

dol
SENSORS

MAKING SENSE IN YOUR PRODUCTION

DOL 40R

EN

Technical User Guide



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

Product Description:

The DOL 40R series is generally applicable capacitive sensors for usage in connection with solid and loose materials. The sensors have a relay output with a switch function.

Field of Application:

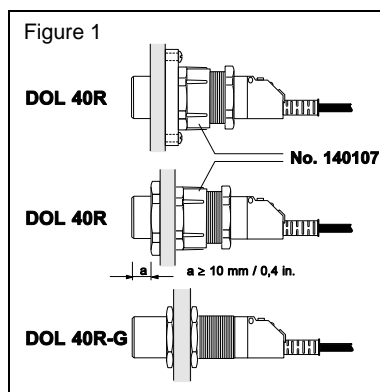
- Level control in silos and containers
- Control of filling and emptying

Mounting Guide (fig. 1):

The DOL 40R series should be installed so at least 10 mm of the sensor contact point is free.

The DOL 40R series in a smooth design is mounted efficiently in a special gland, additional accessory item number 140107.

The DOL 40R-G series with M30 thread is mounted in a ø30 mm hole and is tightened with a locknut.



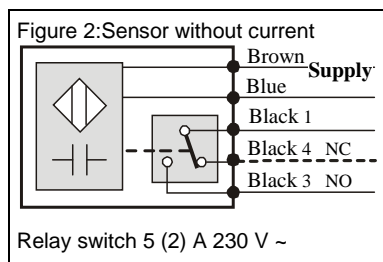
Installation Guide (fig. 2):

The power supply 90 V – 250 V AC 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.

NOTICE! The internal relay is pulled when the power supply is connected and the sensor is not activated.



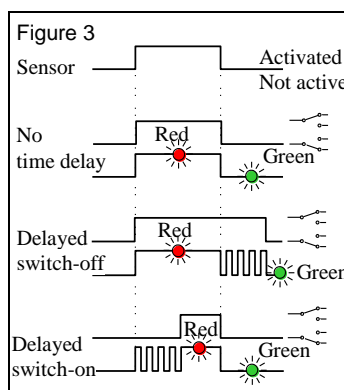
User Guide (fig. 3):

DOL 41R has *no* time delay.

DOL 43R has an option for delayed *switch-off*. When the activation stops, the time delay begins (red flash), and when this delay has run out, the relay switches back.

Besides the two options above the **DOL 45R** can also be set for delayed *switch-on* (green flash). The time delay will start immediately when the sensor is activated. When the delay period runs out, the relay will switch. It does not switch back until the activation stops.

	Sensi- tivity	Off delay Delayed switch-off	On delay Delayed switch-on
41R	•		
43R	•	•	
45R	•	•	•



Technical Data:

Power supply:

High voltage model: 90 – 250 V
50 - 60 Hz

Low voltage model: 10 – 30 V
AC/DC

Relay switch max current AC:

5 A at $\cos \varphi = 1$
2 A at $\cos \varphi = 0.8$
0.35 A at $\cos \varphi = 0.4$

Relay switch max current DC:

5 A at 0-30 V

Temp. range: -20 °C - +70 °C
-4 °F - +158 °F

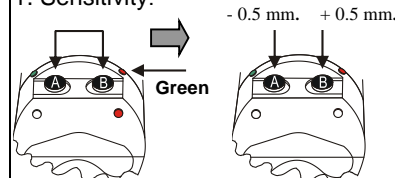
For USA and Canada: Max. 40 °C

Max. delay: 4 hours

Start Adjustment

Press A and B simultaneously

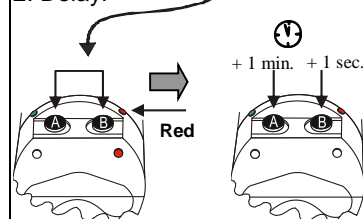
1. Sensitivity:



DOL 41R: Adjustment completed

DOL 43R and DOL 45R:

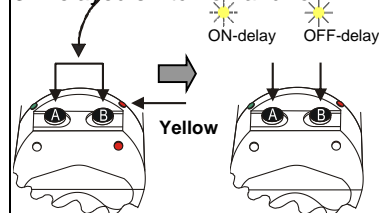
2. Delay:



DOL 43R: Adjustment completed

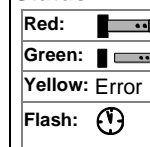
DOL 45R:

3. Delayed switch-on and -off:



DOL 45R: Adjustment completed

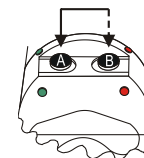
Status



Setting of Special Functions

Press A. Retain pressing.

Same procedure for B.



Reset	A + B (15 sec.)
Show delay	A + 2xB Red=1 min. Green=1 sec.
Adjust delay	A + 4xB (+10 sec.) A + 5xB (÷5 sec.) A + 6xB (+1 h.)
Switch off delay	A + 7xB
Switch off LED	A + 8xB
Switch on LED	A + 9xB