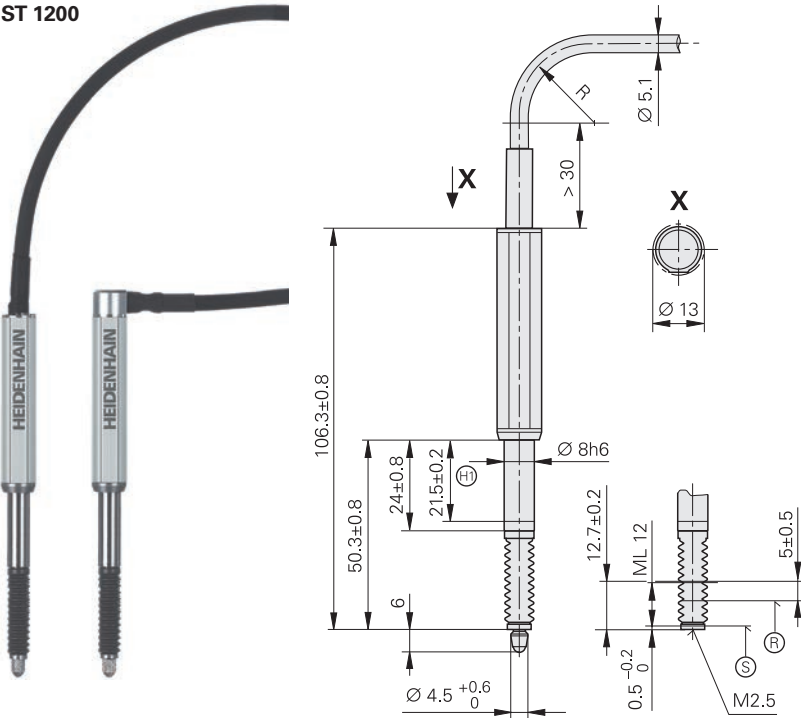


HEIDENHAIN-SPECTO

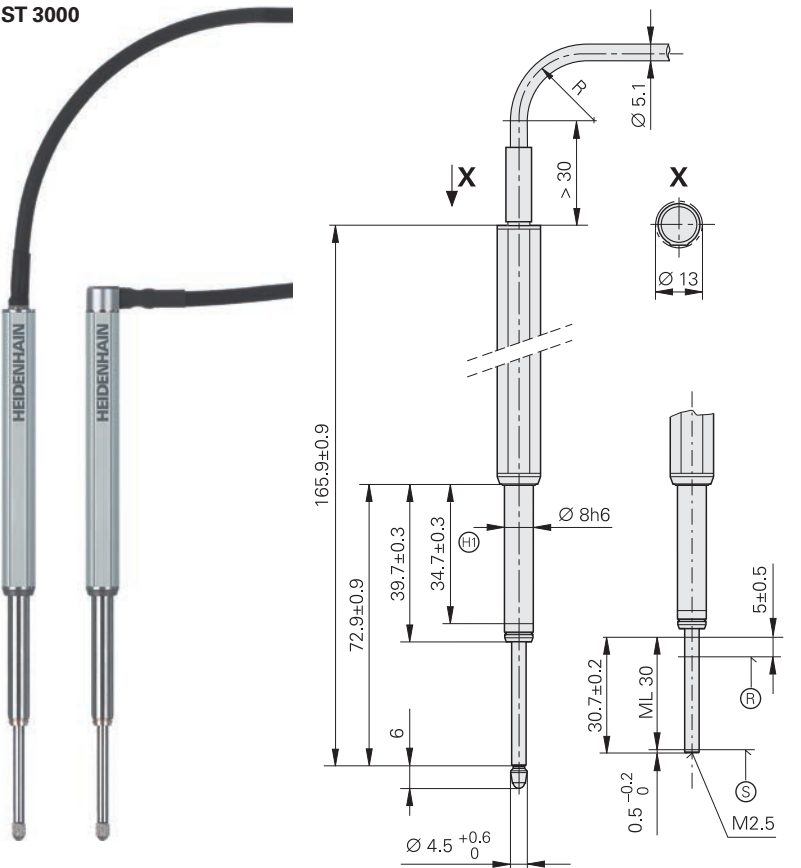
Incremental length gauges with ±1 µm accuracy

