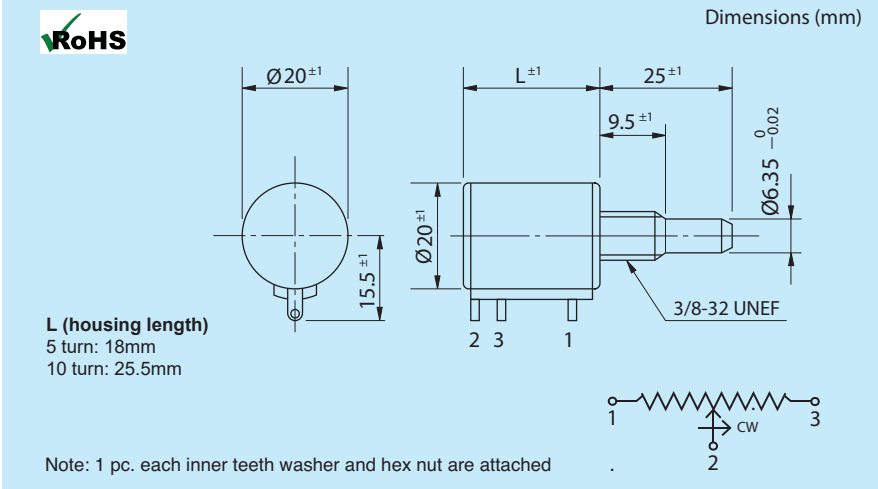


MT20 Series

Multi-Turn Potentiometer (Wirewound)



Standard Model Nos.

MT20-5 (5-turn)
MT20-10 (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: $360^\circ \times n \begin{matrix} +30^\circ \\ -0^\circ \end{matrix}$ (n: No. of turns)

Rotational Life: 1,000,000 (5-turn)
2,000,000 (10-turn)
(shaft revolutions)

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

Stopper Strength: Approx. 0.9N \cdot m (9kgf \cdot cm)

Resist. Temperature

Coefficient of Wire: ± 20 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)

Resolution Chart (%)

Resist. Value (Ω)	100	200	500	1k	2k	5k	10k	20k	50k	100k
MT20-5	0.09	0.07	0.05	0.04	0.042	0.031	0.026	0.021	0.018	0.015
MT20-10	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 (MT20-3), 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.), sealed housing and o-ring shaft seal for IP54 protection grade (torque increases), slipping clutch (20mN \cdot m~60mN \cdot m), limit switch adaptor

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

MT20 Series

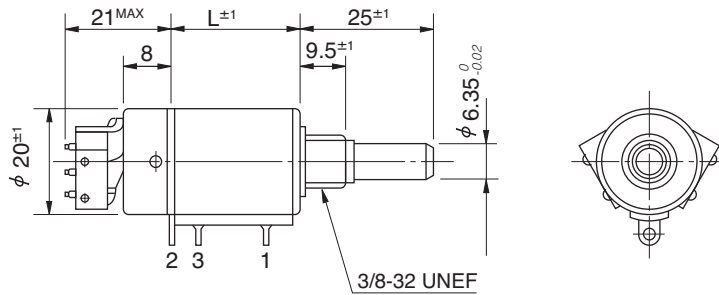
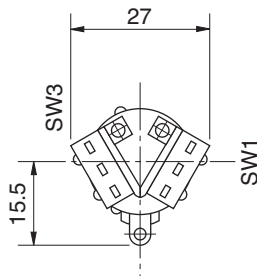
Multi-Turn Potentiometer (Wirewound)

Limit Switch Adaptor Option



Limit-Switch Characteristics

Rating of limit-switch 3A, 125V.A.C. (resistance load)
 Life expectancy of limit-switch: 50,000 operations
 Operating temperature range: -55 °C ~ +105 °C



Model No.	L
MT20-3 (3-turn)	18
MT20-5 (5-turn)	18
MT20-10 (10-turn)	25.5

Limit-Switch Function

Unless otherwise specified, the limit-switch is of inscription type on both ends as shown.

