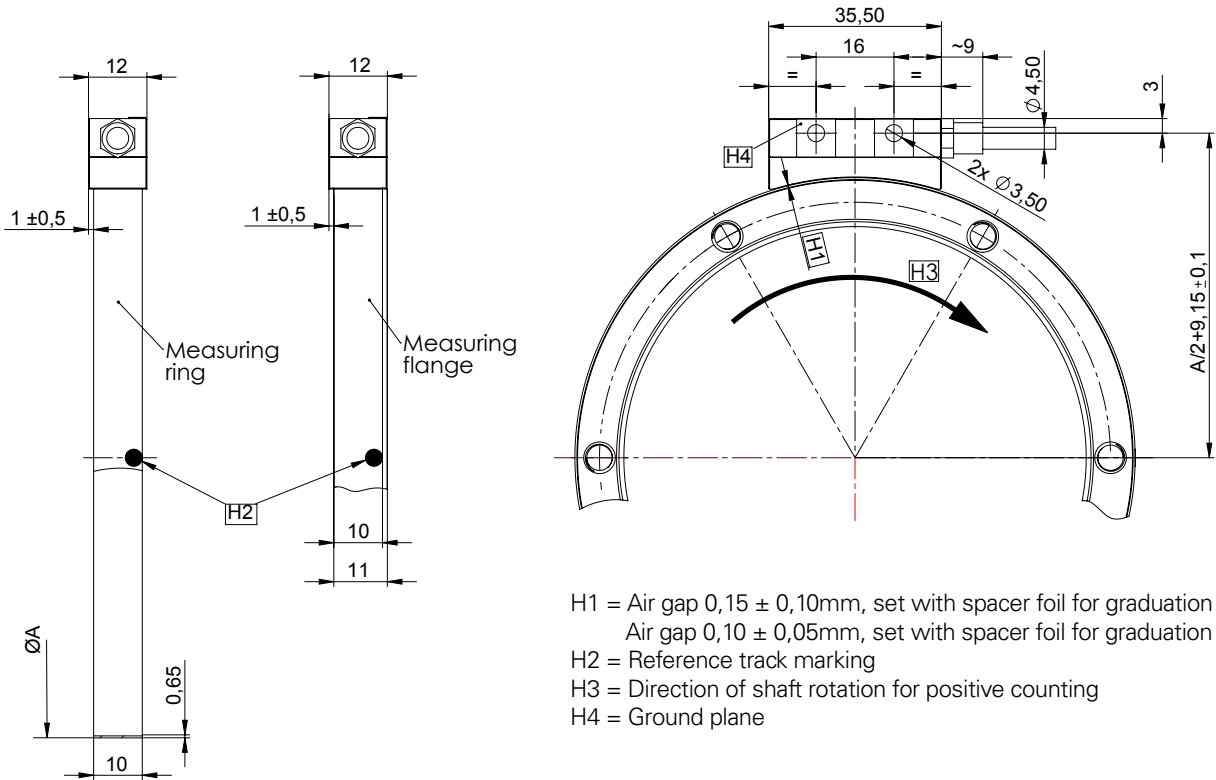


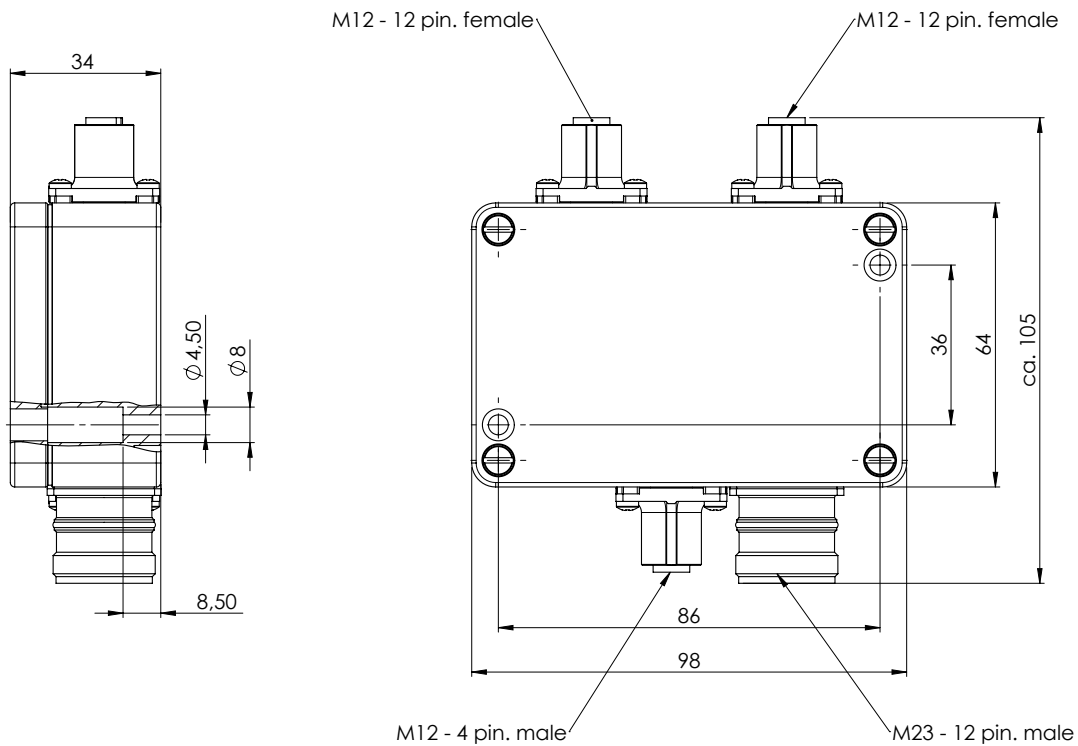
MHS

- MHS - Double head scanning for incremental angle encoder
- Grating period 500µm or 1000µm

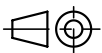
MHS with scanning head design 12



Dimensions MHS Box



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



Technical data

MHS 1005/ MHS 1010				
Grating period	500µm		1000µm	
Interface	1Vpp	TTL	1Vpp	TTL
Position error per grating period	± 0,2µm		± 0,3µm	
<u>TTL - interpolation/ 1Vpp signalperiod</u>				
Signal period ¹⁾ Interpolation	- -	0,25µm to 0,05µm 500 or 2500	- -	0,5µm or 0,1µm 500 or 2500
Signal period Division factor	15,625 µm or 10µm 32 or 50	- -	31,25µm or 20µm 32 or 50	- -
Max. output frequency	400KHz	5MHz	400KHz	5MHz
Electrical connection	Panel with M23 couling 12pin. male			
Cable lenght on the scanning head	0,50m - 6,00m			
Power supply	DC 24V (9V to 36V)			
Power consumption	≤ 6W			
Typ. current consumption	≤ 250mA at 24V			
Vibration	< 200m/s ² for 55 - 2000Hz			
Schock	< 2000 m/s ² for 6ms			
Operating temperature	-10°C to 85°C			
Storage temperatur	-20°C to 85°C			
Protection	Scanning head: IP67 evaluation electronics: IP66			
Weight	Scanning head: 10g evaluation electronics: 260g			

Technical data

• Graduation in combination with double head scanning

Scale tape ring on flange WMF / Scale tape ring WMR 500µm / 1000µm									
