iDOL 20SCR
(2-wire capacitive sensor)

SmartAdjust

iDOL 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 (Ie) than specified, incl. connection / short-circuit directly to supply voltage.
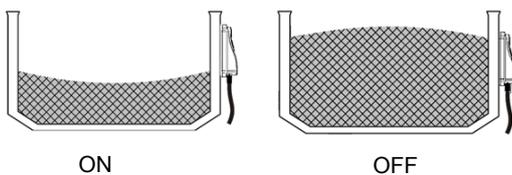
The product is suitable together with contactors, relays and similar within the agricultural and industrial sectors. The mechanical design makes iDOL 20SCRideal for integration into applications with limited space.

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 red LED.

The sensor sensitivity and delayed disconnection can be adjusted via the SmartAdjust app.

Delayed disconnection:

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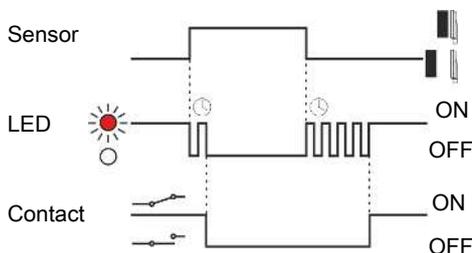
Delayed connection:

fixed delay *or* delay can be adjusted via the SmartAdjust app.

Sensitivity:

fixed distance *or* distance can be adjusted via the SmartAdjust app.

MaxRun-timer:

iDOL 20 SCR adjustable 1-7200s via SmartAdjust app

LED indication	Sensor status
LED OFF	Sensor is OFF
LED is flashing fast	ON or OFF delay is active
LED is flashing slowly	The sensor is not program-med, factory settings are used
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	< 4 (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 (adjustable)	s	0 - 3600
Time delay, OFF (adjustable)	s	0 - 3600
Operating distance (Sn) (adjustable)	mm in	0 - 12 0 - 0.47
Safe activation distance (Sa)	mm in	4 - 10 0.16 - 0.39
Repeatability (R)	%	5
Hysteresis (H)	%	4 - 10
MaxRunTimer* (adjustable)	s	0 - 7200
LED indicator for sensor ON		Red LED
Mechanical		
Cable length*	m (ft.)	1.5 (4.9)
Cable dimensions	mm² (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
SmartAdjust	Download on the App Store	GET IT ON Google Play
	Activated NFC required	

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

Dimensions

16 mm   69 mm   100 mm