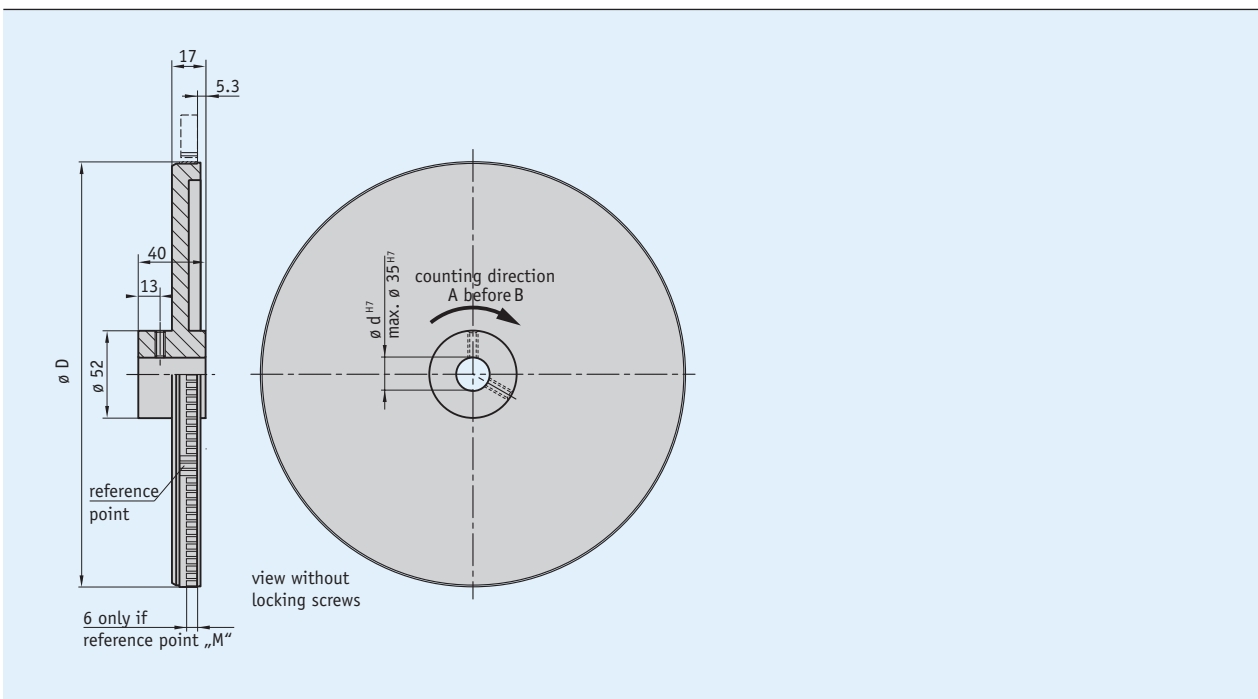


### Profile

- Easy hollow-shaft mounting
- Rotary encoder system with IP67 protection category (in combination with MSK5000)
- Up to 200 000 pulses/revolution (800 000 increments)
- With reference point as an option



### Mechanical data

Feature	Technical data	Additional information
Flange	aluminum	

### Table of dimensions

Poles	64	96	160
Diameter D [mm]	102	153	255
Circumference U [mm]	320	480	800
Speed [ $\text{min}^{-1}$ ]	variable	variable	variable

### Speed

Maximum speeds are calculated in relation to circumferential speed, with the circumference of the magnetic ring being decisive. The circumferential speed of the MSK5000 sensor is variable; it results from the selection of pulse interval and scaling factor (see table MSK5000). Speed is calculated according to the formula:

**Formula:**

$$n = \frac{v \times 60000}{U}$$

**Example:**

$$n = \frac{6 \times 60000}{320} = 1125$$

**Legend:**

n [min<sup>-1</sup>] speed  
 v [m/s] circumferential speed  
 60000 extension factor  
 (60 s/min x 1000 mm/m)  
 U [mm] circumference

### System data

Feature	Technical data	Additional information
Pole length	5 mm	
System accuracy	±0.1°	at T <sub>U</sub> = 20 °C
Measuring range	360°	

### Pulses/revolution

Pole number	64	96	160	
<b>Sensor scaling factor</b>	<b>1250</b>	80000	120000	200000
	<b>250</b>	16000	24000	40000
	<b>125</b>	8000	12000	20000
	<b>50</b>	3200	4800	8000
	<b>25</b>	1600	2400	4000
	<b>12.5</b>	800	1200	2000

The table applies to the combination of MR500 with MSK5000

### Ambient conditions

Feature	Technical data	Additional information
Ambient temperature	-20 ... 70 °C	
Storage temperature	-20 ... 70 °C	
Relative humidity	100 %	condensation admissible

### Order

#### Ordering table

Feature	Ordering data	Specification	Additional information
Pole number	64	64 poles	
	96	96 poles	
	160	160 poles	
		others on request	
Bore/diameter	20	ø20 mm	
		others on request	
Reference point	0	without	
	M	with	

#### Order key



Scope of delivery: MR500