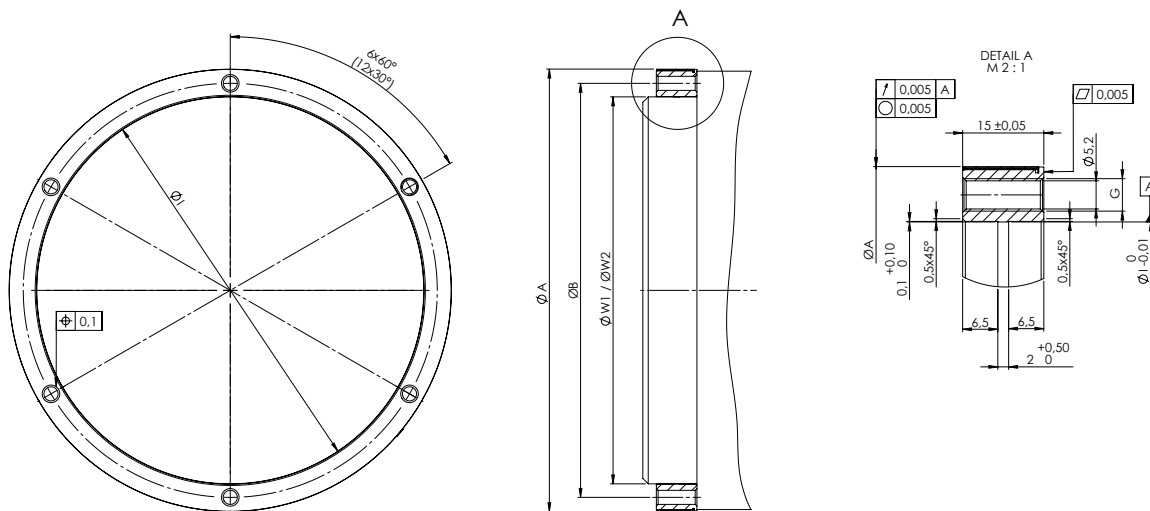


Absolute scale tape ring on flange WMFA 1010 A

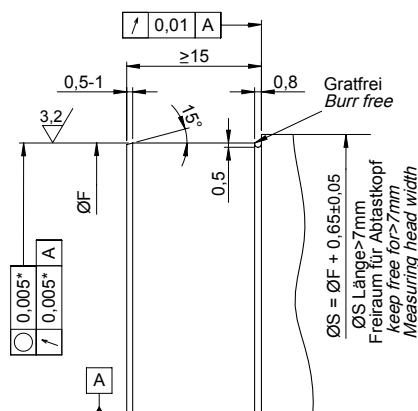
- In combination with the scanning head WMKA 2010
- Grating period 1000µm



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

Line count	Type of graduation carrier	Ø A	Ø I	ØW1	ØW2	Ø B	G
256	AA01	81,95	60 +0/-0,01	60 +0,02/+0,01	60 +0,05/+0,04	70	6 x M6
360	AA02	115,12	60 +0/-0,01	60 +0,02/+0,01	60 +0,05/+0,04	75	6 x M6
360	AA03		95 +0/-0,01	95 +0,02/+0,01	95 +0,05/+0,04	105	6 x M6
512	AA05	163,54	105 +0/-0,01	105 +0,02/+0,01	105 +0,05/+0,04	120	6 x M6
512	AA06		143 +0/-0,01	143 +0,02/+0,01	143 +0,05/+0,04	153	6 x M6
720	AA08	229,78	180 +0/-0,01	180 +0,02/+0,01	180 +0,05/+0,04	195	6 x M6
720	AA09		209 +0/-0,01	209 +0,02/+0,01	209 +0,05/+0,04	219	6 x M6
900	AA10	287,08	180 +0/-0,01	180 +0,02/+0,01	180 +0,05/+0,04	195	12 x M6
900	AA11		266 +0/-0,01	266 +0,02/+0,01	266 +0,05/+0,04	276	12 x M6
1024	AA12	326,55	220 +0/-0,01	220 +0,02/+0,01	220 +0,05/+0,04	235	12 x M6
1024	AA13		296 +0/-0,01	296 +0,02/+0,01	296 +0,05/+0,04	311	12 x M6

Mechanical requirements for customer specific carrier tape WMFA 1010A / WMBA 1010A



Line count	ØF [mm]
256	81,25 ±0,01
360	114,42 ±0,01
512	162,84 ±0,02
720	229,08 ±0,02
900	286,38 ±0,02
1024	325,85 ±0,02

*) 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.

Tolerance principle in accordance with SO8015

General tolerances in accordance with ISO 2768-fH

All dimensions in mm



Technical data

Scale tape ring on flange WMFA 1010A / WMBA 1010A												
Line count	256		360		512		720		900		1024	
Grating period accuracy ¹⁾												
±10µm arc length	±51″		±36″		±26″		±18″		±15″		±13″	
± 5µm arc length	±26″		±18″		±13″		±9,0″		±7,5″		±6,5″	
± 3µm arc length	±16″		±11″		±8,0″		±5,5″		±4,5″		±4,0″	
Outside diameter [mm]	81,95		115,12		163,54		229,78		287,08		326,55	
Inside diameter WMF [mm]	60	60	95	105	143	180	209	180	266	220	296	
Max. angle acceleration [rad/s²] ²⁾	4000					2000	4000	1350	4000	950	2700	
Mech. speed [min ⁻¹] ²⁾	14000	10000		7000		5000		4000		3500		

¹⁾ 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.

²⁾ Values should be considered to ensure a mechanical fault exclusion.

Ordering code

- WMFA - Scale tape ring on flange for absolute angle encoder
- Grating period 1000µm

WMFA 1010 A - - MF - -

Grating period accuracy
3 = +/- 3µm
5 = +/- 5µm
10 = +/- 10µm

Line count
256
360
512
720
900
1024

Safety concept
MF = Fault exclusion for loosening of the mechanical connections possible

Type of graduation carrier			
Standard Graduation carrier	Line count	Ø A	Ø I
AA01	256	81,95	60 +0/-0,01
AA02	360	115,12	60 +0/-0,01
AA03			95 +0/-0,01
AA05	512	163,54	105 +0/-0,01
AA06			143 +0/-0,01
AA08	720	229,78	180 +0/-0,01
AA09			209 +0/-0,01
AA10	900	287,08	180 +0/-0,01
AA11			266 +0/-0,01
AA12	1024	326,55	220 +0/-0,01
AA13			296 +0/-0,01

Ordering code

- WMBA - Scale tape ring on customer specific graduation carrier for absolute angle encoder
- Grating period 1000µm

WMBA 10 - - - -

Type
10 = Ring, Outside scanning
11 = Ring, Inside scanning

Scanning
A = Outside scanning
I = Inside scanning

Grating period accuracy
3 = +/- 3µm
5 = +/- 5µm
10 = +/- 10µm

Line count
customer specific

Type of graduation carrier
Bxxx = customer specific, defined by AMO