

# RV30 Series

**TOCOS**<sup>®</sup>  
PANEL CONTROLS

## 30mm Diameter, Single-Turn, Carbon Industrial Panel Controls



### Features

- 30mm diameter, single-turn industrial panel controls
- Carbon film element
- Linear or audio tapers
- Single, tandem and triple units, single shaft; dual unit, dual shaft
- SPST or SPDT switch with 1A or 3A rating
- Shaft lock models
- Metal shaft and bushing
- Panel mount only
- Right angle ear-lug terminals
- 6mm diameter shafts in slot, flat or round end styles
- Standard 15mm or 20mm shaft length

### Specifications

#### Electrical

**Standard Resistance Range** . . . . . B = 100Ω to 2MΩ  
A,C = 1kΩ to 2MΩ

**Resistance Tolerance** . . . . . ±10% standard

**End Resistance** . . . . . 3Ω max.

**Resistance Taper** . . . . . B = linear; A = CW audio (logarithm);  
C = CCW audio (logarithm)

**Peak Noise (C.R.V.)** . . . . . 3% or 3Ω, whichever is greater

**Power Rating** . . . . . Ratings below at +40°C, 0 watt at +85°C

Taper	R ≤ 10kΩ	10kΩ < R ≤ 50kΩ	50kΩ < R ≤ 300kΩ	R > 300kΩ
B	1.0W	0.8W	0.6W	0.4W
A,C	0.8W	0.6W	0.3W	0.2W

**Maximum Input Voltage** . . . . . B = 500VDC; A,C = 350VDC  
or power rating, whichever is smaller

**Insulation Resistance** . . . . . 100MΩ minimum at 1,000VDC

**Dielectric Strength** . . . . . 1,000VAC, 1 minute

**Adjustment Travel** . . . . . 280° ± 10°

#### Mechanical

**Mechanical Travel** . . . . . 300° ± 5°

#### Shaft Torque

Single Unit . . . . . 51 to 306 gf•cm (0.707 to 4.242 oz•in)  
Other Units . . . . . 51 to 510 gf•cm (0.707 to 7.070 oz•in)

**Stop Strength** . . . . . 10.2 kgf•cm (141.4 oz•in) max.

**Mounting Nut Torque** . . . . . 15 kgf•cm (207.94 oz•in) max.

**Solderability** . . . . . 235°C, 5 seconds

**Marking** . . . . . Model type, taper, resistance code,  
shaft type, terminal identification, date code

#### Environmental

**Temperature Range** . . . . . -10°C to +85°C

**Temperature Characteristics** . . . . . +85°C, 30 minutes  
without load  
R ≤ 10kΩ → ΔT/R ≤ ±6%  
10kΩ < R < 1MΩ → ΔT/R ≤ ±10%  
R ≥ 1MΩ → ΔT/R ≤ ±15%

**Load Life** . . . . . +40°C, 1,000 hours with rated load  
ΔT/R ≤ ±10%

**Moisture and Load Life** . . . . . +40°C, 90-95% RH,  
500 hours with rated load  
R < 100kΩ → ΔT/R ≤ -10% ~ +15%  
R ≥ 100kΩ → ΔT/R ≤ -10% ~ +20%

