**Autonics**

**Threaded/Side Mounting Photoelectric Sensor**

**BH SERIES**

**INSTRUCTION MANUAL**

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1. **Safety Considerations**
   - **Caution:** Follow these instructions may result in personal injury or product damage.
   - **Warning:** Failure to follow these instructions may result in personal injury or product damage.

2. **Dimensions**
   - **Through-beam type**
     - Power indicator
     - Operation indicator
     - Sensitivity indicator
     - Connection
     - Receiver
     - Power indicator
     - Sensitivity indicator
     - Connection
     - Receiver
   - **Reflective type**
     - Power indicator
     - Operation indicator
     - Sensitivity indicator
     - Connection
     - Receiver

3. **Operation Timing Diagram**
   - **Through-beam type**
     - Operation mode
     - Receiver
     - Operation indicator
     - Sensing target
     - Reflector (MS-2A)
     - Reflective tape (MS-2A)
   - **Reflective type / Diffuse reflective type**
     - Operation mode
     - Receiver
     - Operation indicator
     - Sensing target
     - Reflector (MS-2A)

4. **Installation and Sensitivity Adjustment**
   - **Through-mounting**
     - Install the sensor and the receiver facing each other to check the point of the sensor.
     - Adjust the sensor to up·down, right·left.
   - **Reflective type**
     - Set the sensor and the reflector (MS-2A) or diffuse reflective type facing each other and adjust the reflector to make the sensing part centered.
     - Check the position of the pointing indicator.
   - **Diffuse reflective type**
     - Adjust the sensor to the center position between (A) and (C).
     - Check the position where the sensor indicator turns on (C).
     - Adjust the maximum sensitivity settings at position (C).

5. **Cautions during Use**
   - **Warning:** Failing to follow instructions in 'Cautions during Use' can cause unexpected accidents.
   - **Caution:** When connecting the power supply to the sensor, ground F.G. terminal to remove noise.
   - **Caution:** Use of protective devices should be considered when using the sensor in the presence of noise or high ambient temperature.

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**Specifications**

- **Sensitivity setting**
  - Diffuse reflective type: 4-R1.7
  - Current consumption: max. 20mA
- **Operation mode selecting**
  - Transistor output (NPN)
  - Transistor output (PNP)
  - NPN output
- **Dimensions**
  - Connection
  - Receiver
  - Power indicator
  - Operation indicator
  - Sensitivity indicator
  - Light ON
  - Light OFF

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**Major Products**

- Rotary Encoders
- Temperature Controllers
- Recovery Controllers
- Laser Welding/Cutting System
- Laser Marking System (Fiber, CO2)
- Field Network Devices
- Stepper Motors/Drivers/Motion Controllers
- Photoelectric Sensors
- Area Sensors
- Laser Welding/Cutting System
- Laser Marking System (Fiber, CO2)
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**Operation Mode**

- Receiver
- Operation indicator
- Sensing target
- Reflector (MS-2A)
- Reflective tape (MS-2A)

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**Operation Timing Diagram**

- Through-beam type
  - Operation mode
  - Receiver
  - Operation indicator
  - Sensing target
  - Reflector (MS-2A)
  - Reflective tape (MS-2A)

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**Cautions during Use**

- **Warning:** Failing to follow instructions in 'Cautions during Use' can cause unexpected accidents.
- **Caution:** When connecting the power supply to the sensor, ground F.G. terminal to remove noise.
- **Caution:** Use of protective devices should be considered when using the sensor in the presence of noise or high ambient temperature.

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