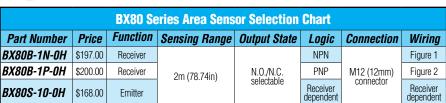
BX Series High Resolution Area Sensor



High resolution area sensor (light screen) - DC

- 70 mm detection area height
- Operating distance up to 2m
- · Adjustable sensitivity
- NPN or PNP with NO/NC selectable output
- Emitter and receiver LED status indicators
- IP67 rated



Sensing Distance Light Spot Diameter Detection Height Number of beams 12 Emission Sensitivity Time teach-in process (s) NA Output Type Operating Voltage No-load Supply Current Off-state (Leakage) Current Voltage Drop Switching Frequency Ripple Time Delay Before Availability (tv) Short-Circuit Protection Operating Temperature Protection Degree (DIN 40050) Emitter's LED Indicators - Switching Status Receiver's LED Indicators - Switching Status Reserver In MA Acc. To IEC 60947-5-2 Tifptening Torque 12 NA NA NA NA NA NA NA NA PERBORN NA NA NA NA PERBORN NA NA NA NA NA NA NA NA PERBORN NA NA NA NA NA NA NA NA NA	BX Series Specifications		
Sensing Distance Light Spot Diameter Detection Height Number of beams 12 Emission Sensitivity Fixed Time teach-in process (s) NA Output Type Operating Voltage No-load Supply Current Off-state (Leakage) Current Voltage Drop Switching Frequency Ripple Time Delay Before Availability (tv) Short-Circuit Protection Operating Temperature Protection Degree (DIN 40050) Emitter's LED Indicators - Switching Status Receiver's LED Indicators - Switching Status Receiver's LED Indicators NA NA NA NA PNP or NPN NA PNP or NPN 100mA 10	Model	ВХ	
Light Spot Diameter Detection Height Number of beams 12 Emission Sensitivity Fixed Time teach-in process (s) NA Output Type Operating Voltage No-load Supply Current Operating (Load) Current Off-state (Leakage) Current Off-state (Leakage) Current Voltage Drop Switching Frequency Ripple Time Delay Before Availability (tv) Short-Circuit Protection Operating Temperature Protection Degree (DIN 40050) Emitter's LED Indicators - Switching Status Receiver's LED Indicators - Switching Status	Туре	Through-Beam	
Detection Height Number of beams 12 Emission Sensitivity Fixed Time teach-in process (s) NA Output Type Operating Voltage No-load Supply Current Operating (Load) Current Off-state (Leakage) Current Voltage Drop Switching Frequency Ripple Time Delay Before Availability (tv) Short-Circuit Protection Operating Temperature Protection Degree (DIN 40050) Emitter's LED Indicators - Switching Status Receiver's Smath Ad	Sensing Distance	2m	
Number of beams IR 880nm	Light Spot Diameter	NA	
Emission Sensitivity Fixed Time teach-in process (s) Time blanking (s) Output Type Operating Voltage 12 - 24 Vdc Emitter 100mA, Receiver 50mA Output Type Operating (Load) Current Operating (Load) Current Off-state (Leakage) Current 100mA Off-state (Leakage) Current Voltage Drop Switching Frequency Ripple 100% Time Delay Before Availability (tv) Sooms Short-Circuit Protection Operating Temperature Protection Degree (DIN 40050) Emitter's LED Indicators - Switching Status Receiver's LED Indicators - Switching Status Status - Control Control Receiver's LED Indicators - Switching Status Receiver's LED Indicators - Switching Status Status - Control Control Receiver's LED Indicators - Switching Status Receiver's LED Indicators - Switching Status Status - Control Control Receiver's LED Indicators - Switching Status Receiver's LED Indicators - Switching Status Status - Control Contro	Detection Height	70mm	
Sensitivity Fixed Time teach-in process (s) Time blanking (s) Output Type PNP or NPN Operating Voltage No-load Supply Current Operating (Load) Current Off-state (Leakage) Current Voltage Drop Switching Frequency Ripple Time Delay Before Availability (tv) Short-Circuit Protection Operating Temperature Protection Degree (DIN 40050) Emitter's LED Indicators - Switching Status Receiver's LED Indicators - Switching Status Status - Switching Status Receiver's LED Indicators - Switching Status Receiver's LED Indicators - Switching Status Status - Switching Status Receiver's LED Indicators - Switching Status Status - Switching Status Screen (power), Red (alignment alarm), Yellow (output energized) Receiver's LED Indicators - Switching Status Status - Switching Status Screen (power), Red (alignment alarm), Yellow (output energized) Receiver's LED Indicators - Switching Status Screen (power), Red (slignment alarm), Yellow (output energized)	Number of beams	12	
