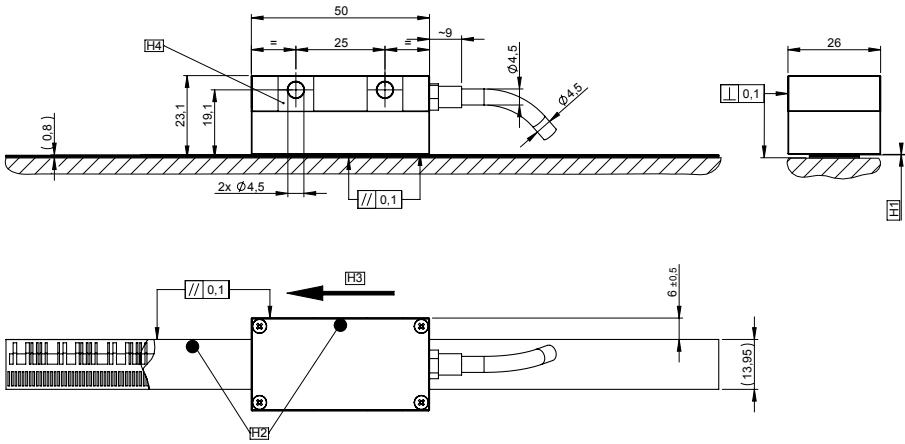


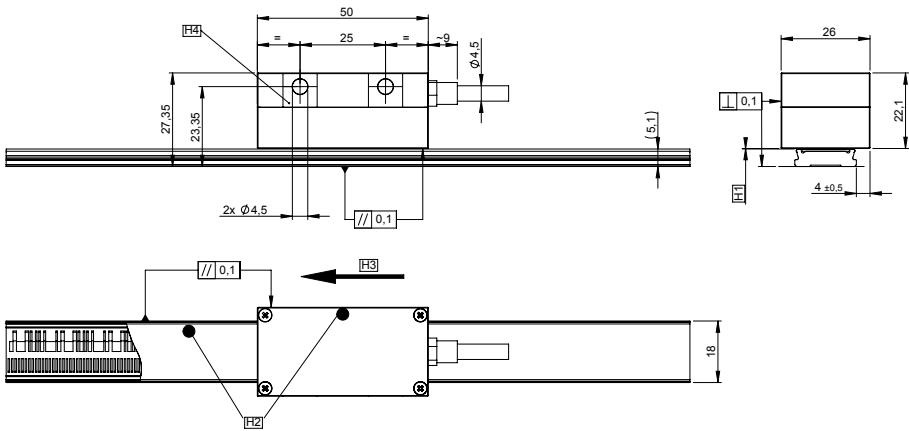
## Scanning head - LMKA 2010 series

- **Absolute, modular linear encoder**
- **Grating period 1000µm**
- **Encoder with integrated electronics**
- **In combination with scale type LMBA 2010 and LMTA 4010**

## Design 20 with scale type LMBA 2010



## Design 20 with scale type LMTA 4010



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

H1 = Air gap  $0,15 \pm 0,10\text{mm}$ , set with spacer foil

H2 = Absolute track marking

H3 = Direction of scanning head movement for positive counting

H4 = Ground plane

## Technical data

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

Scanning head	LMKA 2010					
Interface	EnDat 2.2	Fanuc α	BiSS/C	Mitsubishi (full duplex)	Mitsubishi (half duplex)	SSI + 1Vpp
Designation	EnDat 2.2	Fanuc02	BiSS	MitA1-4	MitA1-2	SSI - 1Vpp
Clock frequency	≤ 16 MHz	-	≤ 2,5 MHz	5 Mbps	5 Mbps	≤ 1 MHz
Measuring step						
Standard	1µm or 0,25µm					
High Accuracy	0,1µm					-
Position deviation per grating pitch <sup>1)</sup>						
Standard	± 2µm					
High Accuracy	± 0,5µm					-
Max. speed	20m/s					
Cable length on scanning head	0,5m to 6m					
Electrical Connection	Cable with M12 coupling, 8pin male					Cable with M23 coupling, 12pin male
Voltage supply	DC 3,6V to 14V					
Power consumption	≤ 1,5W at 5V					
Typical current consumption	300mA at 5V					
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 85°C					
Storage temperature	-20°C to 85°C					
Protection	IP67					
Mass	40g					

<sup>1)</sup> 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.

- LMKA - Scanning head for modular linear encoders
- Grating period 1000 $\mu$ m

27