

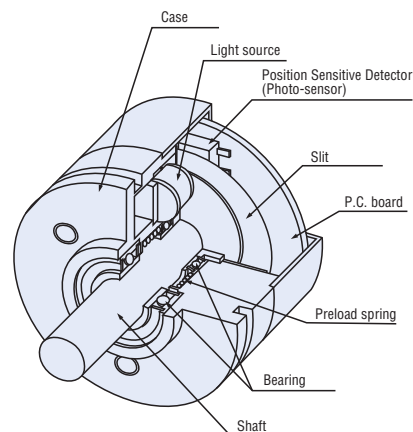
# OPTICAL CONTACTLESS TYPE

# JT30 series

RoHS compliant



## Basic construction

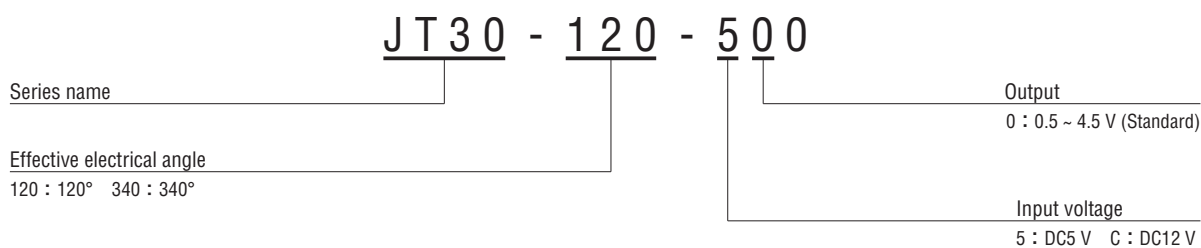


## FEATURES

- Contactless configuration offers much longer life
- Low torque 0.245 mN·m {2.5 gf·cm} maximum
- Superior temperature characteristic due to temperature compensation circuit incorporated
- RoHS compliant

## Optical contactless single turn type

## PART NUMBER DESIGNATION



## LIST OF PART NUMBERS

| Effective electrical angle | Input voltage | Part number  |
|----------------------------|---------------|--------------|
| 120°                       | DC5 V         | JT30-120-500 |
|                            | DC12 V        | JT30-120-C00 |
| 340°                       | DC5 V         | JT30-340-500 |
|                            | DC12 V        | JT30-340-C00 |

※ Verify the above part numbers when placing orders.

# JT30 POTENTIOMETERS

## STANDARD SPECIFICATIONS

### Electrical characteristics

|                            |  |                    |               |               |
|----------------------------|--|--------------------|---------------|---------------|
| Input voltage              | DC5 V $\pm$ 0.25 V                       | DC12 V $\pm$ 0.6 V |               |               |
| Dissipation                | 40 mA maximum                            |                    |               |               |
| Effective electrical angle | 120°                                     | 340°               | 120°          | 340°          |
| Output voltage             | +0.5 ~ +4.5 V                            |                    |               |               |
| Absolute linearity ※1      | $\pm$ 1.5 %FS                            | $\pm$ 2.0 %FS      | $\pm$ 1.5 %FS | $\pm$ 2.0 %FS |
| Temperature sensitivity    | $\pm$ 2.0 %FS ( $\pm$ 1.0 %FS/0 ~ 50 °C) |                    |               |               |
| Temperature medium drift   | $\pm$ 40 mV ( $\pm$ 30 mV/0 ~ 50 °C)     |                    |               |               |
| Insulation resistance      | 100 M $\Omega$ (at DC500 V) minimum      |                    |               |               |
| Dielectric strength        | AC500 V (1 min)                          |                    |               |               |

※ 1 At normal temp.

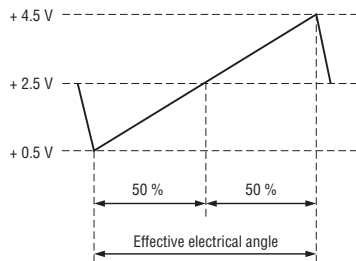
### Mechanical characteristics

|                          |   |
|--------------------------|---|
| Starting torque          | 0.245 mN·m {2.5 gf·cm} maximum (at normal temp.)                  |
| Maximum rotational speed | 1500 min <sup>-1</sup>  |
| Mechanical angle         | 360° continuous   |
| Rotational life          | 2 × 10 <sup>8</sup> revolution (at 25 °C, 200 min <sup>-1</sup> ) |
| Vibration                | 294.2 m/s <sup>2</sup> {30 G} 30 ~ 200 Hz, 30 h                   |
| Shock                    | 294.2 m/s <sup>2</sup> {30 G} minimum                             |

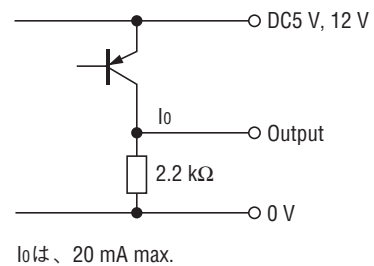
### Environmental characteristics

|                       |                                |
|-----------------------|--------------------------------|
| Operating temp. range | -30 ~ 80 °C                    |
| Storage temp. range   | -40 ~ 100 °C                   |
| Humidity              | Relative humidity 95 % maximum |
| Net weight            | Approx. 40 g                   |
| Protection grade      | IP40                           |

## OUTPUT (cw)

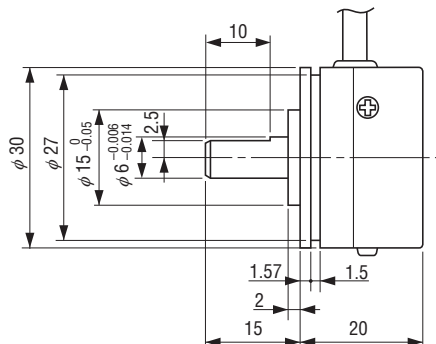
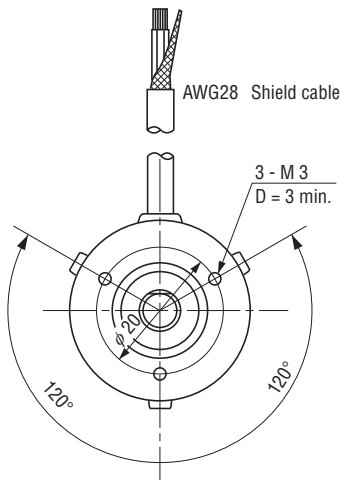


## OUTPUT CIRCUITRY



## OUTLINE DIMENSIONS

Unless otherwise specified, tolerance:  $\pm$  0.3 (Unit: mm)



Cable length = 600  $\pm$  20 minimum

## ELECTRICAL WIRING

|              |                |
|--------------|----------------|
| Red          | Power $\oplus$ |
| Blue         | Power 0 (V)    |
| White        | Output         |
| Green        | Case ground    |
| Cable shield | NC             |