SET-HD

SET-HD100

Self-compensating rotary encoder system that can be used as
a calibration reference for a rotational axis while compensating for
any errors in the installation tolerance.

Interpolator unit
BD350

Scale unit
BE300

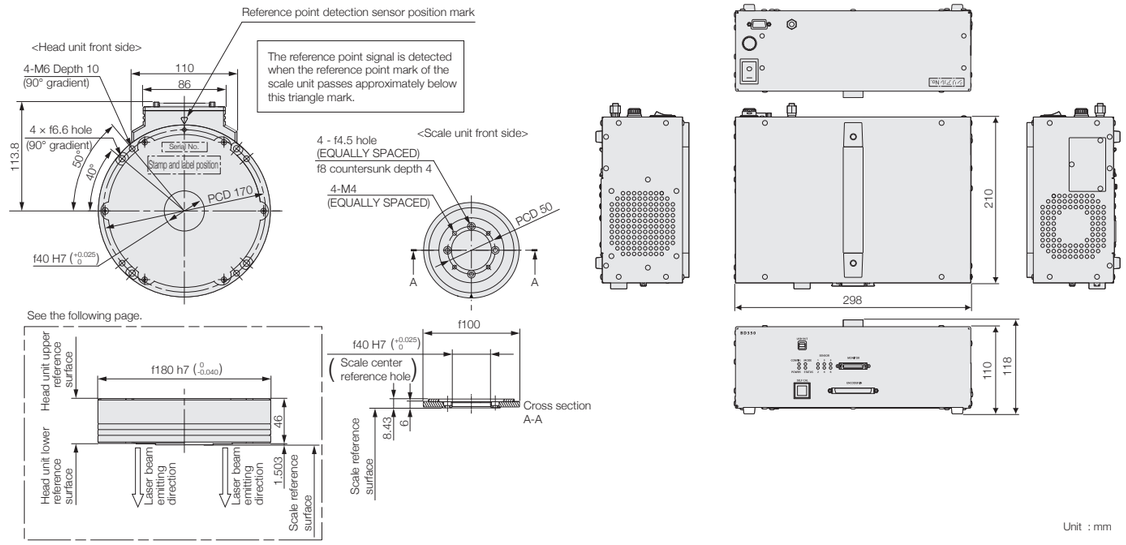
Head unit
BH300

- High angular accuracy [±0.1 arcsec] resulting from a Magnescale algorithm with 0.0012 arcsec resolution
- Measurement traceability : JCSS calibration certificate issued
- High reproducibility : Compensates for mounting errors and other factors to achieve high reproducibility.
- Easy installation
- Extensive software
- Compact and easy to carry

Metrology Traceability

Magnescale Co., Ltd. is a JCSS registered calibration service provider, which is assessed based on the international standard ISO/ IEC1705. We issue JCSS calibration certificates for all SET-HD100s we sell. This is proof of reliable calibration results that ensure metrological traceability.

External Dimensions



Unit : mm

Main Specifications

Model	SET-HD100
Detecting radius	41.723 mm
Max. rotary response speed	10 min^{-1}
Number of source signals	2^{20} (1,048,576) / revolution
Source signal resolution	1.236" arcsec
Accuracy	JCSS Calibration : ±0.1" arcsec Installation specification range : ±0.2" arcsec (360° self-calibration) : ±0.3" arcsec (180° self-calibration) : ±1.0" arcsec (preset compensation)
Reference point position	With reference point
Output format	USB 2.0
Number of interpolations	2^{10} (1,024) / revolution
Number of output divisions	2^{30} (1,073,741,824) / revolution
Output resolution	0.0012 arcsec
Number of sensor	6 sensors / unit
Light source	Semiconductor laser x 6
	Wave length 790 nm, 5 mW or less / sensor
Radiation power	EN60825 : class 3B, JIS：class 3B, DHHS : class IIIb
Operating temperature	+10 to +30°C (no condensation)
Storage temperature	0 to +50°C (no condensation)
Power supply	DC 20 to 24 V / 5 A (Max. 8 A)
Dimension / Mass	Scale unit : Φ100 × H8.5 mm / 300 g or less
	Head unit : Φ180 × H46 mm / 3.8 kg or less
	Interpolator unit : 298 × 210 × 110 mm / 5 kg or less
Software	GUI Application software LS-ARC
	API Library SETHDLIB

Magnescale reserves the right to change product specifications without prior notice.