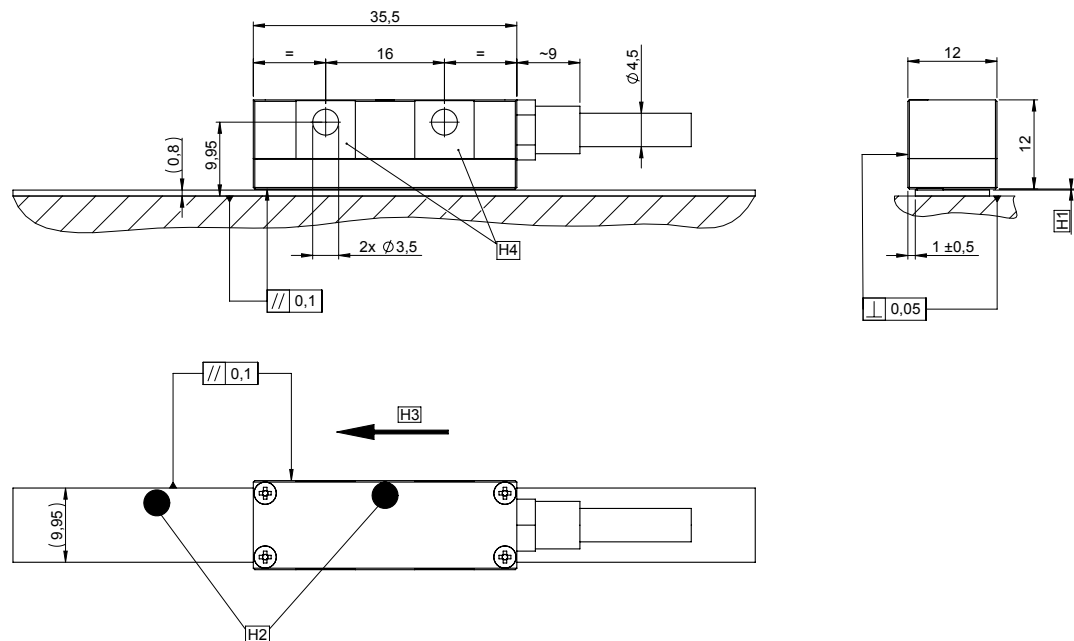


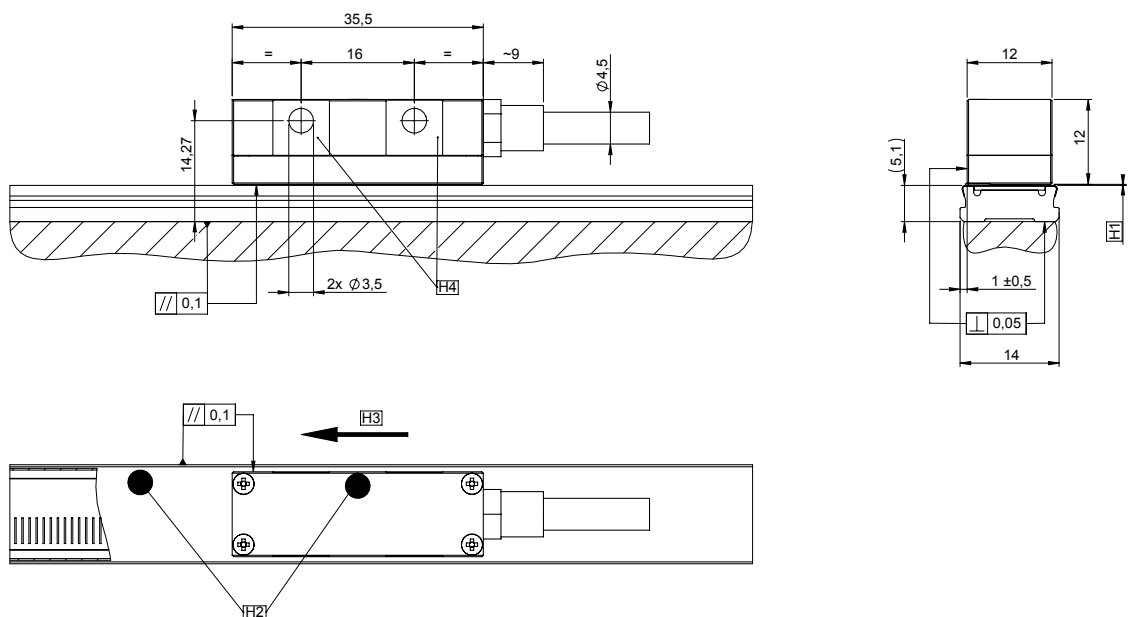
Scanning head - LMK 1010 series

- Incremental, modular linear encoders
- Grating period 1000µm
- Miniature scanning head with external electronics
- In combination with scale type LMB 1010 and LMT 4010

Design 10 and 12 with scale type LMB 1010



Design 10 and 12 with scale type LMT 4010



Tolerance principle in accordance with SO8015
General tolerances in accordance with ISO 2768-fH
All dimensions in mm

H1 = Air gap $0,15 \pm 0,10$ mm, set with spacer foil
H2 = Reference track marking
H3 = Direction of scanning head movement for positive counting
H4 = Ground plane (both sides)

Technical data

- LMK - Scanning head for modular linear encoders
- Grating period 1000µm

Scanning head 1000µm	LMK 2010/LMK 1010			
Performance	Standard		High Accuracy	
Interface	1Vpp	TTL	1Vpp	TTL
Position error per grating period ¹⁾	± 2µm		± 0,5µm	
Maximum speed	20m/s			
TTL - Interpolation/ 1Vpp signal period				
Signal period ²⁾ Interpolation	- -	250µm to 1µm 1 to 250	- -	0,5µm or 0,1µm 500 or 2500
Signal period Dividing factor	1000µm or 40µm 1 or 25	- -	20µm 50	- -
Max. output frequency	400KHz	5MHz	400KHz	5MHz
Electrical connection	Cable with M23 coupling 12pin male			
Cable length on the encoder	0,50m - 6,00m			
Power supply	1Vpp: DC 4,0V to 7,0V TTL: DC 5,0V +/- 0,5V			
Power consumption	Design 20, 21: ≤ 1300mW at 5V Design 10, 12: ≤ 1500mW at 5V			
Typ. current consumption	Design 20,21: ≤ 220mA at 5V (without load) Design 10,12: ≤ 240mA at 5V (without load)			
Vibration 55 to 2000 Hz	< 200m/s² (EN 60068-2-6)			
Shock 6 ms	< 2000m/s² (EN 60068-2-27)			
Operating temperature	-10°C to 100°C			
Storage temperature	-20°C to 100°C			
Protection	IP67			
Mass	38g Design 20, 21 / 10g Design 10,12			

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

²⁾ After 4-edge-evaluation.