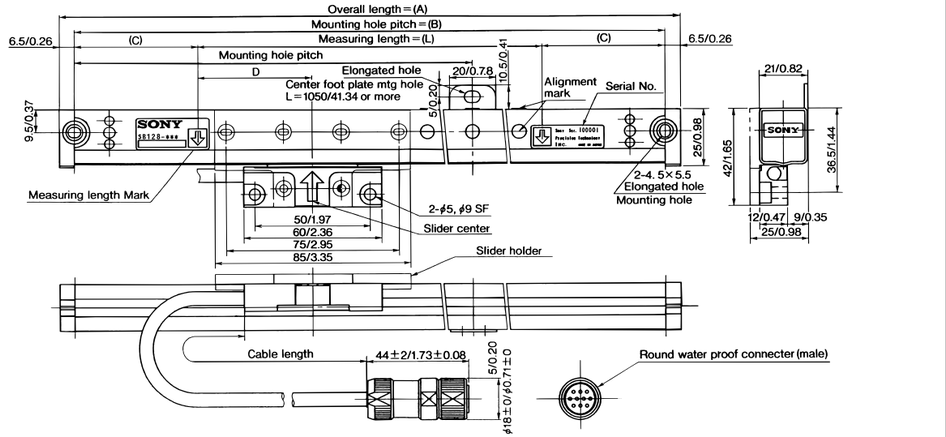
Dimensions

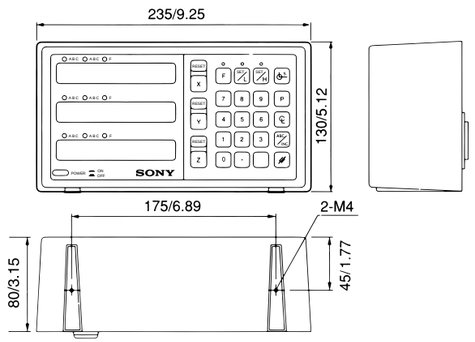
GB-A Series



Measuring length (L)	Overall length (A)	Mounting hole pitch (B)	(C)	(D) (Slider set position at shipment)
50 to 200	L+104/4.09	L+91/3.58	45.5/1.79	L×1/2
250	L+120/4.72	L+107/4.21	53.5/2.11	
300 to 2200				50/1.97

Unit: mm/inch

LH51/52 Series



These products are manufactured at our Isehara Plant that is certified to ISO9001 Quality Management System.
Registration No: 9C98J1029
Registration date: February 17,1995

These products are manufactured at our Isehara Plant that is certified to ISO14001 Environmental Management System.
Registration No: EC96J1045
Registration date: December 25,1996

* Designs and appearances are subject to change without prior notice.

Sony Precision Technology Inc.

Toyo Building,9-17,Nishigotanda 3-chome,Shinagawa-ku,Tokyo,141-0031 Japan
Phone:+81-3-3490-9481 Fax:+81-3-3490-8028
http://www.sonypt.co.jp/

Description of this brochure is based on the specifications as of April 1999.

1999.4.CX-512-B-CP ©SONY Printed in Japan
printed on used paper

SONY

Catalog No.512

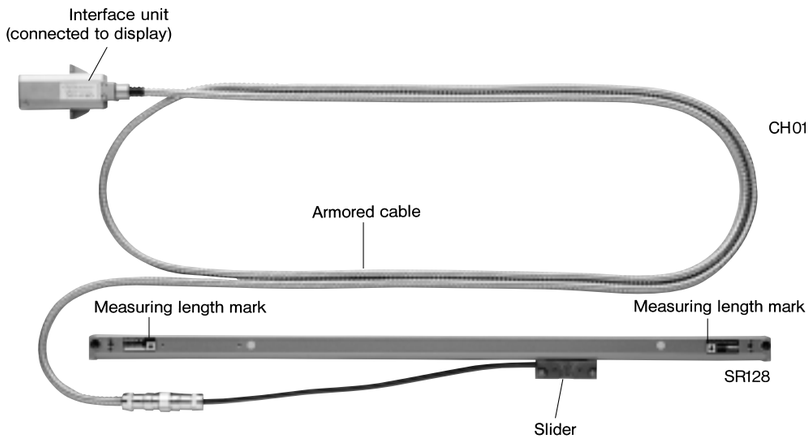
Magnescale®

Scale GB-A Series

Display LH51/52 Series

Sony's Digital Readout System GB-A Series Scale and LH51/52 Display

Scale
GB-A Series



■Magnescale Technology
- Reliable in the harshest metalcutting environments
- Resistant to oil and dirt

■Compact design
- Space saving and efficient installation
  Cross section: 25 mm × 21 mm (0.98"×0.83")

