

# DOL 44R series

## Capacitive Relay-Sensor



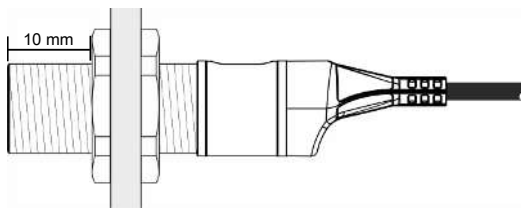
For other language variants of this document we refer to [www.dol-sensors.com](http://www.dol-sensors.com) or your local dealer.

## 1 Product description

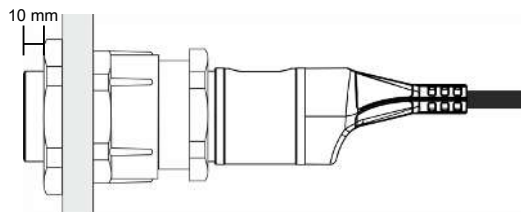
DOL 44R Series is designed for general detection of feed, grain and solids in tanks, silos and containers. The powerful integrated relay means that it can control many functions directly.

The sensor's electronics are completely embedded in a thermoplastic casing. This achieves a very high resistance to moisture and other external influences in aggressive environments. The sensor is CE, C-UL and UL 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.

## 2 Mounting guide



DOL 44RG includes M30 thread. Mount it in a  $\varnothing 30$  mm hole and tighten using the locknuts included.



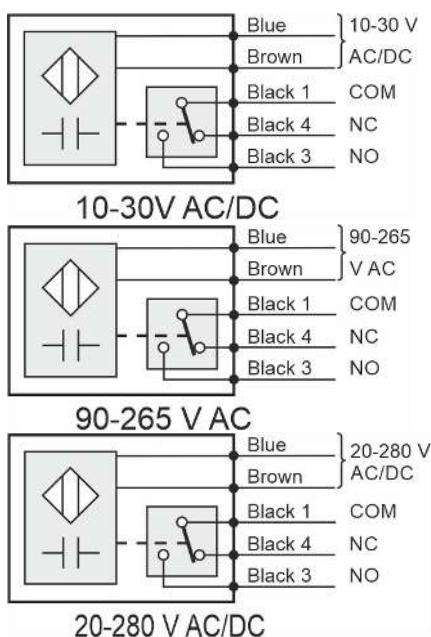
DOL 44R is made in a  $\varnothing 30$  mm smooth design. mounted in a PG36/M40 gland.

The sensor is mounted so that at least 10 mm of the sensor end is free

## 3 Installation guide



Installation, servicing and troubleshooting of all electrical equipment must be carried out by qualified personnel in compliance with the applicable national and international standard EN 60204-1 and any other EU standards that are applicable in Europe.



Supply voltage is connected to the blue and brown wire.

The load is connected in series with the relay contact of the sensor.

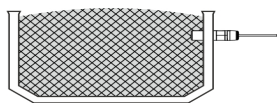
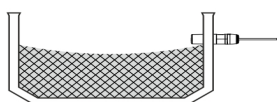
**STOP** by activating the sensor: Use the black wires 1 and 3.

**START** by activating the sensor: Use the black wires 1 and 4.

**NOTE!** The internal relay is in position NC when the supply voltage is connected and the sensor is activated - wire 1 and 4 are connected.

## 4 User Guide

Relay NC(1-4)

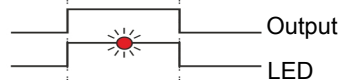
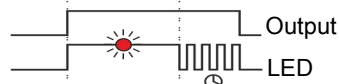

 Relay NO(1-3)  
after delay


LED sequence

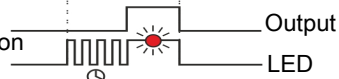
Sensor



No time delay


 Delayed  
disconnection


Delayed connection



DOL 44R series is available with different functions

Two trimmers make it easy to change settings of two product parameters, depending on the model.

A red LED clearly indicates the current status of the sensor  
The actual functionality of the sensor is indicated on the product label

**Delayed disconnection** - when the affect stops, the time delay starts:

fixed delay *or*

delay can be adjusted on the trimmer

**Delayed connection** - when the affect stops, the time delay starts:

fixed delay *or*

delay can be adjusted on the trimmer

**Sensitivity:**

fixed distance *or*

distance can be adjusted on the trimmer

**MaxRunTimer:**

Settings on the trimmer: Off, Period 1, Period 2

**Temperature-controlled heat function (e.g. DOL 44RH)**

Reliable robust use down to -40 °C

Prevents the built-up of condensation and frost on the sensor

## 5 Technical data

<b>Electrical</b>		
Supply voltage	V AC/DC	10-30
Variant dependent	V AC	90-265
	V AC/DC	20-280
Frequency	Hz	47 - 63
Max. resistive load, 250 V AC	A	5
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
<b>Specifications</b>		
Variant understanding	<div style="text-align: center;"> <b>DOL 44R R H G T</b> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;"> <u>Series</u>  <u>Delayed disconnection</u> </div> <div style="text-align: center;"> <u>Tube mount</u>  <u>Thread</u>  <u>Heating</u> </div> </div>	
Distance of activation		Adjustable distance depending on variant

Time delay		Adjustable time depending on variant
<b>Mechanical</b>		
Sensor length	mm (inches)	138 (5 7/16) 117 (4 5/8)
Sensor diameter	mm (inches)	30 (1 3/16) / 29,5 (1 3/16)
Cable dimensions	mm <sup>2</sup> (AWG)	5x 0,5 (5 x 20)
Cable length	m (ft.)	Standard 2 (6.6) / Max 10 (32)
Cable type		UL2517 / UL20549
Weight incl. cable	g (oz)	290 (10.2)
<b>Environment</b>		
Operating temperature	°C (°F)	-20 - +70 (-4 - +158)
Operating temperature UL 508	°C (°F)	-20 - +65 (-4 - +149)
Storage temperature	°C (°F)	-30 - +80 (-22 - +176)
Operating temperature with heating function	°C (°F)	-40 - +70 (-40 - +158)
Protection class	IP (NEMA)	IP69K (1, 3, 4, 6, 12, 13)
Approval		CE, C-UL & UL

## 5.1 Dimensions

