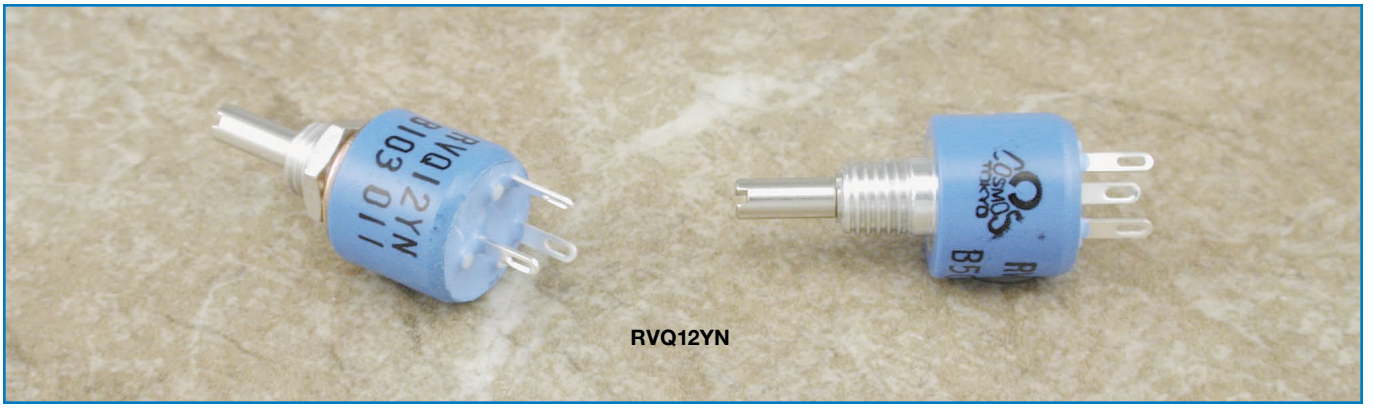
RVQ12YN Series

TOCOS® PANEL CONTROLS

Long Life 12mm Diameter, Single-Turn, Carbon Panel Controls



RVQ12YN

Features

- Long life 12mm diameter, single-turn industrial panel controls
- Carbon film element
- 200,000 cycle rotational life
- Single unit, single shaft
- Continuous rotation, no stop
- Lightweight plastic housing
- Metal shaft and bushing
- 3.2mm diameter metal shafts in slot, flat or round end styles
- Standard 10mm or 15mm shaft length
- Linear taper
- Panel mount style
- Rear exit vertical lug terminals
- PCB mounting style available as special order

Specifications

Electrical

Standard Resistance Range . . . . . 1kΩ to 100kΩ
Resistance Tolerance . . . . . ±10% standard
End Resistance . . . . . Not applicable
Resistance Taper . . . . . B = linear
Independent Linearity . . . . . ±3% max.
Peak Noise (C.R.V.) . . . . . 2% max.
Power Rating . . . . . 0.125 watt at +40°C, 0 watt at +80°C
Maximum Input Voltage . . . . . 110VDC or power rating, whichever is smaller
Insulation Resistance . . . . . 100MΩ minimum at 500VDC
Dielectric Strength . . . . . 500VAC, 1 minute
Adjustment Travel . . . . . 320° nominal

Mechanical

Mechanical Travel . . . . . 360°
Shaft Torque . . . . . 15 gf•cm (0.208 oz•in) max.
Stop Strength . . . . . Continuous, no stop
Shaft Strength (push) . . . . . 29.4 N (3 kgf) min.
Shaft Strength (tensile) . . . . . 9.8 N (1 kgf) min.
Shaft End Play . . . . . ±0.15×(shaft length/15) mm max.
Mounting Nut Torque . . . . . 3 kgf•cm (41.59 oz•in) min.
Marking . . . . . Model type, taper, resistance code, date code

