

dol  
SENSORS

MAKING SENSE IN YOUR PRODUCTION

# DOL 44R

TECHNICAL USER GUIDE



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

## TECHNICAL USER GUIDE

### PRODUCT DESCRIPTION:

DOL 44R is a capacitive relay sensor for detection of feed, grain and solids. The sensors have relay output including switch function.

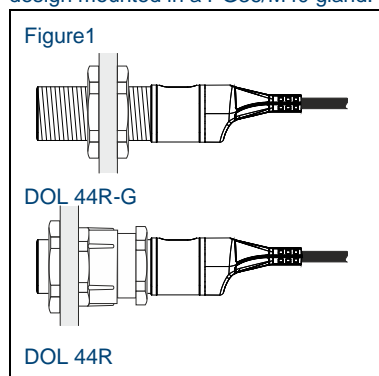
Fields of application:

- Level control in silos and containers
- Controlling the filling and emptying process.

### MOUNTING GUIDE (FIG. 1):

DOL 44R 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.



### INSTALLATION GUIDE (FIG. 2):

Supply voltage is connected to the blue and brown wire.

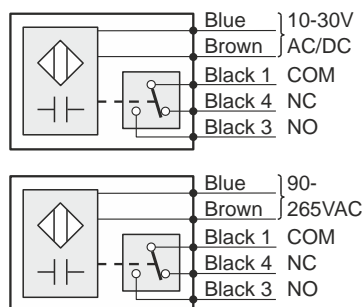
The load is connected in series with the relay contact of the sensor.

**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.

Figure 2: No-current sensor



### USER'S GUIDE (FIG. 3):

Depending on its type, DOL 44R has two trimmers with different functionalities.

#### Delayed disconnection:

- Fixed time *or*
- Time adjustable on trimmer

#### Delayed connection:

- Fixed time *or*
- Time adjustable on trimmer

#### Sensitivity:

- Fixed distance *or*
- Distance adjustable on trimmer

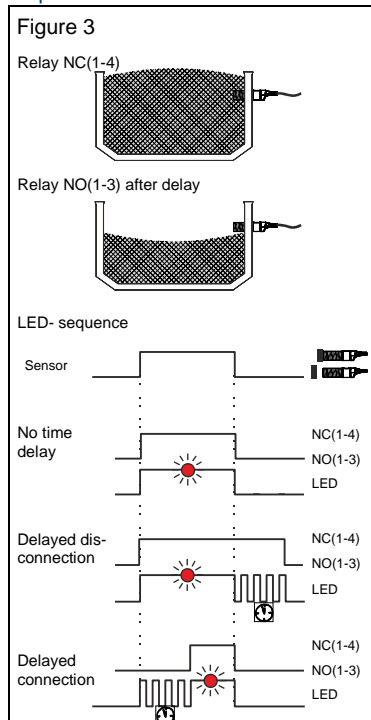
#### Max RunTimer:

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

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

DOL 44R has a red LED, indicating sensor status.

Fig. 3 shows examples of LED sequences.



DOL 44RH has a built-in, controlled heat function which prevents frost and condensation on the sensor. This ensures optimum detection in very cold and damp environments.

The heat function is only possible for the 90-265 V AC voltage version.

### TECHNICAL DATA:

#### Supply voltage:

|                  |                 |
|------------------|-----------------|
| Voltage version: | 90 - 265 VAC    |
|                  | 47 - 63 Hz      |
| Voltage version: | 10 - 30V AC/DC  |
|                  | 47 - 63 Hz      |
| Voltage version: | 20 - 280V AC/DC |
|                  | 47 - 63 Hz      |

#### Relay:

|                              |        |
|------------------------------|--------|
| Max. resistive load, 250VAC: | 5 A    |
| Max. lagging load, 250VAC:   | 2 A    |
| Min. relay current, 12 VDC   | 100 mA |

#### Temperature:

|                                  |                    |
|----------------------------------|--------------------|
| Temp. operation:                 | - 20 °C - + 70 °C  |
|                                  | - 4 °F - + 158 °F  |
| Temp. operation, USA and Canada: | - 20 °C - + 65 °C  |
|                                  | - 4 °F - + 149 °F  |
| Temp. operation, storage:        | - 30 °C - + 80 °C  |
|                                  | - 22 °F - + 176 °F |

|   |                    |
|---|--------------------|
| Temp. operation and storage with heat function: | - 40 °C - + 70 °C  |
|   | - 40 °F - + 158 °F |

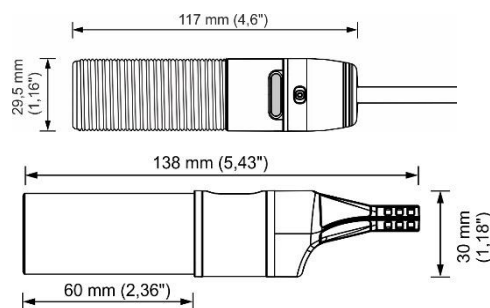
#### Degree of protection:

|       |                    |
|-------|--------------------|
| IP:   | 69k                |
| NEMA: | 1, 3, 4, 6, 12, 13 |

#### Cable:

|                       |                         |
|-----------------------|-------------------------|
| Lenght:               | 2 m                     |
|                       | 6.6 feet                |
| Conductor dimensions: | 5 x 0.5 mm <sup>2</sup> |
|                       | 5 x AWG20               |
| Style:                | UL2517                  |

#### Dimensions:



#### Approvals:

- CE
- UL
- C-UL