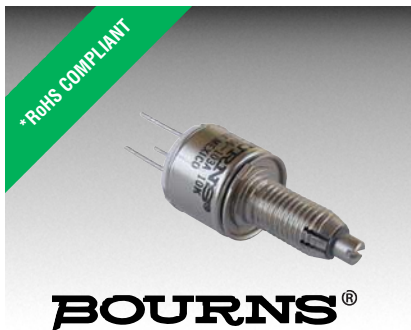




## Features

- Small diameter
- Wide resistance range
- Good resolution
- Linear tapers
- Cermet element

## 3862 - 1/2 " Diameter Single-Turn Panel Control

### Initial Electrical Characteristics<sup>1</sup>

|                                                                                   |                                             |
|-----------------------------------------------------------------------------------|---------------------------------------------|
| Standard Resistance Range.....                                                    | 100 ohms to 1 megohm                        |
| Total Resistance Tolerance.....                                                   | (A Taper) $\pm 10\%$<br>(H Taper) $\pm 5\%$ |
| Independent Linearity.....                                                        | $\pm 5\%$                                   |
| Absolute Minimum Resistance.....                                                  | 2 ohms maximum                              |
| Effective Electrical Angle.....                                                   | $260^\circ \pm 10^\circ$                    |
| Contact Resistance Variation.....                                                 | $\pm 3\%$ or 6 ohms (whichever is greater)  |
| Dielectric Withstanding Voltage (MIL-STD-202, Method 301)                         |                                             |
| Sea Level.....                                                                    | 750 VAC minimum                             |
| 70,000 Feet.....                                                                  | 350 VAC minimum                             |
| Insulation Resistance (500 VDC).....                                              | 1,000 megohms minimum                       |
| Power Rating (Voltage Limited by Power Dissipation or 350 VAC, Whichever is Less) |                                             |
| +70 °C.....                                                                       | 1 watt                                      |
| +125 °C.....                                                                      | 0 watt                                      |
| Theoretical Resolution.....                                                       | Essentially infinite                        |

### Environmental Characteristics<sup>1</sup>

|                                                             |                                      |
|-------------------------------------------------------------|--------------------------------------|
| Operating Temperature Range.....                            | -40 °C to +125 °C                    |
| Storage Temperature Range.....                              | -65 °C to +125 °C                    |
| Temperature Coefficient Over Storage Temperature Range..... | $\pm 150$ ppm/°C                     |
| Vibration.....                                              | 20 G                                 |
| Total Resistance Shift.....                                 | $\pm 2\%$ maximum                    |
| Voltage Ratio Shift.....                                    | $\pm 6\%$ maximum                    |
| Shock.....                                                  | 50 G                                 |
| Total Resistance Shift.....                                 | $\pm 2\%$ maximum                    |
| Voltage Ratio Shift.....                                    | $\pm 6\%$ maximum                    |
| Load Life.....                                              | 1,000 hours                          |
| Total Resistance Shift.....                                 | $\pm 3\%$ maximum                    |
| Rotational Life (C & N Bushing) No Load.....                | 50,000 cycles                        |
| Total Resistance Shift.....                                 | $\pm 5\%$ maximum                    |
| Contact Resistance Variation.....                           | $\pm 3\%$                            |
| Moisture Resistance (MIL-STD-202, Method 106, Condition B)  |                                      |
| Total Resistance Shift.....                                 | $\pm 2\%$ maximum                    |
| Insulation Resistance (500 VDC).....                        | 100 megohms minimum                  |
| Salt Spray.....                                             | MIL-STD-202, Method 101, Condition A |
| IP Rating.....                                              | IP 40                                |

### Mechanical Characteristics<sup>1</sup>

|                                                 |                                                                                                                                                                                                                                                                                          |
|-------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Stop Strength.....                              | 33 N-cm (3 lb.-in.) maximum                                                                                                                                                                                                                                                              |
| Mechanical Angle.....                           | $295^\circ \pm 3^\circ$                                                                                                                                                                                                                                                                  |
| Torque                                          |                                                                                                                                                                                                                                                                                          |
| Starting and Running.....                       | 3.53 N-cm (5 oz.-in.) maximum                                                                                                                                                                                                                                                            |
| Mounting (Torque on Bushing).....               | 1.7-2.0 N-m (15-18 lb.-in.) maximum                                                                                                                                                                                                                                                      |
| Shaft Locking Torque with Locking Bushings..... | 14.12 N-cm (20 oz.-in.)                                                                                                                                                                                                                                                                  |
| Weight (Single Section).....                    | 25 grams maximum                                                                                                                                                                                                                                                                         |
| Terminals.....                                  | Printed circuit pins or J-Hooks                                                                                                                                                                                                                                                          |
| Soldering Condition.....                        | Recommended hand soldering using Sn85/Ag5 no clean solder, 0.025 " wire diameter<br>Maximum temperature 399 °C (750 °F) for 3 seconds. No wash process to be used with no clean flux.<br>Part can be wave soldered at 260 °C (500 °F) for 5 seconds, no wash process with no clean flux. |
| Marking.....                                    | Manufacturer's trademark, wiring diagram, date code, resistance, manufacturer's part number                                                                                                                                                                                              |
| Ganging.....                                    | 1 cup maximum                                                                                                                                                                                                                                                                            |
| Hardware.....                                   | One lockwasher and one mounting nut is shipped with each potentiometer, except where noted in the part number.                                                                                                                                                                           |

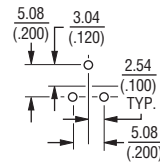
<sup>1</sup> AT ROOM AMBIENT: +25 °C NOMINAL AND 50 % RELATIVE HUMIDITY NOMINAL, EXCEPT AS NOTED.

