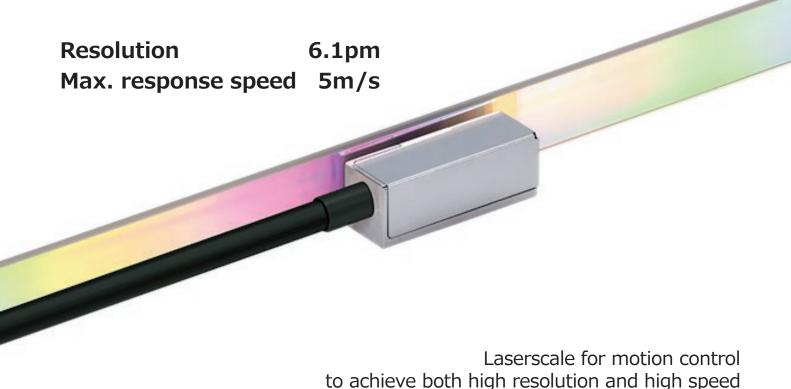


SPEED X PRECISION

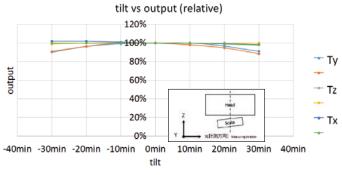


High resolution & speed

BL50H uses 1.6µm grating pitch. Grating interferometer type scanning head outputs fine signal pitch of 400nm. Dedicated interpolator divides this signal up to 6.1pm resolution. Also, maximum response speed is 5m/s.

Wide tolerance for angle

Optimized detection optics in BL50H enable wide angular tolerance of $\pm 30 \text{min}$ by constant output characteristics to all rotational directions.



Long-life laser diode

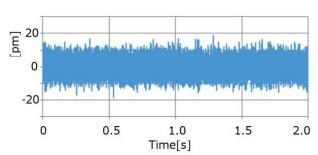
Long-life laser diode (the life is longer by 5 times of the conventional product) is used on BL50H, one piece of the laser diode is equipped in one scanning head unit.

There is also special type available which is operative in temperature 40 deg. C or more. For detail, please contact our sales office.

BL50H series

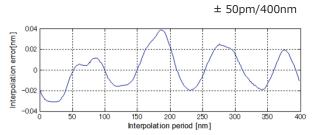
Low noise

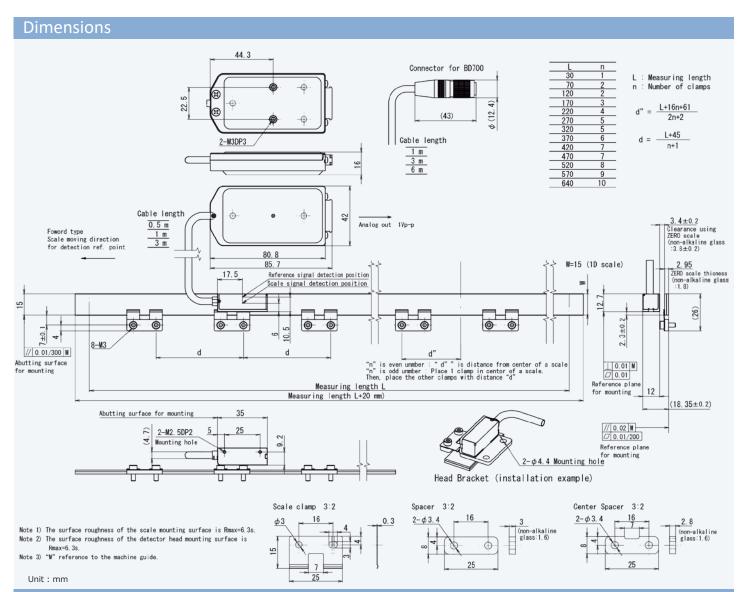
BL50H series provide S/N ratio of 13pm under condition of LPF6kHz.



Excellent interpolation accuracy

BL50H realizes excellent interpolation accuracy with combination to BD700 interpolator.





Specifications

Scale unit		
Model name	BL50H-SZ * * * * *	BL50H-SA * * * * *
Scale material	ZERO glass 0.1×10 ⁻⁶ /℃	Alkali-free glass 3.7×10 ⁻⁶ /℃
Measuring length	30 to 640mm	
Grating pitch	1.6µm	
Reference mark	Without or with a reference point in the center	
Accuracy (at 20℃)	$\pm 0.5 \mu m/30$ to $120 mm$, $\pm 1 \mu m/170$ to $270 mm$, $\pm 1.5 \mu m/320$ to $370 mm$, $\pm 3 \mu m/420$ to $670 mm$ ($\pm 1.5 \mu m$ with special specification), $\pm 5 \mu m/770$ to $970 mm$ ($\pm 3 \mu m$ with special specification), $\pm 5 \mu m/1070 mm$, $\pm 0.2 \mu m/1070 mm$ or less (with BD700 compensation)	
Interpolation accuracy	±50pm (with interpolator BD700)	
lead unit		
Model name	BL50H-FS * * * D	BL50H-FS***H
Output signal	Interpolator BD700 connection (*)	Analog 1Vp-p
Signal pitch	400nm	
Maximum resolution	6.1pm	-
Maximum response speed	3m/s (5m/s with special handling)	5m/s
Clearance	ZERO glass :3.4±0.2mm Alkali-free glass :3.8±0.2mm	
Angle tolerance	Yaw :±8.7mrad Pitch :±8.7mrad Rolling :±8.7mrad	
Head cable length	1m, 3m, 6m	0.5m, 1m, 3m
Operating temperature	+10 to +40℃ (No condensation)	
*): Converted to A/B phase, serial	interface of various companies, and analog output by BD7	00 interpolator

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