



### GENERAL FEATURES

- 12 bit resolution
- 0-10 VDC, 4-20 mA or ratiometric output options
- Electrical angle options up to 360°
- Spring and mechanical stop option for 120° (mechanical 124°)
- IP54 protection
- Long service life
- Compact design
- High accuracy

RCB 3100 series angle sensors make non-contact measurement with magnetic principle. It has an electrical measuring angle up to 360°. There is also a spring and mechanical stop option for 120°. The measured angular position is transmitted via analog interfaces such as 0.5-4.5V, 0-10V or 4-20 mA.

RCB 3100 series sensors with 12 bit resolution and high accuracy provides long and stable operation. Thanks to its compact structure, it provides quick and simple installation. Optionally, different analog output signals, measuring range (angle value) or cable length can be requested.

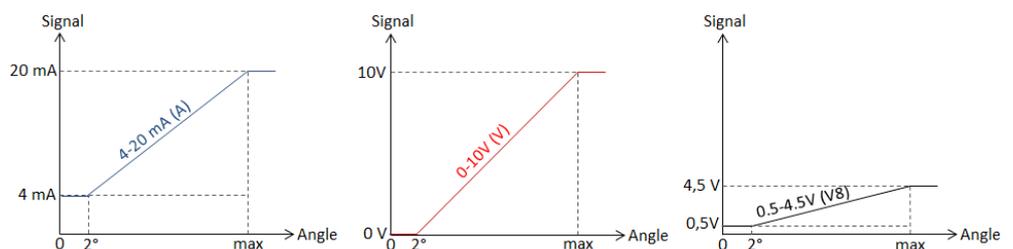
### TECHNICAL SPECIFICATIONS

<b>*Electrical Angle</b>	Can be produced in the desired range up to 360°			
<b>*Mechanical Angle</b>	360° continuous, optionally with 124°±3 mechanical stop			
<b>Measuring Type</b>	Magnetic, non-contact			
<b>Linearity</b>	±%0.5 FS			
<b>Resolution</b>	12 bit			
<b>Repeatability</b>	0.1°			
<b>Response Frequency</b>	250 Hz			
<b>*Output Signal</b>		<b>Ratiometric</b>	<b>0...10VDC</b>	<b>4...20 mA</b>
	<b>Supply Voltage</b>	5 VDC	15...32 VDC	9...32 VDC
	<b>Load</b>	≥ 1KΩ	≥ 1KΩ	0...250 Ω
<b>Current Consumption</b>	30 mA max.			
<b>Reverse Polarity</b>	Yes, only supply			
<b>Electrical Connection</b>	3 x 14 mm <sup>2</sup> shielded cable and superseal connector			
<b>Max Operational</b>	120 RPM			
<b>Protection Class</b>	IP54			
<b>Operating</b>	-25°C ... +85°C			
<b>Material</b>	Body: Aluminum			
	Shaft: Stainless Steel			

**Note:** The specifications specified by (\*) vary depending on the model selected. The detailed code table for product selection is shown on page 2.

### ELECTRICAL CONNECTION

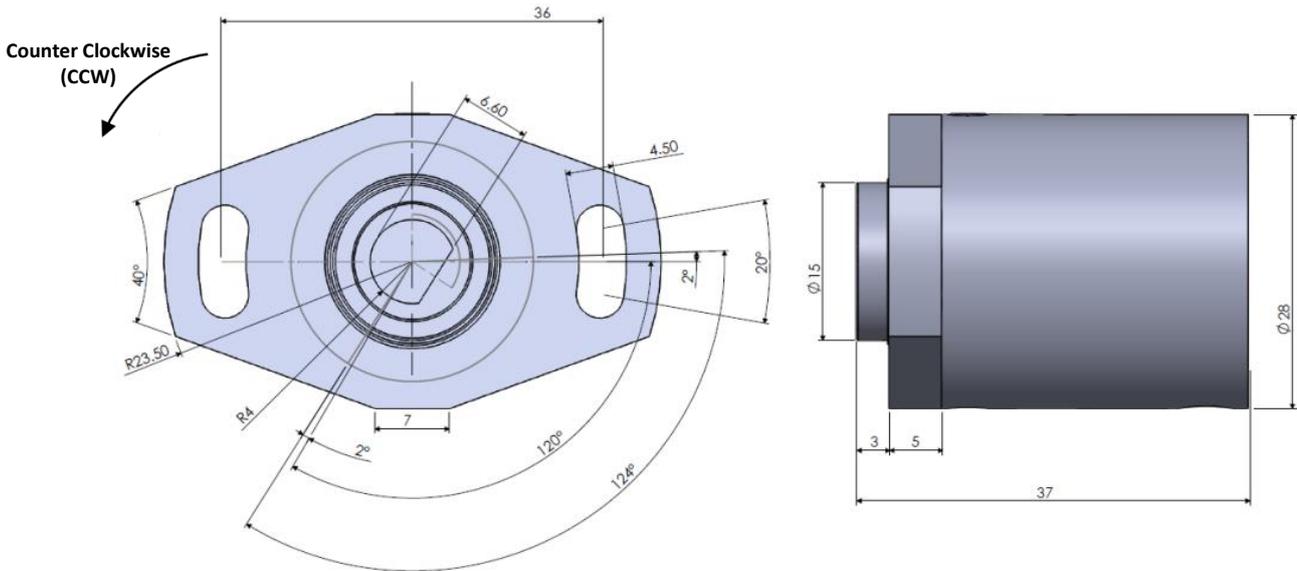
	
<b>SIGNAL</b>	<b>SUPERSEAL CONN.</b>
+V	Pin1
Output	Pin2
0V	Pin3



\* **Output Signal** may be 0.5-4.5V, 0-10V or 4-20 mA depending on the model.

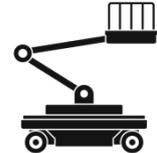
**Note:** The angle sensors have an area that is not measured approx 2°.

## MECHANICAL DIMENSIONS (in mm)



## SAMPLE APPLICATION FIELDS

- Robotic systems
- Auto parts
- Solar and photovoltaic systems
- Automated guided systems
- Crane and lifting technology
- Wind power plant



## ORDER CODE

Model	Electrical Angle	Output Signal	Cable Length <sup>(3)</sup>	Connector Type
RCB 3100 - XXXX - XXX - XXX - XX - XXX - XXX - XX - XXXX	Can be selected in the desired range between 0...360°	A : 4-20 mA V : 0-10 V V8: 0.5-4.5 VDC	0.5M : 0,5 meters (std.)	S132: Superseal connector
	<b>Mechanical Features<sup>(1)</sup></b> C: Continuous rotation SCW: Spring return and mechanical stop CW SCCW: Spring return and mechanical stop CCW	<b>Supply Voltage<sup>(2)</sup></b> TTL: 5VDC PP: For 4-20mA output: 9...32VDC For 0-10V output: 15...32VDC	<b>Output Signal Direction</b> CW : Clockwise CCW: Counter Clockwise	<b>Shaft Diameter</b> 08 : 8 mm

(1) Spring and mechanical stop feature is only available for 120°(mechanical 124°).

(2) When the output signal is selected as 4-20 mA or 0-10V, the supply voltage must be PP and when the ratiometric is selected, the supply voltage must be TTL.

(3) Optionally, different cable lengths can be requested.

**Sample Code:** RCB 3100-SCW-120-PP-V-CW-0,5M-08-S132

RCB 3100 series, spring return and mechanical stop CW rotation, 0-120° measuring range, PP supply, 0-10V output, Output signal direction is clockwise, 0.5m cable, 8 mm shaft, superseal connector