# iDOL 46R
# capacitive sensor

SmartAdjust

iDOL 46R capacitive relay sensor series is designed for general detection of feed, grain and solids. Certified according to ATEX directive 2014/34/EU, IECEx for operation in hazardous, potentially explosive dust atmospheres. Classified as equipment for use in atmospheres with continuous presence of explosive dust with an ignition temperature above 85 °C.
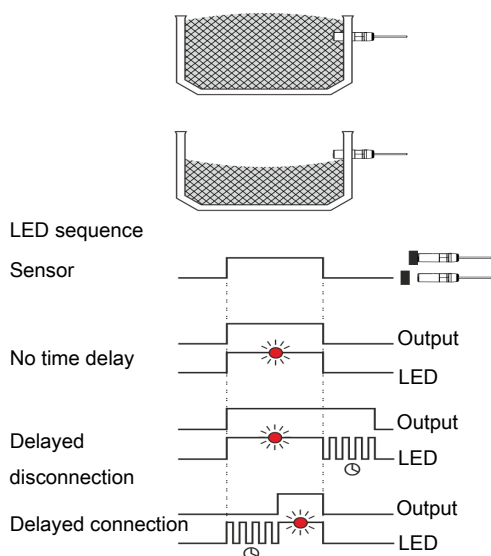
## RELIABILITY

The sensor's electronics are completely embedded in a thermoplastic casing, there is shock/impact test with 7 joule. This achieves a very high resistance to moisture and other external influences in aggressive environments. The sensor is CE-approved and has a high immunity to noise from electric communication (e.g. from mobile phone) and transients (e.g. from motors and contactors). This makes the sensor very reliable and dependable in operation.

## Adjustment

iDOL 46R settings can be adjusted with the SmartAdjust app.

A red LED clearly indicates the current status of the sensor and a green LED indicating power on sensor. LEDs can be switched off.

LED sequence

Sensor

No time delay

Delayed disconnection

Delayed connection

Output
LED

### Functional description

**Delayed disconnection:**
fixed delay *or* delay can be adjusted via the SmartAdjust app.

**Delayed connection:**
fixed delay *or* delay can be adjusted via the SmartAdjust app.

**Sensitivity:**
fixed distance *or* distance can be adjusted via the SmartAdjust app.

**MaxRun-timer:**
**iDOL 46R** adjusted 1-7200s via SmartAdjust app

### Buildning-in
iDOL 46R can be mounted in a plastic gland, which can also be supplied as a flange solution for external mounting.

## *Technical data*

| | | |
|---|---|---|
| **Electrical** | | |
| Supply voltage | V AC/DC | 20-280 |
| Frequency | Hz | 47 - 63 |
| Relay switch max. Voltage | V AC | 250 |
| Max. resistive load, 250 V AC | A | 4 |
| Max. inductive load, 250 V AC | A | 2 |
| Min. relay current, 12 VDC | mA | 100 |
| Safety | | Relay switches and supply voltage are galvanically separated. Test voltage 4 kV AC |
| **Specifications** | | |
| Distance of activation | | Adjustable 0-20 mm depending on material |
| Time delay | | Adjustable 0-3600 sec. |
| MaxRun-timer | | Adjustable 0-7200 sec. |
| SmartAdjust | |  Activated NFC required |
| **Mechanical** | | |
| Sensor length | mm (inches) | 117 ($4^5/_8$) |
| Sensor diameter | mm (inches) | 30 ($1^3/_{16}$) |
| Cable dimensions | mm$^2$ (AWG) | 5x 0,5 (5 x 20) |
| Cable length | m (ft.) | Standard 2 (6.6) / Max 10 (32) |
| Cable type | | UL2517 |
| Weight incl. cable | 2 m | g (oz) | 245 (8.64) |
| | 5 m | | 453 (15.98) |
| | 10 m | | 783 (27.62) |

| Environment | | |
|---|---|---|
| Operating temperature | °C (°F) | -30 - +50 (-22 - +122) |
| Storage temperature | °C (°F) | -40 - +80 (-22 - +176) |
| Protection class | IP (NEMA) | IP69K (1, 3, 4, 6, 12, 13) |
| Approval | | ATEX zone 20, 21 and 22, dust<br>IECEx conforms to the Harmonized Standards<br>$CE_{0539}$<br>⟪Ex⟫ II 1D Ex ta IIIC $T_{200}$ 85 °C Da<br>UL 60079-0, 7th Edition<br>UL 60079-31, 2nd Edition |

## Dimensions