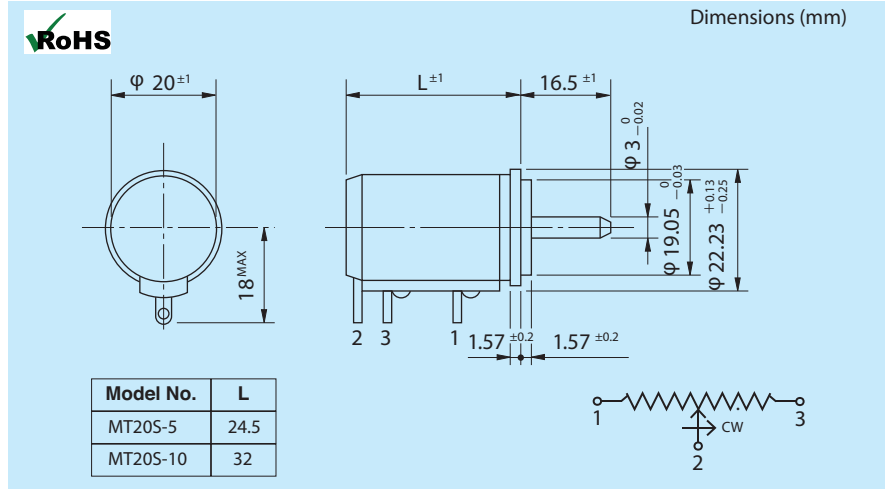


MT20S Series

Multi-Turn Potentiometer (Wirewound)



Standard Model Nos.

MT20S-5 (5-turn)
MT20S-10 (10-turn)

General Specifications (Note 1)

Standard Resistance

Range: 100, 200, 500, 1k, 2k, 5k, 10k, 50k Ω

Max. Practical

Resistance Value: 100k Ω (5-turn)
150k Ω (10-turn)

Total Resistance

Tolerance: Standard Class $\pm 3\%$
Precision Class $\pm 1\%$

Independent Linearity

Tolerance:

	5-turn	10-turn
Standard Class	$\pm 0.3\%$	$\pm 0.2\%$
Precision Class	$\pm 0.2\%$	$\pm 0.1\%$
	(< 5k Ω) ($\pm 0.25\%$)	($\pm 0.15\%$)

Power Rating:

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

Noise:

Within 100 Ω E.N.R.

Electrical Travel:

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

Mechanical Travel:

$360^\circ \times n^{\text{+30}^\circ - 0^\circ}$ (n: No. of turns)

Rotational Life:

1,000,000 (5-turn)

(shaft revolutions)

2,000,000 (10-turn)

Protection Grade:

IP40 (IP54 optional)

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 3mN \cdot m (30gf \cdot cm)

Resist. Temperature

± 20 p.p.m./ $^\circ\text{C}$

Coefficient of Wire:

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

Vibration:

50G / 11ms 18 times

Shock:

Approx. 20g (5-turn)

Mass:

Approx. 25g (10-turn)

Resolution Chart (%)

Resist. Value (Ω)	100	200	500	1k	2k	5k	10k	20k	50k	100k
MT20S-5	0.09	0.07	0.05	0.04	0.042	0.031	0.026	0.021	0.018	0.015
MT20S-10	0.06	0.05	0.03	0.025	0.02	0.02	0.016	0.013	0.01	0.009
Resist. Wire Used	Cu-Ni System					Ni-Cr System				

Special Specifications Available

3-turn type (MT20S-3), lower resistance values (10 Ω , 20 Ω , 50 Ω), 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.