

## Metal cylindrical shape capacitive sensors **CR12** series



### Features

- ◆ Be able to detect both metal and nonmetal objects;
- ◆ Be able to detect various media via nonmetallic container;
- ◆ Reliable liquid level detecting;

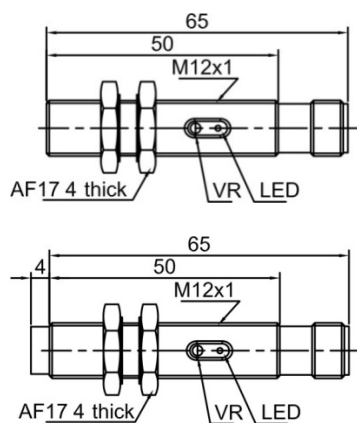
### Part number

|     |    |                |                |     |    |                |                |
|-----|----|----------------|----------------|-----|----|----------------|----------------|
| NPN | NO | CR12CF02DNO-E2 | CR12CN04DNO-E2 | PNP | NO | CR12CF02DPO-E2 | CR12CN04DPO-E2 |
| NPN | NC | CR12CF02DNC-E2 | CR12CN04DNC-E2 | PNP | NC | CR12CF02DPC-E2 | CR12CN04DPC-E2 |

### Technical specifications

|                            |                               |                  |                         |                                              |
|----------------------------|-------------------------------|------------------|-------------------------|----------------------------------------------|
| Mounting                   | Flush                         | Non-flush        | Consumption current     | ≤15mA                                        |
| Rated distance [Sn]        | 2mm (adjustable)              | 4mm (adjustable) | Circuit protection      | Short-circuit, overload and reverse polarity |
| Assured distance [Sa]      | 0...1.6mm                     | 0...3.2mm        | Output indicator        | Yellow LED                                   |
| Dimensions                 | M12*65mm                      | M12*69 mm        | Ambient temperature     | -25°C...70°C                                 |
| Output                     | NO/NC(depends on part number) |                  | Ambient humidity        | 35-95%RH                                     |
| Supply voltage             | 10...30 VDC                   |                  | Switching frequency [F] | 50 Hz                                        |
| Standard target            | Fe12*12*1t                    | Fe 12*12*1t      | Voltage withstand       | 1000V/AC 50/60Hz 60S                         |
| Switch-point drifts [%/Sr] | ≤±20%                         |                  | Insulation resistance   | ≥50MΩ (500VDC)                               |
| Hysteresis range [%/Sr]    | 3...20%                       |                  | Vibration resistance    | 10...50Hz (1.5mm)                            |
| Repeat accuracy [R]        | ≤3%                           |                  | Degree of protection    | IP67                                         |
| Load current               | ≤200mA                        |                  | Housing material        | Nick-copper alloy                            |
| Residual voltage           | ≤2.5V                         |                  | Connection type         | M12 connector                                |

### Dimensions



### Wiring diagram

