Specifications Comparison Chart of All Available Options

Table Containing Major Differences for each Item:

Model	Sensing Type	Sensing Distance	Output Type	Light Source	Operation Mode	Protection Rating
BJ100-DDT	Diffuse Reflective	100 mm	NPN	Red LED (660 nm)	Light ON / Dark ON	IP65/IP67
BJ100-DDT-P	Diffuse Reflective	100 mm	PNP	Red LED (660 nm)	Light ON / Dark ON	IP65/IP67
BJ300-DDT	Diffuse Reflective	300 mm	NPN	Red LED (660 nm)	Light ON / Dark ON	IP65/IP67
BJ300-DDT-P	Diffuse Reflective	300 mm	PNP	Red LED (660 nm)	Light ON / Dark ON	IP65/IP67
BJ3M-PDT	Retroreflective (Polarized)	3 m	NPN	Red LED (660 nm)	Light ON / Dark ON	IP65/IP67
BJ3M-PDT-P	Retroreflective (Polarized)	3 m	PNP	Red LED (660 nm)	Light ON / Dark ON	IP65/IP67
BJ7M-TDT	Through-Beam	7 m	NPN	Red LED (650 nm)	Light ON / Dark ON	IP65/IP67
BJ7M-TDT-P	Through-Beam	7 m	PNP	Red LED (650 nm)	Light ON / Dark ON	IP65/IP67
BJ10M-TDT	Through-Beam	10 m	NPN	Infrared LED (660 nm)	Light ON / Dark ON	IP65/IP67
BJ10M-TDT-P	Through-Beam	10 m	PNP	Infrared LED (660 nm)	Light ON / Dark ON	IP65/IP67
BJ15M-TDT	Through-Beam	15 m	NPN	Infrared LED (850 nm)	Light ON / Dark ON	IP65/IP67
BJ15M-TDT-P	Through-Beam	15 m	PNP	Infrared LED (850 nm)	Light ON / Dark ON	IP65/IP67

The Autonics BJ series comprises compact, high-performance photoelectric sensors designed for reliable object detection in various industrial applications. These sensors utilize different sensing methods—diffuse reflective, retroreflective, and through-beam—to accommodate diverse detection requirements. Each model offers specific sensing distances and output configurations (NPN or PNP) to suit specific application needs.

Common Features Across All Models

- **Power Supply**: 12–24 VDC ±10%

- **Response Time**: ≤1 ms

- **Sensitivity Adjustment**: Yes (via potentiometer)

- **Operating Temperature**: -25°C to 55°C

- **Output Protection**: Reverse polarity and overcurrent protection

- **Connection Type**: Cable type (Ø3.5 mm, 2 m)

- **Dimensions**: 10.6 × 32 × 20 mm

Selection Guide

- **Short-Range Detection**: BJ100-DDT / BJ100-DDT-P (100 mm)

- **Medium-Range Detection**: BJ300-DDT / BJ300-DDT-P (300 mm)

- **Retro-reflective Applications**: BJ3M-PDT / BJ3M-PDT-P (3 m)

- **Long-Range Detection**:

    - BJ7M-TDT / BJ7M-TDT-P (7 m)

    - BJ10M-TDT / BJ10M-TDT-P (10 m)

    - BJ15M-TDT / BJ15M-TDT-P (15 m)

Notes:

- **Emitter/Receiver Pair**: Through-beam models require separate emitter and receiver units, which are housed in identical enclosures.

- **Reflector Requirement**: Retroreflective models necessitate the use of a reflector (e.g., MS-2A) for proper operation.