

B3 Subminiature

B3 series subminiature basic switches are double-break, snap-action, momentary switches for defense and commercial applications.

MIL-PRF-8805/76 (0.200" wide)

MIL-qualified 0.200"-wide B3 models have been tested to at least 1 million mechanical cycles and surpass military requirements in these categories: contact resistance less than 25mΩ, contact bounce and overall cycle life. For MIL-PRF-8805/76 requirements, B3-22141 has standard silver with gold contacts, SPDT double break two circuit (*Form Z*), solder terminals in thermoset case material. Gold-plated contacts are available for non-military applications.

MIL-PRF-8805/101 (0.156" wide)

B3 models meeting MIL-PRF-8805/101 and measuring only 0.156" wide are a great option for tight, ganged jobs. In a space where only three 0.200" wide switches would fit, specifying these models instead would allow room for adding a pole. These narrower switches offer high cycle life, very low contact resistance and minimal contact bounce per the MIL-PRF-8805/101 specification.

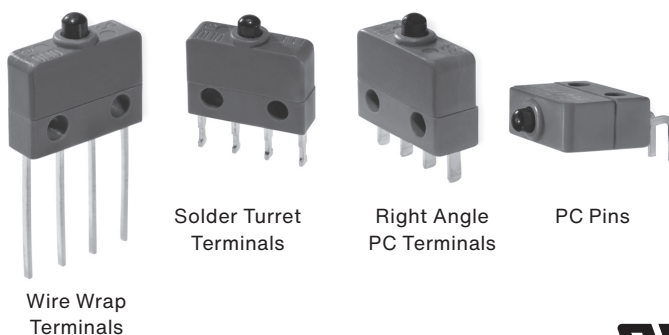
For MIL-PRF-8805/101 requirements, B3-11141 (*PC pin*) and B3-12141 (*turret*) have silver with gold contacts and SPDT double break (*Form Z*) contact. For commercial applications, a variety of contact forms, special forces and gold plate contacts are available.

MIL-PRF-8805/118 (narrow and wide)

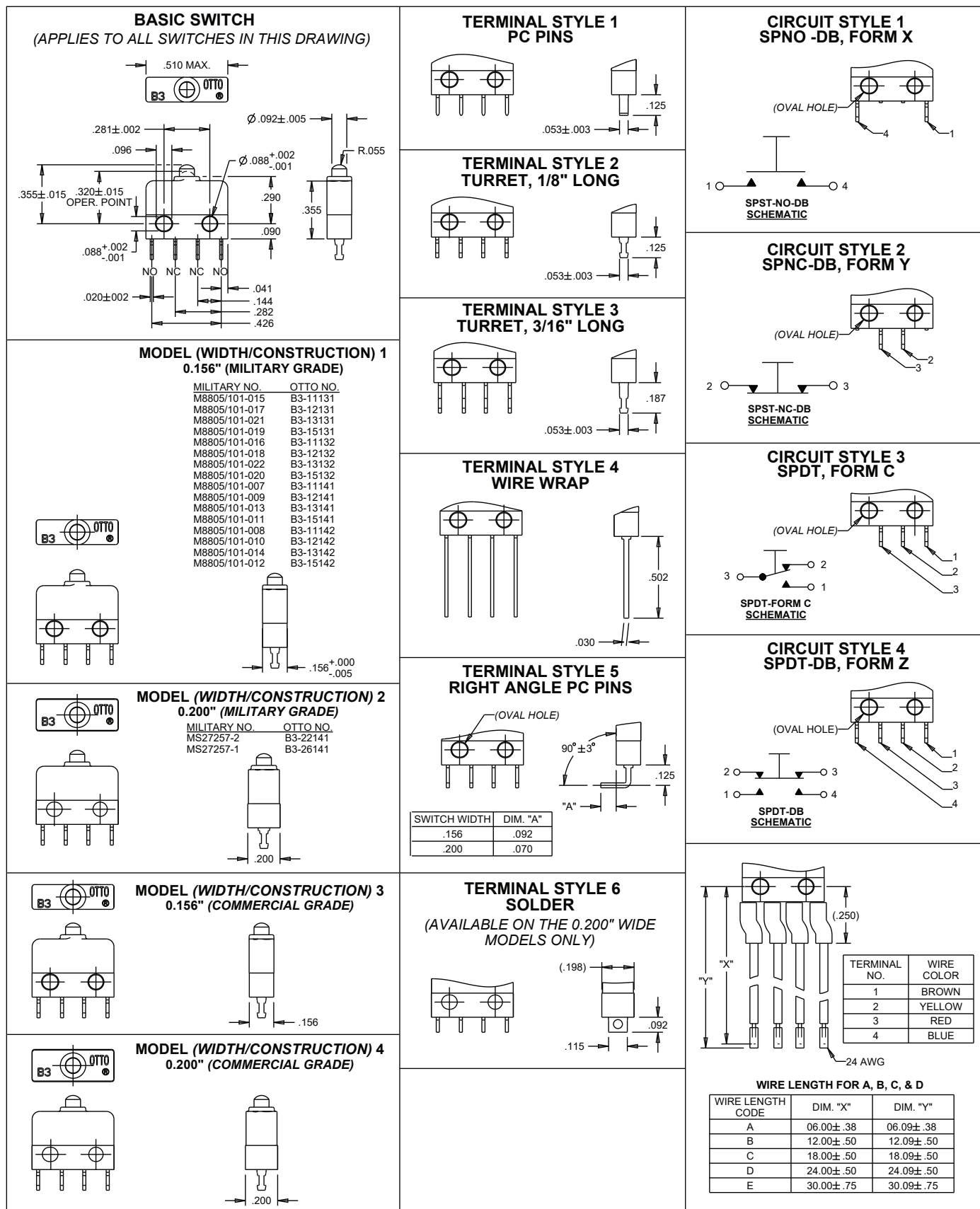
With the release of the /118 slash sheet, all narrow and wide MIL-grade B3's that previously didn't have a military cross-reference number are now officially covered under /118.

