



# CX2

## CX2E0RF/05-016V

**Area Sen, H=160mm-5mm  
pitch,E+R,PNP+V**

**AREA SENSORS WITH HIGH RESOLUTION AND COMPACT  
HOUSING WITH DIGITAL AND ANALOGUE OUTPUT**

## OVERVIEW

- Parallel beams and floating crossbeams with variable amplitude
- Synchronization by cable. Pitch 5, 10 and 20mm
- Control height up 480mm (pitch 5mm) and up 960mm (pitch 10mm and 20mm)
- Maximum operating distance up to 3m (for 5mm pitch) and 6m (for 10mm and 20 pitch)
- Digital outputs NPN and PNP ; analogue current output (4...20mA) and analogue voltage output (0..10V), mix outputs : digital PNP and analogue voltage output (0..10V)
- Adjustment by teach-in , 2 levels of adjustment
- Blanking function . Available analogue versions TOP BEAM



## TECHNICAL FEATURES

### Detection properties

|                          |            |
|--------------------------|------------|
| Nominal sensing distance | 0,3 ... 3m |
|--------------------------|------------|

|             |     |
|-------------|-----|
| Beams space | 5mm |
|-------------|-----|

|                   |       |
|-------------------|-------|
| controlled height | 160mm |
|-------------------|-------|

|                           |         |
|---------------------------|---------|
| minimum detectable object | Ø 2,5mm |
|---------------------------|---------|

|                                |                                                                   |
|--------------------------------|-------------------------------------------------------------------|
| number of rays                 | 33                                                                |
| Sensitivity adjustment         | Teach-in by wire                                                  |
| Application                    |                                                                   |
| Function Principle             | emitter/receiver                                                  |
| Outputs                        |                                                                   |
| Output type                    | PNP + 0...10V                                                     |
| Output Function                | NO/NC + positive/negative slope                                   |
| Switching frequency            | 33,7Hz                                                            |
| Electrical data                |                                                                   |
| Operating Voltage              | 16,8... 30Vdc                                                     |
| No-Load supply current         | ≤330mA                                                            |
| Load current                   | < 100mA                                                           |
| Leakage current                | ≤ 10μA                                                            |
| Output voltage drop            | < 1,5V @ 100mA                                                    |
| Max ripple content             | < 1,2Vpp                                                          |
| LED indicators                 | Blue, red and yellow (emitter) - green, red and yellow (receiver) |
| Time delay before availability | < 3s                                                              |
| Short-circuit protection       | Yes                                                               |
| Reverse Polarity Protection    | Yes                                                               |

|                                  |                  |
|----------------------------------|------------------|
| Emission                         | Infrared (850nm) |
| Interference to external light   | IEC EN 60947-5-2 |
| Impulsive Overvoltage Protection | Yes              |

Mechanical data

|                       |                                                         |
|-----------------------|---------------------------------------------------------|
| Dimensions            | 20mm x 169mm x 35mm                                     |
| Housing material      | Aluminium                                               |
| Weight                | 450g                                                    |
| Connections           | M12 4pin + cable PVC 200mm ; M12 8pin + cable PVC 200mm |
| Active Head Material  | PMMA                                                    |
| Operating temperature | -10°C...+ 55° C (without freeze)                        |
| Storage temperature   | - 25°C...+ 60° C (without freeze)                       |

Test/Approvals

|                       |                  |
|-----------------------|------------------|
| Approvals             | CE, cULus        |
| EMC compatibility     | IEC 60947-5-2    |
| Shocks and vibrations | IEC EN 60947-5-2 |
| Degree of protection  | IP67             |

Accessories

|                      |                  |
|----------------------|------------------|
| Supplied Accessories | ST151 fixing kit |
|----------------------|------------------|

## Generical Data

Dimensions

169x36x20

Operating Temperature

-10°C...+ 55° C (without freeze)