■Accuracy: ±5μm
L=measuring length in mm

Specifications

Model	GB-5A to GB-220A			
Measuring length L mm (inch)	50/100/150/200 (1.9/3.9/5.9/7.8)	250/300/350/400/450/500/550/600/650/750/850 (9.8/11.8/13.7/15.7/17.7/19.6/21.6/23.6/25.5/29.5/33.4)	950/1050/1250/1400/1600/1850 (37.4/41.3/49.2/55.1/62.9/72.8)	2050/2200 (80.7/86.6)
Overall length	L + 104 mm/4.1"	L + 120 mm/4.7"		
Max. travel	L + 14 mm/0.55"	L + 30 mm/1.18"		
Accuracy (at 20 ℃/68 ˚F)	±5 μm			
Resolution	0.5 μm			
Max. response speed	60 m/min			
Mounting parallelism	Within 0.1 mm/0.004"			
Expansion coefficient	(11±1) ×10⁻⁶/℃			
Protective design grade	Equivalent to IP54			
Operating temperature	0 ℃ to 40 ℃/32 ˚F to 104 ˚F			
Storage temperature	-10 ℃ to 50 ℃/14 ˚F to 122 ˚F			
Cable length (read head)	300 mm/11.8"			
Cable length (display connection)*	3 m/9.8'		5 m/16.4'	10 m/32.8'

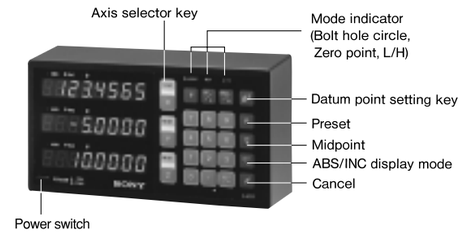
■Model name: GB-□□□A ┌ Measuring length
(e.g. GB-20A: measuring length 200 mm)

■The SR127 high accuracy scale is also available:
accuracy ±3μm: measuring length 50 mm to 1250 mm

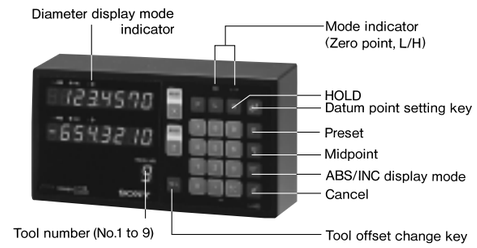
Note : Consult us about the following applications.
- Water-soluble coolant is used.
- Materials other than metals are machined.
- Only a given section of a GB-Series scale is made to slide at high speed for a long period.

Display
LH51/LH52 Series

LH51



LH52



■Easy-to-use standard functions
- Inch/mm conversion
- Selectable ABS/INC display
- Datum point memory
- Linear error compensation
- Midpoint calculation
- Reset, Preset, Recall
- Self-diagnostics
- Power loss data storage
- Touch Sensor function (LH51)
- Bolt hole circle (LH51)
- Simple arc function (LH51)
- Alarm, Data storage

■Compact and lightweight

■Selectable resolutions
- 0.5 / 1 / 5 / 10μm

■Lathe function (LH52)
- Tool coordinate functions
  9 sets of coordinates
- Addition
- Selectable DIA/RADIUS display
- Hold

Specifications

Model	LH51-1	LH51-2	LH51-3	LH52-3
No. of connectable axes	1	2	3	3
No. of display axes	1	2	3	2
Display technology	7 digits, green LED display, mode indication (leading zero suppress, floating minus sign)			
Display resolution	Varies with the transducer (0.5 μm with Magnescale)			
Max. response speed	Varies with the transducer (60m/min with Magnescale)			
Reset	By key operation or external reset			
Preset	By key operation			
Recall	Data stored by preset can be recalled by key operation			
Linear error compensation	When table moves a certain distance, a unit of compensation value is added or subtracted for linear compensation			
Absolute/Incremental	With the datum point set at any point on the scale, the absolute distance from the point can be displayed while machining in the INC mode			
Datum point memory	Set by key operations			
Zero point detection	Used with a transducer having a zero point, LH51/52 detects the zero point and reproduces a datum point			
Touch sensor	Used with the optional Touch Sensor, LH51 detects the datum plane 1.Hold 2.Load 3.Centering			—
Bolt hole circle	—	By entering the diameter and the number of holes required, the X and Y bolt hole coordinates are displayed		—
Arc function	—	By entering the radius tool diameter and the feed angle, simple R coordinates are displayed		—
Midpoint calculation	In the INC mode, the displayed value can be halved by a simple key operation			
Hold	—			The display value is held and a tool offset can be set with a key switch
Addition function	—			Displays 2-axis addition (Z1+Z2)
Tool offsets	—			Max.9
Data storage	Preset value and the value that was displayed before power-off are stored in non-volatile memory			
Alarm display	1. Power interrupt 2. Max.response speed exceeded 3. Error in stored data 4.Scale disconnected			
Operating temperature	0 ℃ to 40 ℃/32 ˚F to 104 ˚F			
Storage temperature	-20 ℃ to 60 ℃/-4 ˚F to 140 ˚F			
Power supply	100V AC to 230V AC ±10%			
Power consumption	Max. 35VA			
Mass	Approx. 1.4 kg/3.09 lbs			