL TERMINAL AND ELECTRICAL OUTPUT DETAILS SERIES 9000 DIGISWITCH®



RECOMMENDED ASSEMBLY PANEL CUTOUT DIMENSIONS

How to order standard switch modules

See page 79 for Assembly Ordering Instructions
 All spaces must be filled for a complete part (switch) number
Example: 09/004/S/O6/S/F/E



Series
09 = 9000

Truth Table Code
See Truth Table code for 8, 10, 12 or 16 positions.

PC Terminations
 S = Direct solder (Standard)
 P = Pin terminals
 W = Wire wrap
 C = Connector compatible/
 connector not furnished
 L = Direct solder with diode
 provisions
 M = Solder pins with diode
 provisions
 N = Wire wrap with diode
 provisions

Stops ***
 NS = No stops
 For stops show first and last usable position.
 (i.e. 3 9 dial will now read 3 through 9)

Lighting*
 COLOR LAMP VOLTAGE
 O = No Lighting
 E = Clear 5
 G = Clear 28
 H = Red 5
 K = Red 28
 Z = Lighting provisions red filter no lamp
 Y = Lighting provisions clear filter no lamp

Color**
 F = Matte black case, satin black dial, white characters.

Dial Options
 S = Standard dial characters
 A = 0-9, A-F (16 position only)
 B = -, + repeating
 C = 0, 5 repeating

Not all options are available in all series or codes. Some tooling charges may be required.

*When ordering a lighted switch in this series top lighting is standard. For other positions consult factory.

**For nonstandard colors and combinations consult factory.

*** For stops on 12 or 16 position switches see modified standard ordering instructions, page 78, or consult factory.

Notes 1 — For nonstandard switch options and features not covered in the how to order chart, see modified ordering instruction section, page 78, or consult factory.

NUMBER OF 15.2(6") STATIONS	A	B	C	D	E
1	45.7(1.80)	39.0(1.54)	30.0(1.18)	30.5(1.20)	39.0(1.54)
2	61.0(2.40)	54.2(2.14)	45.2(1.78)	45.7(1.80)	54.2(2.14)
3	76.2(3.00)	69.5(2.74)	60.5(2.38)	61.0(2.40)	69.5(2.74)
4	91.4(3.60)	84.7(3.34)	75.7(2.98)	76.2(3.00)	84.7(3.34)
5	106.7(4.20)	99.9(3.94)	91.0(3.58)	91.4(3.60)	99.9(3.94)
6	121.9(4.80)	115.2(4.54)	106.2(4.18)	106.7(4.20)	115.2(4.54)
7	137.2(5.40)	130.4(5.14)	121.4(4.78)	122.0(4.80)	130.4(5.14)
8	152.4(6.00)	145.7(5.74)	136.7(5.38)	137.2(5.40)	145.7(5.74)
9	167.6(6.60)	160.9(6.34)	151.9(5.98)	152.4(6.00)	160.9(6.34)
10	182.9(7.20)	176.2(6.94)	167.1(6.58)	167.6(6.60)	176.2(6.94)

- Notes:**
- Drawing tolerances: XX = ±.8(.03), .XXX = ±.25(.010).
 - For termination details, see drawing of specific module. See truth table for output circuit details.
 - Add 10.16(.400) to dimensions A, B, C, D and E for each spacer or double module used in an assembly.
 - Four No. 4-40 x 7/16" screws with nuts and lockwashers furnished with each assembly of one or more modules with end brackets and assembly studs.
 - Prime dimensions are metric.

WINDOW AND CHARACTER DIMENSIONS

Positions	Window Dimensions		Max. character Height	Visual Comparison
	H	W		
8	9.52 (.375)	5.59 (.220)	5.97 (.235)	
10	9.52 (.375)	5.59 (.220)	5.97 (.235)	
12	9.52 (.375)	5.59 (.220)	5.79 (.228)	
16	5.97 (.235)	5.59 (.220)	4.06 (.160)	

Character heights cannot be increased from those shown. For maximum usable window width, consult factory.