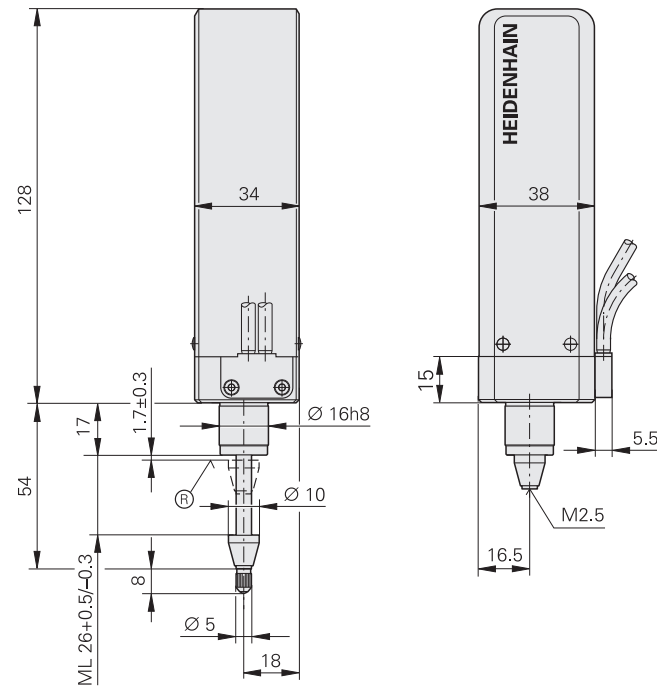
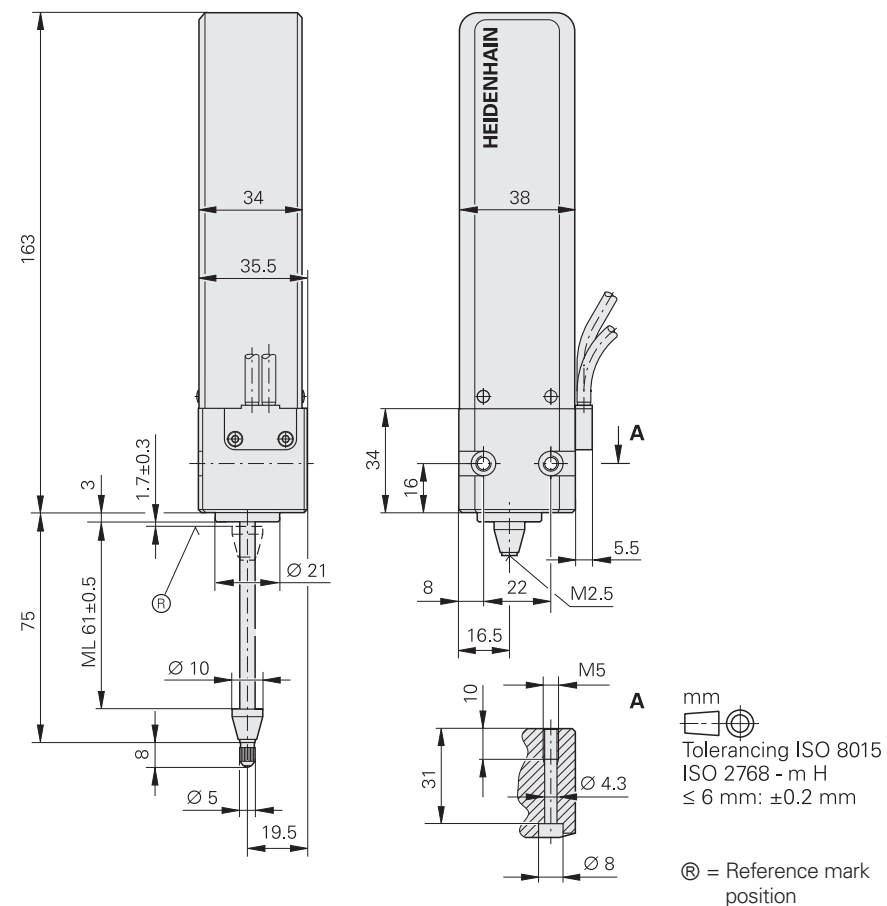


Incremental length gauges with $\pm 0.1 \mu\text{m}/\pm 0.05^{1)} \mu\text{m}^*/\pm 0.03 \mu\text{m}^{1)}$ accuracy

- For very high accuracy
- Low thermal expansion through thermally invariant materials
- High-precision ball bearing guide



A vertical Heidenhain probe arm, model 325, shown against a white background. The arm is grey with the 'HEIDENHAIN' logo printed vertically on the left side. It features a black cable extending from the top right and a metal probe tip at the bottom.



mm

 Tolerancing ISO 8015
 ISO 2768 - m H
 ≤ 6 mm: ±0.2 mm

Mechanical data	CT 2501	CT 6001	CT 2502	CT 6002
Plunger actuation	Via motor		Via coupling with moving machine part	
Measuring standard	DIADUR phase grating on Zerodur glass ceramic; grating period: 4 µm			
System accuracy at 19 °C to 21 °C	±0.1 µm, ±0.03 µm ¹⁾	±0.1 µm, ±0.05 µm ¹⁾	±0.1 µm, ±0.03 µm ¹⁾	±0.1 µm, ±0.05 µm ¹⁾
Position error per signal period	≤ ±0.02 µm			
Short-range accuracy typically	0.03 µm			
Reference mark	One, approx. 1.7 mm below upper stop			
Measuring range	25 mm	60 mm	25 mm	60 mm
Radial force	≤ 0.5 N (mechanically permissible)			
Fastening	Clamping shank (Ø 16h8)	Plane surface	Clamping shank (Ø 16h8)	Plane surface
Operating orientation	Any (for preferred operating orientation, see <i>Mounting</i>)			
Vibration 55 Hz to 2000 Hz Shock 11 ms	≤ 100 m/s ² (EN 60068-2-6) ≤ 1000 m/s ² (EN 60068-2-27)			
Operating temperature	10 °C to 40 °C; reference temperature: 20 °C			
Protection EN 60529	IP50			
Mass without cable	520 g	700 g	480 g	640 g

Electrical data	CT 2501	CT 6001	CT 2502	CT 6002
Interface	 11 μ A _{pp}			
Signal period	2 μ m			
Measuring velocity	$\leq$ 24 m/min (depending on the subsequent electronics) $\leq$ 12 m/min with the ND 28x digital readout			
Electrical connection*	• Cable 1.5 m with 15-pin D-sub connector (male) • Cable 1.5 m with 9-pin M23 connector (male) Interface electronics integrated in connector			
Cable length	$\leq$ 30 m			
Supply voltage	DC 5 V $\pm$ 0.25 V/ $<$ 170 mA		DC 5 V $\pm$ 0.25 V/ $<$ 120 mA	

Required accessories*	For CT 2501	For CT 6001
Switch box	SG 25M	SG 60M

* Please select when ordering

- 1) After linear length-error compensation in the evaluation electronics
- 2) Force required to move the plunger or the force of its weight