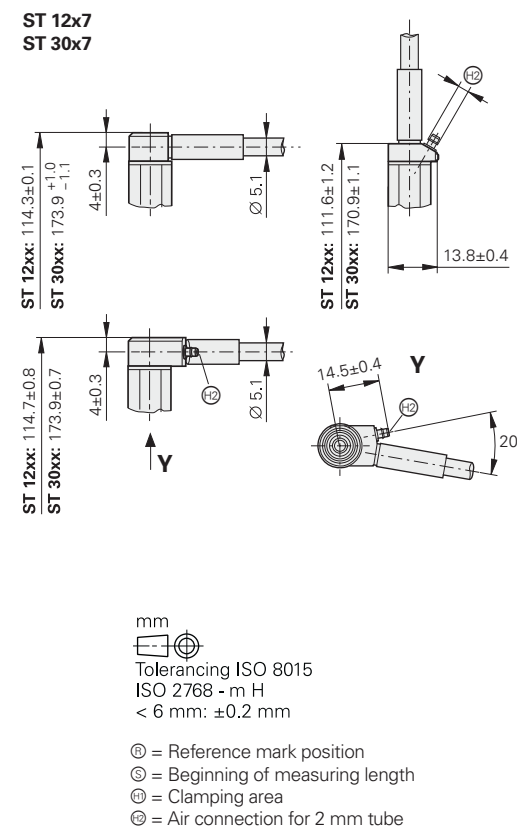
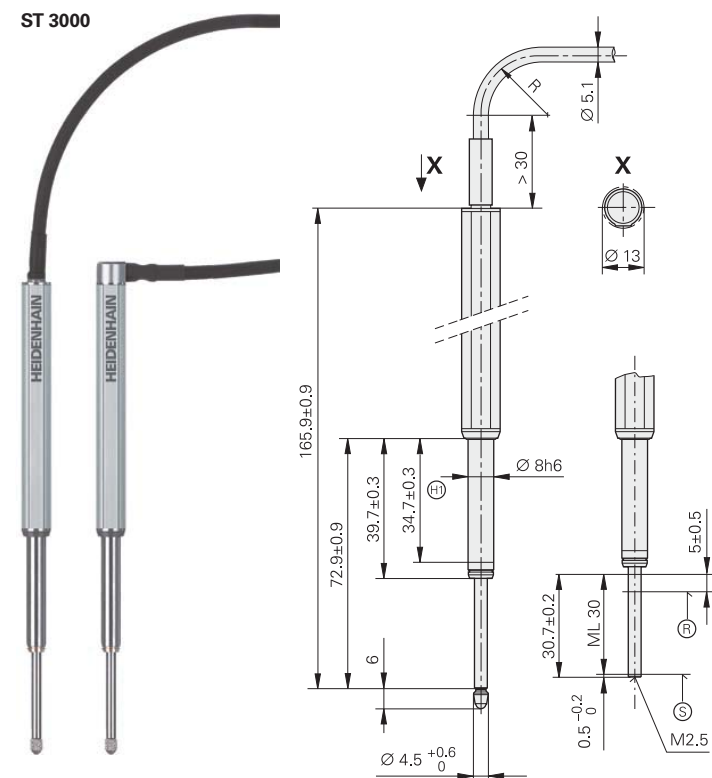
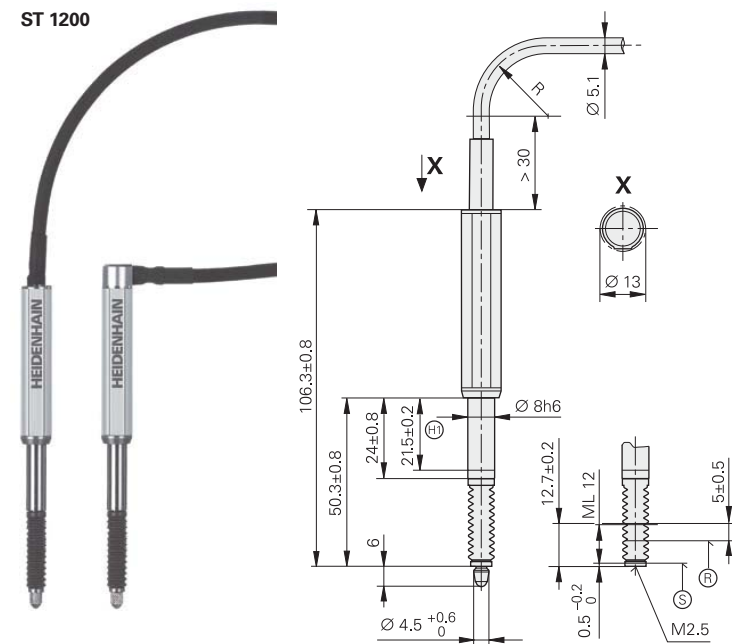


HEIDENHAIN-SPECTO

Incremental length gauges with $\pm 1 \mu\text{m}$ accuracy

- Very compact dimensions
- Splash-proof
- Ball-bush guided plunger



Mechanical Data	ST 1278 ST 1288 $\sim 1 V_{PP}$	ST 3078 ST 3088 $\sim 1 V_{PP}$	ST 1277 ST 1287 $\sim 1 V_{PP}$	ST 3077 ST 3087 $\sim 1 V_{PP}$
Plunger actuation Position of plunger at rest	By measured object Extended		Pneumatic Retracted	
Measuring standard	DIADUR grating on glass; grating period 20 μm			
System accuracy	$\pm 1 \mu\text{m}$			
Position error per signal period	$\leq \pm 0.2 \mu\text{m}$			
Reference mark	Approx. 5 mm below upper stop			
Measuring range	12 mm	30 mm	12 mm	30 mm
Gauging force	See <i>Gauging force—plunger actuation</i>			
Compressed air	-		≤ 2.5 bar	
Radial force	≤ 0.8 N (mechanically permissible)			
Fastening	Clamping shank $\varnothing 8\text{h6}$			
Operating attitude	Any			
Vibration 55 to 2000 Hz Shock 11 ms	$\leq 100 \text{ m/s}^2$ (EN 60068-2-6) $\leq 1000 \text{ m/s}^2$ (EN 60068-2-27)			
Operating temperature	10 °C to 40 °C; reference temperature 20 °C			
Protection EN 60529	IP 64 (for connecting elements see <i>Connecting Elements and Cables</i>)			
Weight without cable	40 g	50 g	40 g	50 g

Electrical Data	ST 127x ST 307x	ST 128x ST 308x
Interface	x 5	$\sim 1 V_{PP}$
Integrated interpolation*	5-fold	10-fold
Signal period	4 μm	2 μm
Edge separation a at scanning frequency*/traverse speed 100 kHz $\leq 72 \text{ m/min}$ ¹⁾ 50 kHz $\leq 60 \text{ m/min}$ 25 kHz $\leq 30 \text{ m/min}$	$\geq 0.48 \mu\text{s}$ $\geq 0.98 \mu\text{s}$ $\geq 1.98 \mu\text{s}$	$\geq 0.23 \mu\text{s}$ $\geq 0.48 \mu\text{s}$ $\geq 0.98 \mu\text{s}$
Electrical connection*	Cable 1.5 m with D-sub connector (male) 15-pin (integrated interface electronics)	Cable 1.5 m with • D-sub connector (male), 15-pin • M23 connector (male), 12-pin
Cable outlet*	Axial or radial	
Cable length	≤ 30 m with HEIDENHAIN cable	
Power supply	5 V DC ± 0.5 V	
Current consumption	< 230 mA (without load)	< 90 mA

* Please select when ordering

¹⁾ Mechanically limited