

Capacitive Relay Sensor DOL 46R Series

CE0539

Ex II 1D Exta IIIC T₂₀₀ 85 °C Da

The DOL 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 potential 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 trimmer 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 DOL 46R

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

The two trimmers are protected with a sealed protector.

A red LED clearly indicates the current status of the sensor and a green LED indicating power on sensor.

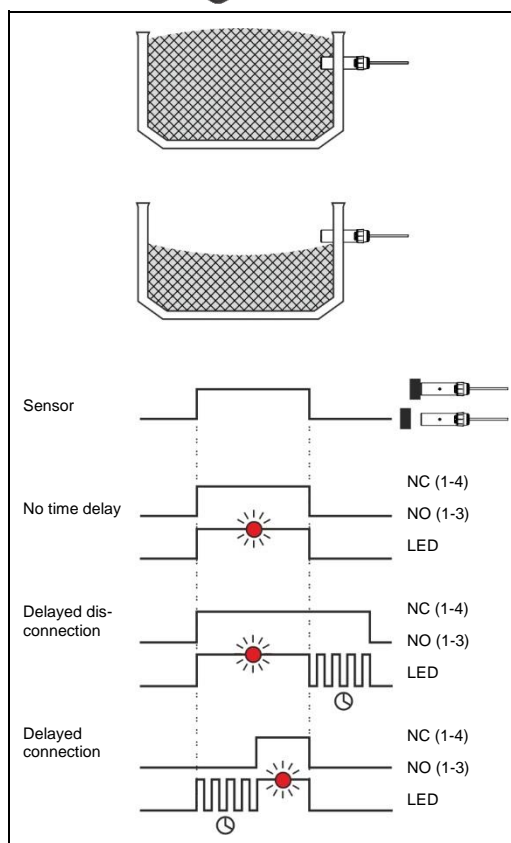
FUNCTIONAL DESCRIPTION

DOL 46R is available with different functions.

- Easy trimmer adjustment on a single turn 240° trimmer with linear or non-linear scale
- Functions which can be made available for adjustment on trimmers:
 - ON and/or OFF delay
 - MaxRunTimer
 - Sensitivity

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

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



TECHNICAL INFO

Technique

The DOL 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

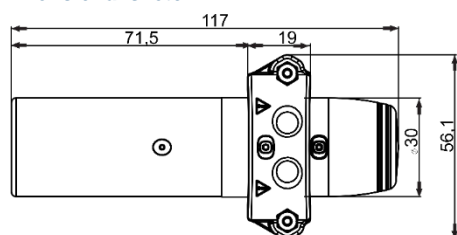
The use of electronic rather than mechanic switches ensures a unique reliability, particularly as the electronics are completely encapsulated in special plastic, which provides maximum protection against humidity and other external influences in harsh environments.

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 DOL 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.

Dimensional sketch



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 0-600 sec.
MaxRunTimer*	3 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): 268 g (9.45 oz) 5 m (16.5 feet): 476 g (16.79 oz) 10 m (33 feet): 806 g (28.43 oz)
Accessories, supplied:	Instruction, screwdriver (DOL 46R only)
Approvals:	ATEX zone 20, 21 and 22, dust IECEx conforms to the Harmonized European Standards CE ₀₅₃₉ Ex II 1D Exta IIIC T ₂₀₀ 85 °C Da

*Option – can be changed/introduced upon request. See the current functions on the product label.