

DOL 20SCR

(2-wire capacitive sensor)



DOL 20SCR is a capacitive sensor for detection of loose and solid materials.

The sensor has a 2-wire connection (ON or OFF), which is protected against higher current (I_e) than specified, incl. connection / short-circuit directly to supply voltage.

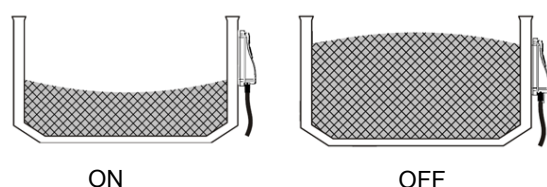
The product is suitable together with contactors, relays and similar within the agricultural and industrial sectors. The mechanical design makes DOL 20SCR ideal for integration into applications with limited space.

Functional description

When there is material in front of the sensor, the output is in the reference position OFF. When the material disappears, the timer, starts, and the output will change to ON after the set delay.

The status of the sensor is indicated with a yellow LED.

The sensor sensitivity and delayed disconnection can be adjusted on two trimmers.



Delayed disconnection:

fixed delay or delay can be adjusted on the trimmer.

Delayed connection:

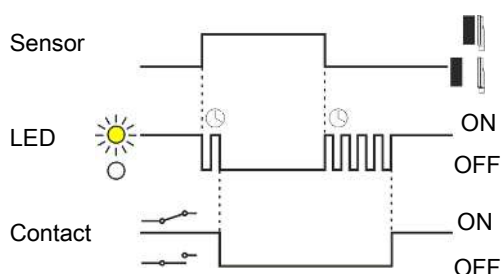
fixed delay or delay can be adjusted on the trimmer.

Sensitivity:

fixed distance or Distance can be adjusted on the trimmer.

MaxRun-timer:

DOL 20SCR Settings on the trimmer: Off, Period 1, Period 2



LED indication	Sensor status
LED OFF	Sensor is OFF
LED flashing	Sensor is OFF and ON delay is active
LED ON	Sensor is ON

Technical data

Electrical		
Rated voltage (Ue)	V AC V DC	20 - 280 20 - 280
Frequency	Hz	47 - 63
Max. current (Ie)	mA	500
Direct connection to Ue (current >> 500 mA) without damage to the sensor	Times	> 10
Min. ON current (Im)	mA RMS/DC	< 10 (Ue = 20 - 90)
	mA RMS/DC	< 6 (Ue = 90 - 280)
OFF current (Ir)	mA RMS/DC	< 3 (Ue = 20 - 90)
	mA RMS/DC	< 1 (Ue = 90 - 280)
Voltage drop (Out) (current > 20 mA)	mA RMS/V DC	< 6
Time delay, start-up	ms	< 150
Time delay, ON*	ms	< 200
Time delay, OFF* (adjustable)	s	0.1 - 600
Operating distance (Sn)*	mm	0 - 12
	in	0 - 0.47
Safe activation distance (Sa)	mm	4 - 10
	in	0.16 - 0.39
Repeatability (R)	%	5
Hysteresis (H)	%	4 - 10
MaxRunTimer* (3 settings)	s	OFF / Period 1 / Period 2
LED indicator for sensor ON		Yellow LED
Mechanical		
Cable length	m (ft.)	1.5 (4.9)
Cable dimensions	mm ² (AWG)	2x0.5 (2x20)
Frame for mounting sensor		Included
Environment		
Temperature, operation	°C (°F)	-20 - +70 (-4 - 158)
Temperature, operation, US and Canada, Ie < 300 mA	°C (°F)	-20 - +70 (-4 - 158)
Temperature, storage	°C (°F)	-40 - +80 (-40 - 176)
Protection class	IP (NEMA)	69k (1, 3, 4, 6, 12, 13)
Approvals		CE, C-UL, UL

*Option – can be changed / introduced upon request. See the current functions on the product label.

Dimensions

