

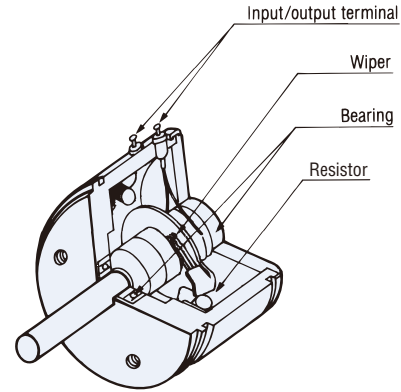
WIREWOUND SINGLE TURN TYPE

J series

RoHS compliant



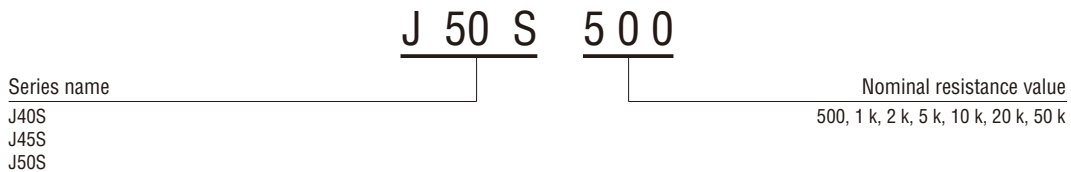
Basic construction Wirewound single turn type



FEATURES

- High linearity through precision wire winding
- Long life
- High following characteristics
- Low noise

PART NUMBER DESIGNATION



LIST OF PART NUMBERS

| Size | Item | Nominal resistance value | Part number |
|------------|-------|--------------------------|-------------|
| φ 40 mm | | 500 Ω | J40S 500 |
| | | 1 kΩ | J40S 1 k |
| | | 2 kΩ | J40S 2 k |
| | | 5 kΩ | J40S 5 k |
| | | 10 kΩ | J40S 10 k |
| φ 44.45 mm | | 500 Ω | J45S 500 |
| | | 1 kΩ | J45S 1 k |
| | | 2 kΩ | J45S 2 k |
| | | 5 kΩ | J45S 5 k |
| | | 10 kΩ | J45S 10 k |
| | | 20 kΩ | J45S 20 k |
| φ 50.8 mm | | 500 Ω | J50S 500 |
| | | 1 kΩ | J50S 1 k |
| | | 2 kΩ | J50S 2 k |
| | | 5 kΩ | J50S 5 k |
| | | 10 kΩ | J50S 10 k |
| | | 20 kΩ | J50S 20 k |
| | 50 kΩ | J50S 50 k | |

※Verify the above part numbers when placing orders.

STANDARD SPECIFICATIONS

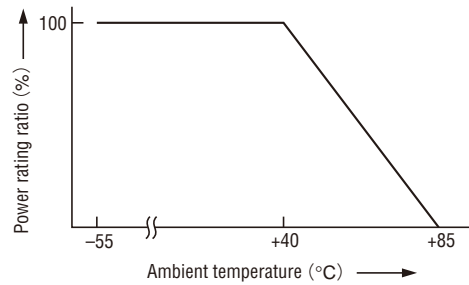
| Item | Part number | J40S | J45S | J50S |
|------------------------------|----------------------|------------------------------|-------------|-------------|
| Resistance tolerance | % | ± 5 | | |
| Effective electrical angle | | 350° ± 1.5° | 353° ± 1.5° | 355° ± 1.5° |
| Mechanical angle | | 360° continuous | | |
| Power rating (at 40 °C) | W | 1 | 1.3 | 1.5 |
| Dielectric strength | Vrms | 1000 1 min | | |
| Insulation resistance | MΩ minimum | 1000 (at DC500 V) | | |
| Rotational torque | mN·m {gf·cm} maximum | 0.59 {6} | | 0.69 {7} |
| Peak noise | Ω maximum | 10 (4 min ⁻¹) | | |
| Temp. coefficient resistance | ppm/°C | ± 50 | | |
| Operating temp. range | °C | -55 ~ 85 | | |
| Maximum rotational speed | min ⁻¹ | 100 | 200 | |
| Net weight | g | Approx. 60 | Approx. 58 | Approx. 73 |
| Connecting accuracy | | ± 1° Based on No. 1 terminal | | |

J40S/J45S/J50S POTENTIOMETERS

RESISTANCE VALUES, RESOLUTION, INDEPENDENT LINEARITY, ROTATIONAL LIFE

| Nominal resistance value (Ω) | Resolution (%) | | | Independent linearity (%) | | | Rotational life (million cycles) | | |
|------------------------------|----------------|------|------|---------------------------|-------|-------|----------------------------------|------|------|
| | J40S | J45S | J50S | J40S | J45S | J50S | J40S | J45S | J50S |
| 500 | 0.13 | 0.12 | 0.1 | ±0.15 | ±0.1 | ±0.1 | 5 | 10 | 10 |
| 1 k | 0.1 | 0.1 | 0.08 | | | | | | |
| 2 k | 0.08 | 0.07 | 0.06 | | | | | | |
| 5 k | 0.07 | 0.08 | 0.07 | | | | | | |
| 10 k | | 0.07 | 0.05 | | | | | | |
| 20 k | — | 0.05 | 0.05 | — | ±0.15 | ±0.15 | 1 | 1 | 1 |
| 50 k | — | 0.04 | 0.03 | — | — | — | — | — | — |

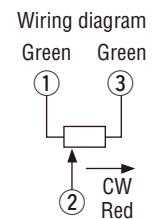
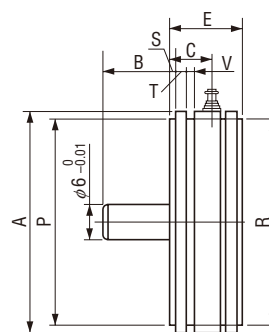
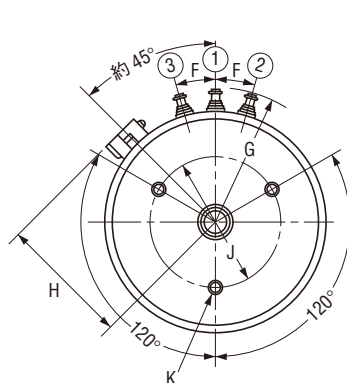
RATED POWER DERATING CURVE



OUTLINE DIMENSIONS

(Unit : mm)

- J40S
- J45S
- J50S



List of outline dimensions

| Part number | 寸法記号 Marks | A | B | C | E | F | G | H | J | K | P | R | S | T | V |
|-------------|---------------|----|------|------|-----|--|--------|------|----------------------------------|--|--------|------|------|------|---|
| J40S | φ 40 | 20 | 13.3 | 20 | 16° | R25 | 25 | φ 30 | M 3 (P = 0.5) D = 3.0 minimum | φ 37 ⁰ _{-0.03} | φ 37 | 1.57 | 2.36 | 1.86 | |
| J45S | φ 44.45 | | 10.5 | 16.6 | 14° | R26.8 | 26.7 | | | φ 39.68 ⁰ _{-0.025} | φ 40.6 | | | | |
| J50S | φ 50.8 | | 12° | R30 | 30 | φ 47.62 ⁰ _{-0.025} | φ 47.6 | | | | | | | | |