Line count	256 ¹⁾	360 ¹⁾	512	720	900	1024	1440	1800	2048
Reference mark	Single or distance coded								
Position error per grating period ²⁾									
Grating period 500µm	-	-	± 1,10"	± 0,80"	± 0,60"	± 0,50"	± 0,40"	± 0,30"	± 0,30"
Grating period 1000µm	± 1,60"	± 1,10"	± 0,80"	± 0,60"	± 0,50"	± 0,40"	± 0,30"	± 0,30"	± 0,20"
Grating period accuracy ³⁾									
Accuracy for 1000µm grating period									
± 10µm arc length	± 26"	± 18"	± 13"	± 9,0"	± 7,5"	± 6,5"	± 4,5"	± 4,0"	± 3,5"
± 5µm arc length	± 13"	± 9,0"	± 6,5"	± 4,5"	± 4,0"	± 3,5"	± 2,5"	± 2,0"	± 2,0"
± 3µm arc length	± 8,0"	± 5,5"	± 4,0"	± 3,0"	± 2,5"	± 2,0"	± 1,5"	± 1,5"	± 1,0"
Accuracy for 500µm grating period									
± 10µm arc length	-	-	± 26"	± 18"	± 15"	± 13"	± 9,0"	± 7,5"	± 6,5"
± 5µm arc length	-	-	± 13"	± 9,0"	± 7,5"	± 6,5"	± 4,5"	± 4,0"	± 3,5"
± 3µm arc length	-	-	± 8"	± 5,5"	± 4,5"	± 4,0"	± 3,0"	± 2,5"	± 2,0"
Electrical speed [min ⁻¹]	≤ 4680	≤ 3330	≤ 2340	≤ 1660	≤ 1330	≤ 1170	≤ 830	≤ 660	≤ 580

1) Not available for grating period 500µm

2) The position error per grating period and the accuracy of the grating result together in the encoder specific error

3) The grating accuracies shown above are calculated for optimal roundness of the measuring flange or measuring ring. Therefore those values are showing the maximum achievable accuracy of the grating.

