

Series Miniswitch®

8, 10 & 16 standard dial positions
 Rear mounted
 Designed to meet MIL-S-22710
 Switch O.D. Size 12.7 (.500) wide x
 29.21 (1.15) high
 Distributor or factory direct

DESCRIPTION

The Series 8000 Miniswitch® was designed for instruments or systems where packaging and panel limitations are of paramount importance. Large legible white characters against a black background provide inline readability at most viewing angles. The Miniswitch® offers an almost unlimited choice of codes, terminations and connection options.

FEATURES

- *Special dial characters
 - Field installable dial stops (except 16 position)
 - Two standard spacers 6.35 (.250) and 12.7 (.500)
 - *Special markings for case and spacers
 - *Lighted decimals on case or spacers
 - Replaceable top lighting
 - *Message units
 - *Provisions for mounting components
 - Special switch modules for Digividers™ and Digidecades™
 - Field or factory assembled to customer specifications
- *See switch parameters section for details or consult factory.

SPECIFICATIONS

MECHANICAL

Operating force: 6 to 14 ounces
Life: Over 1,000,000 detent operations.
Dial character height: .200" (8 and 10 position), .120" (16 position).
Standard color and finish: Non-glare, matte black case and end brackets. Satin black wheel and dial with white dial characters.
Weight: 1/3 ounce per module (approximately).

ELECTRICAL:

Rated electrical loads: 28V AC or 28V DC at 125 milliamps. Non-switching 3 amps maximum.
Contact resistance: 100 milliohms initial.
Insulation resistance: 1000 megohms.
Dielectric strength: 750 VRMS.

ENVIRONMENTAL:

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.
Operating temperature: —65 °C to +85 °C unlighted. —65 °C to +71 °C for 5V lighting, —65 °C to +65 °C for 28V lighting.

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 0.
Contacts: Precious metal alloy.
Hardware: Corrosion protected or corrosion resistant steel.
Detent spring: Corrosion resistant steel.

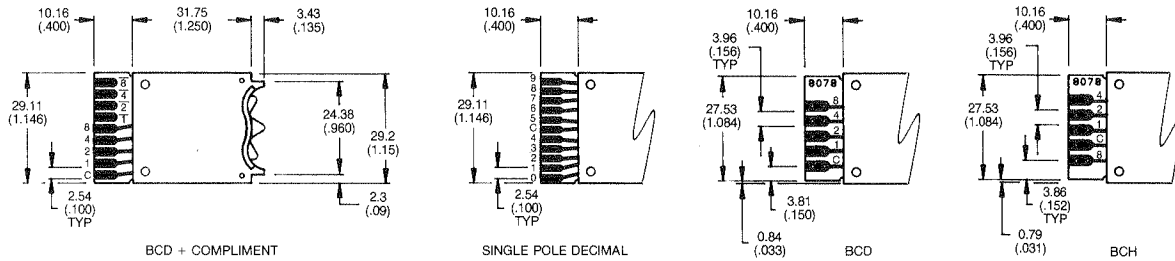
IMPORTANT NOTICE:

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.

