

SLIMSYN Resolver

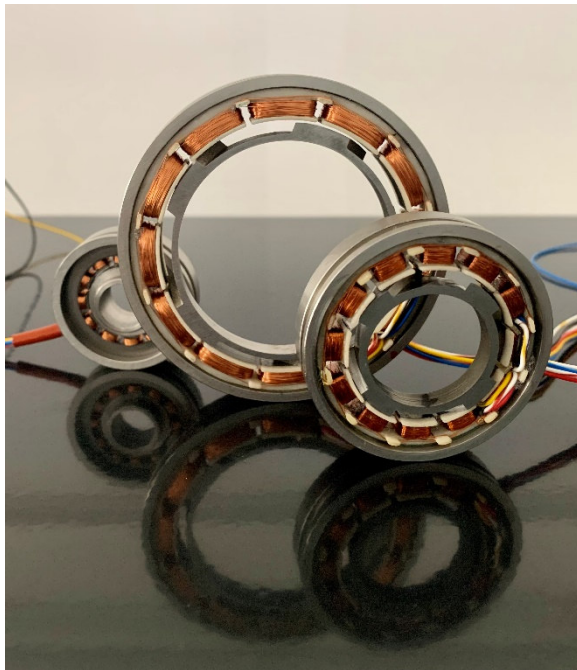
admotec
Advanced Motion Technology

The new Multipole Resolver RM-Series

RM202609

Main Features

Constant Air Gap	→	High Accuracy
High Number of Poles Pairs	→	High Resolution up to 32 Speed
CNC Winding	→	Easy Customizing
Robust Design	→	High MTBF
Solid Rotor	→	High Speed Applications



SLIMSYN a variable reluctance (VR) multipole resolver with a constant airgap for high accuracy is a new development of Admotec Precision AG. These resolvers give the perfect interface for demanding motion control systems. High accuracy allows higher speed or position loop gains. This means a quiet run (less noise and higher efficiency).

Remark: Rotors shown without hubs to highlight their multiple poles. Delivered resolvers always have rotor hubs.

Applications

Aerospace
Defence
E-Mobility
Machine Tool
Robotics
Oil Drilling

Synchronous Motor Control
Motion Control
Position Measuring
Torque Measuring
Speed Measuring
Absolute Position

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Standard Sizes & Electrical Data

Primary Voltage:	2 - 10 Vrms
Transformation Ratio:	> 0.3
Frequency:	2 - 10 kHz
Primary Current:	< 100 mA
Insulation Resistance:	100 MOhm
Accuracy:	up to 5 arcmin
Pole Pair Number:	up to 32 (depending on the size)

Environmental Data

Temperature Range	-55°C to 170°C Standard
Shock and Vibrations	30g (10-500Hz, 0.5Hr)

Special Designs on Request:

- Customized Housing
- High Speed Rotor
- Sealed Stator
- Extended Temperature Range
- Low Degassing
- Dual Resolver to increase Redundancy
- Bifilar Winding to increase Redundancy (not realized yet)
- For High Temperature Environment
- For Vacuum Environment

Ordering Data / Type Specification

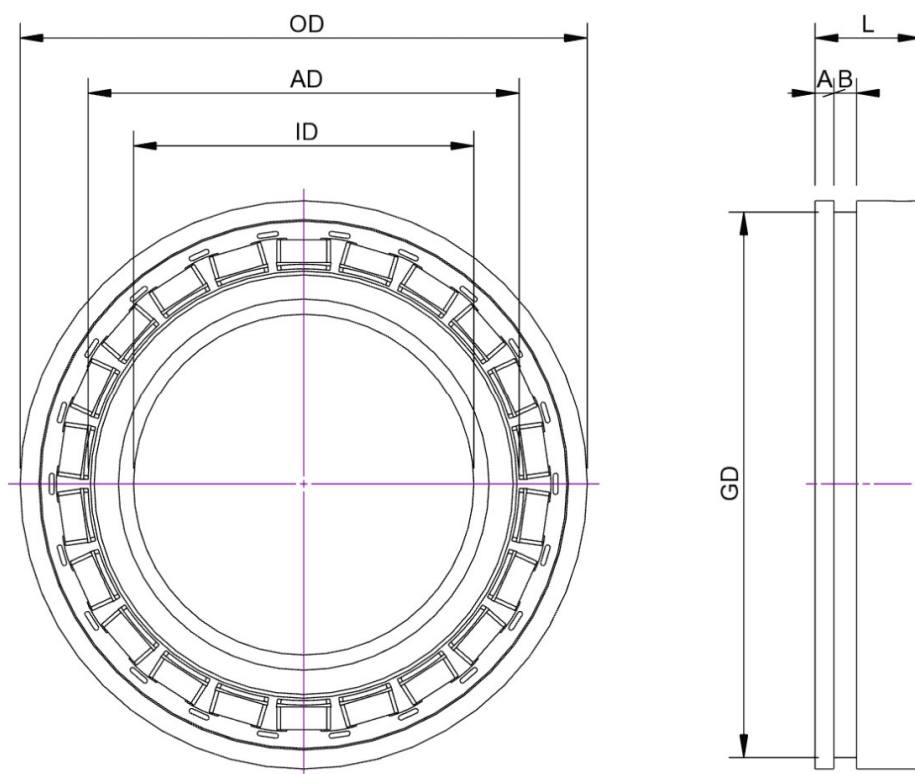
General Type Definition	RMODAD/Y-M-RZZZ
ODAD	Size e.g. 5032
Y	Number of Pole Pairs/Speed e.g. 3
M	Standard Construction
ZZZ	Rotor bore in mm e.g. 20mm
Resulting Type Name	RM5032/3-M-R020

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Dimensional Drawings



Size		15	21	30	34	40
Type		RM3620	RM5032	RM7557	RM8565	RM10080
OD: Outer Diameter		36.83 mm	50 mm	75 mm	85 mm	100 mm
AD: Airgap Diameter		20 mm	32 mm	57 mm	65 mm	80 mm
ID: Bore	Nominal	10 mm	20 mm	45 mm	55 mm	60 mm
	Max	10 mm	22 mm	46 mm	55 mm	65 mm
L: Length		14 mm	14 mm	14 mm	16 mm	18 mm
GD: Groove Diameter		34 mm	47 mm	72 mm	82 mm	97 mm
A: Groove Distance		2.5 mm				
B: Groove Width		3 mm				
Max Speed		87 kRPM	51 kRPM	27.5 kRPM	24 kRPM	21.5 kRPM

Size		50	60			
Type		RM125100	RM150125			
OD: Outer Diameter		125 mm	150 mm			
AD: Airgap Diameter		100 mm	125 mm			
ID: Bore	Nominal	85 mm	110 mm			
	Max	85 mm	110 mm			
L: Length		18 mm	18 mm			
GD: Groove Diameter		122 mm	147 mm			
A: Groove Distance		2.5 mm				
B: Groove Width		3 mm				
Max Speed		17 kRPM	13.5 kRPM			

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