DOL 26SCR PNP/NPN

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.

PNP 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. 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.

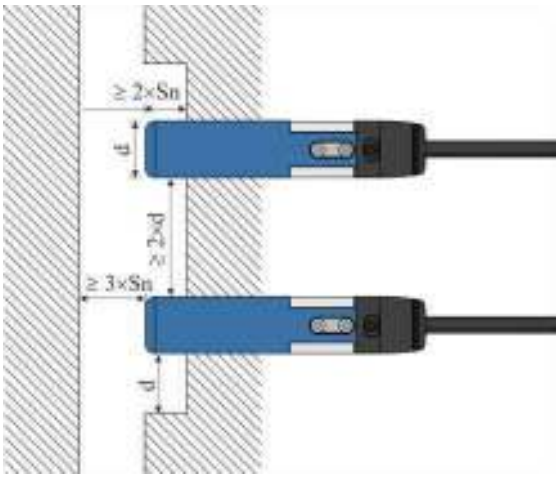
2 Mounting guide



Smooth version mounted within a PG 21 gland



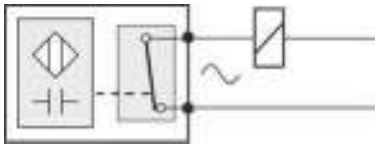
Threaded version mounted with M18 nut.



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.

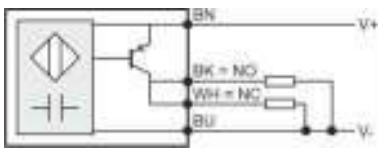


DOL 26SCR

DOL 26SCR:

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

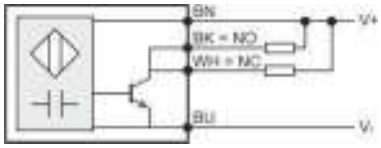
The sensor is protected against overload and short circuit. If the output current exceeds the nominal output current, the output function is switched off. Remove the short circuit or choose a smaller load to remove the error. The current limitation error is indicated on the sensor by double flashes followed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



DOL 26PNP

DOL 26PNP/NPN:

Connect the sensor to a DC supply and connect the loads between the outputs and V- for the PNP version and V+ for the NPN version.



DOL 26NPN

The sensor is protected against polarity errors, and the outputs are 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 status	DOL 26 PNP/NPN 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	
GREEN OFF	-	No power to sensor
GREEN ON	-	Power to sensor

Adjustment

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

4 Technical data

		DOL 26SCR	DOL 26PNP/NPN
Electrical			
Supply voltage (Ue)	V AC/DC	20 - 280	-
	V DC	-	10 - 36
Frequency	Hz	47 - 63	-
Max. ripple	%	-	10
Max. Current	mA AC/DC	500	-
	mA DC	-	500
Inrush current	A	< 2,5A @ 100 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 - 90)	-
		< 6 (Ue = 90 - 280)	-
OFF current	mA AC/DC RMS	< 3 (Ue = 20 - 90)	-
		< 1 (Ue = 90 - 280)	-
Voltage drop, output ON	V AC/DC	< 6	-
	V DC	-	< 2.5
current consumption without load	mA DC	-	< 6
Specifications			
Detection speed	Hz	< 15	< 100
Time delay, start-up	ms	265	60
Time delay, ON*	s	0 - 600	0 - 600
Time delay, OFF* (adjustable)	s	0 - 600	

		DOL 26SCR	DOL 26PNP/NPN
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	1 or 2
Type of output		NO or NC	NO and NC
Mechanical			
Sensor length	mm (inches)	89 (3 1/2)	
Sensor diameter (d)	mm (inches)	18 (11/16)	
Cable dimensions	mm2 (AWG)	2x0.5 (2xAWG20)	4x0,26 (4xAWG22)
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)	-20 to +70 (-4 to +158)
Temperature, storage	°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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