Environmental

Temperature Range . . . . . −30°C to +80°C
Temperature Characteristics . . . . . +85°C, 5 hours ΔT/R ≦±5%
Temperature Cycle . . . . . −30°C , +80°C, 30 minutes each, 5 cycles ΔT/R ≦±10%
Load Life . . . . . +40°C, 0.125 watt, 1,000 hours ΔT/R ≦±10%
Moisture and Load Life . . . . . +40°C, 90-95%RH, 0.125 watt, 500 hours ΔT/R ≦±10%
Vibration . . . . . 10-55Hz, 1.5mm amplitude, 3 directions ΔT/R ≦±5%
Soldering Heat Resistance . . . . . 350°C±5°C, 3 seconds ΔT/R ≦±2%
Rotational Life . . . . . 200,000 cycles without load ΔT/R ≦±5%

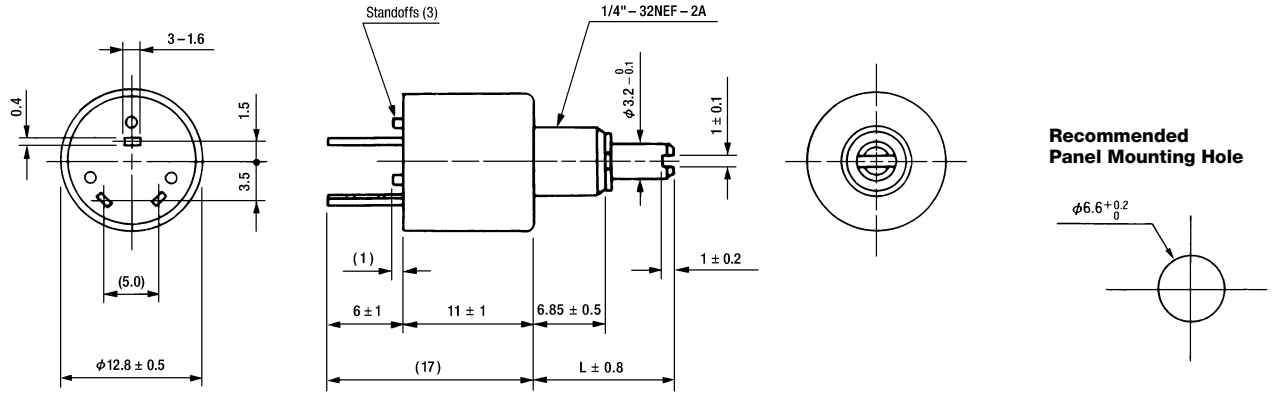
ΔT/R = Total Resistance Change

Note: A long life panel control should only be used in a circuit as a potentiometer (3-terminal voltage divider).

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RVQ12YN
Panel Mount, Single Unit, Single Shaft
Rear Exit Vertical Lug Terminals, 3-Lug Triangular Pattern

Unit: mm



Part Numbering System

RV Q 12 Y N 15 S B 103 K

NOTE: FMS = From Mounting Surface

Resistance Tolerance: K = ±10% (standard).

Resistance Code: Expressed in ohms. A three digit code where the first two digits are significant figures, and the third digit indicates the number of zeros that follow these figures (i.e., 100 = 10Ω; 101 = 100Ω; 102 = 1,000Ω; 103 = 10,000Ω; 104 = 100,000Ω). *See table for standard resistance values.*

Resistance Taper: B = Linear.

Shaft End Style: S = Slotted.
F = Flatted.
R = Round.

Standard Shaft Length: 10 = 10mm FMS.
15 = 15mm FMS.
Up to 30mm shaft length available (special order).

Style: N = Panel Mount, Single Unit, Single Shaft, Rear Exit Vertical Lug Terminals, 3-Lug Triangular Pattern (standard).
P = PCB Mount, Single Unit, Single Shaft, Rear Exit Vertical Mount Pin Terminals, 3-Pin Triangular Pattern (special order).

Operating Temperature Range: Y = −30°C to +80°C.

Size: 12 = 12mm Diameter.

Rotational Life: Q = Long Life, 200,000 cycles.

TOCOS Series Name: RV = Carbon Film Element.

Standard Resistance Values and Part Numbering Codes

Standard Nominal Total Resistance Values and Part Numbering Codes

Resistance (Ω)	Code	Resistance (Ω)	Code	Resistance (Ω)	Code
1,000	102	10,000	103	100,000	104
2,000	202	20,000	203		
5,000	502	50,000	503		

Refer to Shaft End Styles Specifications and Hardware Specifications for details and availability.
For additional information, refer to Guidelines and Precautions for Using Panel Controls.