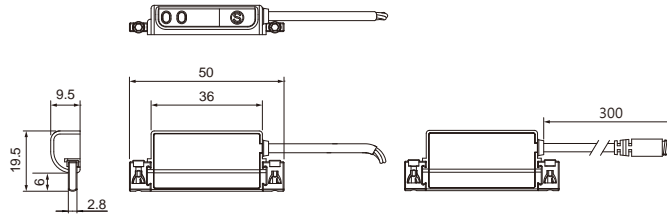


# BTC-KL SERIES

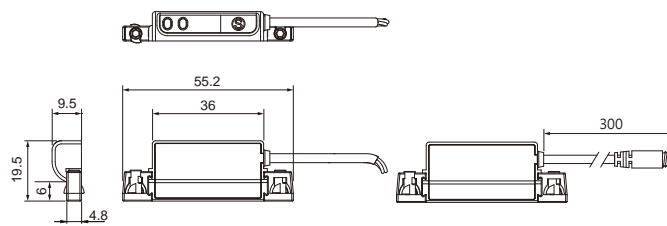


## Dimensions

BTCKLC - 040 - □



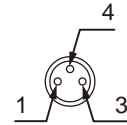
BTCKLT - 040 - □



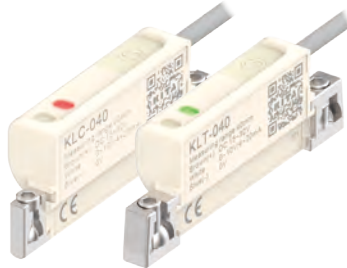
Unit : mm

## QD Pinout

■ QD



- 1 : DC (+)
- 3 : DC (-)
- 4 : Analog output



## Specifications

| MODEL                           | BTC-KL □ - 040  |  |
|---------------------------------|---|--|
| Measuring Range                 | 40 mm, ± 1 mm   |  |
| Power Supply Voltage            | 15 ~ 30 V DC, Ripple ( P-P ) ≤ 10 %   |  |
| Current Consumption             | ≤ 15 mA ( with no load )  |  |
| Displacement Resolution ※1      | 0.001 mm  |  |
| Linearity Error ※1              | ± 0.2 mm @ 25 °C  |  |
| Repeatability ※1 ※2             | ± 0.01 mm @ 25 °C   |  |
| Sampling Time                   | ≤ 0.3 ms  |  |
| Analog Voltage Output ※3        | Voltage Output : 0 ~ 10 V<br>Max. Load Resistance, Current Output : 2 KΩ<br>Linearity : ± 0.05 % F.S. @ 25 °C<br>Sensitivity : 0.25 mV/μm |  |
| Analog Current Output ※4        | Current Output : 4 ~ 20 mA<br>Min. Load Resistance, Voltage Input : 500 Ω<br>Linearity : ± 0.05 % F.S. @ 25 °C<br>Sensitivity : 0.4 μA/μm |  |
| Magnetic Field Strength ※1 ※5   | 20 ~ 200 Gauss  |  |
| Environment                     | Enclosure   | IP69 IEC 60529   |
|                                 | Ambient Temp. Range   | Operation : 0 ~ 50 °C, Storage : -10 ~ 60 °C ( No condensation or freezing ) |
|                                 | Ambient Humidity Range  | Operation / Storage : 35 ~ 85 % RH ( No condensation )                       |
|                                 | Withstand Voltage   | 1000 V AC in 1-min ( between case and lead wire )                            |
|                                 | Insulation Resistance   | ≥ 50 MΩ ( at 500 V DC, between case and lead wire )                          |
|                                 | Shock ※6  | 30 G   |
| Vibration ※7                    | 10 G  |  |
| Protection Circuit ※8           | 3, 4  |  |
| Lead Wire                       | Ø2.9 PUR - 26 AWG ( 0.15mm <sup>2</sup> ) - 3 cores   |  |
| Weight (with 2 Meter Lead Wire) | Approx. 33 g ( KLC-40 ) ; Approx. 37 g ( KLT-40 )   |  |

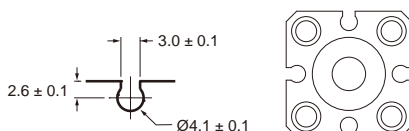
### NOTE

- ※1 : Measuring standard target : Ø15.5 × Ø8 × 5t ( Anisotropy rubber magnet )
- ※2 : Repeatability with magnet movement from one direction.
- ※3 : If analog voltage output is selected, the analog current output cannot be selected at the same time.
- ※4 : If analog current output is selected, the analog voltage output cannot be selected at the same time.

