

# DOL 45R-T

## Capacitive Relay-Sensor



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

## 1 Product description

DOL 45R-T 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



Figure 1: DOL 45R T-sensor montering

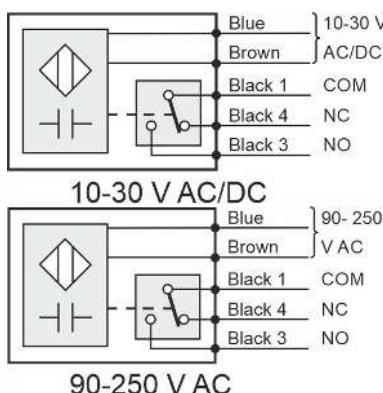
Use the supplied cable ties to mount the sensor on the feed line.

The sensor only works when mounted on plastic tubes. The sensor must be in contact with the plastic tube. This can be verified by checking that the edge of the sensor is flush with the base of the fitting.

## 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.

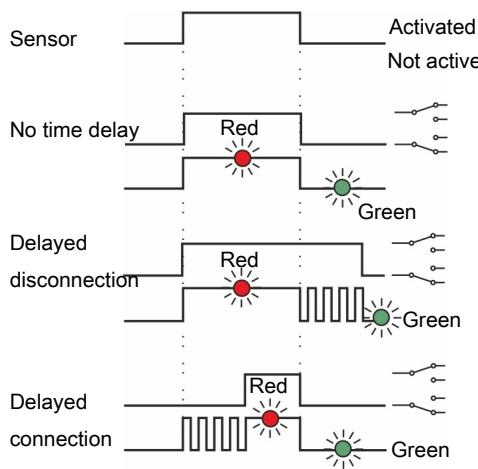
The load is connected in series with the relay contact of the sensor.

**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



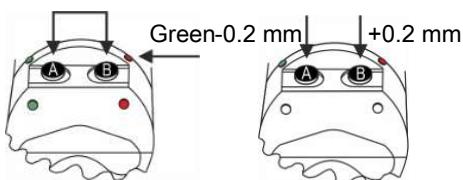
**DOL 41R** has no time delay.

**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.



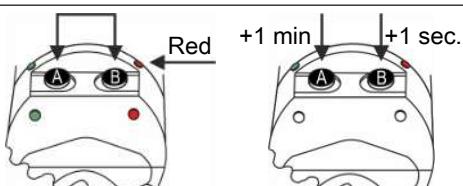
### Sensitivity adjustment (DOL 41R / 43R / 45R)

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



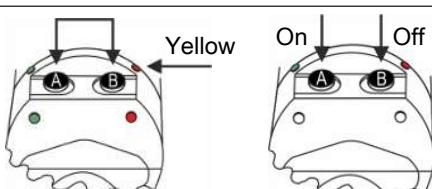
### Time delay setting (DOL 43R/45R)

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

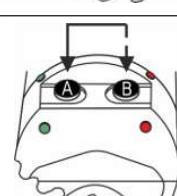
### Status

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 $\cos \varphi = 1$ 2 A at $\cos \varphi = 0,8$ 0,35 A at $\cos \varphi = 0,4$
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	Series	DOL 45R GT Tube mount Thread
Distance of activation	Adjustable 0-15 mm depending on material	
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 <sup>2</sup> (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