Time teach-in process (s) NA Output Type Operating Voltage 12 - 24 Vdc Emitter 100mA, Receiver 50mA Operating (Load) Current Operating (Load) Current 100mA Off-state (Leakage) Current Voltage Drop ≤ 1.2V Switching Frequency Ripple ≤10% Time Delay Before Availability (tv) Short-Circuit Protection Operating Temperature Protection Degree (DIN 40050) Emitter's LED Indicators - Switching Status Receiver's LED Indicators - Switching Status	Emission	IR 880nm	
Time blanking (s) Output Type PNP or NPN PNP or NPN 12 - 24 Vdc Emitter 100mA, Receiver 50mA Operating (Load) Current 100mA Off-state (Leakage) Current Voltage Drop ≤ 1.2V Switching Frequency Ripple Short-Circuit Protection Operating Temperature Protection Degree (DIN 40050) Emitter's LED Indicators - Switching Status Receiver's LED Indicators - Switching Status Housing Material Lens Material PC Shock/Vibration PNP or NPN 12 - 24 Vdc Emitter 100mA, Receiver 50mA 100mA 10pA	Sensitivity	Fixed	
Output Type Operating Voltage 12 - 24 Vdc Emitter 100mA, Receiver 50mA Operating (Load) Current 100mA Off-state (Leakage) Current Voltage Drop ≤ 1.2V Switching Frequency Switching Frequency Finple Time Delay Before Availability (tv) Short-Circuit Protection Operating Temperature Protection Degree (DIN 40050) Emitter's LED Indicators - Switching Status Receiver's LED Indicators - Switching Status Receiver's LED Indicators - Switching Status Receiver's LED Indicators - Switching Status For Circuit PC Shock/Vibration Acc. To IEC 60947-5-2 Tightening Torque 25Nm (18.44 Ib-ft) max.	Time teach-in process (s)	NA	
Operating Voltage 12 - 24 Vdc No-load Supply Current Emitter 100mA, Receiver 50mA Operating (Load) Current 100mA Off-state (Leakage) Current 10μA Voltage Drop ≤ 1.2V Switching Frequency 50Hz Ripple ≤10% Time Delay Before Availability (tv) 500ms Short-Circuit Protection Yes Operating Temperature -25 to 50 °C [-13 °F to 122 °F] Protection Degree (DIN 40050) IP67 Emitter's LED Indicators - Switching Status Green (power), Red (sync. alarm), Yellow (area occupied) Receiver's LED Indicators - Switching Status Green (power), Red (alignment alarm), Yellow (output energized) Housing Material PBT Lens Material PC Shock/Vibration Acc. To IEC 60947-5-2 Tightening Torque 25Nm (18.44 lb-ft) max.	Time blanking (s)	NA	
No-load Supply Current Description Description Description	Output Type	PNP or NPN	
Operating (Load) Current 100mA Off-state (Leakage) Current 10μA Voltage Drop ≤ 1.2V Switching Frequency 50Hz Ripple ≤10% Time Delay Before Availability (tv) 500ms Short-Circuit Protection Yes Operating Temperature -25 to 50 °C [-13 °F to 122 °F] Protection Degree (DIN 40050) IP67 Emitter's LED Indicators - Switching Status Green (power), Red (sync. alarm), Yellow (area occupied) Receiver's LED Indicators - Switching Status Green (power), Red (alignment alarm), Yellow (output energized) Housing Material PBT Lens Material PC Shock/Vibration Acc. To IEC 60947-5-2 Tightening Torque 25Nm (18.44 lb-ft) max.	Operating Voltage	12 - 24 Vdc	
Off-state (Leakage) Current 10μA Voltage Drop ≤ 1.2V Switching Frequency 50Hz Ripple ≤10% Time Delay Before Availability (tv) 500ms Short-Circuit Protection Yes Operating Temperature -25 to 50 °C [-13 °F to 122 °F] Protection Degree (DIN 40050) IP67 Emitter's LED Indicators - Switching Status Green (power), Red (sync. alarm), Yellow (area occupied) Receiver's LED Indicators - Switching Status Green (power), Red (alignment alarm), Yellow (output energized) Housing Material PBT Lens Material PC Shock/Vibration Acc. To IEC 60947-5-2 Tightening Torque 25Nm (18.44 lb-ft) max.	No-load Supply Current	Emitter 100mA, Receiver 50mA	
Voltage Drop ≤ 1.2V Switching Frequency 50Hz Ripple ≤10% Time Delay Before Availability (tv) 500ms Short-Circuit Protection Yes Operating Temperature -25 to 50 °C [-13 °F to 122 °F] Protection Degree (DIN 40050) IP67 Emitter's LED Indicators - Switching Status Green (power), Red (sync. alarm), Yellow (area occupied) Receiver's LED Indicators - Switching Status Green (power), Red (alignment alarm), Yellow (output energized) Housing Material PBT Lens Material PC Shock/Vibration Acc. To IEC 60947-5-2 Tightening Torque 25Nm (18.44 lb-ft) max.	Operating (Load) Current	100mA	
