Sender/Receiver Pair - Object Detection CX0 Models

- Total crossbeam through all the optics
- 160 and 320mm detection heights
- Beam resolution 5mm and 10mm
- Operating distance up to 6m
- Digital PNP output

- N.O./N.C. configurable
- Adjustment by teach-in with 2 levels of adjustment
- Three-year warranty
- Mounting hardware included







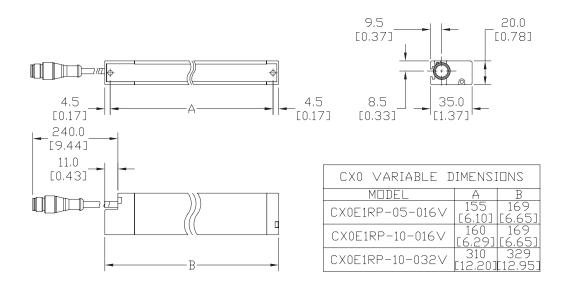
	Sender/Receiver Pair Light Grids - CXO Models Selection Chart										
	Drice	Beam	Detection	Operating	Outnut	Input	Smallest D Obje		Maximum	Connection	Weight
Part Number		Voltage	(Fine Teach)	(Gross Teach)	Response Time	Connection	kg [Ĭbs]				
CX0E1RP-05-016V	\$333.00	5mm [0.09 in]	160mm [6.3 in]	0.3 - 3m [0.98 - 9.84 ft]	PNP; N.O./N.C. configurable		1.5 mm [0.05 in]	2.5 mm [0.09 in]	11ms	(1) 4-pin and (1) 5-pin	0.5 [1.1]
CX0E1RP-10-016V	\$245.00	10mm [0.39 in]	160mm [6.3 in]	0.5 - 6m [1.64 - 19.68 ft]	PNP; N.O./N.C. configurable	16.8-30 VDC	2.5 mm [0.09 in]	4mm [0.15 in]	5.3 ms	M12 quick- disconnect Length:	0.5 [1.1]
CX0E1RP-10-032V	\$416.00	10mm [0.39 in]	320mm [12.6 in]	1 - 6m [3.28 - 19.68 ft]	PNP; N.O./N.C. configurable		2.5 mm [0.09 in]	4mm [0.15 in]	6.6 ms	8.6 in [220mm]	1 [2.2]

Purchase cable separately.

Light Grids - CX0 Models

Dimensions

mm [inches]



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

Light Grids - CX0 Models

Connections

Sender with Teach-In CXO Models								
M12, 4-Pole Male Connector	Wiring				Connector			
	BN (Power)	Pin	Color	Signal	Description			
	BU (Common)	1	BN	24VDC	Power supply input from 16.8 to 30V			
, <u>2</u>	BK (Teach G/F) G	2	WH	ComER	Connect to same signal of the receiver, maximum cable length: 20m			
	WH F	3	BU	0V	Supply voltage reference, this pin must be tied together to the common of the receiver, maximum cable length: 20m			
	(ComER)	4	BK	Teach G/F	Teach-in input: GROSS at 24VDC; FINE at 0V			

NOTE: Pin 2 (ComER) must be connected to Pin 5 (ComER) of the receiver.

	Receiver with Output PNP and Teach-In Function CX0 Models								
M12, 5-Pole Male Connector	Wiring	Connector							
	. 24VDC 0V	Pin	Color	Signal	Description				
	3 BU (Common) BK (PNP OUT) LOAD	1	BN	24VDC	Power supply input from 16.8 to 30V				
		2	WH	N.C./N.O.	Open or 0VDC: Set output normally open, Dark operate +24VDC: Set output normally closed, Light operate				
4 DIX (*Nr COT) LOAD WH (NC/NO) NO NO NC NC SGY (ComER)	3	BL	0VDC	Supply voltage reference. This pin must be tied together to the common of the sender, maximum cable length: 20m					
	GY (ComER)	4	BK	PNP Out	Apply a load connected to the common, maximum current 100mA.				
		5	GY or GN/YL	ComER	Connect to the same signal of the sender, maximum cable length: 20m				

NOTE: Pin 5 (ComER) must be connected to Pin 2 (ComER) of the sender.

