dol SENSORS

DOL 26 capacitive sensor

Detect loose and solid materials. DOL 26 help ensuring sufficient feed distribution in livestock houses.

Smooth design for limited space

Due to the mechanical design of DOL 26, the sensor is ideal for inclusion in small applications with limited space such as inside feed trough in poultry farms. In this way the sensor is kept away from the reach of the animal.

Hardened design for agriculture

DOL 26 is specially designed for the harsh environment in livestock houses and withstands the high air humidity and the high dust level. The capacitive sensor is fully temperature compensated in complete wide temperature range.

DOL 26 is immune to EMI, short circuits, and any overload. No more burned off sensors due to installation mistakes!

Different versions for different needs

DOL 26 capacitive sensor is available with both a straight and an angled cable exit as well as SCR, PNP, and NPN output options and smooth and threaded housings. The cable-return option is especially suited for feeding pans.

Low power consumption

DOL 26 capacitive sensor has a very low power consumption in off state, which gives the possibility for sensors working in parallel on the same contactor.

Benefits

- Easy mounting in feeding pan with straight cable or cable return
- Accurate sensor
- Long lifetime

Advantages

- IP 69 protected
- Immune to EMI and short circuits
- 2 and 4 wire versions (SCR, NPN or PNP)

DOL 26SCR Serial

Capacitive sensor

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

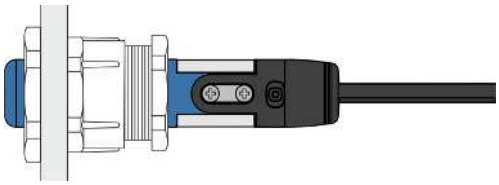
1 Product description

DOL 26 is a capacitive sensor for detection of loose and solid materials.
SCR output versions are available in 2-wire versions.

DOL 26SCR Serial is suitable for serial connection of sensors on the same load.

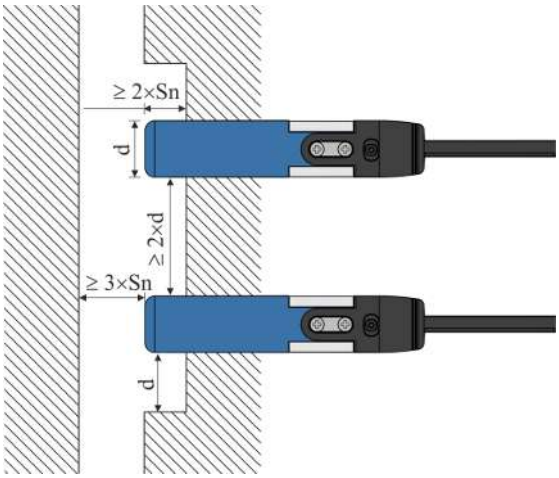
The products are suitable together with contactors, relays, PLC's and similar within the agricultural and industrial sectors. DOL 26 is immune to EMI, short circuits and any overload. The mechanical design makes DOL 26 ideal for integration into applications with limited space. The full-return option 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.

2 Mounting guide



Smooth version mounted within a PG 21 gland

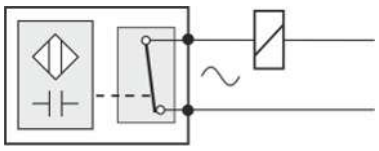
Threaded version mounted with M18 nut.



Mounting restrictions for non-flush (side sensitive version)

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.



DOL 26SCR

DOL 26SCR:

Connect the sensor in series with the load. The polarity is unimportant.

The sensor is protected against overload and short circuit. If the output current exceeds the nominal output current, the output function is switched off. Remove the short circuit or choose a smaller load to remove the error. The current limitation error is indicated on the sensor by double flashes followed by a pause.

LED indication	DOL 26 SCR seriel status
RED OFF	Sensor output is OFF
RED slow flashing	Sensor delay is active
RED double flashing	Sensor load error (overcurrent protection is active) MaxRunTimer is active (optional)
RED ON	Sensor output is ON

Adjustment

DOL 26 has trimmers with different functions depending on its type for adjustment.

4 Technical data

		DOL 26SCR Serial
Electrical		
Supply voltage (Ue)	V AC/DC	20 - 280
Frequency	Hz	47 - 63
Max. Current	mA AC/DC	500
Inrush current	A	< 2,5A @ 30 ms
Direct connection to Ue (current >> 500 mA) without damage to the sensor	times	>10
Min. ON current	mA AC/DC RMS	< 10 (Ue = 20 - 280)
OFF current	mA AC/DC RMS	< 3 (Ue = 20 - 280)
Voltage drop, output ON	V AC/DC	< 6
Specifications		
Detection speed	Hz	< 15
Time delay, start-up	ms	265
Time delay, ON*	s	< 0.065 - 600
Time delay, OFF* (adjustable)	s	0.1 - 600
Activation distance (Sn)* (adjustable)	mm (inches)	0 – 12 (0 – 0.47)
Safe activation distance	mm (inches)	4 – 10 (0.16 – 0.39)
Repeatability	%	5
Hysteresis	%	4 - 10
MaxRunTimer* (3 settings)	s	Off / Period 1 / Period 2
Number of single turn 240° potentiometer		0, 1 or 2
Number of outputs		1
Type of output		NO or NC
Indicator for sensor output state ON or Error		Red LED
Mechanical		
Sensor length	mm (inches)	89 (3 1/2)
Sensor diameter (d)	mm (inches)	18 (11/16)
Cable dimensions	mm2 (AWG)	2x0.5 (2xAWG20)

		DOL 26SCR Serial
Cable length	m(ft.)	2 (6.6)
Cable type		UL2517
Weight incl. cable	g (oz)	170 (6)
Environment		
Operating temperature	°C (°F)	-20 to +70 (-4 to +158)
Operating temperature, USA and Canada, Ie < 300mA	°C (°F)	-20 to +70 (-4 to +158)
Operating temperature, USA and Canada, Ie < 500mA	°C (°F)	-20 to +65 (-4 to +149)
Storage temperature	°C (°F)	-40 to +80 (-40 to +176)
Protection class	IP	69k (DIN 40050-9)
	NEMA	1, 3, 4, 6, 12, 13
Approval		CE, UL, C-UL

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

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