

**EN - TECHNICAL INFO** 

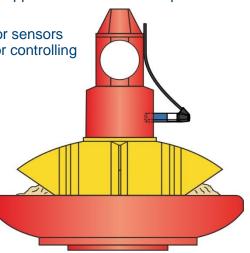
# **DOL 26 Capacitive Proximity Sensors**

A complete series of 18 mm sensors with **10** highly unique functionalities for the agricultural industry

## SCR / PNP / NPN output versions available

### THE REVOLUTIONARY PRODUCT FEATURES

- DOL 26 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 26 is immune to EMI, short circuits and any overload. No more burned off sensors due to installation mistakes.
- The mechanical design makes DOL 26 ideal for integration into applications with limited space. The full-return option is especially suited for feeding pans.
- 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.



FOR THE COMPLETE LIST OF DATA AND FEATURES OF YOUR NEW PROXIMITY SENSOR SEE NEXT PAGE.

UL IP69K NEMA





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#### PRODUCT

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- IP69k and NEMA 1/3/4/6/12/13 environment protection.
- Fully temperature compensated in complete wide temperature range.

#### FUNCTIONALITY

- DOL 26SCR, 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.
- Easy trimmer adjustment on a single turn 240° trimmer with linear or non-linear scale.
- The sensitivity of the sensor can be fixed or adjusted using a trimmer to suit different types of feed.
- The ON/OFF delay and MaxRunTimer of the sensor can be fixed or adjusted using a trimmer to suit different motor control units.
- Functions which can be made available for adjustment on trimmers:
  - Make / Break contact
  - ON and/or OFF delay
  - MaxRunTimer
  - Sensitivity

#### ACCESSORIES

- Treaded product versions are supplied with M18 nuts for implementation.
- All product versions are supplied with screwdriver for trimmer adjustment.
- 140135 Drop Tube for fitting / adapting the sensor to feed drop systems.
- PG 21 gland

LED indication	DOL 26SCR status	DOL 26PNP/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	



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#### **TECHNICAL DATA**

	DOL 26		DOL 26PNP / DOL 26NPN	
Specification	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 (le)	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 surrout (Inc.)	< 10 (Ue = 20 - 90)			
Min. ON current (Im)	< 6 (Ue = 90 - 280)	mA RMS / mA DC		
055 (4)	< 3 (Ue = 20 - 90)			
OFF current (Ir)	< 1 (Ue = 90 - 280)	mA RMS / mA DC		
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	265	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 - 12 (0 - 0.47)	mm (inches)	0 - 12 (0 - 0.47)	mm (inches)
Safe activation distance (Sa)*	4 - 10 (0.16 - 0.39)	mm (inches)	4 - 10 (0.16 - 0.39)	mm (inches)
Repeatability (R)	5	%	5	%
Hysteresis (H)	4 - 10	%	4 - 10	%
MaxRunTimer* (3 settings)	Off / Period 1 / Period 2	s	Off / Period 1 / Period 2	s
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, le < 300 mA	-20 - +70 (-4 - +158)	°C (°F)	-	°C (°F)
Temp., operation, US and Canada, le < 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)
	IP69k (DIN 40050-9)		IP69k (DIN 40050-9)	
Protection class	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 <sup>2</sup>	4 x 0.26 (4 x AWG22)	mm <sup>2</sup>
Weight	170 (6)	g (oz)	170 (6)	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: <u>www.dol-sensors.com</u>

\* Special requirements - contact dol-sensors



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