DOL 44R-33 series

Capacitive Relay-Sensor

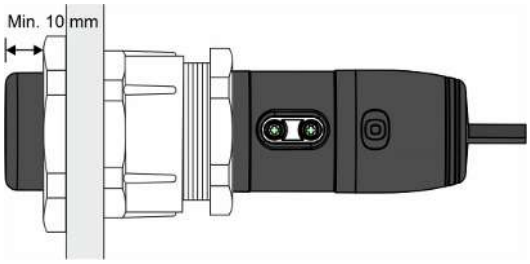
For other language variants of this document we refer to www.dol-sensors.com or your local dealer.

1 Product description

DOL 44R-33 Serien 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

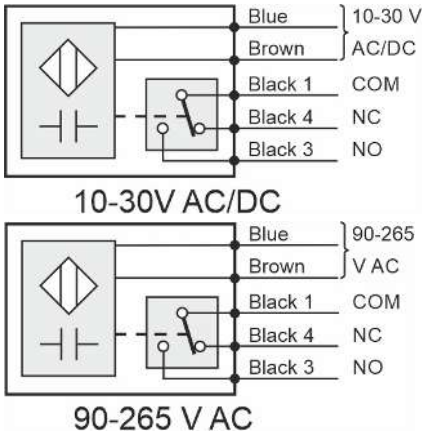


DOL 44R-33 is made in a ø33 mm smooth design.

Mounted so that at least 10 mm of the sensor end is free in a PG36/M40 screwed flange.

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.

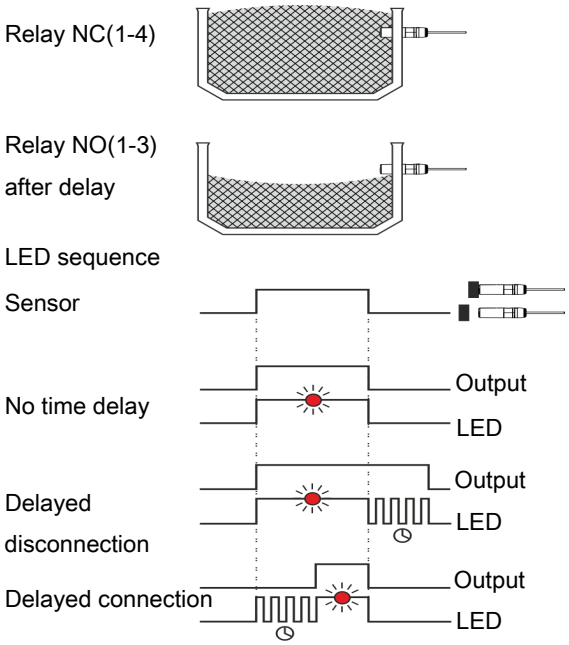
The load is connected in series with the relay contact of the sensor.

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



DOL 44R-33 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

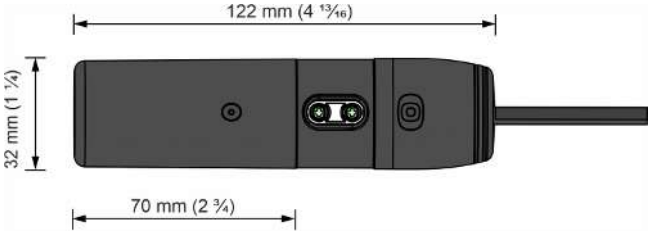
Prevents the built-up of condensation and frost on the sensor

5 Technical data

Electrical		
Supply voltage Variant dependent	V AC/DC V AC	10-30 90-265
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
Specifications		
Variant understanding	DOL 44R R H - 33 Diameter: Series Delayed disconnection Heating	
Distance of activation		Adjustable distance depending on variant

Time delay		Adjustable time depending on variant
Mechanical		
Sensor length	mm (inches)	122 (4 13/16)
Sensor diameter	mm (inches)	32 / (1 1/4)
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 / UL20549
Weight incl. cable	g (oz)	290 (10.2)
Environment		
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



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