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Sender/Receiver Pair - Measuring CX2 Models

- Parallel beams and floating crossbeams with variable amplitude
- · Synchronization by cable
- Beam resolution 5mm and 10mm
- Detection height up to 960mm

- Maximum operating distance up to 6m
- Digital outputs PNP; analog current output (4 to 20mA) or analog voltage output (0 to 10V)
- Blanking function
- Three-year warranty



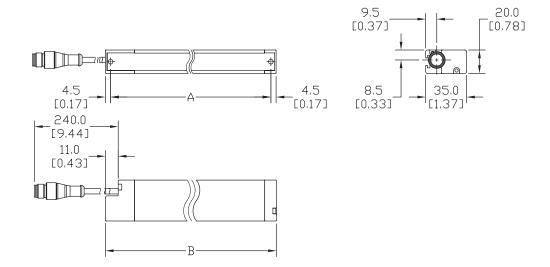


		Sender/R	eceiver	Pair Light	Grids CX2	Models	Selecti	ion Cha	ırt		
		Beam	Detection	Operating		Input	Smallest L Obj	Detectable iect	Maximum		Weight
Part Number	Price	Resolution	Height	Distance	Output	Voltage	(Fine Teach)	(Gross Teach)	Response Time	Connection	kg [lb]
CX2E0RF-05-016V	\$333.00		160mm [6.3 in]		PNP; N.O./N.C.		1.5 mm	2.5 mm	14.8 ms		1.1 kg [2.43 lb]
CX2E0RF-05-032V	\$600.00	5mm	320mm [12.6 in]		configurable; 0-10 VDC		4mm	5mm	27.6 ms		2.2 kg [4.85 lb]
CX2E0RF-05-048V	\$854.00		480mm [18.90 in]	0.4. 2	analog out		4111111	JIIIII	40.4 ms		3.5 kg [7.72 lb]
CX2E0RD-05-016V	\$333.00	[0.09 in]	160mm [6.3 in]	- 0.1 - 3m	PNP; N.O./N.C. configurable; 4-20mA		1.5 mm	2.5 mm	14.8 ms		1.1 kg [2.43 lb]
CX2E0RD-05-032V	\$600.00		320mm [12.6 in]					5mm	27.6 ms	(1) 4-pin and (1) 8-pin M12 quick- disconnect Length: 9.4 in [240mm]	2.2 kg [4.85 lb]
CX2E0RD-05-048V	\$854.00		480mm [18.90 in]		analog out		4mm		40.4 ms		3.5 kg [7.72 lb]
CX2E0RF-10-016V	\$313.00		160mm [6.3 in]				2.5	2.5 mm 4mm -	8.4 ms		1.1 kg [2.43 lb]
CX2E0RF-10-032V	\$441.00		320mm [12.6 in]				2.5 111111		14.8 ms		2.2 kg [4.85 lb]
CX2E0RF-10-048V	\$600.00		480mm [18.90 in]		PNP; N.O./N.C. configurable;	16.8-30 VDC			21.2 ms		3.5 kg [7.72 lb]
CX2E0RF-10-064V	\$706.00		640mm [25.20 in]		0-10 VDC analog out	10.0-30 VDC	0		27.6 ms		4.5 kg [9.90 lb]
CX2E0RF-10-080V	\$859.00		800mm [31.50 in]				OHIII		34ms		5.7 kg [12.57 lb]
CX2E0RF-10-096V	\$970.00	10mm	960mm [37.79 in]	0.3 - 6m					40.4 ms		6.6 kg [14.55 lb]
CX2E0RD-10-016V	\$313.00	[0.39 in]	160mm [6.3 in]	[0.98 - 19.68 ft]			2.5 mm	4mm	8.4 ms		1.1 kg [2.43 lb]
CX2E0RD-10-032V	\$441.00		320mm [12.6 in]				2.5 11111	4111111	14.8 ms		2.2 kg [4.85 lb]
CX2E0RD-10-048V	\$600.00		480mm [18.90 in]		PNP; N.O./N.C. configurable;				21.2 ms		3.5 kg [7.72 lb]
CX2E0RD-10-064V	\$706.00		640mm [25.20 in]		4-20mA analog out		0,,,,,	10	27.6 ms		4.5 kg [9.90 lb]
CX2E0RD-10-080V	\$859.00		800mm [31.50 in]				8mm	10mm	34ms		5.7 kg [12.57 lb]
CX2E0RD-10-096V	\$970.00		960mm [37.79 in]						40.4 ms		6.6 kg [14.55 lb]

