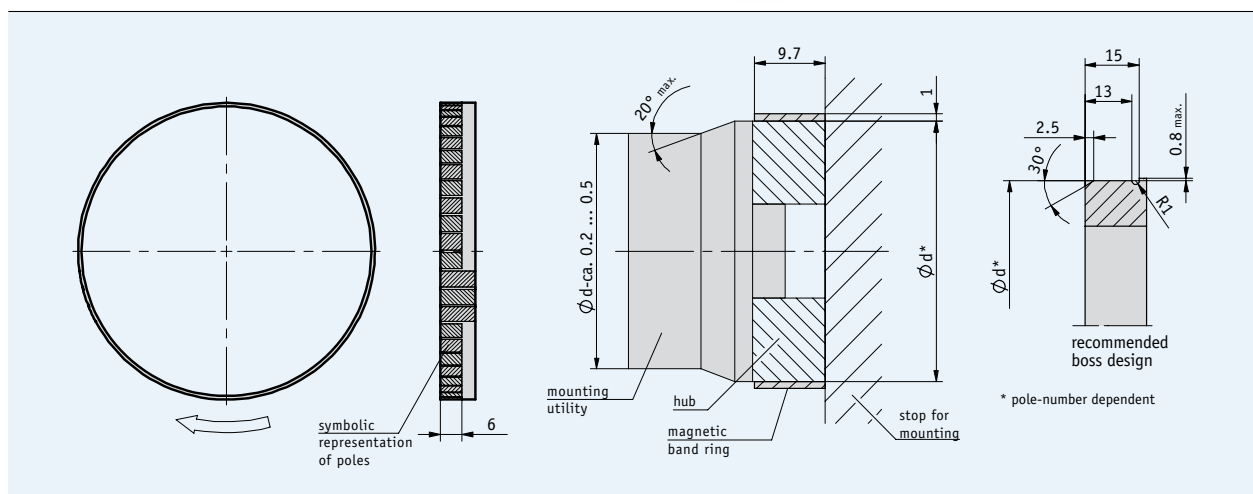


Magnetic Ring MBR500

Incremental, flexible magnetic band ring for self-assembly, pole length 5 mm

Profile

- With reference point as an option
- Easy mounting on self-made carrier



Mechanical data

Feature	Technical data	Additional information
Pole length	5 mm	
Measuring length	360°	
Band width	10 mm	
Thickness	1 mm	without cover and adhesive carrier strip
Operating temperature	-20 ... +70 °C	
Storage temperature	-20 ... +70 °C	
Humidity	100 % rh	condensation permitted
Mounting type	glued joint	recommended two-component adhesive: Uhu Plus 300 Endfest

■ Dimensions for magnetic band ring accommodation

Poles	36	50	64	96	160	188
Diameter d (mm)	57.5 ±0.03	79.8 ±0.03	102 ±0.03	153 ±0.03	254.8 ±0.03	299.4 ±0.03
Diameter with MBR500 (mm)	59.5 ±0.03	81.8 ±0.03	104 ±0.03	155 ±0.03	256.8 ±0.03	301.4 ±0.03
Circumference with MBR500 (mm)	186.93	256.98	326.73	486.95	806.76	946.88

Pulses/revolution

		Number of poles 36	Number of poles 50	Number of poles 64	Number of poles 96	Number of poles 160	Number of poles 188
Scaling factor of sensor	1250	45000	62500	80000	120000	200000	235000
	250	9000	12500	16000	24000	40000	47000
	125	4500	6250	8000	12000	20000	23500
	50	1800	2500	3200	4800	8000	9400
	25	900	1250	1600	2400	4000	4700
	12.5	450	625	800	1200	2000	2350

The table applies to the combination of MBR500 with MSK5000

Speed

The maximum speeds are calculated in reference to the circumferential speed, whereby the circumference of the fitted magnetic ring is decisive. On the MSK5000 sensor, the circumferential speed is variable; it results from the selection of the pulse interval and the scaling factor (refer to table MSK5000). The speed is calculated with the following formula:

$$\text{Speed } n = \frac{v \times 60}{U}$$

v = circumferential speed (m/s); U = circumference (m)
60 = extension factor (60 s/min)

Example:

$$\text{MSK5000 } n = \frac{6 \times 60}{0.32} = 1125 \text{ (rpm)}$$

Number of poles	U (mm)	n (rpm)
36	180	variable
50	250	variable
64	320	variable
96	480	variable
160	800	variable
188	940	variable

Order

Order table

Feature	Order data	Specifications	Additional information
Number of poles	36	36 poles	
	50	50 poles	
	64	64 poles	
	96	96 poles	
	160	160 poles	
	188	188 poles	
		others on request	
Reference point	0	without	
	M	with	

Order code

MBR500 - -
A B

Scope of delivery: MBR500, User information

Additional information:

Short Description, Technical Details
Product Overview

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