



Features

- Repeatability 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

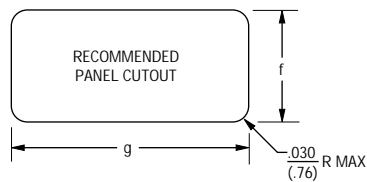
Mechanical Characteristics¹

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)

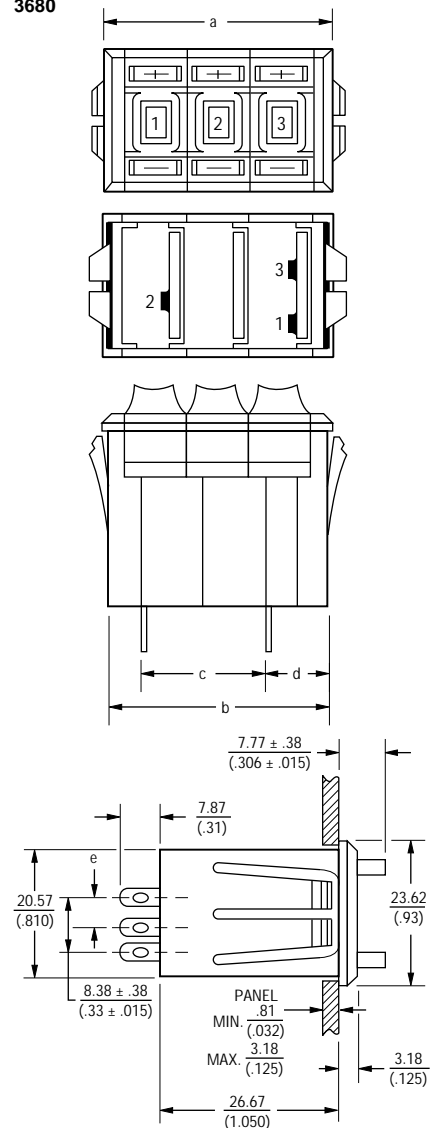


Recommended Part Numbers

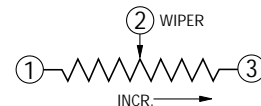
Resistance (Ω)	3682S-1	3683S-1
	2 Decade	3 Decade
1,000	-102	-102
5,000	-502	-502
10K	-103	-103
50K	-503	-503
100K	-104	-104

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.)





Features

- For use with Model 3680 digital pushbutton precision potentiometer

H-385 - Panel Seal Assembly

Physical Characteristics¹

Material (Boot).....	Clear silicone rubber
Material (Frame).....	Rigid black plastic
Expected Life.....	100,000 actuations minimum
Weight	
H-385-2.....	Approximately 8.50G
H-385-3.....	Approximately 9.92G

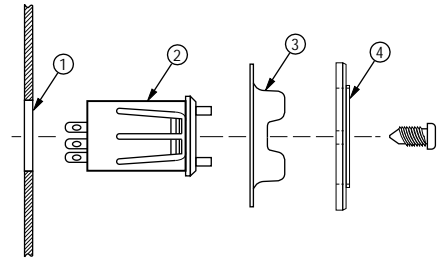
Application Data

- Protects front of the pot from unwanted entry of rain, dust, grease or oils
- Transparent for easy viewing of numerals
- Tear resistant for long life
- Matte finish black plastic frame to complement most front panels

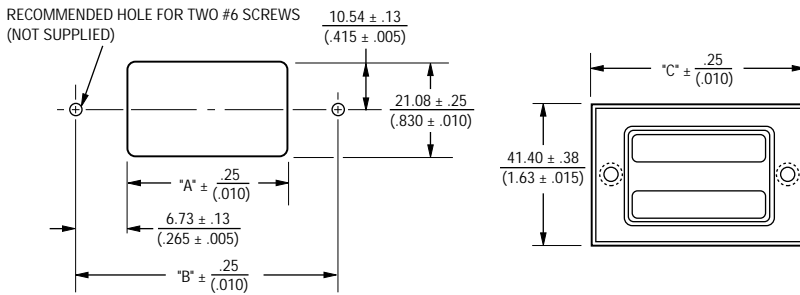
Bourns® Model H-385 Panel Seal Assembly minimizes accidental entry of liquids or foreign matter through the front of the Model 3680 Family Potentiometer.

H-385 MOUNTING INSTRUCTIONS

1. Cut out and drill panel¹ per chart.
2. Install snap-in potentiometer².
3. Locate silicone boot³ and frame⁴ over potentiometer and holes.
4. Attach panel seal assembly to panel with two #6 screws (not supplied).



PANEL CUT-OUT/HOLE DIMENSIONS



For Use With	Part Number	Frame Dimensions "C"	Panel Cutout/ Hole Dimensions	
			"A"	"B"
3682	H-385-2	50.60 (1.992)	25.91 (1.020)	39.37 (1.550)
3683	H-385-3	60.76 (2.392)	36.07 (1.420)	49.53 (1.950)

¹At room ambient: +25°C nominal and 50% relative humidity nominal, except as noted.