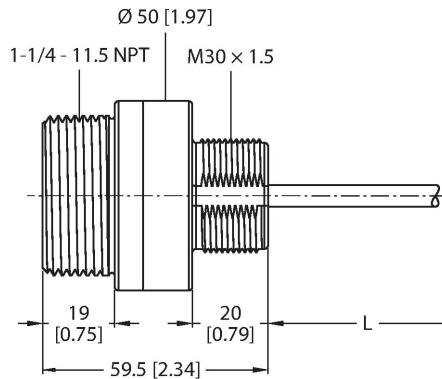


# K50UX2CRA

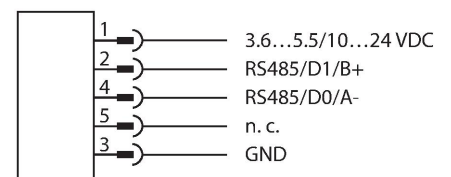
## Ultrasonic Sensor – diffuse mode sensor With RS485/Modbus RTU Serial Interface



### Features

- Protection class IP67
- Operating temperature: -40...+70 °C
- 230 mm cable, PVC, with male connector, M12 × 1, 5-pin
- Range: 30...300 cm
- Sound frequency: 114 kHz
- Resolution > 1 mm
- Operating voltage: 10...30 VDC or 3.5...5.5 VDC
- RS485 interface for connecting as a MOD-BUS RTU slave

### Wiring diagram



### Functional principle

Ultrasonic sensors detect a multitude of objects contactless and wear-free with ultrasonic waves. Regardless of whether the object is transparent or opaque, metallic or non-metallic, liquid, solid or powdery. Even environmental conditions such as spray, dust or rain hardly affect their function.

### Technical data

|                                  |                                                    |
|----------------------------------|----------------------------------------------------|
| Type                             | K50UX2CRA                                          |
| ID                               | 3094612                                            |
| <b>Ultrasonic data</b>           |                                                    |
| Function                         | Proximity switch                                   |
| Range                            | 300...3000 mm                                      |
| Ultrasound frequency             | 114 kHz                                            |
| Repeatability                    | ≤ ± 1 mm                                           |
| <b>Electrical data</b>           |                                                    |
| Operating voltage $U_B$          | 10...30 VDC                                        |
| DC rated operating current $I_a$ | ≤ 0.18 mA                                          |
| Readiness delay                  | ≤ 10000 ms                                         |
| Communication protocol           | RS485                                              |
| Output function                  | RS485                                              |
| Reverse polarity protection      | yes                                                |
| Wire breakage protection         | yes                                                |
| <b>Mechanical data</b>           |                                                    |
| Design                           | Tube, K50UX                                        |
| Dimensions                       | Ø 50 x 59.5 mm                                     |
| Housing material                 | Plastic, PBT                                       |
| Transducer material              | Plastic, Epoxy-resin                               |
| Electrical connection            | Cable with connector, M12 × 1, 5-wire, 0.23 m, PVC |
| Ambient temperature              | -40...+70 °C                                       |
| Storage temperature              | -40...+70 °C                                       |
| Relative humidity                | 95 %                                               |
| Protection class                 | IP67                                               |

Technical data

|                      |                                                                                                                                                                                            |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power-on indication  | LED, Yellow                                                                                                                                                                                |
| Tests/approvals      |                                                                                                                                                                                            |
| Vibration resistance | MIL-STD-202F, method 201A (vibration: 10 Hz to 60 Hz maximum, 0.06 inch [1.52 mm] double amplitude, 10 G maximum acceleration). IEC 60947-5-2 (shock: 30 G 11 ms duration, half sine wave) |

Accessories

|            |         |
|------------|---------|
| BWA-BK-006 | 3800834 |
|------------|---------|