

Angle Sensor non-contacting

Series RSC2800
Model 600



Special features

- non-contacting, magnetic
- electrical range 30° up to 360° in 10°-steps available
- available with push-on coupling or marked shaft
- simple mounting
- protection class IP54 or IP65
- long life
- internal resolution 12 Bit
- independent linearity $\pm 0.5\%$
- optional output signal redundant (series 700) see separate data sheet

The contactless sensor utilizes the orientation of a magnetic field for the determination of the measurement angle.

The magnetic field orientation is captured with an integrated circuit. An analogue output signal represents the calculated angle.

The housing is made of a special high grade temperature-resistant plastic material.

Fixings are in the form of elongated slots which allow simplicity in mounting together with ease of mechanical adjustment.

The special backlash-free push-on coupling ensures extremely quick and simple installation. The transducer is not sensitive to either dirt or dampness.

Electrical connection is made via a shielded cable which is sealed into the housing.

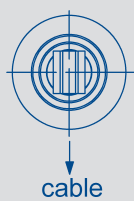
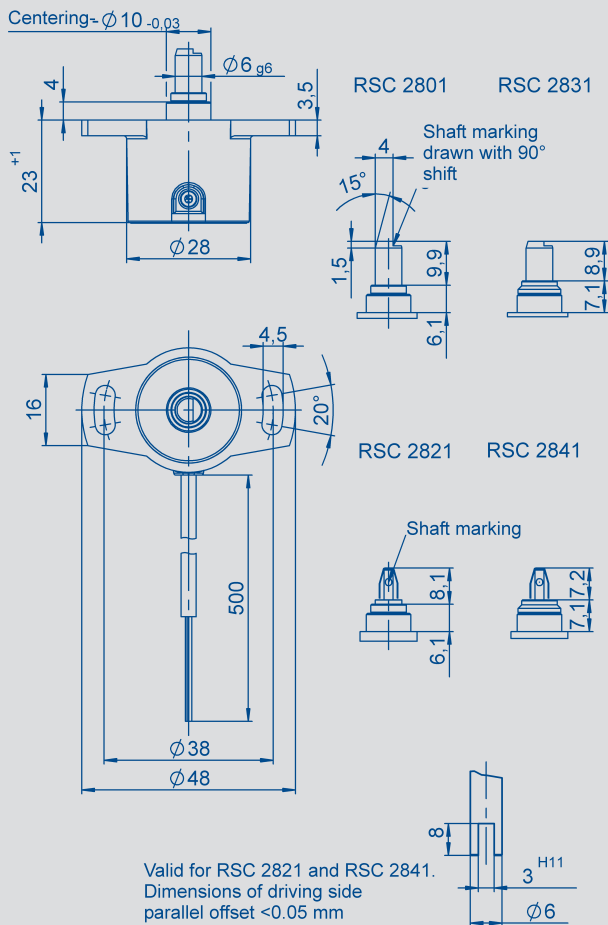
Description

Housing	high grade, temperature resistant plastic
Shaft	stainless steel
Bearings	bronze sleeve bearing
Electrical connections	shielded cable AWG26, outer diameter 4.5 mm

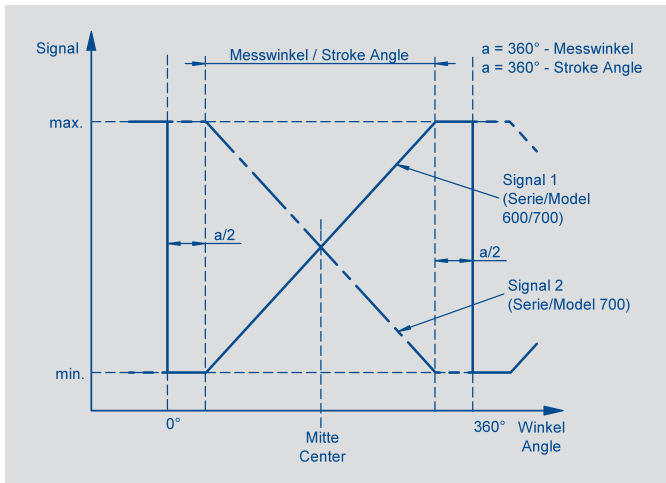
Cable

Ground	brown
Supply voltage	green
Output signal	white
Open	yellow

Connect shield of connecting cable to ground.



When the shaft marking is pointing to cable, the sensor is located in an electrical center position.



Mechanical Data

Dimensions	see dimension drawing	
Mounting	2 M4 fillister-head screws and washer	
Starting torque of mounting clamps at housing flange	400	Ncm
Mechanical travel	360 continuous	°
Permitted shaft loading (axial and radial) static or dynamic force	20	N
Torque	0.5 (IP65) 0.15 (IP54)	Ncm
Maximum operational speed	120	min ⁻¹
Weight	ca. 50	g

