

DOL 40R SERIES ATEX

DA

Teknisk brugervejledning

EN

Technical User's Guide

DE

Technische Bedienungsanleitung



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.

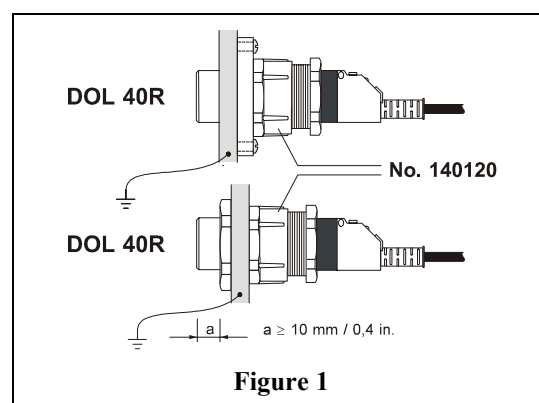
Field of Application:

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

MOUNTING GUIDE (FIGURE 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 ATEX-gland, additional accessory item number 140120.



Prior to commencement of operation:



An effective earth connection must be established to the conductive plastic housing of the sensor and to installation parts, in which it is mounted.

This is easily done by using the special conductive ATEX adapter from SKOV, into which the DOL 40R is easily mounted and thus creates the necessary equipotential bonding to the earthed installation parts. See figure 1.



The sensor is supplied with a 1500 mm long cable as standard. If the sensor is supplied with a longer cable or the cable is extended, an equipotential bonding of the remaining cable longer than 1500 mm must be made. This could be done by laying the cable in a metal pipe or mounting the cable so it is encompassed by earthed installation parts.



The cable must be fixed securely to equipment parts. If the cable is rolled up, you must consider the maximum bending radius of the cable:

Unloaded cable: Bending radius of minimum 3 x cable diameter = 28 mm

Loaded cable: Bending radius 5 x cable diameter = 48 mm

INSTALLATION GUIDE (FIGURE 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.

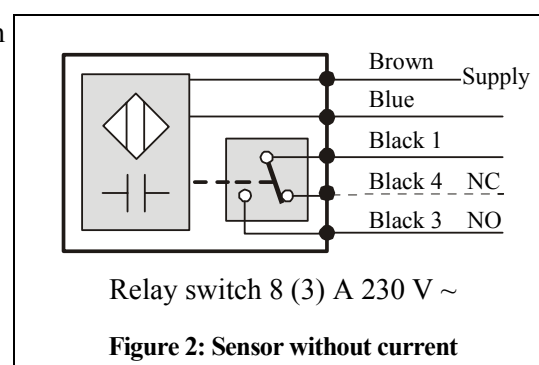


Figure 2: Sensor without current

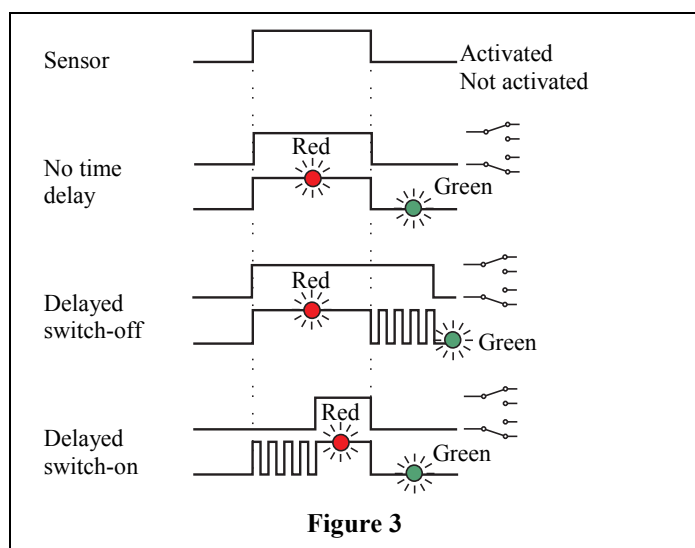
USER'S GUIDE (FIGURE 3)

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.

	Sensitivity	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 - 30V AC/DC

Relay switch max. AC: 1,1 kVA at $\cos \varphi = 1$
1,0 kVA at $\cos \varphi = 0.8$
0,7 kVA at $\cos \varphi = 0.4$

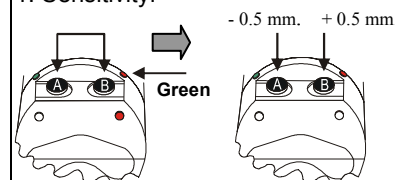
Temp. range: - 20 °C - + 70 °C
- 4 °F- +158 °F

Max. delay: 4 hours

Start Adjustment

Press A and B simultaneously

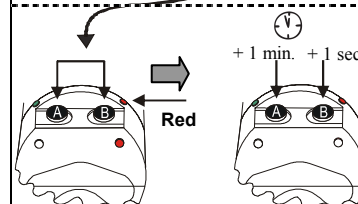
1. Sensitivity:



DOL 41R: Adjustment completed

DOL 43R and DOL 45R:

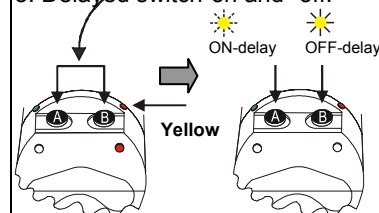
2. Delay:



DOL 43R: Adjustment completed

DOL 45R:

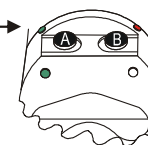
3. Delayed switch-on and -off:



DOL 45R: Adjustment completed

Status

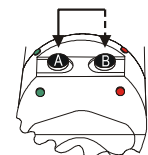
Red:	
Green:	
Yellow:	Error
Flash:	



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