

Multi-Turn Hybrid Potentiometer

Series MT20HS



• Standard Model Nos.

MT20HS-5 (5-turn)
MT20HS-10 (10-turn)

• General Specifications (Note 1)

Standard Resistance

Range: 1k, 2k, 5k, 10k, 20k Ω

Max. Practical

Resistance Value: 100k Ω (10-turn)

Total Resistance

Tolerance: Standard Class $\pm 10\%$
Precision Class $\pm 5\%$

Independent Linearity

Tolerance:

	5-turn	10-turn
Standard Class	$\pm 0.35\%$	$\pm 0.25\%$
Precision Class	$\pm 0.2\%$	$\pm 0.1\%$

Power Rating:

1.0W (5-turn)
2.0W (10-turn)

Output Smoothness:

Within 0.05% against input voltage (5-turn)
Within 0.015% against input voltage (10-turn)

Contact Resistance

Variation: Within 5% C.R.V. (5-turn)
Within 3% C.R.V. (10-turn)

Electrical Travel:

$360^\circ \times n \pm 5^\circ$ (n: No. of turns)

Mechanical Travel:

$360^\circ \times n \begin{matrix} +10^\circ \\ -0^\circ \end{matrix}$ (n: No. of turns)

Rotational Life:

5,000,000 (5-turn)

(shaft revolutions)

10,000,000 (10-turn)

Protection Grade:

IP40

Operating Temp.:

$-55^\circ\text{C} \dots +105^\circ\text{C}$

Insulation Resistance:

Over 100 M Ω at 1000V.D.C.

Dielectric Strength:

1 minute at 1000V.A.C.

Starting Torque:

Within 5mN \cdot m (50gf \cdot cm)

Resist. Temperature

Coefficient of Wire:

$\pm 100\text{p.p.m.}/^\circ\text{C}$

Vibration:

15G / 10Hz to 2,000Hz 12 hours

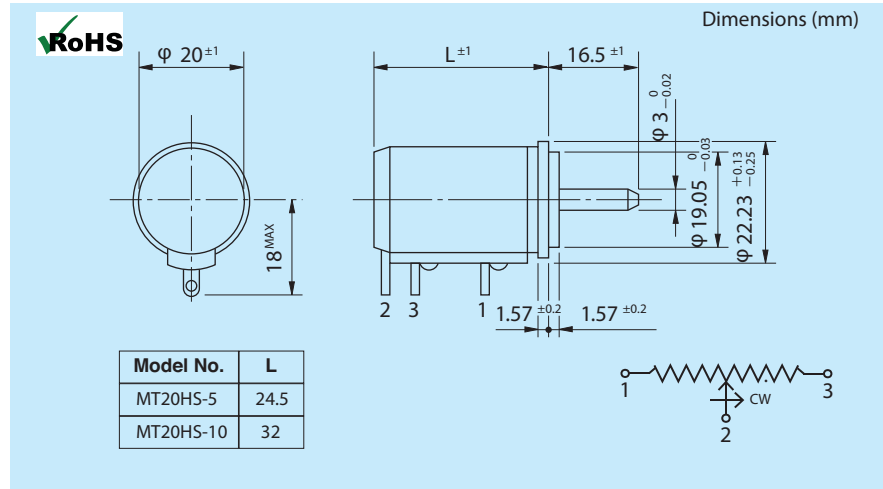
Shock:

50G / 11ms 18 times

Mass:

Approx. 20g (5-turn)

Approx. 25g (10-turn)

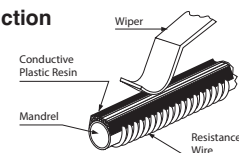


Features of Hybrid resistive element

• Main Features

- Good stability of resistance value
- Good resistance temperature coefficient
- Essentially infinite resolution
- Less resistance variation
- Long life expectancy

• Construction



• Special Specifications Available

Extra tap (1 tap), multi-ganged (up to 2 gangs), shaft with front and rear extension (rear shaft with 2mm dia. and 10mm length), special shaft machining (flat, pin hole, length, dia., etc.), limit switch adaptor

Note 1: Customers should test and verify device performance in any given application. Specifications subject to change without notice.