High Resolution Area Sensor BX80

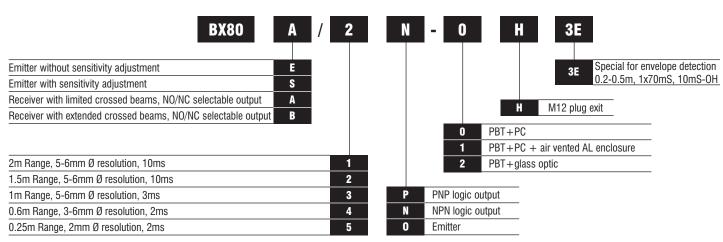




- Controlled area 70mm
- Operating distance of up to 2m
- Small object detection as low as 5mm in diameter
- Protection Degree up to IP67
- Metal body option for heavy duty and high temperature use.
- Complete protection against electrical damage



Options and ordering codes



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High Resolution Area Sensor BX80 continued



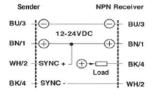
General Specification

Specification		BX80*/1*-**	BX80*/2*-**	BX80*/3*-**	BX80*/4*-**	BX80*/5*-**	
Nominal sensing distance		2m	1.5m	1m	0.6m	0.25m	
Response time		10ms Max. 3ms Max. 2ms Max.				Max.	
Controlled area height		70mm					
Number of beams		12					
Beam pitch		6mm					
BX80A/	Min. object size	Ø6mm				Ø2mm	
	Min. op. distance	0			30mm	90mm	
BX80B/	Min. op. distance		Ø5mm		Ø3mm	Ø3mm	
	Min. op. distance		300mm	500mm	550mm		
BX80D/	Min. op. distance	+/-6mm					
	Min. op. distance	8mm					
Differential travel		15% Maximum					
Repeat Accuracy		0/20% of the nominal sensing distance Sn					
Operating voltage		12-24VDC					
Ripple		50mA Receivers, 100mA emitters					
No-load supply current		100mA Maximum					
Leakage current		≤10µA					
Voltage drop				1.2V Maximum			
Output type BX80A/*; BX80B/*		NPN/PNP or NO/NC Selectable					
Angular displacement		3 degree emitter, 6 degree receiver at nominal sensing distance Sn					
Emission		Infra red 880nm					
Time delay before availability		500ms					
Output protections		Reverse polarity and voltage transien					
Storage temperature		-40 to +80 degree C					
Interference by external light		Incandescent light 1500 Lux maximum, sun light 4500 Lux maximum					
Protection degree		IP67 (EN60529)					
Emitter LED indicators		Green (supply), Red (alarm sync.) and Yellow (area status)					
Receiver LED indicators		Green (supply), Red (alignment) and Yellow (output state)					
Housing material		PBT + 30% FV (Valox) UL94V0					
Lens material		PC					
Tightening torque		25Nm maximum					
Weight (approx)		Plug type 0.26 to 0.30 kg and cabled type 0.80 to 0.82kg					

Standard types

Emitters	Limited cross-beams	Extended cross-beams
BX80S/10-0H	BX80A/1P-0H	BX80B/1P-0H
BX80S/20-0H	BX80A/2P-0H	BX80B/2P-0H
BX80S/30-0H	BX80A/3P-0H	BX80B/3P-0H
BX80S/40-0H	BX80A/4P-0H	BX80B/1N-0H
BX80S/50-0H	BX80A/5P-0H	BX80B/2N-0H
	BX80A/1N-0H	
	BX80A/2N-0H	

Wiring Diagrams





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High Resolution Area Sensor BX80 continued



Connectors M12

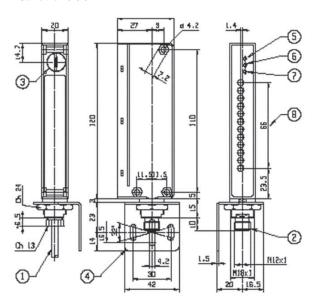
Sender Receiver SYNC NEG OUT NEG POS SYNC + POS SYNC + SYNC

Applications

- Detection of object presence by different and irregular shapes
- Counting of objects
- Operating distance of up to 2m
- Control of envelopes released from conveyors
- Position control
- Presence detection and height control of objects on conveyors

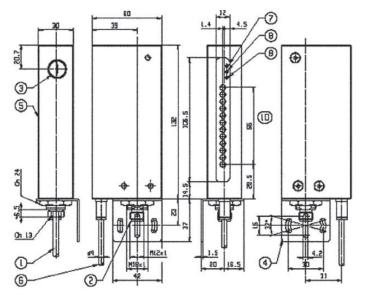
Dimensions (mm)

Standard version



- 1. Axial cable exit
- 2. M12 metal plug cable exit
- 3. Bottle top covering sensitivity adjustment (sender), NO/NC (receiver)
- 4. Mounting bracket ST 18-C
- 5. Green LED
- 6. Red LED
- 7. Yellow LED
- 8. Sensitivity area

...with aluminium protection cover



- 1. Axial cable exit
- 2. M12 metal plug cable exit
- 3. Bottle top covering sensitivity adjustment (sender), NO/NC (receiver)
- 4. Mounting bracket ST 18-C
- 5. Aluminium protection cover
- 6. Air blowing tube $\emptyset 4 \div \emptyset 2$
- 7. Green LED
- 8. Red LED
- 9. Yellow LED
- 10. Sensitivity area

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