

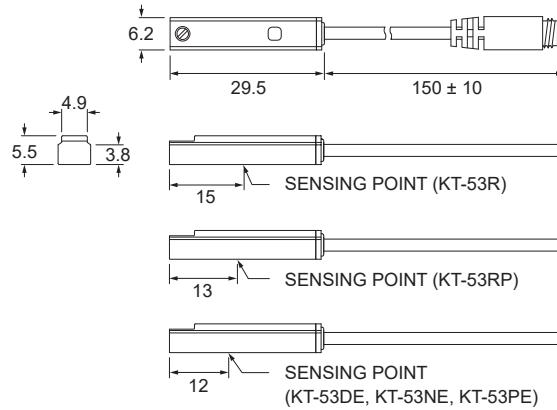
# KT-53 SERIES

## Magnetic Sensor



### Dimensions

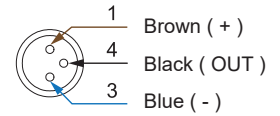
KT-53R, KT-53DE, KT-53NE, KT-53PE, KT-53RP /  
KT-53R-QD, KT-53DE-QD, KT-53NE-QD, KT-53PE-QD,  
KT-53RP-QD



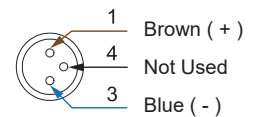
Unit : mm

### QD Pinout

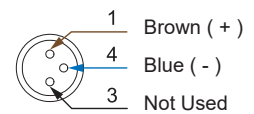
#### 3 wire QD wiring



#### 2 wire QD wiring



#### 2 wire EQD wiring



### Specifications

| MODEL                    | KT-53R                                 | KT-53DE               | KT-53NE                                | KT-53PE              | KT-53RP              |
|--------------------------|----------------------------------------|-----------------------|----------------------------------------|----------------------|----------------------|
| Connect Diagram          |                                        |                       |                                        |                      |                      |
| Characteristics          |                                        |                       |                                        |                      |                      |
| Wiring Method            | 2-Wire Type                            |                       | 3-Wire Type                            |                      |                      |
| Switching Logic          | SPST, Normally Open                    |                       | Solid State Output, Normally Open      |                      | SPST, Normally Open  |
| Sensor Type              | Reed Switch                            | -                     | NPN Current Sinking                    | PNP Current Sourcing | Reed Switch          |
| Operating Voltage        | 5 ~ 240 V DC / AC                      |                       | 5 ~ 30 V DC                            |                      | 10 ~ 30 V DC / AC    |
| Switching Current        | 100 mA max.                            | 50 mA max.            | 200 mA max.                            |                      | 500 mA max.          |
| Contact Rating ※1        | 10 W max.                              | 1.5 W max.            | 6 W max.                               |                      | 10 W max.            |
| Current Consumption ※2   | -                                      |                       | 6 mA @ 24 V DC max.                    |                      | 10 mA @ 24 V DC max. |
| Voltage Drop ※2          | 3.5 V max.                             | 3.7 V max.            | 0.5 V @ 200 mA max.                    |                      | 0.1 V @ 100 mA max.  |
| Leakage Current ※2       | -                                      | 0.1 mA ( 40 uA ) max. | 0.01 mA max.                           |                      | -                    |
| Indicator                | Red LED                                |                       |                                        | Green LED            | Yellow LED           |
| Lead Wire                | Ø3 PUR - 26 AWG ( 0.15 mm² ) - 2 cores |                       | Ø3 PUR - 26 AWG ( 0.15 mm² ) - 3 cores |                      |                      |
| Operating Frequency      | 200 Hz                                 | 1000 Hz               |                                        |                      | 200 Hz               |
| Magnet Requirement ※2, 3 | 70 Gauss                               | 40 ~ 1000 Gauss       |                                        |                      | 70 Gauss             |
| Temperature Range        | -10 ~ 70 °C                            |                       |                                        |                      |                      |
| Shock ※4                 | 30 G                                   | 50 G                  |                                        |                      | 30 G                 |
| Vibration ※5             | 9 G                                    |                       |                                        |                      |                      |
| Enclosure                | IEC 60529 IP67                         |                       |                                        |                      |                      |
| Protection Circuit ※6    | 1                                      | 3, 4                  |                                        |                      | 1                    |

#### NOTE

※1 : WARNING : Never exceed rating ( Watt = Voltage × Amperage ).

Permanent damage to sensor will occur.

※2 : It bases on conditions of voltage 24 V DC, ambient temp. 25 °C and 2 meters cable of sensor. Voltage drop increases in pace with cable length.

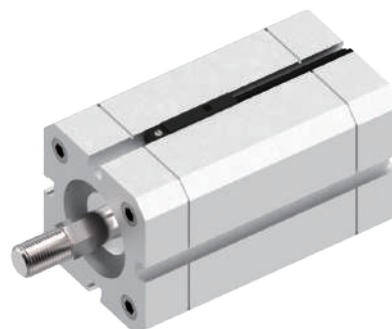
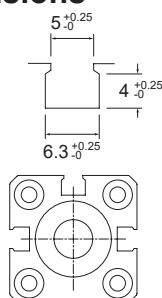
※3 : Measuring standard target : Ø15.5 × Ø8 × 5t ( Anisotropy rubber magnet )

※4 : Sin wave / X, Y, Z 3 directions / 3 times each direction / 11 ms each time.

※5 : Double amplitude 1.5 mm / 10 Hz ~ 55 Hz ~ 10 Hz ( Sweep 1 min ) / X, Y, Z 3 directions / 1 hour each time.

※6 : 1 = None / 2 = Short-circuit / 3 = Power Source Reverse polarity / 4 = Surge Suppression

### Groove Dimensions



Unit : mm