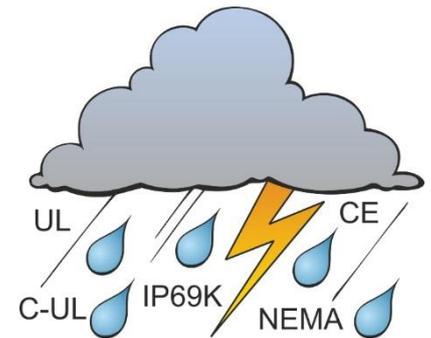
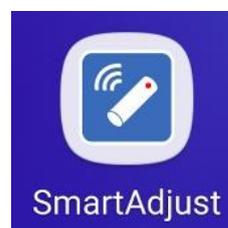


DOL 27 and iDOL 27 Capacitive Proximity Sensors

A complete series of 30 mm sensors with highly unique functionalities for the agricultural industry



SCR / PNP / NPN output versions available



THE REVOLUTIONARY PRODUCT FEATURES

- DOL 27 / iDOL 27 is a capacitive sensor for detecting loose and solid materials.
- SCR output versions are available in 2-wire versions.
- PNP and NPN output versions are available in 4-wire versions.
- The products are suitable together with contactors, relays, PLC's and similar within the agricultural and industrial sectors.
- DOL 27 / iDOL 27 is immune to EMI, short circuits and any overload. No more burned off sensors due to installation mistakes.
- Very low power consumption in off state – enables possibility for sensors working in parallel on the same contactor. Unique possibility for controlling cross auger systems.
- IP69k and NEMA 1/3/4/6/12/13 environment protection.

PRODUCT

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- DOL 27 / iDOL 27 is immune to EMI, short circuits and any overload. No more burned off sensors due to installation mistakes.
- The mechanical design makes DOL 27 / iDOL 27 ideal for integration into applications with limited space.
- Very low power consumption in off state – enables possibility for sensors working in parallel on the same contactor. Unique possibility for controlling cross auger systems.
- IP69k and NEMA 1/3/4/6/12/13 environment protection.
- Fully temperature compensated in complete wide temperature range.

OPERATION APP

Download the programming SmartAdjust App from Google Play Store, search for SmartAdjust or use the QR code:



FUNCTIONALITY

- DOL 27SCR / iDOL 27SCR, incl. load, can be supplied with 20-280 VAC/VDC 47-63 Hz
- Maximum current (I_e) of 500 mA for all SCR, PNP and NPN.
- DOL 27
 - Easy trimmer adjustment on a single turn 240° trimmer with linear or non-linear scale
- iDOL 27
 - Easy adjustment by using the SmartAdjust App
- Functions which can be made available for adjustment on trimmers or by the SmartAdjust App:
 - Make / Break contact
 - ON and/or OFF delay
 - MaxRunTimer
 - Sensitivity

ACCESSORIES

- Treaded product versions are supplied with M30 nuts for implementation.
- All DOL 27 product versions are supplied with screwdriver for trimmer adjustment.
- 140135 Drop Tube for fitting / adapting the sensor to feed drop systems.
- PG 29 gland

LED indication	DOL 27SCR / iDOL 27SCR status	DOL 27PNP/NPN / iDOL 27PNP/NPN status
RED OFF	Sensor output is OFF	Sensor output is OFF
RED slow flashing	Sensor delay is active	Sensor delay is active
RED double flashing	Sensor load error (overcurrent protection is active) MaxRunTimer is active (optional)	Sensor load error (overcurrent protection is active) MaxRunTimer is active (optional)
RED ON	Sensor output is ON	Sensor output is ON
GREEN OFF	N.A.	No power to sensor
GREEN ON	N.A.	Power to sensor

TECHNICAL DATA

Specification	DOL 27SCR / iDOL 27SCR		DOL 27PNP/NPN / iDOL 27PNP/NPN	
	Parameter	Unit	Parameter	Unit
Supply voltage (Ue)	20 - 280	VAC RMS / VDC	10 - 36	VDC
Frequency (fe)	47 - 63	Hz	-	Hz
Max. ripple	-	%	10	%
Max. current (Ie)	500	mA RMS / mA DC	500	mA DC
Inrush current	< 2.5A @ 30 ms	A	-	-
Direct connection to Ue (current >> 500 mA) without damage to the sensor	> 10	Times	> 10	Times
Min. ON current (Im)	< 10 (Ue = 20 - 90)	mA RMS / mA DC		
	< 6 (Ue = 90 - 280)			
OFF current (Ir)	< 3 (Ue = 20 - 90)	mA RMS / mA DC		
	< 1 (Ue = 90 - 280)			
Voltage drop, output ON (Ud)	< 6	V RMS / V DC	< 2.5	V DC
No load supply current	-	mA RMS / mA DC	< 6	mA DC
Detection speed*	> 15	Hz	> 100	Hz
Time delay, start-up	275	ms	60	ms
Time delay, ON*	< 65	ms	< 10	ms
Time delay, OFF* (adjustable)	0.1 – 600	s	0.1 – 600	s
Activation distance (Sn)* (adjustable)	0 - 20 (0 - 0.79)	mm (inches)	0 - 20 (0 - 0.79)	mm (inches)
Safe activation distance (Sa)*	4 - 15 (0.16 - 0.59)	mm (inches)	4 - 15 (0.16 - 0.59)	mm (inches)
Repeatability (R)	5	%	5	%
Hysteresis (H)	4 - 10	%	4 - 10	%
MaxRunTimer* (3 settings for DOL 27, stepless for iDOL 27)	Off / Period 1 / Period 2	s	Off / Period 1 / Period 2	s
DOL 27: Number of single turn 240° trimmers*	0, 1 or 2		0, 1 or 2	
Number of outputs*	1		1 or 2	
Type of output*	NO or NC		NO and NC	
Indicator for power ON	-		Green LED	
Indicator for sensor output state ON or Error	Red LED		Red LED	
Temperature, operation	-20 - +70 (-4 - +158)	°C (°F)	-20 - +70 (-4 - +158)	°C (°F)
Temp., operation, US and Canada, Ie < 300 mA	-20 - +70 (-4 - +158)	°C (°F)	-	°C (°F)
Temp., operation, US and Canada, Ie < 500 mA	-20 - +65 (-4 - +149)	°C (°F)	-20 - +70 (-4 - +158)	°C (°F)
Temperature, storage	-40 - +80 (-40 - +176)	°C (°F)	-40 - +80 (-40 - +176)	°C (°F)
Protection class	IP69k (DIN 40050-9)		IP69k (DIN 40050-9)	
	NEMA 1, 3, 4, 6, 12, 13		NEMA 1, 3, 4, 6, 12, 13	
Cable length*	2 (6.6)	m (ft.)	2 (6.6)	m (ft.)
Cable conductor size	2 x 0.5 (2 x AWG20)	mm ²	4 x 0.27 (4 x AWG22)	mm ²
Weight	290 (10.2)	g (oz)	290 (10.2)	g (oz)
Approvals	CE, UL, C-UL		CE, UL, C-UL	

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

For more info: www.dol-sensors.com

* Special requirements – contact dol-sensors

