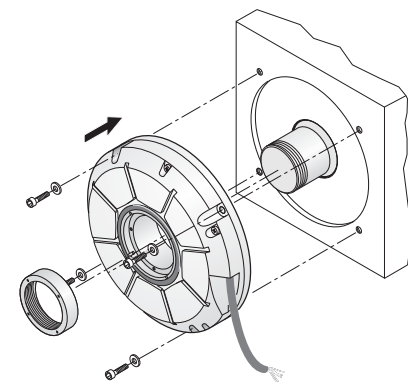


## RCN, RON, RPN angle encoders

With integral bearing and integrated stator coupling

Because of their high static and dynamic accuracy, the **RCN, RON** and **RPN** angle encoders with integral bearings and integral stator couplings are the preferred units for high-precision applications such as rotary tables and tilting axes. The measuring standard is a circular scale with DIADUR graduation or—with the RPN—a phase grating. For the units with stator coupling, the specified accuracy includes the error caused by the coupling. For angle encoders with separate shaft coupling, the coupling error must be added to find the system accuracy.

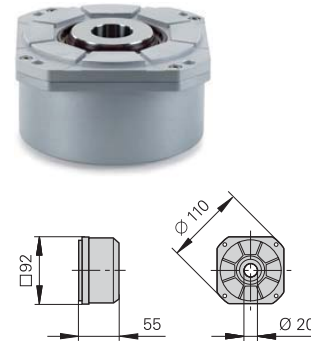


Features of the **RCN 2000, RCN 5000** and **RCN 8000** series angle encoders:

- **Optimized scanning** with large scanning surface for absolute track (serial code structure) and incremental track (single-field scanning and optical filtering)
- **Large mounting tolerances** thanks to optimized stator coupling with improved torsional rigidity and revised shaft seal
- **Plug-in cable with quick disconnect**
- **Scanning and evaluation electronics** for a large power supply range and additional monitoring and diagnostic capabilities

### RCN 2000 and RON 200 series

- **Compact design**
- Sturdy design
- Typically used with rotary tables, tilting tables, for positioning and speed control
- Versions in stainless steel (e.g. for antennas) available on request



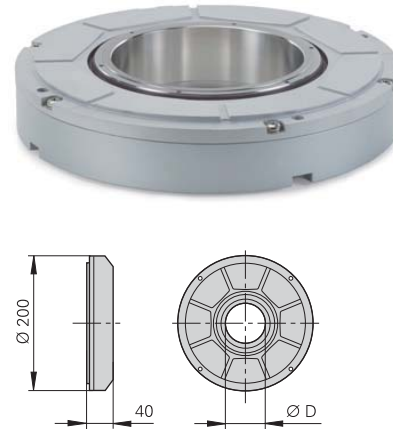
### RCN 5000 series

- **Large hollow shaft and small installation space**
- Stator mounting dimensions compatible with RCN 2000 and RON 200



### RCN 8000, RON 700 and RON/RPN 800 series

- **Large hollow shaft diameter** up to Ø 100 mm
- System accuracy  $\pm 2''$  and  $\pm 1''$
- Typically used on rotary and angle measuring tables, indexing fixtures, measuring setups, image scanners



**RCN 8000**  
D = 60 mm or 100 mm  
**RON 786/886, RPN 886**  
D = 60 mm

### RON 905

- **Very high-accuracy angle encoder**
- System accuracy  $\pm 0.4''$
- Used with high-accuracy measuring devices and for the inspection of measuring equipment



	<b>Absolute</b> RCN 2380 RCN 2580	RCN 2310 RCN 2510	RCN 2390F RCN 2590F	RCN 2390M <sup>2)</sup> RCN 2590M <sup>2)</sup>	<b>Incremental</b> RON 225 RON 275	RON 285 RON 287
<b>Interface</b>	EnDat 2.2 <sup>1)</sup> with $\sim 1 V_{PP}$	EnDat 2.2 <sup>1)</sup>	Fanuc $\alpha i$	Mitsubishi	$\square$ TTL	$\sim 1 V_{PP}$
Position values/rev	RCN 23x0: 67 108 864 (26 bits); RCN 25x0: 268 435 456 (28 bits)				-	
Signal periods/rev	16384	-			18000 <sup>3)</sup> 90000/180000 <sup>4)</sup>	18000
<b>System accuracy</b>	RCN 23x0: $\pm 5''$ ; RCN 25x0: $\pm 2.5''$				$\pm 5''$	$\pm 5''$ ; $\pm 2.5''$
<b>Mech. permiss. speed</b>	$\leq 1500 \text{ min}^{-1}$				$\leq 3000 \text{ min}^{-1}$	

	<b>Absolute</b> RCN 5380 RCN 5580	RCN 5310 RCN 5510	RCN 5390F RCN 5590F	RCN 5390M <sup>2)</sup> RCN 5590M <sup>2)</sup>
<b>Interface</b>	EnDat 2.2 <sup>1)</sup> with $\sim 1 V_{PP}$	EnDat 2.2 <sup>1)</sup>	Fanuc $\alpha i$	Mitsubishi
Position values/rev	RCN 53x0: 67 108 864 (26 bits); RCN 55x0: 268 435 456 (28 bits)			
Signal periods/rev	16384	-		
<b>System accuracy</b>	RCN 53x0: $\pm 5''$ ; RCN 55x0: $\pm 2.5''$			
<b>Mech. permiss. speed</b>	$\leq 1500 \text{ min}^{-1}$			

	<b>Absolute</b> RCN 8380 RCN 8580	RCN 8310 RCN 8510	RCN 8390F RCN 8590F	RCN 8390M <sup>2)</sup> RCN 8590M <sup>2)</sup>	<b>Incremental</b> RON 786 RON 886	RPN 886
<b>Interface</b>	EnDat 2.2 <sup>1)</sup> with $\sim 1 V_{PP}$	EnDat 2.2 <sup>1)</sup>	Fanuc $\alpha i$	Mitsubishi	$\sim 1 V_{PP}$	
Position values/rev	536870912 (29 bits)				-	
Signal periods/rev	32 768	-	-		18000, 36000	36000 180000
<b>System accuracy</b>	RCN 83x0: $\pm 2''$ ; RCN 85x0: $\pm 1''$				$\pm 2''$	$\pm 1''$
<b>Mech. permiss. speed</b>	$\leq 500 \text{ min}^{-1}$				$\leq 1000 \text{ min}^{-1}$	

	<b>Incremental</b> RON 905
<b>Interface</b>	$\sim 11 \mu A_{PP}$
Signal periods/revolution	36000
<b>System accuracy</b>	$\pm 0.4''$
<b>Mech. permiss. speed</b>	$\leq 100 \text{ min}^{-1}$

<sup>1)</sup> DRIVE-CLiQ via EIB; PROFIBUS-DP via gateway

<sup>2)</sup> Available upon request

<sup>3)</sup> Integrated 2-fold interpolation

<sup>4)</sup> Integrated 5/10-fold interpolation

DRIVE-CLiQ is a registered trademark of the Siemens Aktiengesellschaft