

BKK-A

Surface-Mounting Type
Inclination Transducers

BKK-A

BKK-A-D

These transducers provide not only resolution twice as high as conventional systems but also outstandingly improved temperature characteristics and long-term stability.

- External stopper provided
- Improved vibration resistance
- Biaxial type available (BKK-A-D)

The BKK-A series inclination transducers on surface of structure, available in two types, uniaxial and biaxial, are designed to measure minute inclination quantities. They are suitably used in combination with a structural settlement transducer for measurement of the disturbance resulting from nearby engineering works as well as for measurement of landslide-initiated inclination of the ground surface.

These transducers provide not only resolution twice as high as conventional systems but also outstandingly improved temperature characteristics (temperature effect on zero balance ± 0.36 seconds/ $^{\circ}\text{C}$ with $\pm 1^{\circ}$ rated capacity) and long-term stability ($\pm 0.5\%$ RO). Furthermore, a stopper for detector protection is provided to ensure high handling efficiency in a total working flow from transportation to installation and measurement. Also, their structure, with highly viscous damping oil filled in, improves vibration resistance.

● Inclination Measurement ● $\pm 1^{\circ}$, $\pm 2^{\circ}$

Specifications

Performance

Rated Capacity :	See table below
Nonlinearity :	Within $\pm 0.5\%$ RO
Hysteresis :	Within $\pm 0.5\%$ RO
Rated Output :	See table below

Environmental Characteristics

Safe Temperature Range :	-20 to 70°C
Safe Temperature Range :	-10 to 60°C
Temperature Effect on Zero Balance :	Within $\pm 0.005\%$ RO/ $^{\circ}\text{C}$
Temperature Effect on Output :	Within $\pm 0.02\%$ / $^{\circ}\text{C}$
Long-Term Stability :	Within $\pm 0.5\%$ RO/6 months*

Electrical Characteristics

Safe Excitation Voltage :	10V AC or DC
Recommended Excitation Voltage :	1 to 2V AC or DC
Input Resistance :	$350\Omega \pm 1\%$
Output Resistance :	$350\Omega \pm 1\%$
Cable :	4-conductor (0.3 mm ²) chloroprene shielded cable, 7.6 mm diameter by 3 m long, bared at the tip (2 cables for biaxial models)

Mechanical Properties

Measuring Direction :	See table below
Safe Overload Rating :	120%
Interference :	Within $\pm 1\%$ RO
Material :	Chromate-plated
Protection Rating :	IP56 (JIS C 0920)
Weight :	See table below

* This value is based on actual measurement and stated with dispersion taken into consideration. Stability slowly changes during a few months after installation, and then tends to become constant.

Standard Accessory Stopper fixing wing nut

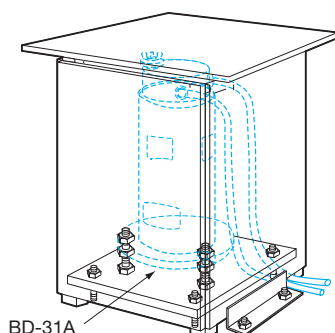
Optional Accessories

- Wall-Mounting Fixtures
Designed to mount BKK-A transducer/s onto a wall surface; chromate-plated. BD-11A for mounting one unit and BD-12A for mounting two units.
- Horizontal Surface-Mounting Fixtures
Designed to mount BKK-A transducer/s onto a horizontal surface; chromate-plated. BD-31A for mounting one unit and BD-32A for mounting two units.
- Protection Covers
Designed to protect BKK-A transducer/s against external mechanical force; metal covers painted in grey.
BD-21A for BD-11A, BD-22A for BD-12A
BD-41A for BD-31A, BD-42A for BD-32A

Model	Measuring Direction	Rated Capacity	Rated Output	Weight (Approx.)
BKK-A-1	Uniaxial	$\pm 1^{\circ}$	2 mV/V (4000 $\mu\text{m/m}$) or more	6kg
BKK-A-1-D	Biaxial			6.8kg
BKK-A-2	Uniaxial	$\pm 2^{\circ}$	3 mV/V (6000 $\mu\text{m/m}$) or more	5.5kg
BKK-A-2-D	Biaxial			6.3kg

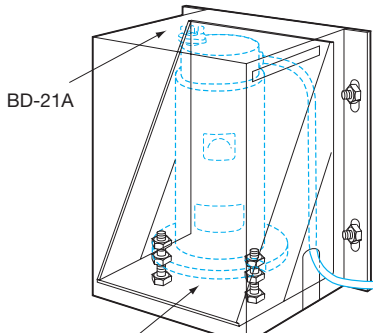
※Rated output is for a range from minus rated capacity to plus rated capacity.
 ※Model with a rated capacity of ± 0.5 or ± 5 can also be manufactured.
 (Contact a KYOWA sales representative for detailed specifications.)
 ※Models with temperature measuring function can also be manufactured.

- Well-Ventilated Wood Sunshine
Manufactured on request.



