Ultra-thin Photoelectric Sensor

**BTF SERIES**

**INSTRUCTION MANUAL**

### Ultra-thin Photoelectric Sensor BTF SERIES

**Through-beam type**

**Specifications**

<table>
<thead>
<tr>
<th>Mode</th>
<th>DC Power</th>
<th>Sensing distance</th>
<th>Sensing target</th>
<th>Sensing distance unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Through-beam type</td>
<td>12-24VDC</td>
<td>&gt;1m</td>
<td>Diffuse reflective type/BGS reflective type</td>
<td>mm</td>
</tr>
</tbody>
</table>

**Dimensions**

- **Through-beam type**

**Ordering Information**

- **BTF**
- **F**
- **S**
- **T**
- **D**
- **T**
- **L**

**Installation and Adjustment**

**Operation**

1. **Through-beam type**
   - When using photoelectric sensors, place them with their sensitivities on a separate power supply for the sensor and load, separate from the power source. Therefore, when using separate power supply for the sensor and load, supply power to sensor first.
   - When switching mode power supply to supply the power, ground F.G. terminal and connect a current limiter before connecting the load, and when switching mode power supply to supply the power, ground F.G. terminal and connect a current limiter between V+.V- and ground to prevent induction noise.
   - When using switching mode power supply to supply the power, ground F.G. terminal and connect a current limiter before connecting the load, and when switching mode power supply to supply the power, ground F.G. terminal and connect a current limiter between V+.V- and ground to prevent induction noise.

**Connections**

- **Through-beam type**
- **Diffuse reflective type/BGS reflective type**

**Output unit**

- **Sensing output**
- **Transistor output**

**Control Output Circuit Diagram**

- **Sensor operation**
- **Stability indicator (green LED)**

**Cautions during Use**

1. **Installation注意事项**
2. **Operation注意事项**
3. **Adjustment注意事项**
4. **Maintenance注意事项**

**Troubleshooting**

- **Caution**
- **Warning**

**Thank you for choosing our Autonics product.**