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 N.O./N.C. selectable output
- Emitter and receiver LED status indicators
- IP67 rated

BX80 Series Area Sensor Selection Chart							
Part Number	Price	Function	Sensing Range	Output State	Logic	Connection	Wiring
BX80B-1N-0H		Receiver	2m (78.74in)	N.O./N.C. selectable	NPN	M12 (12mm) connector	Figure 1
BX80B-1P-0H		Receiver			PNP		Figure 2
BX80S-10-0H		Emitter			Receiver dependent		Receiver dependent

BX Series Specifications	
Model	BX
Type	Through-Beam
Sensing Distance	2m
Light Spot Diameter	NA
Detection Height	70mm
Number of beams	12
Emission	IR 880nm
Sensitivity	Receiver - Fixed / Emitter - Adjustable
Time teach-in process (s)	NA
Time blanking (s)	NA
Output Type	PNP or NPN
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.
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

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Dimensions

(mm)
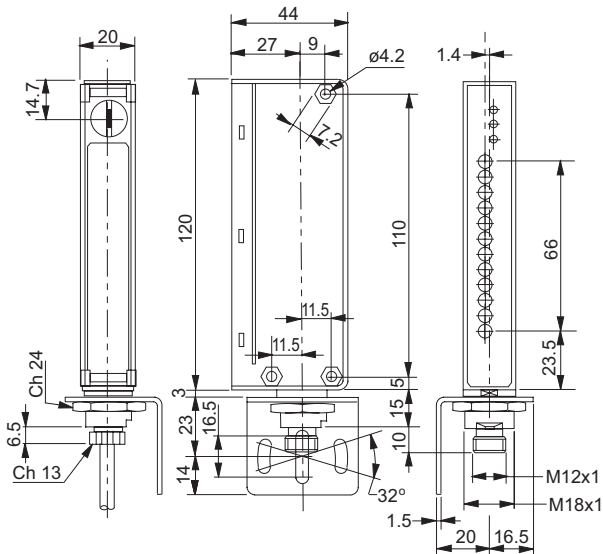
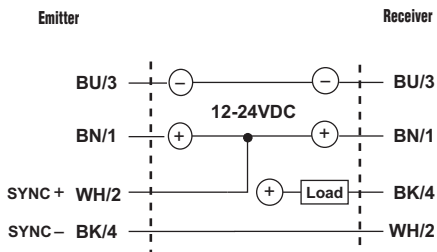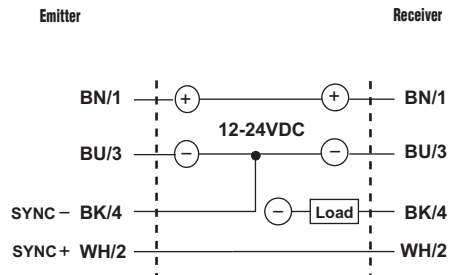*See our websfite: for compflete Engfineerfing drawfings.*

Wiring diagrams

Figure 1

Figure 2

Connectors

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