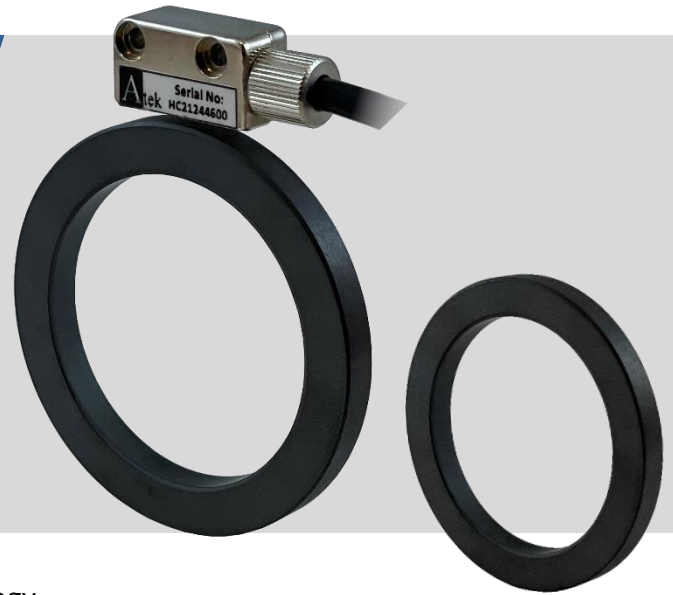


RB Series

“Radial Magnetic Ring for Non-contact Incremental Measurement”



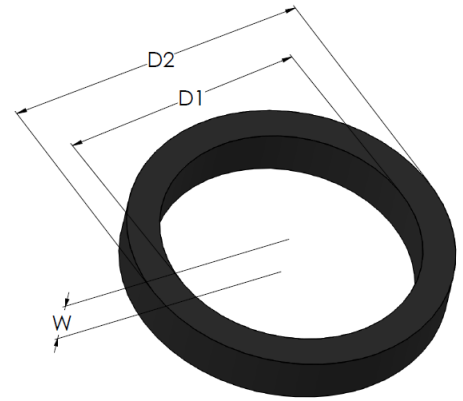
- Magnetic non-contact incremental measurement technology
- Different resolution options up to 36000 pulses with Atek MLS series reader sensors
- 1mm, 2mm or 5mm pitch
- Hollow shaft up to 54mm
- High accuracy
- Hard ferrite material
- Robust structure
- Resistant to dust, oil and moisture
- IP67 protection

RB series incremental magnetic rings consist of a sintered or pressed hard ferrite material. Hard ferrite with very good permanence and field strength properties is magnetized by magnetic poles forming an incremental pattern. Due to the high field strength, the sensors can be operated at greater operating distance or greater magnetic saturation for greater sensitivity.

There is a wide selection range with parameters such as the number of poles (pole) and the pitch (pitch) that can be selected depending on the application and requirements.

MECHANICAL DIMENSIONS (mm)

Product Code	Outer Diameter \varnothing	Inner Diameter \varnothing	Width
	D2 (mm)	D1 (mm)	W (mm)
RB-46-5-H	72 \pm 0,05	54 \pm 0,5	7 \pm 0,1
RB-64-2-H	41,2 \pm 0,1	25,05 \pm 0,4	10 \pm 0,1
RB-50-2-H	31 \pm 0,05	24 \pm 0,2	10 \pm 0,2
RB-72-2-H	45 \pm 0,05	34 \pm 0,3	10 \pm 0,2
RB-36-5-H	54,7 \pm 0,05	41,6 \pm 0,5	10 \pm 0,2
RB-128-1-H	41,2 \pm 0,05	24,8 \pm 0,5	10 \pm 0,2
RB-100-1-F	31,8 \pm 0,05	20 \pm 0,5	10 \pm 0,2



TECHNICAL FEATURES

Number Of Pole	36, 46, 50, 64, 72, 100 or 128
Pitch	1 / 2 / 5 mm
Accuracy	0.1° / 0.01° (depending on ring diameter)
Ambient Temperature Range	-20 ... +180 °C
Material	Sintered ferrite

RECOMMENDED MAGNETIC READER SENSORS WITH RB SERIES



[MLS 12X Series](#)
[Click for Datasheet](#)



[MLS 130 Series](#)
[Click for Datasheet](#)



[MLS 210 Series](#)
[Click for Datasheet](#)

ORDER CODE

Product Code	Description
RB-36-5-H	36 pole, 5mm pitch, sintered hard ferrite, Incremental Magnetic Ring
RB-46-5-H	46 pole, 5mm pitch, sintered hard ferrite, Incremental Magnetic Ring
RB-50-2-H	50 pole, 2mm pitch, sintered hard ferrite, Incremental Magnetic Ring
RB-64-2-H	64 pole, 2mm pitch, sintered hard ferrite, Incremental Magnetic Ring
RB-72-2-H	72 pole, 2mm pitch, sintered hard ferrite, Incremental Magnetic Ring
RB-100-1-F	100 pole, 1mm pitch, elastomer + stainless steel carrier strip with adhesive, Incremental Magnetic Ring
RB-128-1-H	128 pole, 1mm pitch, sintered hard ferrite, Incremental Magnetic Ring

MLS READER SENSOR AND MAGNETIC RING / RESOLUTION SELECTION TABLE

RB MAGNETIC RING			MLS SENSOR RESOLUTION		RB MAGNETIC RING + MLS SENSOR PULSE VALUES
Product Code	Pole	Pitch	Edge Resolution (mm)	Pulse Resolution (mm)	Pulse Resolution for 1 turn
RB-36-5-H Outer dia: 54.7mm Inner dia: 41.6mm Width: 10mm	36	5 mm	0,0025	0,010	18000
			0,005	0,020	9000
			0,010	0,040	4500
			0,025	0,100	1800
			0,050	0,200	900
			0,100	0,400	450
RB-46-5-H Outer dia: 72mm Inner dia: 54mm Width: 7mm	46	5 mm	0,0025	0,010	23000
			0,005	0,020	11500
			0,010	0,040	5750
			0,025	0,100	2300
			0,050	0,200	1150
			0,100	0,400	575
RB-72-2-H Outer dia: 45mm Inner dia: 34mm Width: 10mm	72	2 mm	0,001	0,004	36000
			0,005	0,020	7200
			0,010	0,040	3600
			0,025	0,100	1440
			0,050	0,200	720
			0,100	0,400	360
RB-64-2-H Outer dia: 41.2mm Inner dia: 25.05mm Width: 10mm	64	2 mm	0,001	0,004	32000
			0,005	0,020	6400
			0,010	0,040	3200
			0,025	0,100	1280
			0,050	0,200	640
			0,100	0,400	320
RB-50-2-H Outer dia: 31mm Inner dia: 24mm Width: 10mm	50	2 mm	0,001	0,004	25000
			0,005	0,020	5000
			0,010	0,040	2500
			0,025	0,100	1000
			0,050	0,200	500
			0,100	0,400	250
RB-128-1-H Outer dia: 41,2mm Inner dia: 24,8mm Width: 10mm	128	1 mm	0,001	0,004	32000
			0,005	0,020	6400
			0,010	0,040	3200
			0,025	0,100	1280
			0,050	0,200	640
			0,100	0,400	320
RB-100-1-F Outer dia: 31,8mm Inner dia: 20mm Width: 10mm	100	1 mm	0,001	0,004	25000
			0,005	0,020	5000
			0,010	0,040	2500
			0,025	0,100	1000
			0,050	0,200	500
			0,100	0,400	250