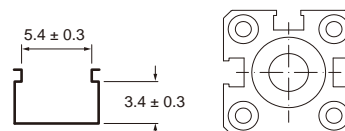
- ※5 : The analog measured value can deviate according to different conditions.
- ※6 : Sin wave / X , Y , Z 3 directions / 3 times each direction / 11 ms each time.
- ※7 : Double amplitude 1.5 mm or 10 G / 10 Hz ~ 55 Hz ~ 10 Hz ( Sweep 1 min ) / X, Y, Z 3 directions / 2 hours each time.
- ※8 : 1 = None / 2 = Short-circuit / 3 = Power Source Reverse polarity / 4 = Surge Suppression

## Groove Dimensions

### C-slot Cylinder Dimensions

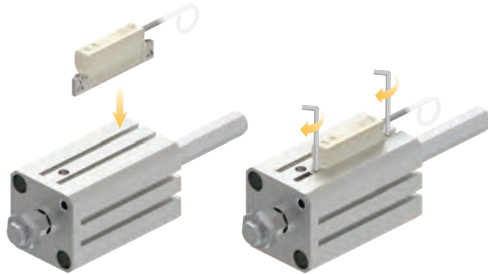


### T-slot Cylinder Dimensions



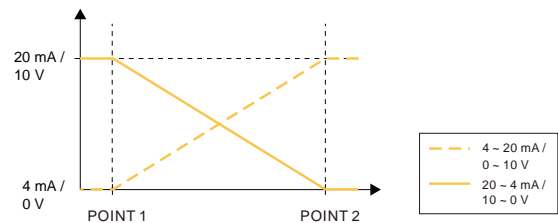
## Features Highlight

### 1 Quick Installation

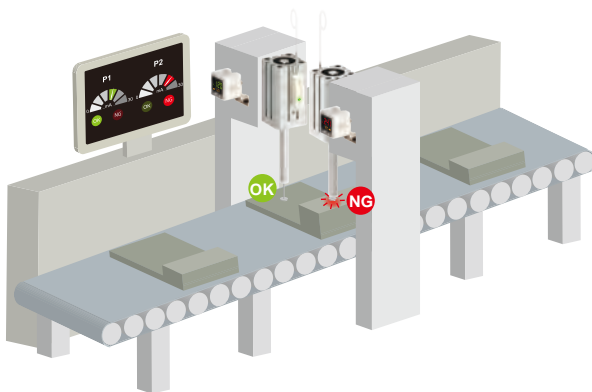


### 2 Analog Output Function

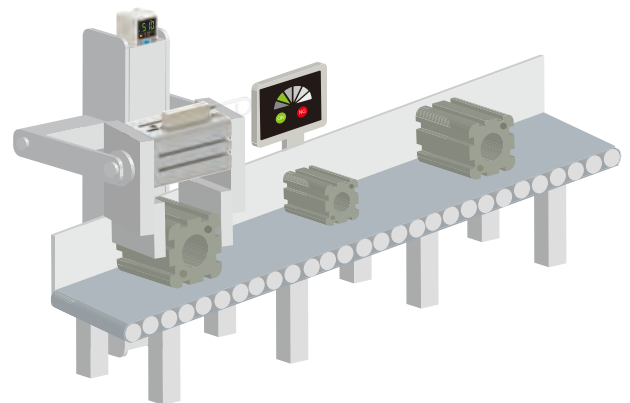
- Analog voltage / current output can be switched.
- Analog output can be inverted.



### 3 Thickness Differentiation

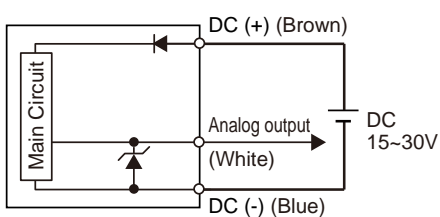


### 4 Dimension Measurement



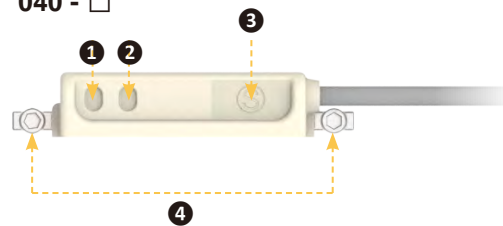
## Output Circuit Wiring Diagrams

Analog Output ( 0 ~ 10 V / 4 ~ 20 mA )

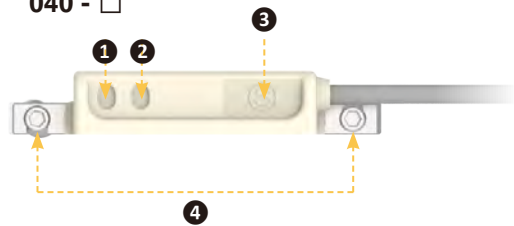


## Panel Description

■ BTCKLC - 040 - □



■ BTCKLT - 040 - □



## Ordering Information

**K L C - 0 4 0 - □**

### Cylinder Type

C : C slot  
T : T slot

### Cable Length / Connector

Blank : 2M  
QD : With M8 3Pin male connector

### Measuring Range

040 : 40 mm

| No. | Content                                   |
|-----|---|
| 1   | Mode Indicator                            |
| 2   | Information Indicator                     |
| 3   | Setting Button                            |
| 4   | Mounting screw, Hexagon wrench ( 2.0 mm ) |