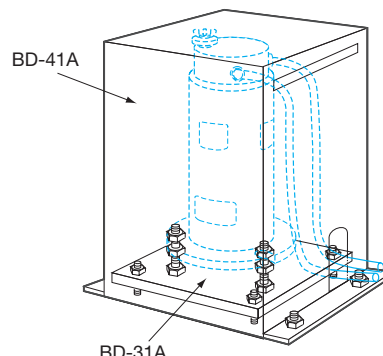
BD-31A

- Wall-Mounting Fixture BD-11A
Wall Protection Cover BD-21A



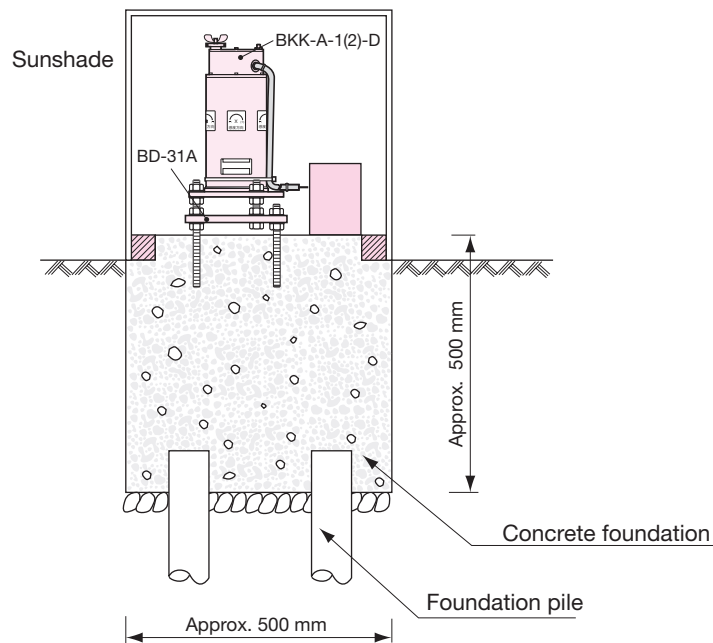
BD-11A

- Horizontal Surface-Mounting Fixture BD-31A
Horizontal Surface Protection Cover BD-41A

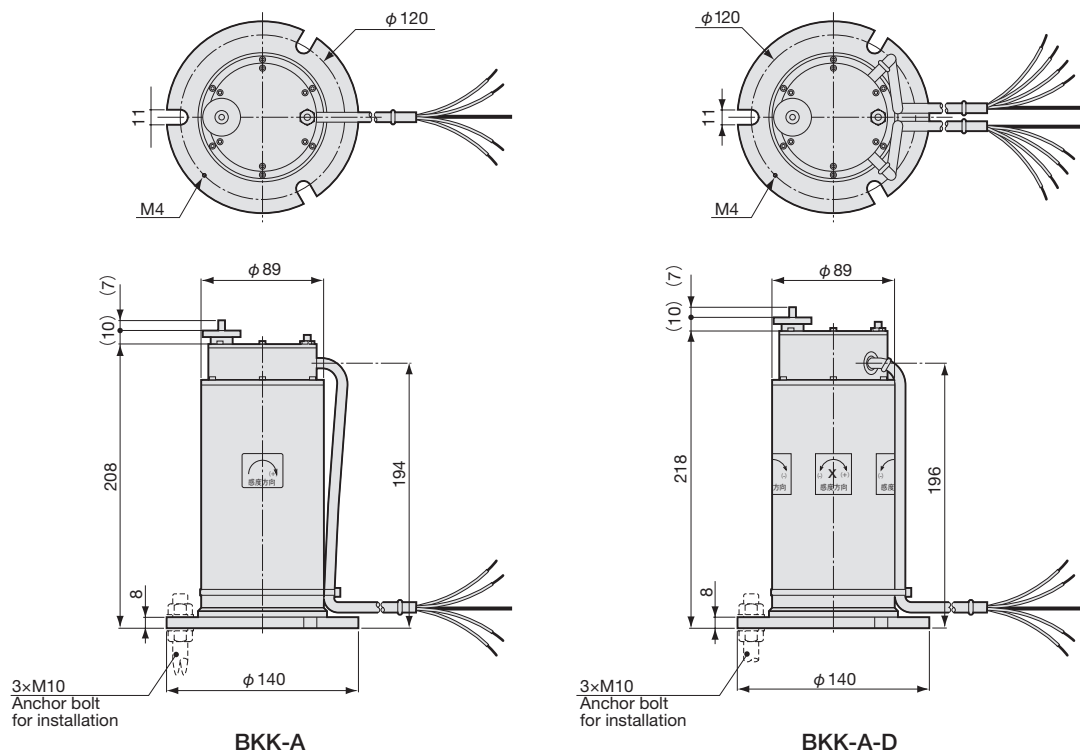


BD-31A





■ Dimensions



*1. For grounding of lightning arrester kit.
*2. 0 mm when transporting.

The stopper is activated or deactivated by turning the knurling knob.

To Ensure Safe Usage

Fix the protection cover and mounting anchor bolts fixtures individually anchor bolts.