

# Series Digiswitch®

QPL approved to MIL-S-22710/11  
 8, 10, 12 or 16 standard dial positions  
 Rear mounted  
 Switch O.D. size 12.7 (.500) wide x  
 47.75 (1.88) high  
 Distributor or factory direct  
 When ordering qualified switches in  
 accordance to MIL-S-22710 you must  
 state requirement on your order for  
 proper processing by the factory.

## DESCRIPTION

This Series 300 meets or exceeds the industry standard in applications that allow the convenience of large switches and call for all but the most rigid environmental requirements. The Digiswitch® offers more available options, output codes and special termination features than any other thumbwheel.

## FEATURES

- QPL approved to MIL-S-22710/11
- \*Special dial characters
- Factory installed dial stops
- 6.35 (.250) and 12.7 (.500) spacers with \*optional markings and lighted decimal point
- \*Lighted decimal point on case
- RFI shielding
- \*Message units 25.4 (1.0) or 44.45 (1.75)
- \*Double module 19.05 (.75) or 25.4 (1.00)
- Replaceable lighting
- \*Provisions for mounting components
- \*Special switch modules for Digividers™ and Digidecades™
- Field assembly or factory assembled to customer specifications

\*See switch parameters section or consult factory.

## SPECIFICATIONS

### MECHANICAL

**Operating force:** 7 to 10 ounces.

**Life:** Over 1,000,000 detent operations at rated temperature and electrical load.

**Standard color and finish:** Gloss black case, brackets, wheel and dial, with white dial characters.

**Weight:** .75 ounces per module (approximately).

### ELECTRICAL:

**Rated electrical loads:** 28V AC or 28V DC at 125 milliamps per MIL-S-22710. Non-switching load 3 amp max.

**Contact resistance:** 100 milliohms initial.

**Insulation resistance:** 1000 megohms.

**Dielectric strength:** 1000 VRMS.

### ENVIRONMENTAL:

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

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

**Vibration:** 15 G's per MIL-STD-202, Method 204, 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.

**Contacts:** Precious metal alloy.

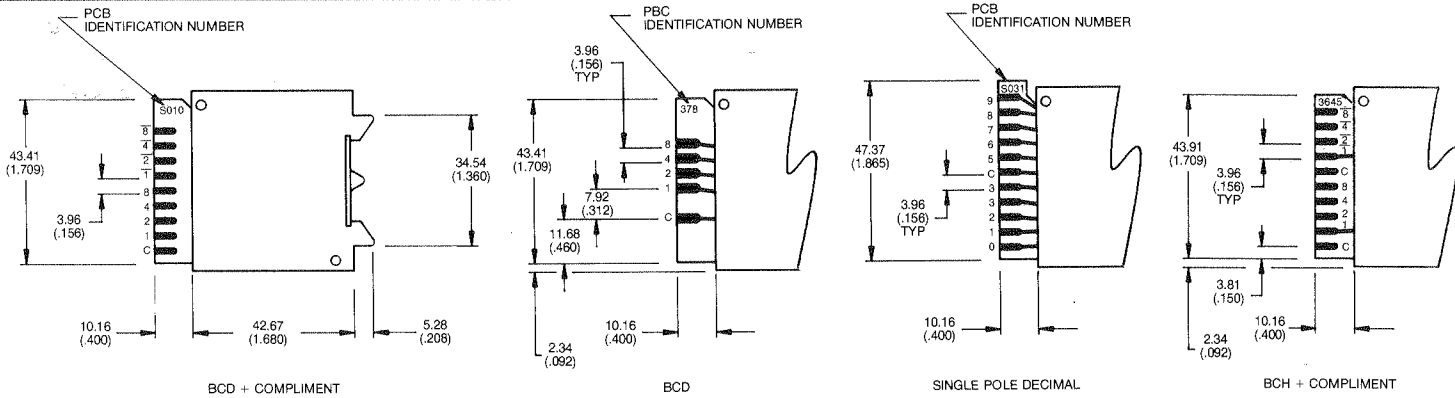
**Hardware:** Corrosion protected or corrosion resistant steel.

### IMPORTANT NOTICE:

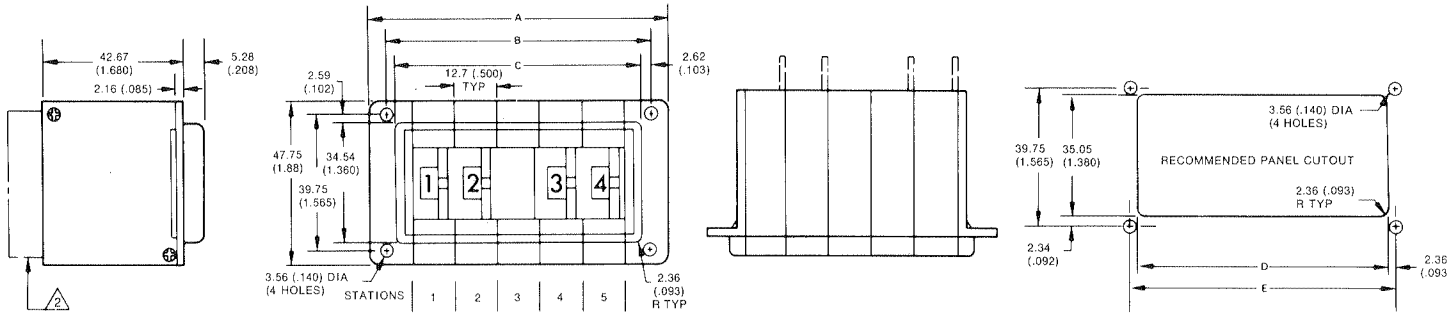
Do not allow flux or cleaning agent to enter switch. Use only 40% isopropyl alcohol in distilled water for cleaning agents. For additional information about recommended cleaning methods, contact Digitran.

