

Position sensor DK

Type 2122B...

Digital gauge for displacement and position determination

The displacement gauges Type 2122B... are available with measuring ranges of 10, 25, 50 and 100 mm and supply a digital incremental output signal with high resolution.

- Magnetic technology
- Spring loaded measuring axis
- Protection class IP64 of the sensor head
- High travel speed
- High resolution 0.5 μm

Description

The displacement gauges have a dustproof, splashwater proof and oil proof stainless steel housing. Inside of the sensor housing with robust guiding of the probe the movement of the probe is converted into digital pulses by magnetic technology. An interpolation circuit after 2 m of the sensor cable converts this signal to A/B/Z-TTL square pulses and allows a supply voltage of 5 volts.



Applications

The displacement gauges may be directly connected to the force-displacement evaluation units of the maXYmos series Type 5847... or Type 5877... incremental X-input.

- Electronic position measuring of joining processes
- Relative movement measuring, part referenced
- Measuring of bearing slackness

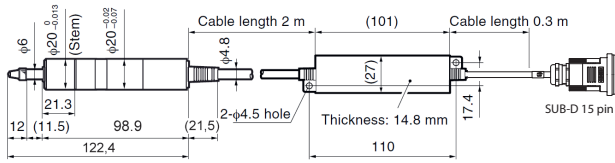
Technical data

Model DK, Type		2122B10	2122B25	2122B50	2122B100
Elektrical data					
Measuring range	mm	10	25	50	100
Output signals		A/B/Z phase voltage-differential line driver output (EIA 422)			
Resolution	μm	0.5			
Accuracy (at 20° C)	μm	2			
Operational force	N	<4.9	<4.9	<6.2	<9.3
Reference point (Track Z)		One location at 1 mm position of spindle movement			
Mass (approx.)	g	230	300	360	630
Maximum response speed	mm/s	4 100			
Vibration resistance (10 ... 2 000 Hz)	m/s ²	150			
Environmental data					
Operating temperature	°C	0 ... 50			
Storage temperature	°C	-20 ... 60			
Power supply voltage	VDC	+5 ($\pm 5\%$)			
Power consumption	W	<1			
Protection class (sensor housing)	IP	64			
Feeler		Carbide ball tip (mount screw M2.5)			
Life time		Minimum 5 million cycles without shock			
Diameter of stem	mm	20 ^(+0/-0,013)			

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Dimensions

Type 2122B10



Type 2122B25

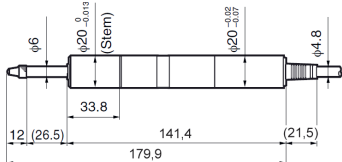


Fig. 1: Dimensions Type 2122B10 and Type 2122B25

Type 2122B50

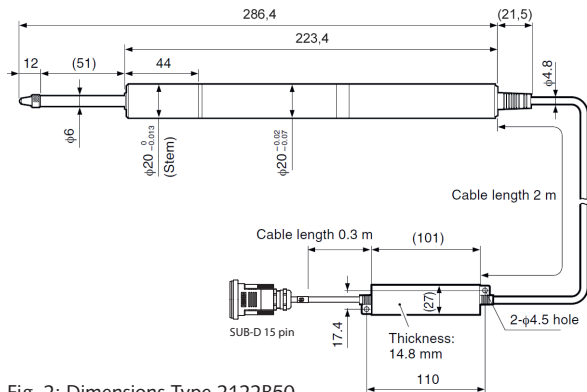


Fig. 2: Dimensions Type 2122B50

Type 2122B100

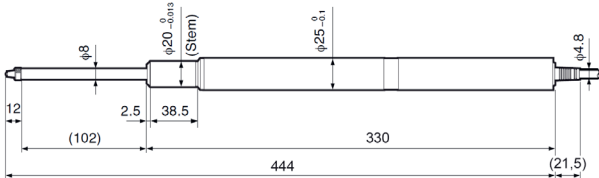
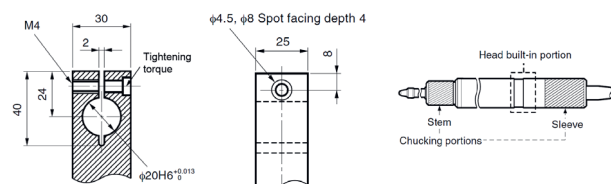


Fig. 3: Dimensions Type 2122B100



Note: Tightening torque of clamping screw is approx. 4 N·m

Schematic

SUB-D connector, 15 pin

PIN	Signal
2	Power supply +5 V
5	Impulse +1 A
6	Impulse +2 B
8	Reference point +Z
10	Power supply 0 V/GND
12	Impulse -1 A
13	Impulse -2 B
14, 11, 9, 7, 4, 3, 1	n.c.
15	Reference point -Z

Assembly

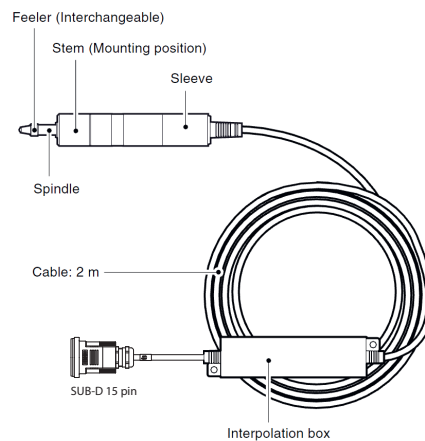


Fig. 4: Names of parts

Included accessories

- None

Accessories

- Extension cable for maXYmos family, drag-chain compatible, L = SP

Type

1200A223ASP

Ordering key

Position sensor Model DK

10 mm	10
25 mm	25
50 mm	50
100 mm	100

Type 2122B