**Thermal Shock** . . . . . -10°C ~ +85°C,  
5 cycles without load  
ΔT/R ≤ ±10%

**Vibration** . . . . . 10-55Hz, 1.5mm amplitude,  
3 directions, 2 hours each  
ΔT/R ≤ ±2.5%

**Soldering Heat Resistance** . . . . . 350°C, 3.5 seconds  
ΔT/R ≤ ±2%

**Rotational Life** . . . . . 15,000 cycles (500 cycles for shaft lock  
models only) without load  
ΔT/R ≤ ±7%

#### Standard Rotary Switches

**Switch Rating** . . . . . 110VAC, 1A or 3A, SPDT or SPST

**Contact Resistance** . . . . . 0.05Ω max.

**Operating Torque** . . . . . 1,530 gf•cm (21.21 oz•in) max.

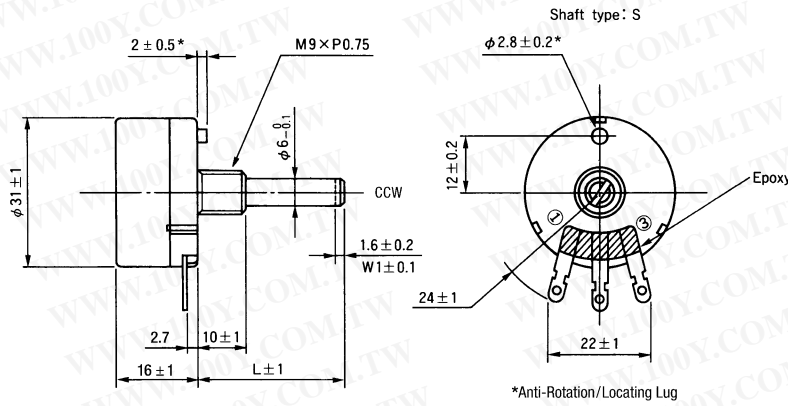
**Operating Life** . . . . . 10,000 cycles with rated load

R = Total Resistance Value; ΔT/R = Total Resistance Change

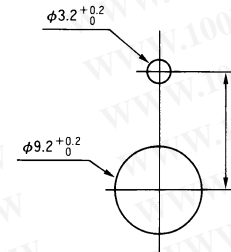
勝特力材料 886-3-5753170  
勝特力电子(上海) 86-21-54151736  
勝特力电子(深圳) 86-755-83298787  
Http://www.100y.com.tw

**RV30YN**

**Panel Mount, Single Unit, Single Shaft, Right Angle Ear-Lug Terminals**  
**RV30YNHT High Torque or RV30YS Panel Seal Models available as Special Order.**

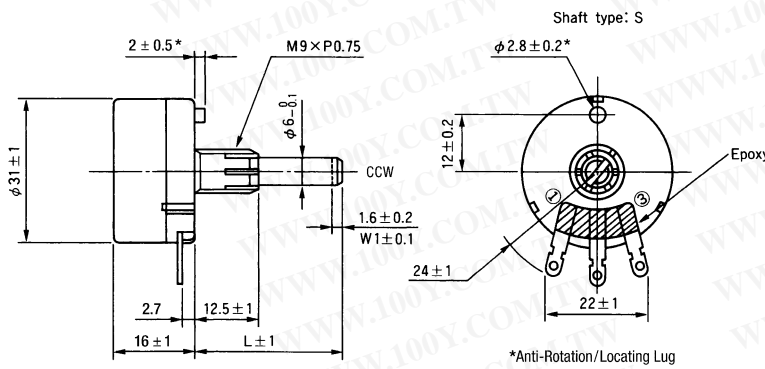


**Recommended Panel Mounting Holes**

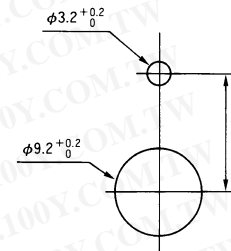


**RV30YL**

**Panel Mount, Single Unit, Single Shaft with Shaft Lock**  
**Right Angle Ear-Lug Terminals**

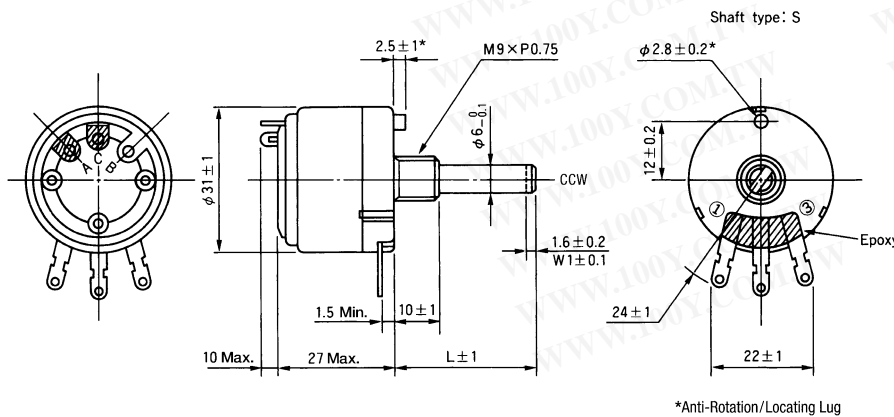


**Recommended Panel Mounting Holes**

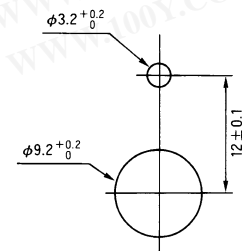


**RV30YNSE & RV30YNSF**

**Panel Mount, Single Unit with Switch, Single Shaft**  
**Right Angle Ear-Lug Terminals, Rear Exit Lug Terminals for 1A or 3A SPST Switch**



**Recommended Panel Mounting Holes**



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