## TRUTH TABLE CODES SERIES 300

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	= 300																								
PC Terminations per Truth Table Code	S P W C L	S — C L	S — — —	S P W C L	S P W C L	S — C —	S P W C —	S P W C —	S P W C L	S — C L	S P W C L	S P W C L	S P W C L	— — — —	— — — —	S — C L	S — — — —	S — — — —	S — — — —	S P W C L	S P W C L	S — — — —	S P W C L	S P W C L	S — — — —



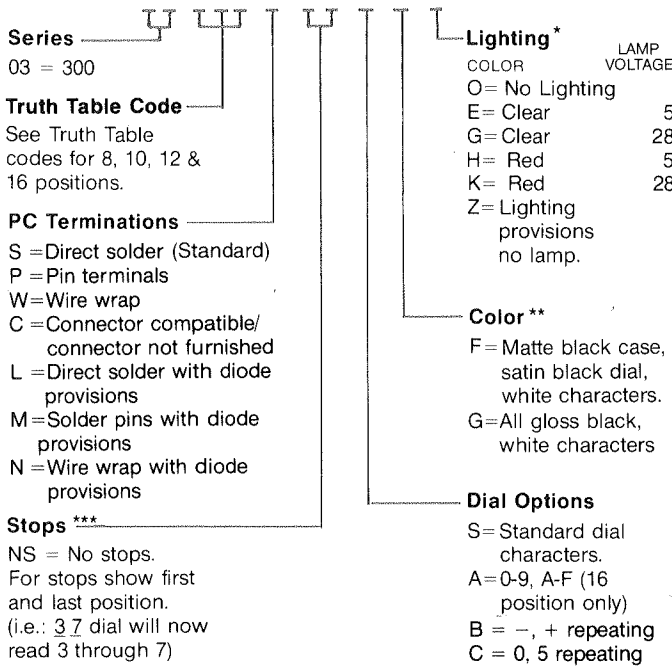
TYPICAL TERMINAL AND ELECTRICAL OUTPUT DETAILS SERIES 300 DIGISWITCH®



**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:** 03/011/P/NS/S/G/E



**RECOMMENDED ASSEMBLY PANEL CUTOUT DIMENSIONS**

Number of 12.7 (.5") Stations	A	B	C	D <sup>4</sup>	E <sup>4</sup>
1	35.8(1.41)	27.2(1.07)	22.1( .87)	22.6( .89)	27.2(1.07)
2	48.5(1.91)	39.9(1.57)	34.8(1.37)	35.3(1.39)	39.9(1.57)
3	61.2(2.41)	52.6(2.07)	47.5(1.87)	48.0(1.89)	52.6(2.07)
4	73.9(2.91)	65.3(2.57)	60.2(2.37)	60.7(2.39)	65.3(2.57)
5	86.6(3.41)	78.0(3.07)	72.9(2.87)	73.4(2.89)	78.0(3.07)
6	99.3(3.91)	90.7(3.57)	85.6(3.37)	86.1(3.39)	90.7(3.57)
7	112.0(4.41)	103.4(4.07)	98.3(3.87)	98.8(3.89)	103.4(4.07)
8	124.7(4.91)	116.1(4.57)	111.0(4.37)	111.5(4.39)	116.1(4.57)
9	137.4(5.41)	128.8(5.07)	123.7(4.87)	124.2(4.89)	128.8(5.07)
10	150.1(5.91)	141.5(5.57)	136.4(5.37)	136.9(5.39)	141.5(5.57)

**NOTES:**

- Drawing tolerances: .X = ±.8 (.03), .XX = ±.25 (.010).
- For termination details, see drawing of specific module. See truth table for output circuit details. Add 6.35 (.250) to 12.7 (.500) to dimensions A, B, C, D, & E when using respective size spacers.
- Four No. 4-40 × 7/16" screws with nuts and lockwashers furnished with each assembly of one or more modules with end brackets and assembly studs.
- Tolerance of D and E dimensions is ±.25 (.010).
- Prime dimensions are metric.

**WINDOW AND CHARACTER DIMENSIONS**

Positions	Window Dimensions		Max. character Height	Visual Comparison
	H	W		
8	9.52 (.375)	5.58 (.220)	5.95 (.235)	
10	9.52 (.375)	5.58 (.220)	5.96 (.235)	
12	9.52 (.375)	5.58 (.220)	5.79 (.228)	
16	5.97 (.235)	5.58 (.220)	4.06 (.160)	

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

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

\*When ordering a lighted switch, 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.