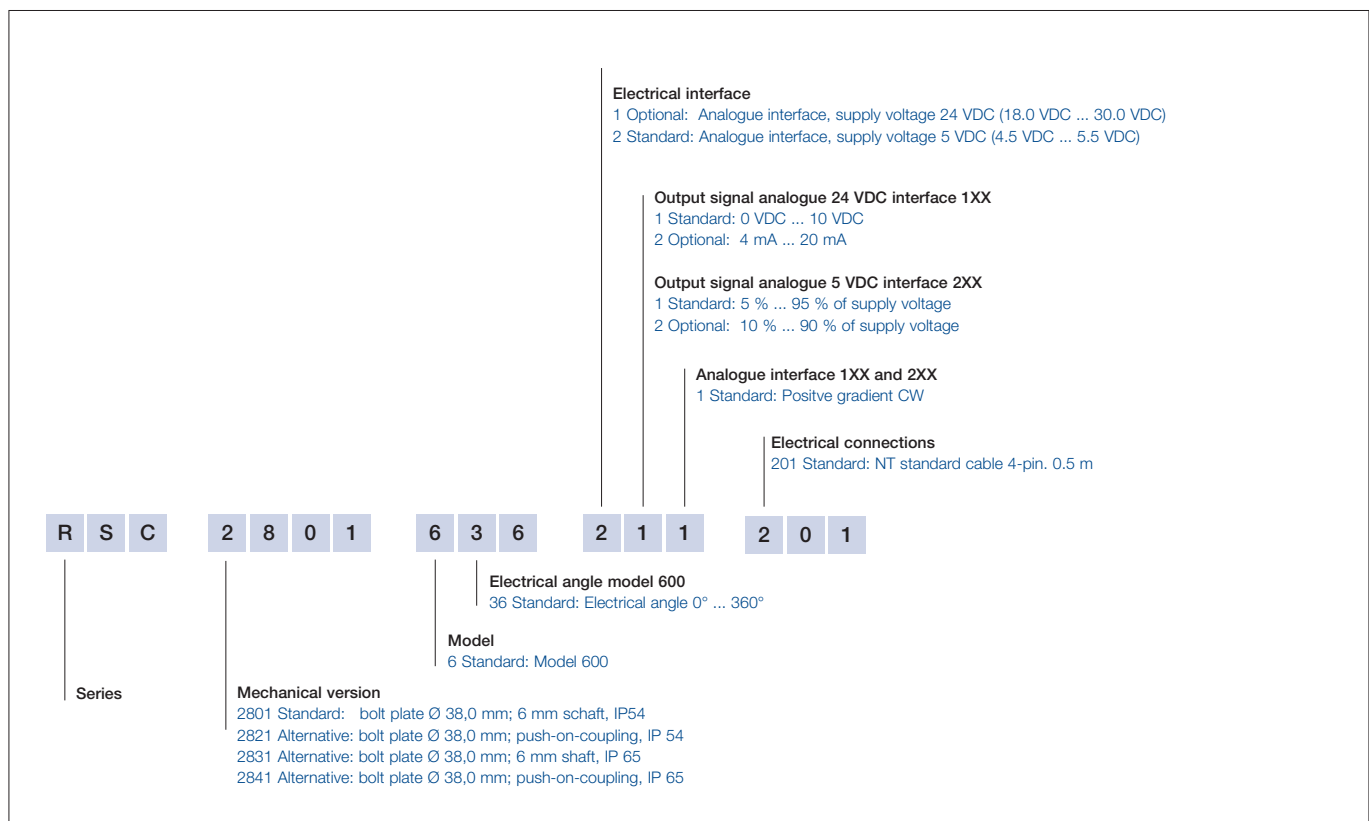
Electrical Data

Supply voltage U_b	5 ±0.5 24 ±6	VDC VDC
Ripple	$U_b = 5\text{ V} \rightarrow$ no ripple definable in case of ratiometric output $U_b = 24\text{V}$ / output 0.1...10 V 20 % $U_b = 24\text{V}$ / output 4...20 mA 20 %	
No-load supply current	15 typical	mA
Reverse voltage	yes, only feeder	
Short circuit protection	yes	
Measuring range	0 ... 30, 0...360 (10° steps)	°
Repeatability	≤ 0.03 of signal range	%
Independent linearity	±0.5 of signal range	%
Output signal	ratiometric (supply voltage 5V ±0.5V) load ≥ 1 kΩ	V
	0.1...10 V (supply voltage 24V ±6V) load ≥ 1 kΩ	V
	4...20 (supply voltage 24 V ±6V) load 0... 500 Ω	mA
TC of output signal	≤ 100	ppm/K
RH of output signal	≤ 10	ppm/%
Insulation resistance (500 VDC, 1 bar, 2s)	≥ 10	MΩ
Cable length, bare, tinned	ca. 500	mm
Cable diameter	ca. 0.14	mm ²
Environmental Data		
Temperature range	-40...+85	°C
Vibration (IEC 68T2-6)	5...2000 $A_{\text{max}} = 0.75$ $a_{\text{max}} = 20$	Hz mm g
Shock (IEC 68T2-27)	50 (11 ms)	g
Life	> 50 x 10 ⁶ (mechanical)	movem.
Protection class (DIN 40050 / IEC 529)	IP54 or IP65	
CE-conformable	ESD EN 61000-4-2 HF-Feld EN 61000-4-3 BURST EN 61000-4-4 EM-Feld 61000-4-8 EN 55011	

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© 11/2007
 Art.-Nr.: 062 715/2
 Subject to changes
 Printed in Germany

Ordering specifications



Recommended accessories

Process-controlled indicators
 MAP... with display