DOL 40R

Capacitive Relay-Sensor



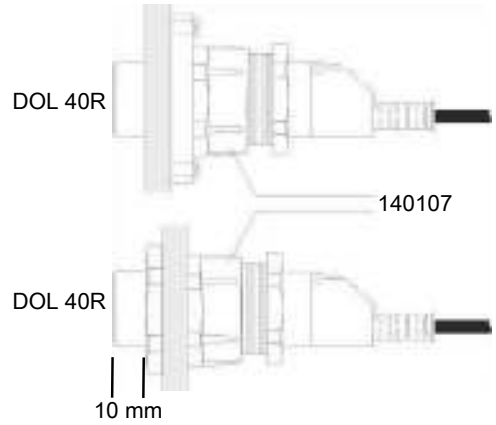
For other language variants of this document we refer to www.dol-sensors.com or your local dealer.

1 Product description

DOL 40R 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.

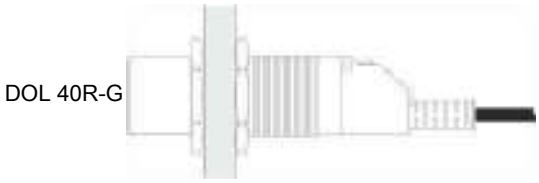
The sensor's electronics are completely embedded in a thermoplastic casing. This achieves a very high resistance to moisture and other external influences in aggressive environments. The sensor is CE, C-UL and UL approved and has a high immunity to noise from electric communication (e.g. from mobile phone) and transients (e.g. from motors and contactors). This makes the sensor very reliable and dependable in operation.

2 Mounting guide



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

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

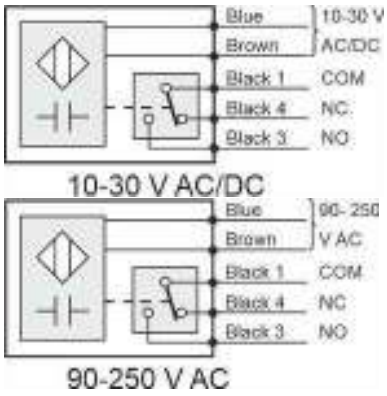


The DOL 40R-G series with M30 thread is mounted in a ø30 mm hole and is tightened with a locknut.

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.

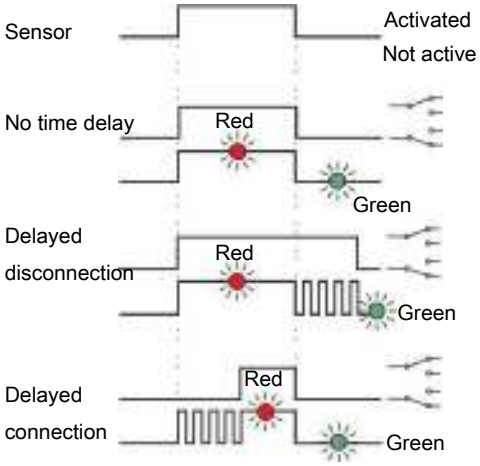
The load is connected in series with the relay contact of the sensor.

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



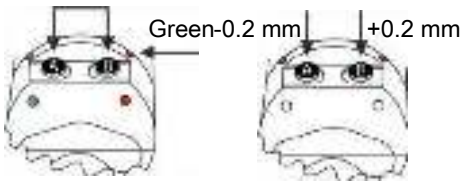
DOL 41R has no time delay.

DOL 43R has an option for delayed disconnection. Time delay starts When the activation stops (red flash) When this time stops, the relay switches back.

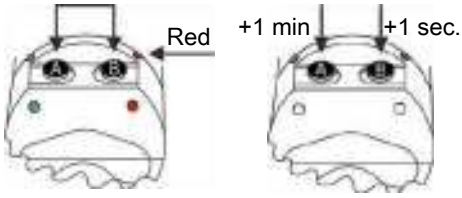
DOL 45R has Apart from the settings mentioned above, also has the option of delayed connection. The time delay starts when the sensor is affected. When the delay period runs out, the relay will switch. The relay does not switch back until the activation stops.

DOL	Sensitivity	Delayed disconnection	Delayed connection
41R	●		
43R	●	●	
45R	●	●	●

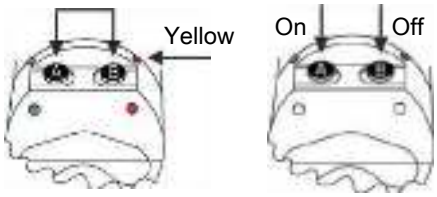
The sensitivity and the delay length are adjusted by two switches. LEDs indicate when the switches are activated.



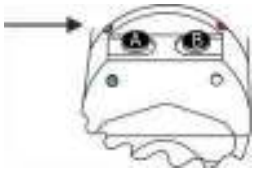
Sensitivity adjustment (DOL 41R / 43R / 45R)
press 1 x A+B simultaneously
press A or B for -0,2mm +0,2mm
DOL 41R settings is completed press A+B
DOL 43R and DOL 45R continue to the next setting by press A+B



Time delay setting (DOL 43R/45R)
Press A or B for +1 minute +1 seconds
Eksempel 1xA + 5xB = 65 seconds
DOL 43R settings is completed press A+B
DOL 45R continue to the next setting by press A+B



On / off delay (DOL 45R)
press A or B for delayed on or off
press A+B simultaneously = settings completed



Status
Red: sensor is affected
Green: sensor is unaffected
Yellow: Error
Flash: Time delay



Special functions
Factory setting: Hold A + B simultaneously for 15 seconds
Show delay Hold A + press 2xB (Red = 1 min. Green = 1 sek.)
Change delay: Hold A + press 4xB (+10 sec.) hold A + 5+B (÷5 sec.)
Hold A + 6+B (+1 hour.)
Switch off delay.: Hold A + press 7xB
switch off LED Hold A + 8xB
Switch on LED Hold A + 9xB

5 Technical data

Electrical		
Supply voltage variant depending	V AC/DC V AC	10-30 90-250
Frequency	Hz	50 - 60
Relay switch max. current	V AC	250
Relay switch max. current AC	A	5 A at cos φ = 1 2 A at cos φ = 0,8 0,35 A at cos φ = 0,4
Relay switch max. current DC	A	5 A at 0-30 V DC
Safety		Relay switches and supply voltage are galvanically separated. Test voltage 4 kV AC
Specifications		
Variant understanding		DOL 45R G T Series Tube mount Thread
Distance of activation		Adjustable 0-15 mm depending on material Factory setting is grain.
Time delay		Adjustable 0 - 240 min. Factory setting is 30 sec.
Mechanical		
Sensor length	mm (inches)	110 (4 5/16)
Sensor diameter	mm (inches)	30 (1 3/16)
Cable dimensions	mm^2 (AWG)	5x 0,75 (5 x 18)
Cable length	m	1.5
Cable type		UL2517
Weight incl. cable	g	290
Environment		
Operating temperature	°C (°F)	-20 - +70 (-4 - +158)
Storage temperature	°C (°F)	-30 - +85 (-22 - +185)
Protection class	IP	IP67
Approval		CE, C-UL & UL

5.1 Dimensions



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