DOL 26 series
Capacitive sensor



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.

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.

RELIABILITY

The sensor's electronics are completely embedded in a thermoplastic casing. This achieves a very high resistance to moisture and other external influences in aggressive environments. The sensor is CE, C-UL and UL approved and has a high immunity to noise from electric communication (e.g. from mobile phone) and transients (e.g. from motors and contactors). This makes the sensor very reliable and dependable in operation.

Adjustment

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

Functional description

Delayed disconnection: fixed delay *or* delay can be adjusted on the trimmer.

Delayed connection: fixed delay *or* delay can be adjusted on the trimmer.

Sensitivity: fixed distance *or* Distance can be adjusted on the trimmer.

MaxRun-timer: DOL 26 Settings on the trimmer: Off, Period 1, Period 2

LED indication	DOL 26 SCR seriel status	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

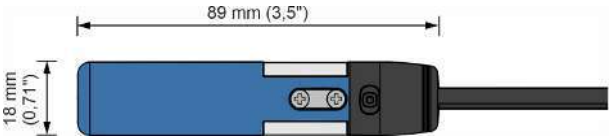
Technical data

		DOL 26SCR Serial	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 - 280)	< 10 (Ue = 20 - 90)	-
		-	< 6 (Ue = 90 - 280)	-
OFF current	mA AC/DC RMS	< 3 (Ue = 20 - 280)	< 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		
Activation distance (Sn)* (adjustable)	mm (inches)	0 – 12 (0 – 0.47)		
Safe activation distance	mm (inches)	4 – 10 (0.16 – 0.39)		

		DOL 26SCR Serial	DOL 26SCR	DOL 26PNP/NPN
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.

Dimensioned sketch



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