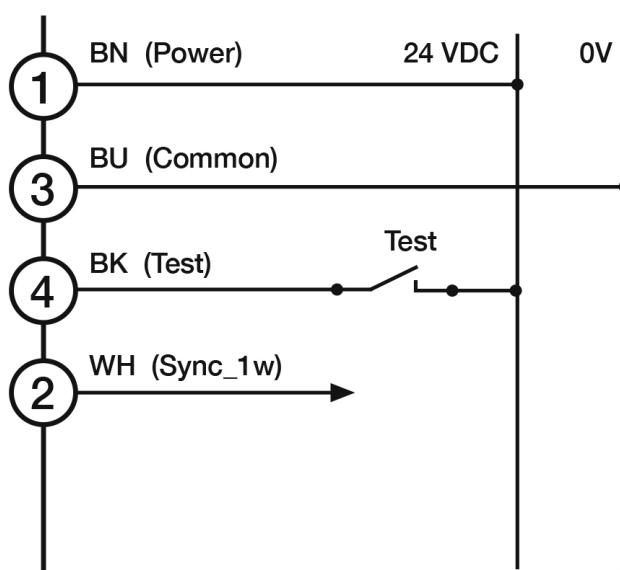
Mechanical Protection

IP67

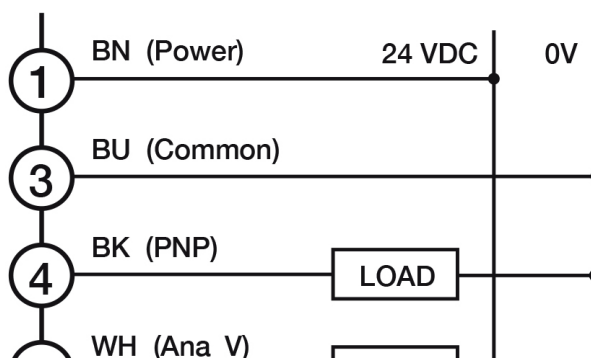
# CONNECTIONS

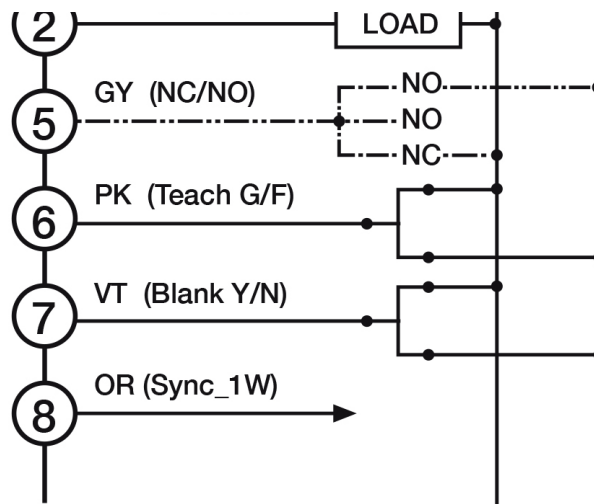
Electrical diagram

CX2E0



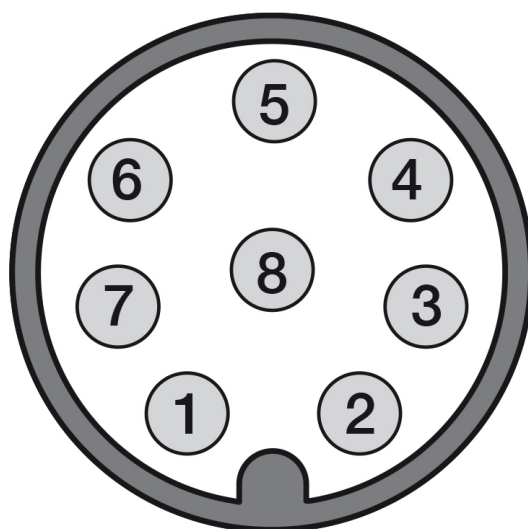
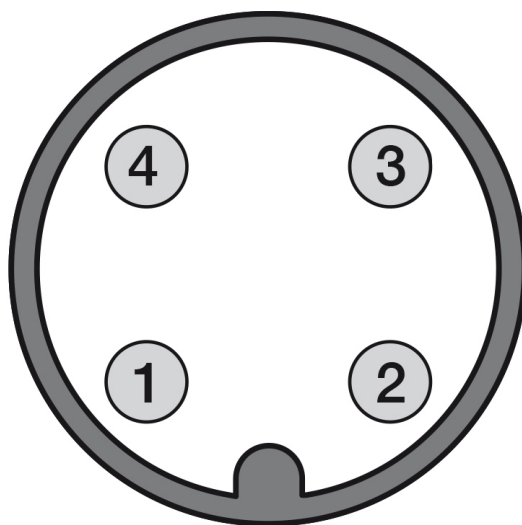
CX2RF





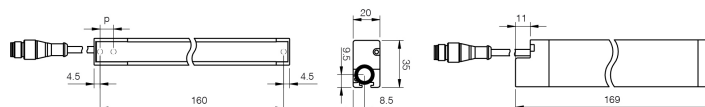
|           |                    |           |                  |
|-----------|--------------------|-----------|------------------|
| <b>G</b>  | coarse calibration | <b>F</b>  | fine calibration |
| <b>BK</b> | black              | <b>BU</b> | blue             |
| <b>BN</b> | brown              | <b>GY</b> | gray             |
| <b>RD</b> | red                | <b>WH</b> | white            |
| <b>PK</b> | pink               | <b>VT</b> | violet           |
| <b>OR</b> | orange             |           |                  |

Connector



## OTHERS

### Dimensions



$$H \text{ (barrier height)} = h \text{ (controlled height)} + 9 \text{ mm}$$

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