Switching Frequency Ripple ≤10% Time Delay Before Availability (tv) Short-Circuit Protection Operating Temperature Protection Degree (DIN 40050) Emitter's LED Indicators - Switching Status Receiver's LED Indicators - Switching Status Receiver's LED Indicators - Switching Status Housing Material PBT Lens Material PC Shock/Vibration Acc. To IEC 60947-5-2 Tightening Torque ≤10% Tomas Yes -25 to 50 °C [-13 °F to 122 °F] IP67 Green (power), Red (sync. alarm), Yellow (area occupied) PBT PC Shock/Vibration Acc. To IEC 60947-5-2 Z5Nm (18.44 lb-ft) max.	Off-state (Leakage) Current	10μΑ	
Ripple ≤10% Time Delay Before Availability (tv) 500ms Short-Circuit Protection Yes Operating Temperature	Voltage Drop	≤ 1.2V	
Time Delay Before Availability (tv) Short-Circuit Protection Operating Temperature Protection Degree (DIN 40050) Emitter's LED Indicators - Switching Status Receiver's LED Indicators - Switching Status Receiver's LED Indicators - Switching Status Housing Material PBT Lens Material PC Shock/Vibration Acc. To IEC 60947-5-2 Tightening Torque Tightening Torque	Switching Frequency	50Hz	
Short-Circuit Protection Operating Temperature Protection Degree (DIN 40050) Emitter's LED Indicators - Switching Status Receiver's LED Indicators - Switching Status Housing Material Lens Material Shock/Vibration Pesson (Power), Red (alignment alarm), Yellow (output energized) PC Shock/Vibration Acc. To IEC 60947-5-2 Tightening Torque Yes Creen (power), Red (sync. alarm), Yellow (area occupied) Green (power), Red (alignment alarm), Yellow (output energized) PBT Acc. To IEC 60947-5-2 25Nm (18.44 lb-ft) max.	Ripple	≤10%	
Operating Temperature -25 to 50 °C [-13 °F to 122 °F] Protection Degree (DIN 40050) Emitter's LED Indicators - Switching Status Receiver's LED Indicators - Switching Status Housing Material Lens Material PC Shock/Vibration Acc. To IEC 60947-5-2 Tightening Torque -25 to 50 °C [-13 °F to 122 °F] IP67 Green (power), Red (sync. alarm), Yellow (area occupied) Green (power), Red (alignment alarm), Yellow (output energized) PBT Acc. To IEC 60947-5-2 25Nm (18.44 lb-ft) max.	Time Delay Before Availability (tv)	500ms	
Protection Degree (DIN 40050) IP67	Short-Circuit Protection	Yes	
Emitter's LED Indicators - Switching Status Green (power), Red (sync. alarm), Yellow (area occupied) Receiver's LED Indicators - Switching Status Green (power), Red (alignment alarm), Yellow (output energized) Housing Material PBT Lens Material PC Shock/Vibration Acc. To IEC 60947-5-2 Tightening Torque 25Nm (18.44 lb-ft) max.	Operating Temperature		
Receiver's LED Indicators - Switching Status Housing Material Lens Material Shock/Vibration Tightening Torque Green (power), Red (alignment alarm), Yellow (output energized) PBT PC Acc. To IEC 60947-5-2 25Nm (18.44 lb-ft) max.	Protection Degree (DIN 40050)	IP67	
Housing Material Lens Material PC Shock/Vibration Acc. To IEC 60947-5-2 Tightening Torque 25Nm (18.44 lb-ft) max.	Emitter's LED Indicators - Switching Status	Green (power), Red (sync. alarm), Yellow (area occupied)	
Lens Material PC Shock/Vibration Acc. To IEC 60947-5-2 Tightening Torque 25Nm (18.44 lb-ft) max.	Receiver's LED Indicators - Switching Status	Green (power), Red (alignment alarm), Yellow (output energized)	
Shock/VibrationAcc. To IEC 60947-5-2Tightening Torque25Nm (18.44 lb-ft) max.	Housing Material	PBT	
Tightening Torque 25Nm (18.44 lb-ft) max.	Lens Material	PC	
	Shock/Vibration	Acc. To IEC 60947-5-2	
Weight 300g	Tightening Torque	25Nm (18.44 lb-ft) max.	
-	Weight	300g	

To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page at www.AutomationDirect.com

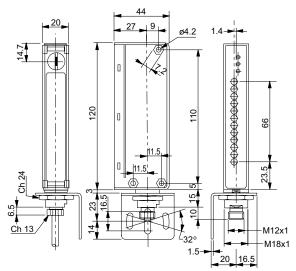
NEED ?

tSEN-331 Photoelectric Sensors 1 - 8 0 0 - 6 3 3 - 0 4 0 5

BX Series High Resolution Area Sensor

Dimensions

(mm)



See our website, www.AutomationDirect.com, for complete Engineering drawings.

Wiring diagrams

Figure 1

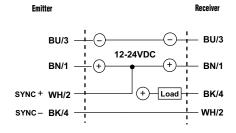
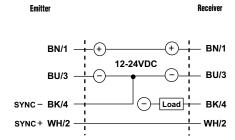
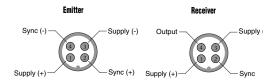


Figure 2



Connectors

Switching Element Function		
	Thru-beam and Reflective Models	Diffuse Reflective Models
	N.C.	N.O.
Dark on	N.O.	N.C.



tSEN-332 Photoelectric Sensors 1 - 8 0 0 - 6 3 3 - 0 4 0 5