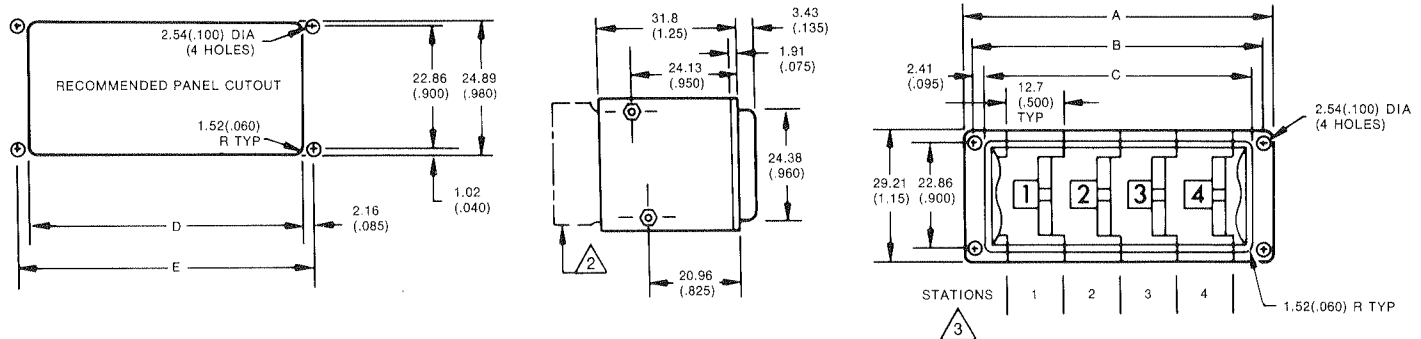
TRUTH TABLE CODES SERIES 8000

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	• 08	= 8000	•	•	*	•	•	•	•	•	•	•	—	•	—	—	•	•	•	—	—	•	•	—	•
PC Terminations per Truth Table Code	S P W C L	S P W — —	S — — — —	S P W C L	S P W — L	S — — C L	S P W C —	S — — C —	S P W C L	S P W C L	S P W C L	S P W C L	— — — — —	S — — C —	— — — — —	— — — — —	— — — — —	S — — — —	S — — — —	— — — — —	— — — — —	S P W C L	S P W C L	— — — — —	S P W — —

*Octal code achieved by dial stops.



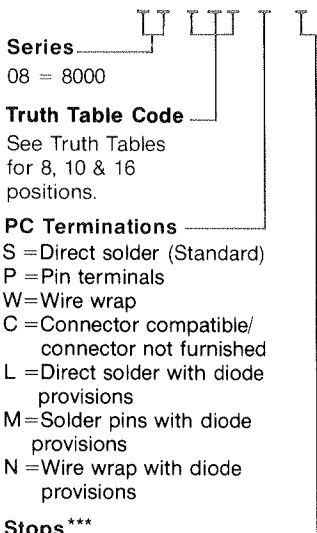
TYPICAL TERMINAL AND ELECTRICAL OUTPUT DETAILS, SERIES 8000 MINISWITCH®



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: 08/038/S/NS/B/F/Y



- Lighting***
LAMP VOLTAGE
COLOR
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

- Stops*****
NS = No stops
Stops = Show first and last usable positions.
(i.e.: 3 9 dial will now read 3 through 9)

RECOMMENDED ASSEMBLY PANEL CUTOUT DIMENSIONS

NUMBER OF 12.7(5/8") STATIONS	A ⁴	B	C ⁴	D ⁴	E
1	32.0(1.26)	27.7(1.09)	23.0(0.90)	23.4(0.92)	27.7(1.09)
2	44.7(1.76)	40.4(1.59)	35.6(1.40)	36.1(1.42)	40.4(1.59)
3	57.4(2.26)	53.1(2.09)	48.3(1.90)	48.8(1.92)	53.1(2.09)
4	70.1(2.76)	65.8(2.59)	61.0(2.40)	61.5(2.42)	65.8(2.59)
5	82.8(3.26)	78.5(3.09)	73.7(2.90)	74.2(2.92)	78.5(3.09)
6	95.5(3.76)	91.2(3.59)	86.4(3.40)	86.9(3.42)	91.2(3.59)
7	108.2(4.26)	103.9(4.09)	99.1(3.90)	99.6(3.92)	103.9(4.09)
8	121.0(4.76)	116.6(4.59)	112.0(4.40)	112.3(4.42)	116.6(4.59)
9	133.6(5.26)	129.3(5.09)	124.5(4.90)	125.0(4.92)	129.3(5.09)
10	146.3(5.76)	142.0(5.59)	137.2(5.40)	137.7(5.42)	142.0(5.59)

- Notes:**
1. Drawing tolerances: X = ± .03, XX = ± .25 (.01).
2. For termination details, see drawing of specific module. See truth table for output circuit details.
3. Add 6.35 (.250) or 12.7 (.500) respectively to dimensions A, B, C, D and E for each spacer used in an assembly.
4. Reduce by .15 (.006) for satin finish switches.
5. Prime dimensions are metric.

WINDOW AND CHARACTER DIMENSIONS

Positions	Window Dimensions		Max. character Height	Visual Comparisons
	H	W		
8	5.79 (.228)	5.84 (.230)	5.08 (.200)	3
10	5.79 (.228)	5.84 (.230)	5.08 (.200)	3
16	3.71 (.146)	5.84 (.230)	3.05 (.120)	3

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.

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