Purchase cable separately.

Dimensions

mm [inches]



CX2 VARIABLE D	IMENSIO	NS
MODEL	Α	В
CX2E0RF-05-016V	160 [6.29]	169 [6.65]
CX2E0RF-05-032V	320 [12.59]	329 [12.95]
CX2E0RF-05-048V	480 [18,89]	489 [19.25]
CX2E0RF-10-016V	160 [6.29]	169 [6.65]
CX2E0RF-10-032V	320 [12.59]	329 [12.95]
CX2E0RF-10-048V	480 [18.89]	489 [19.25]
CX2E0RF-10-064V	640 [25.19]	649 [25.55]
CX2E0RF-10-080V	800 [31,49]	809 [31.85]
CX2E0RF-10-096V	960 [37.79]	969 [38,14]

MODEL	Α	В
CX2E0RD-05-016V	160 [6,29]	169 [6,65]
CX2E0RD-05-032V	320 [12.59]	329 [12.95]
CX2E0RD-05-048V	480 [18.89]	489 [19,25]
CX2E0RD-10-016V	160 [6,29]	169 [6,65]
CX2E0RD-10-032V	320 [12.59]	329 [12.95]
CX2E0RD-10-048V	480 [18.89]	489 [19,25]
CX2E0RD-10-064V	640 [25.19]	649 [25.55]
CX2E0RD-10-080V	800 [31.49]	809 [31,85]
CX2E0RD-10-096V	960 [37.79]	969 [38.14]

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

Light Grids - CX2 Models

Connections

	Sender with Input Test CX2 Models									
M12, 4-Pole Male Connector	Wiring	Connector								
	BN Power 24VDC 0V	Pin	Color	Signal	Description					
BU Common	BU Common	1	BN	24VDC	Power supply input from 16.8 to 30V					
4 3 3 1 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	BK Test	2	WH	Sync_1W	Connect to same signal of the receiver, maximum cable length: 20m					
WH Sync_1W	Y	3	BU	0V	Supply voltage reference, this pin must be tied together to the common of the receiver, maximum cable length: 20m					
		4	BK	Test	Test input: if it is connected to the positive it interrupts the emission					

NOTE: Pin 2 (Sync 1W) must be connected to Pin 8 (Sync 1W on the receiver), otherwise the yellow LED of the sender and receiver are flashing highlighting an error.

	Receiver with Output PNP and Teach-In Function CX2 Models									
M12, 8-Pole Male Connector	Wiring	Connector								
	04//00 01/	Pin	Color	Signal	Description					
	BN Power 24VDC 0V	1	BN	24VDC	Power supply input from 16.8 to 30V					
	BU Common	2	WH	Analog	Analog Voltage Output 0-10V, or 4-20mA, depending on model					
5 4 BK PNP OUT LOAD	4 BK PNP OUT LOAD	3	BU	0V	Supply voltage reference. This pin must be tied together the common of the sender, maximum cable length: 20m					
	WH Analog LOAD	4	BK	PNP Out	Apply a load connected to the common, maximum current 100mA					
1 8 2	GY NC/NO NO NO PK Teach G/F	5	GY	N.C./N.O.	Open or 0VDC: Outputs proportional to optics in Dark +24VDC: Outputs proportional to optics in Light					
	OVT Blank Y/N	6	PK	Teach G/F	Teach-in input: GROSS at 24VDC; FINE at 0V					
	OR Sync_1W	7	VT	Blank Y/N	BLANKING at Power-ON Activation (at positive) - Deactivation (at common)					
	Y	8	OR	Sync_1W	Connect to the same signal of the sender, maximum cable length: 20m					

NOTE: Pin 8 (Sync 1W) must be connected to Pin 2 (Sync_1W on the sender), otherwise the yellow LED of the receiver and sender are flashing highlighting an error.