# 3862 - 1/2 " Diameter Single-Turn Panel Control

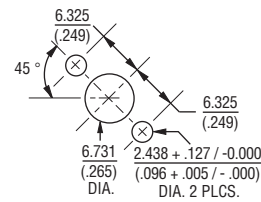
**BOURNS®**

## Product Dimensions

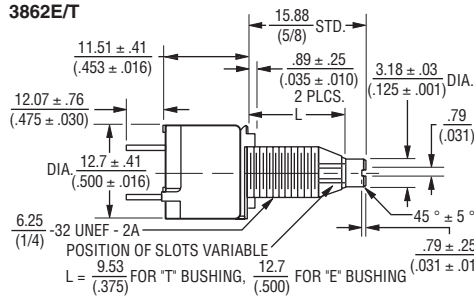
### PCB LAYOUT



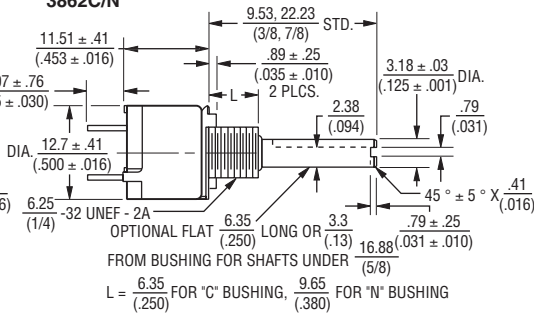
### PANEL LAYOUT



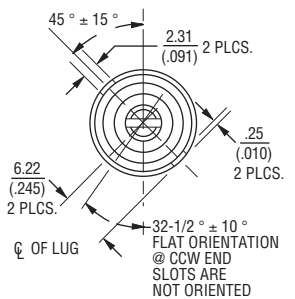
### 3862E/T



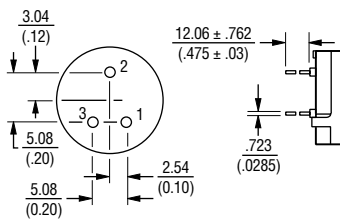
### 3862C/N



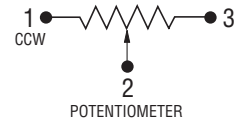
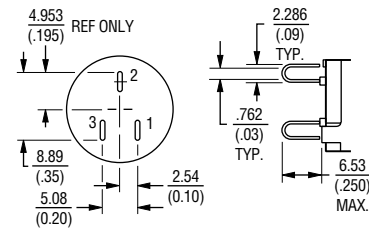
### Shaft End Detail 3862



### PC PIN TERMINAL



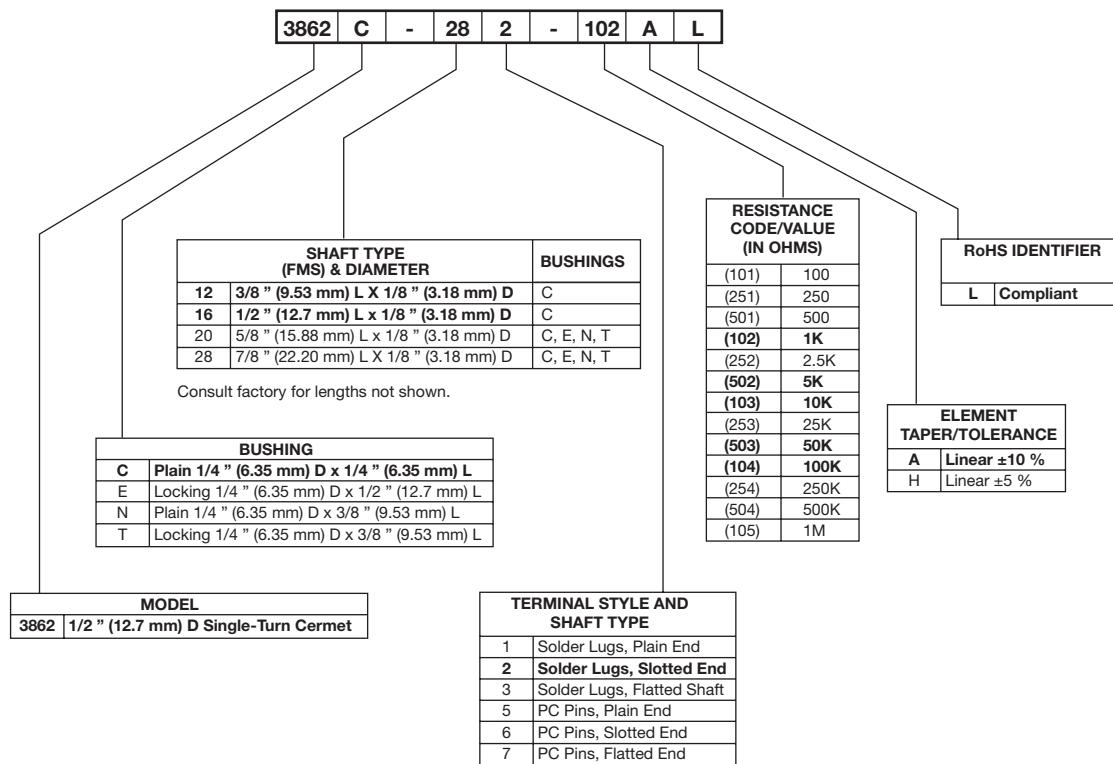
### J-HOOK TERMINAL



DIMENSIONS:  $\frac{\text{MM}}{(\text{INCHES})}$

# How to Order 3862 Series Panel Controls

**BOURNS®**



*Boldface features are Bourns standard options. All others are available with higher minimum order quantities.*

## Данный компонент на территории Российской Федерации

**Вы можете приобрести в компании MosChip.**

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

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