DOL 28R / iDOL 28R
Capacitive Relay-Sensor

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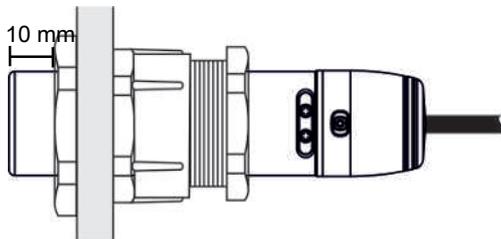
For other language variants of this document we refer to www.dol-sensors.com or your local dealer.
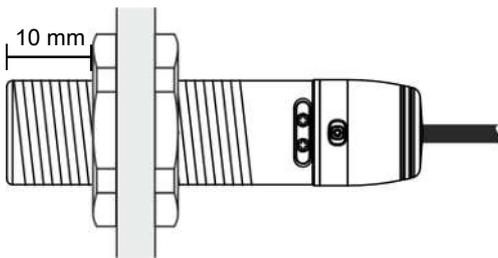
1 Product description

DOL 28R / iDOL 28R is a capacitive relay sensor for detection of feed, grain and solids in a feeding system. The sensor has relay output including switch function.

The sensor has a white LED for illuminating the feed pan, a red LED indicating the status of the sensor and a green LED indicating it's powered on.

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

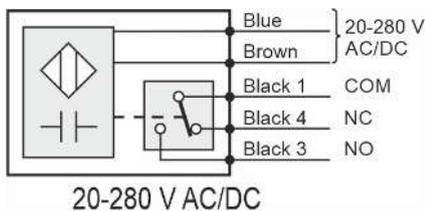DOL 28R / iDOL 28R is made in a ø30 mm smooth design. Mounted in a PG36/M40 gland.

DOL 28RG includes M30 thread. Mount it in a ø30 mm hole and tighten using the locknuts included.

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

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.

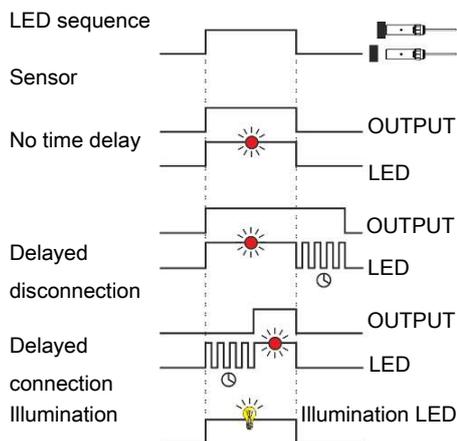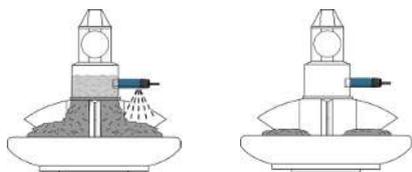Supply voltage is connected to the blue and brown wire.

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 28R / iDOL 28R series can be delivered with different functions
DOL 28R has two trimmers with different functions depending on its type
iDOL 28R settings can be adjusted with the SmartAdjust app,

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

Delayed disconnection:
fixed delay *or* delay can be adjusted on the trimmer or via the SmartAdjust app.

Delayed connection:
fixed delay *or* delay can be adjusted on the trimmer or via the SmartAdjust app.

Sensitivity:
fixed distance *or* distance can be adjusted on the trimmer or via the SmartAdjust app.

MaxRun-timer:
DOL 28R Settings on the trimmer: Off, periode 1, periode 2
iDOL 28R adjustable 1-7200s via SmartAdjust app

5 Technical data

Electrical		
Supply voltage	V AC/DC	20 - 280
Frequency	Hz	47 - 63
Current consumption	VA	< 3
Light intensity at 0,3 m (1 ft.)	Lux	>100
Color temperature	Kelvin	4500 - 5000
Max. current through relay switch (ohmic load) 250 V AC	A	5
Max. current through relay contact (inductive load) 250 V AC	A	2
Min. relay current, 12 V DC	mA	100
Safety		Relay switches and supply voltage are galvanically separated. Test voltage 4 kV AC
Specifications		
Distance of activation		Adjustable 0-20 mm depending on material
Time delay		Adjustable time depending on variant
SmartAdjust		Download on the App Store GET IT ON Google Play Activated NFC required
Mechanical		
Sensor length	mm (inches)	117 (4 $^5/_8$)
Sensor diameter	mm (inches)	30 (1 $^3/_{16}$)

Cable dimensions	mm² (AWG)	5x 0,5 (5 x 20)
Cable length	m (ft.)	2 (6.6)
Cable type		UL2517
Weight incl. cable	g (oz)	290 (10.2)
Environment		
Operating temperature	°C (°F)	-20 - +70 (-4 - +158)
Storage temperature	°C (°F)	-30 - +80 (-22 - +176)
Protection class	IP (NEMA)	IP69K (1, 3, 4, 6, 12, 13)
Approval		CE, C-UL & UL

5.1 Dimensions