

Capacitive Relay Sensor iDOL 46R Series

CE₀₅₃₉

 II 1D Ex ta IIIC T₂₀₀ 85 °C Da

The 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 and cUL 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.

Robust design with plastic housing with 7 joule shock/impact test. Available with NFC interface with adjustable sensing distance, time delay and MaxRunTimer.



TYPICAL APPLICATIONS

A capacitive relay sensor is typically used as empty, full and level indicator in tanks, silos and containers. The powerful integrated relay means that it can control many functions directly.

THE iDOL 46R SERIES

The iDOL 46R series of capacitive relay sensors from dol-sensors are sturdy and easy to operate.

The SmartAdjust App makes it easy to change settings of product parameters, depending on the model.

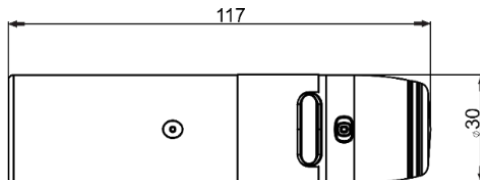
A red LED clearly indicates the current status of the sensor and a green LED indicating power on sensor. LEDs can be switched off.

FUNCTIONAL DESCRIPTION

iDOL 46R is available with different functions with easy adjustment using the SmartAdjust App:

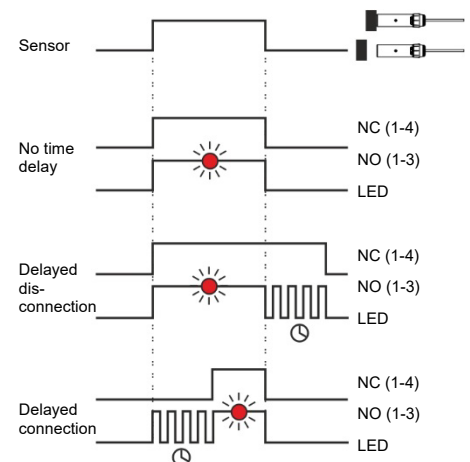
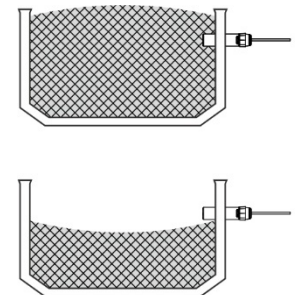
- ON and/or OFF delay
- MaxRunTimer
- Sensitivity

DIMENSIONAL SKETCH (MM)



The actual functionality of the sensor is indicated on the product label.

See www.dol-sensors.com for further information.



Technique

The iDOL 46R series features a built-in powerful relay with switch function. The sensor has universal input supply with the following voltage range:
20 - 280 V AC/DC

Reliability

The use of electronic rather than mechanic switches ensures a unique reliability, particularly as the electronics are completely encapsulated in special plastic, which provides maximum protection against humidity and other external influences in harsh environments.
The sensor is also CE approved and has a high immunity to noise from electric communication (i.e. from a mobile phone) and transients (i.e. from motors and contactors). This makes the sensor very reliable.

Building-in

The iDOL 46R is easily mounted in a plastic gland, which is also available as a flange solution for easy external mounting, which provides several, mounting options.

Technical data

Supply voltage:	20 - 280 V AC/DC
Frequency:	47 - 63 Hz
Relay switch max. voltage:	250 Volt AC
Relay switch max. power:	Resistive load: 4 A Inductive load: 2 A
Safety:	Relay switches and supply voltage are galvanic separated. Test voltage 4 kV AC
Distance of activation:	Adjustable 0 - 20 mm depending on material
Time delay:	Adjustable 0-3600 sec.
MaxRunTimer	Stepless settings
Protection class:	IP69K. NEMA 1, 3, 4, 6, 12, 13
Surrounding temperature, operation:	-30 °C - +50 °C (-22 °F - +122 °F)
Surrounding temperature, storage:	-40 °C - +80 °C (-40 °F - +176 °F)
Length:	117 mm (4 ⁵ / ₈ ")
Diameter:	30 mm (1 ³ / ₁₆ ")
Cable:	5 x 0.5 mm ² (5 x AWG20) 2 m (6.6 feet), 5 m (16.5 feet) or 10 m (33 feet)
Weight incl. cable:	2 m (6.6 feet): 245 g (8.64 oz) 5 m (16.5 feet): 453 g (15.98 oz) 10 m (33 feet): 783 g (27.62 oz)
Accessories, supplied:	Instruction
Approvals:	IECEX / ATEX zone 20, 21 and 22, dust IEC/EN conforms to the Harmonized Standards IECEX ULD 18.0015X Ex ta IIIC T200 85°C Da DEMKO 18 ATEX 1910X CE ₀₅₃₉  II 1D Ex ta IIIC T ₂₀₀ 85 °C Da