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Light Grids CX Series Specifications

Light Grids CX Series Specifications									
Model	схо	CX2							
Туре	Through	h-Beam							
Sensing Distance	0.3 - 3m (5mm beam resolution) 0.5 - 6m (10mm beam resolution 160mm detection height) 1 - 6m (10mm beam resolution 320mm detection height)	0.1 - 3m (5mm beam resolution) 0.3 - 6m (10mm beam resolution)							
Detection Height Beam Resolution 5mm	160mm	160mm; 320mm; 480mm							
Number of Beams Beam Resolution 5mm	32	33 (160mm); 65 (320mm); 97 (480mm)							
Detection Height Beam Resolution 10mm	160mm; 320mm	160mm; 320mm; 480mm; 640mm; 800mm; 960mm							
Number of Beams Beam Resolution 10mm	17 (160mm); 32 (320mm)	17 (160mm); 33 (320mm); 49 (480mm); 65 (640mm); 81 (800mm); 97 (960mm)							
Emission	IR 850nm (5mm beam resolution)	; 880nm (10mm beam resolution)							
Sensitivity	Tea	ach							
Time Teach-in Process (s)	15s max	= 0.5*N° beams							
Time Blanking (s)	NA	=1* N° beams							
Output Type	PNP	PNP + 0 – 10V analog V or PNP + 4 – 20mA analog A							
Operating Voltage	16.8 – 3	30 VDC							
No-load Supply Current	Sender: 120mA (@ 24V) max Receiver: 90mA (@ 24V) max	Sender: 200mA (@ 24V) max Receiver: 200mA (@ 24V) max							
Operating (Load) Current	100)mA							
Off-state (Leakage) Current	10µA	10μA							
Voltage Drop	≤1	.5V							
Switching Frequency	280Hz max (17 beams) 83Hz max (32 beams)	59.5 Hz (17 beams) 33.7 Hz (33 beams) 23.5 Hz (49 beams) 18.1 Hz (65 beams) 14.7 Hz (81 beams) 12.3 Hz (97 beams)							
Ripple	≤10%								
Time Delay Before Availability (tv)	200ms								
Short-Circuit Protection	Ye	es							
Operating Temperature	-10 to 55 °C	[14 to 131 °F]							
Protection Degree (DIN 40050)	IP67								
Sender LED Indicators - Switching Status	Refer to manual								
Receiver LED Indicators - Switching Status	Refer to manual								
Housing Material	Painted aluminum								
Lens Material	PC (Polyc	PC (Polycarbonate)							
Shock/Vibration		Acc. to IEC 60947-5-2							
Tightening Torque	N	A							
Weight	0.48 kg [1.05 lb]	2.6 kg [5.73 lb]							
Agency Approval	UL Listed E	187310, CE							

To obtain the most current agency approval information, see the Agency Compliance & Certifications Checklist section on the specific part number's web page.

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Light Grids CX Series Accessories

	Light Grids Mounting Brackets CX Series									
Part Number	Price	Description								
<u>ST151</u>	\$8.25	Mounting bracket, replacement, right-angle, zinc plated steel. Package of 2. For use with CX light grids.								
ST4VS	\$21.50	Mounting bracket, right-angle, zinc plated steel, anti-vibration mount. Package of 4. For use with 160mm height CX light grids.								
ST8VS	\$27.50	Mounting bracket, right-angle, zinc plated steel, anti-vibration mount. Package of 8. For use with 320-960mm height CX light grids.								







ST4VS



ST8VS

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