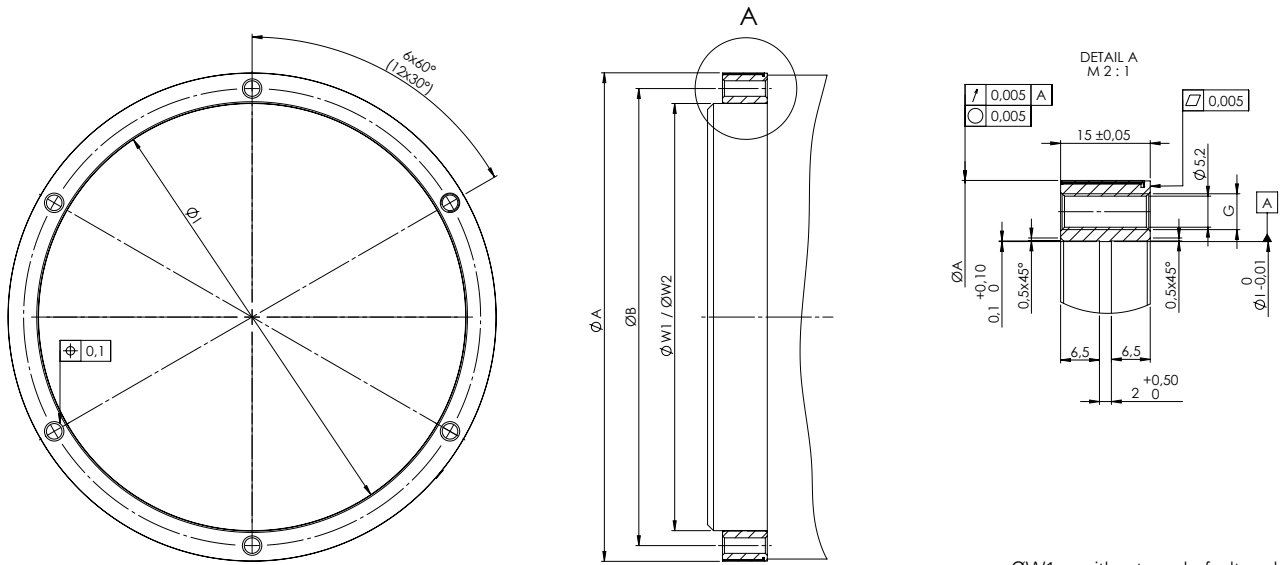


# Incremental scale tape ring on flange WMF 1030 A

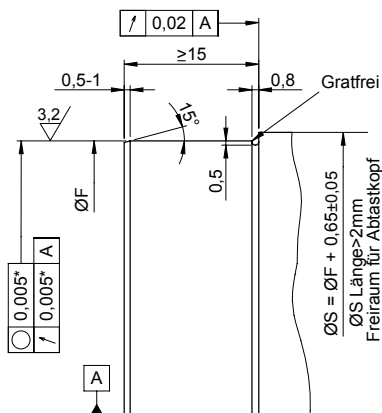
- In combination with the scanning head WMK 2030
- Grating Period 3000µm



ØW1 = without mech. fault exclusion  
 ØW2 = with mech. fault exclusion

Line count	Type of graduation carrier	Ø A	Ø I	Ø W1	Ø W2	Ø B	G
120	AA32	115,12	60 +0/-0,01	60 +0,02/+0,01	60 +0,02/+0,01	75	6 x M6
120	AA33		95 +0/-0,01	95 +0,02/+0,01	95 +0,02/+0,01	105	6 x M6
240	AA36	229,78	180 +0/-0,01	180 +0,02/+0,01	180 +0,02/+0,01	195	6 x M6
240	AA37		209 +0/-0,01	209 +0,02/+0,01	209 +0,02/+0,01	219	6 x M6
300	AA38	287,08	180 +0/-0,01	180 +0,02/+0,01	180 +0,02/+0,01	195	6 x M6
300	AA39		266 +0/-0,01	266 +0,02/+0,01	266 +0,02/+0,01	276	6 x M6

## Mechanical requirements for customer specific graduation carrier WMF 1030A / WMB 1030A

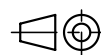


\*) Recommended eccentricity: Greater eccentricities up to ~0,05mm do not affect the function of the device, but cause a proportional loss in positioning accuracy.

Recommended material: 1.4104 (X14CrMoS17) or 1.7225 (42CrMo4)  
 If you are using a different soft magnetic material please contact AMO.

Line count	ØF [mm]
85 to 169	$N \times 3/\pi - 0,22 \pm 0,01$
170 to 240	$N \times 3/\pi - 0,13 \pm 0,02$
241 to 342	$N \times 3/\pi - 0,10 \pm 0,02$
343 to 500	$N \times 3/\pi - 0,08 \pm 0,03$
501 to 660	$N \times 3/\pi - 0,05 \pm 0,06$
661 to 1000	$N \times 3/\pi - 0,02 \pm 0,07$
1001 to 2000	$N \times 3/\pi - 0,00 \pm 0,10$
2001 to 4000	$N \times 3/\pi + 0,05 \pm 0,10$
4001 to 10000	$N \times 3/\pi + 0,15 \pm 0,10$

Tolerance principle in accordance with ISO 8015  
 General tolerances in accordance with ISO 2768-fH  
 All dimensions in mm



## Technical data

Scale tape ring on flange WMF 1030A / WMB 1030A 3000 µm					
Line count	120		240		300
Reference mark	Single or distance coded				
Grating period accuracy <sup>1)</sup>					
± 20µm arc length	± 72"		± 36"		± 29"
± 10µm arc length	± 36"		± 18"		± 15"
± 5µm arc length	± 18"		± 9"		± 7,5"
Outside diameter [mm]	115,12		229,78		287,08
Inside diameter [mm]	60	75	180	209	180    266
Max. angle acceleration [rad/s <sup>2</sup> ] <sup>2)</sup>	4000		2000	4000	1300    4000
Mech. speed [min <sup>-1</sup> ] <sup>2)</sup>	16600		8300		6600

<sup>1)</sup> The position error per grating period and the accuracy of the grating result together in the encoder specific error; additional deviations caused by mounting and bearing are not considered in this error.

<sup>2)</sup> Values should be considered to ensure a mechanical fault exclusion.