FEATURES:

- Military-qualified and commercial-grade switches
- Choose from 0.156" and 0.200" wide models
- Double-break circuit, snap-action, momentary switches
- Low-level switching capability
- Up to 8 amps switching capability
- Less than 25mΩ initial contact resistance
- Button accepts actuation directly from a cam
- Six standard terminal styles or wire leads
- Toggle, pushbutton and lever actuators available
- RoHS compliant



Standard Characteristics/Ratings:			
ELECTRICAL RATINGS:			
Circuitry Load	Sea Level @ 28VDC	70,000 feet @ 28VDC	Sea Level @ 115VAC, 60/400Hz*
SPST-NO or NC Resistive	8A	8A	8A
Form Z	5A	5A	5A
Form C	5A	5A	5A
Gold Contacts	5A	5A	N/A
SPST-NO or NC Inductive**	5A	3A	5A
Form Z	3A	2A	3A
Form C	2.5A	1.5A	2.5A
Gold Contacts	3A	2A	3A
*Applies to commercial grade switches			
**L/R = 0.026			
Lamp	1A	N/A	1A
Motor	5A	N/A	
DWV	1000Vrms	400Vrms	
Low Level:	Gold contacts 10mA @ 30mV		
Electrical Life:	Up to 50,000 cycles at full load		
Mechanical Life:	Up to 1,000,000 cycles		
Seal:	Unsealed		
Operating Temp Range:	65°C to +125°C		
Operating Force:	5 oz +/- 2 oz typical, 6 oz max, or 5 oz min options		
Release Force:	1.5 oz min		
Operate Point:	0.320 +/- 0.015 inches from mounting holes		
Overtravel:	0.004 inches min		
Movement Differential:	0.018 +/- 0.008 inches		
MATERIALS:			
Case:	Thermoset, blue		
Cover:	Thermoplastic, blue		
Button:	Thermoplastic, black		
Terminals:	Brass with gold		
Contacts:	Stationary: Silver with gold plate Moveable: Silver with gold plate		
Terminal Hardware:	None provided, optional wires		
Mounting Hardware:	None provided		



B3 Basic Switch Part Number Code

Bold Code items signify conformance to MIL-PRF-8805 specifications.

B3 -	X	X	X	X	X
Model	Terminal Style or Wire Length	Operating Force	Circuitry	Contact Material	
1. 0.156" (MIL Grade) 2. 0.200" (MIL Grade) 3. 0.156" (Com'l Grade) 4. 0.200" (Com'l Grade)	1. PC Pins 2. Turret, 1/8" lg. 3. Turret, 3/16" lg. 4. Wire Wrap 5. Right Angle PC Pins 6. Solder ① A. With Wires 06.0" lg. B. With Wires 12.0" lg. C. With Wires 18.0" lg. D. With Wires 24.0" lg. E. With Wires 30.0" lg.	1. 5 ⁺³ / ₋₂ oz 2. 5 oz min 3. 6 oz max	1. SPNO-DB, Form X 2. SPNC-DB, Form Y 3. SPDT, Form C 4. SPDT-DB, Form Z	1. Silver/Gold – High Current 2. Silver/Gold – Low Current	
① Available on 0.200" wide models only.					

Contact Configurations

MIL-PRF-8805/76 and MIL-PRF-8805/101 specify single pole, double throw, double break (*Form Z*) contact configuration. Available and included in the military specifications are SPNO and SPNC double break, (*Form X and Y*). MIL-PRF-8805/101 also specifies SPDT Form C.

Military Approvals

(MIL-PRF-8805/76, MIL-PRF-8805/101 and MIL-PRF-8805/118)

Certain OTTO B3 models have been qualified to the military specification for these parts. Reference the Military Numbers List at www.otto-controls.com.