



Ultra High interpolation

LASERSCALE

BD700



multi-functional interpolator

High performance interpolation circuit for two axes in one board

BD700 outputs synchronized position data for 2 axes

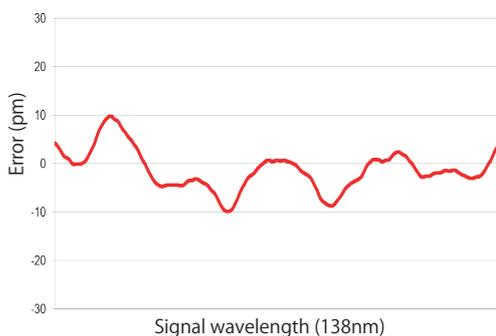
Outstanding resolution

Maximum division : 65,536

Resolution with combination of BS78 : 2.1 pm

Excellent interpolation accuracy

Real time signal compensation process by BD700 achieves ± 10 pm interpolation accuracy with the combination to BS78 Laserscale



Connection to various protocols

Signal output: Serial (Yaskawa, Fanuc, Mitsubishi, BiSS C for INC (MGS), MGS), AB quadrature & analog 1Vp-p

*Planned to support each serial communication

High response speed

Max input frequency for Analog 1Vp-p : 12.5MHz

Max response speed depends on bandwidth of sensor

Accuracy compensation function

Compensation in short range accuracy improves cumulative accuracy

With BS78 ± 50 nm (for measuring length of 220mm or less)

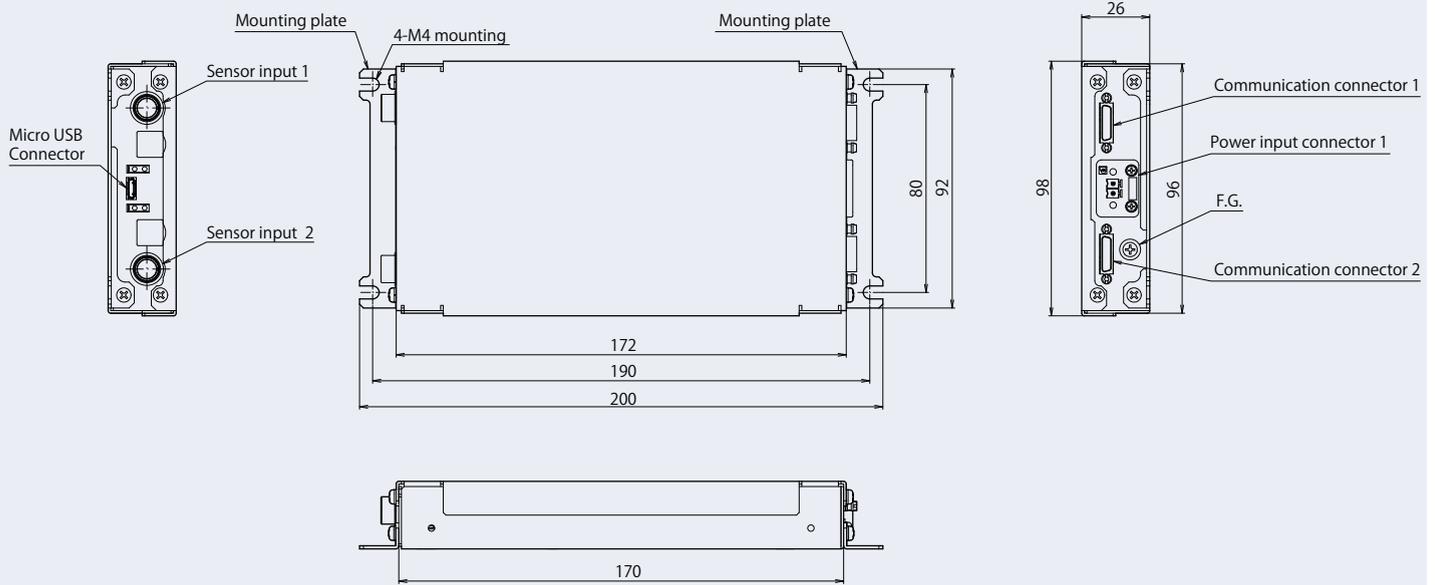
± 100 nm (for measuring length of 420mm or less)

With BL50H ± 200 nm (for measuring length of 640mm or less)

USB output

Status of signal output from a scale, position data and LD drive current can be monitored by PC.

BD700



Unit : mm

Specifications

Item	Specifications
Communication protocol	Serial: (to be certified) Yaskawa, Fanuc, Mitsubishi, BiSS C for INC (MGS), MGS *1 Parallel output available for serial + A/B phase or analog 1Vp-p USB connection to PC at the same time with serial/AB/analog communication above
Max No. of division	65,536
Max response frequency	7.5MHz (12.5MHz possible as special model)
Reference point detection	One direction
Alarm	Signal level down/over, excess speed
Accuracy compensation	Improve cumulative accuracy by compensation on short range accuracy
Auto calibration	Automatic signal output adjustment at the installation of a scale
LD drive current monitoring	Measure drive current for Laser Diode
Power supply	DC+4.75V to DC+9.45V
Current consumption	Max. 2A
Operating temperature	+10°C to +35°C *2 (no condensation)
Storage temperature	-10°C to +50°C (Humidity 60% or less)
Mass	Approx. 650g

*1 Original serial protocol by Magnescale

*2 Depending on the condition of installation and location

⚠ Safety Precautions : To use this product safely, please read the instruction manual carefully prior to usage.

●Magnescale reserves the right to change products and specifications without prior notice

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