- Very compact dimensions
- Protection rating of up to IP67
- Especially durable ball-bush guide

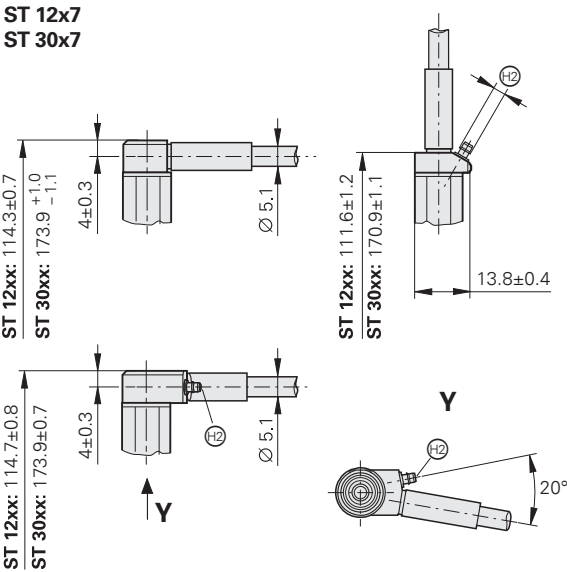
ST 1200



ST 3000



ST 12x7
ST 30x7



mm
Tolerancing ISO 8015
ISO 2768 - m H
≤ 6 mm: ±0.2 mm
Ⓢ = Reference mark position
Ⓢ = Beginning of measuring length
Ⓢ = Clamping area
Ⓢ = Air connection for 2 mm tube

Mechanical data	ST 1278  ST 1288  1 V _{PP}	ST 3078  ST 3088  1 V _{PP}	ST 1277  ST 1287  1 V _{PP}	ST 3077  ST 3087  1 V _{PP}
Plunger actuation Position of plunger at rest	Via measured object Extended		Pneumatic Retracted	
Measuring standard	DIADUR grating on glass; grating period: 20 µm			
System accuracy	±1 µm			
Position error per signal period	≤ ±0.2 µm			
Short-range accuracy typically	0.3 µm			
Reference mark	≈ 5 mm below upper stop			
Measuring range	12 mm	30 mm	12 mm	30 mm
Working pressure	–		0.8 bar to 2.5 bar	
Radial force	≤ 0.8 N (mechanically permissible)			
Fastening	Clamping shank Ø 8h6			
Operating orientation	Any			
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	IP67/IP64	IP64		
Mass without cable	40 g	50 g	40 g	50 g

Electrical data	ST 127x ST 307x	ST 128x ST 308x
Interface	□ □ TTL	~ 1 V _{PP}
Integrated interpolation*	5-fold	10-fold
Signal period	4 µm	2 µm
Edge separation <i>a</i> at scanning frequency*/traverse speed ²⁾ 100 kHz ≤ 72 m/min ¹⁾ 50 kHz ≤ 60 m/min 25 kHz ≤ 30 m/min	≥ 0.48 µs ≥ 0.98 µs ≥ 1.98 µs	≥ 0.23 µs ≥ 0.48 µs ≥ 0.98 µs
Electrical connection*	Cable 1.5 m with 15-pin D-sub connector (male, integrated interface electronics)	
Cable outlet*	Axial or radial	
Cable length	≤ 30 m with HEIDENHAIN cable	
Supply voltage	DC 5 V ±0.5 V	
Current consumption	< 100 mA (without load)	

* Please select when ordering

¹⁾ Mechanically limited

²⁾ At a corresponding cutoff or scanning frequency