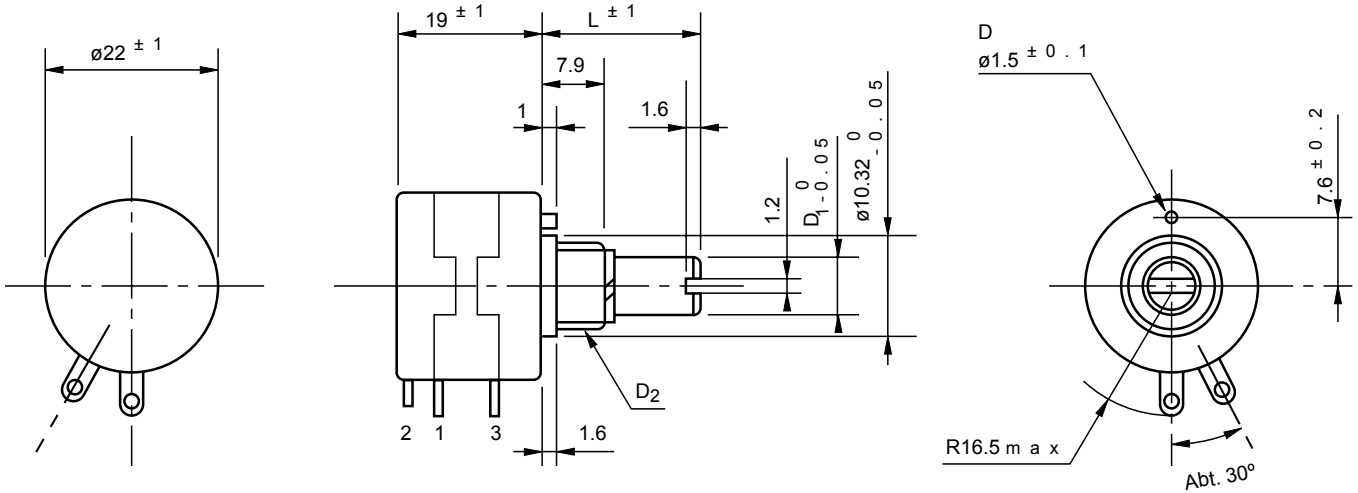




# Model 22HP

## Wirewound (Bushingmount) Low cost item

### Standard dimensions



| Model No. | Shaft Dimensions |      | Mounting Screw | Anti-rotation |
|-----------|------------------|------|----------------|---------------|
|           | d1               | L    | d2             | D             |
| 22HP-10   | $\phi 6$         | 20.6 | 3/8-32 UNEF    | Yes           |
| 22HP-10M  | $\phi 6$         | 25.0 | M9 P=0.75      | No            |
| 22HP-10E  | $\phi 6.35$      | 20.6 | 3/8-32 UNEF    | Yes           |
| 22HP-10N  | $\phi 6$         | 20.6 | M9 P=0.75      | No            |



**Model 22HP-10**

- Note:
- 1pc. each inner teeth washer and hex nut are attached.
  - Outer dimensions of 5-turn version are same as those of 10-turn
  - Please process the mounting hole on the panel to be mounted with this potentiometer by the diameter of 10.32mm

### Standard Model Nos.

5-turn models:

22HP-5    22HP-5M  
 22HP-5E    22HP-5N

10-turn models:

22HP-10    22HP-10M  
 22HP-10E    22HP-10N

[ Note: Please select the exact model number from the right-side table, because each model number has different shaft dia. and bushing dimensions. ]

## ■ General Specifications

### Standard Resistance

**Range:** 100Ω to 50kΩ (5-turn)  
100Ω to 100kΩ (10-turn)

### Total Resistance

**Tolerance:** Standard Class ±3%(H)  
Precision Class ±1%(F)

### Independent Linearity

**Tolerance:**

|                 | 5-turn   | 10-turn  |
|-----------------|----------|----------|
| Standard Class  | ±0.3%    | ±0.25%   |
| Precision Class | ±0.2%    | ±0.1%    |
| (within 5kΩ)    | (±0.25%) | (±0.15%) |

### Power Rating:

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

### Noise:

Within 100Ω E.N.R.

### Electrical Travel:

360° Xn ±5° (n: No. of turns)

### Mechanical Travel:

360° Xn <sup>+10°</sup><sub>0°</sub> (n: No. of turns)

### Insulation Resistance:

Over 1,000MΩ at 500 V.D.C.

### Dielectric Strength:

1 minute at 1,000 V.A.C.

### Starting Torque:

Within 10mN·m (100gf·cm)

### Stopper Strength:

Approx. 0.35N·m (3.5kgf·cm)

### Max. Torque exerted on fastening the mounting nut to the bushing:

Within 1.0N·m (10kgf·cm)  
(in case of panel thickness with over 2.5mm, the rotating torque may become heavier).

### Max. Working Voltage:

250V

### Resist. Temperature

### Coefficient of Wire:

±20p.p.m./°C

### Materials:

|               |   |
|---------------|---|
| Shaft:        | Stainless steel   |
| Housing case: | Glass-filled nylon  |
| Bushing:      | Glass-filled nylon<br>(for ganged version the bushing is metal-brass without plating).                                  |
| Terminals:    | Gold-plated brass<br>(all terminals can be fitted with the AMP 110 series faston receptacle (2.8x0.5mm) or equivalents. |

### Mass:

Approx. 20g (both 5-turn and 10-turn).

## ■ Standard Resistance Values | No. Of Wire Turns | Resistance Wire Used

| Resist. Value (Ω) | 100          | 200      | 500      | 1k       | 2k       | 5k           | 10k      | 20k      | 50k       | 100k      |
|-------------------|--------------|----------|----------|----------|----------|--------------|----------|----------|-----------|-----------|
| 22HP-5            | 1, 2 4 0     | 1, 5 6 0 | 2, 0 0 0 | 2, 5 1 0 | 2, 4 0 0 | 3, 2 0 0     | 3, 9 0 0 | 4, 8 0 0 | 5, 5 0 0  | -         |
| 22HP-10           | 2, 1 0 0     | 2, 4 8 0 | 3, 3 0 0 | 4, 0 0 0 | 5, 0 2 0 | 5, 0 0 0     | 6, 4 0 0 | 7, 8 0 0 | 10, 1 0 0 | 11, 0 0 0 |
| Resist. Wire Used | Cu-Ni System |          |          |          |          | Ni-Cr System |          |          |           |           |

## ■ Special Specifications Available

Shaft with front and rear extension (rear shaft with 6mm dia. and 15mm length), multi-ganged (available up to 10 gangs), with high torque, special shaft dia. (ø3mm, ø3.175mm, ø4mm, ø5mm), special machining on the shaft, with plastic shaft, metal bushing type (22HPM-n with anti-rotation pin), 1, 2, 3, 4, 6, 7 and 8-turn versions are available (these versions have the same outer dimensions, but general specifications are please request us for details), simple sealed housing, slipping-clutch incorporated type (20mN·m~60mN·m), extra taps (available up to 1 tap only for 10-turn model), servomount type (same dimensions as 22HHPS-10).

LEADERS IN SENSORS & HEAVY DUTY JOYSTICKS

### ALTHERIS bv

Scheveningseweg 15  
2517 KS DEN HAAG  
The Netherlands

+31 (0)70 3924421

+31 (0)70 3644249

Offices in : Benelux | Germany | France | UK | Italy | USA

www.altheris.com

sales@altheris.nl

**ALTHERIS**  
SENSORS & CONTROLS