



Features

- Repeatable settings
- Resolution to 0.001%
- Digital display provides excellent readability
- Snap-in panel mount

BOURNS®

3680 - Precision Potentiometer

Electrical Characteristics¹

Standard Resistance Range	50 ohms to 1 megohm
Resistance Tolerance	±3%
Absolute Minimum Resistance	3 ohms or 0.2% maximum (whichever is greater)
Resolution	
3682	1%
3683	0.1%
Insulation Resistance (500 VDC)	1,000 megohms minimum
Power Rating	
(Voltage Limited By Power Dissipation or 500 VAC, Whichever is Less)	
+25°C	2 watts
+85°C	0 watt
Dielectric Withstanding Voltage	MIL-STD-202, Method 301
Sea Level	1,000 VAC minimum
Accuracy (Dial Reading to Output Ratio)	±0.5% full scale

Environmental Characteristics¹

Operating Temperature Range	-25°C to +85°C
Temperature Coefficient	±100ppm/°C maximum
Vibration	10G
Wiper Bounce	0.1 millisecond maximum
Total Resistance Shift	±1% maximum
Voltage Ratio Shift	±0.2% maximum
Shock	50G
Wiper Bounce	0.1 millisecond maximum
Total Resistance Shift	±1% maximum
Voltage Ratio Shift	±0.2% maximum
Load Life	1,000 hours, 2 watts
Total Resistance Shift	±2% maximum

Mechanical Characteristics¹

Expected Life	75,000 button operations each decade
Total Resistance Shift	±2% maximum
Terminals	0.11 in. (2.79mm) wide x .016 in. (.41mm) thick, tinned solder lugs for 3 #20 AWG wires
Readout Marking	10 positions, 0-9
Markings	Manufacturer's name and part number, resistance value and date code

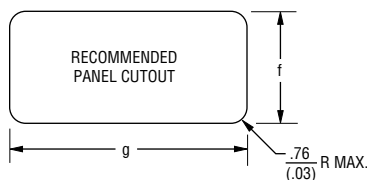
¹At room ambient: +25°C nominal and 50% relative humidity nominal, except as noted.
NOTE: Terminals 1 & 3 are reversed from illustration for models 3682 and 3684.

Model	Dimensions					Weight (Approx.)	
	a	b	c	d	e ±.015 (±.381)	oz.	gms.
3682	26.67 (1.050)	25.15 (.990)	10.67 (.420)	11.94 (.47)	8.38 (.330)	.576	16.5
3683	37.08 (1.460)	35.31 (1.390)	18.54 (.730)	11.94 (.47)	4.19 (.165)	.824	23.5

Model	Dimensions	
	f ±.010 (±.254)	g ±.010 (±.254)
3682	21.08 (.830)	25.91 (1.020)
3683	21.08 (.830)	36.07 (1.420)

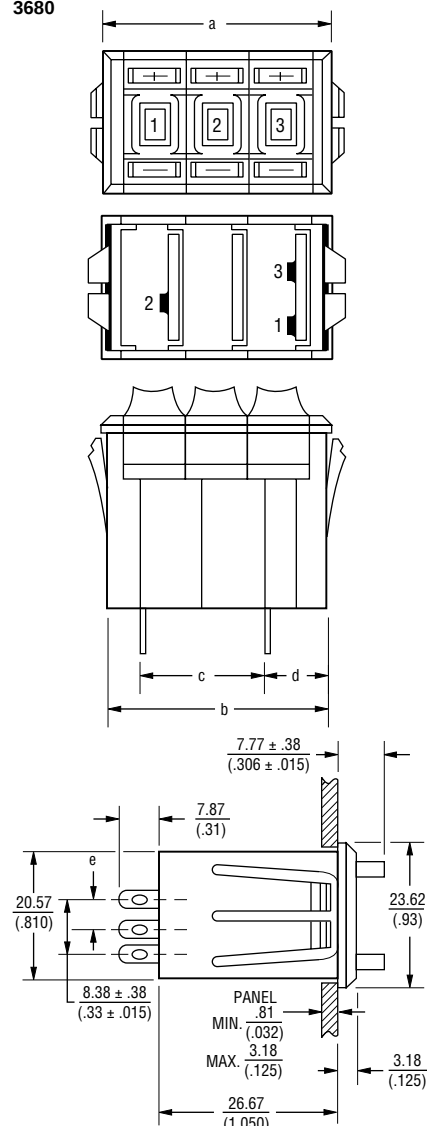
Recommended Part Numbers

Resistance (Ω)	3682S-1 2 Decade	3683S-1 3 Decade
1,000	-102	-102
5,000	-502	-502
10K	-103	-103
50K	-503	-503
100K	-104	-104



BOLD-FACE LISTINGS ARE IN STOCK AND READILY AVAILABLE THROUGH DISTRIBUTION.
FOR OTHER OPTIONS CONSULT FACTORY.

3680



TOLERANCES: EXCEPT WHERE NOTED
DECIMALS: .XX ± .38 (.015) .XXX ± .13 (.005)
FRACTIONS: ±1/64
DIMENSIONS: MM (IN.)

