

Precision scales for retrofitting at a glance

Model	GB-ER				SJ700A			SL110	SL130	
Measuring length L (mm)	50/ 100/ 150/ 200	250/300/ 350/400/ 450/500/ 550/600/ 650/750/ 850	950/ 1050/ 1250/ 1400/ 1600/ 1850	2050/ 2200	150/ 250/ 350/ 400/ 500/ 650/ 800	950/ 1050/ 1250	1400/ 1600	200/300/ 400/500/ 600/700/ 800/1000/ 1200/1500/ 1600/1700/ 1800/2000	200/300/400/ 500/1000/ 1200/1500/ 1600/1700/ 1800/2000	8000/ 9000/ 10000/ 20000/ 30000
Overall length	L + 104 mm (≤ 200 mm) L + 120 mm (≥ 250 mm)				L + 120 mm			L + 103 mm	L + 100 mm	
Resolution**	0,5 µm				5 µm			10 µm		
Accuracy at 20 °C	± 5 µm				± 10 µm ± 15 µm			± (25 + 5 L/1000) µm		± (25 + 5 L / 1000 + 10 N) µm L = 8 000, N = 1 L = 9 000, N = 1 L = 10 000, N = 1 L = 20 000, N = 2 L = 30 000, N = 3
Response speed	up to 60 m/min				up to 60 m/min			up to 300 m/min		
Operating temperature	0 °C to 40 °C				0 °C to 40 °C			0 °C to 45 °C		
Storage temperature	-10 °C to 50 °C				-10 °C to 50 °C			-10 °C to 50 °C		
IP grade	IP 54				IP 54			PL20C reading head IP 67		
Connecting cable	CH04-03C incl.*				3 m incl.*		5 m incl.*	Reading head PL20C needs to be ordered separately*		
Extension cable	CE10-□□C (3/5/10 m)* Example: CE10-05C = 5 m cable length				-			-		

* Armoured cable ** Output signal: TTL line driver (RS422)

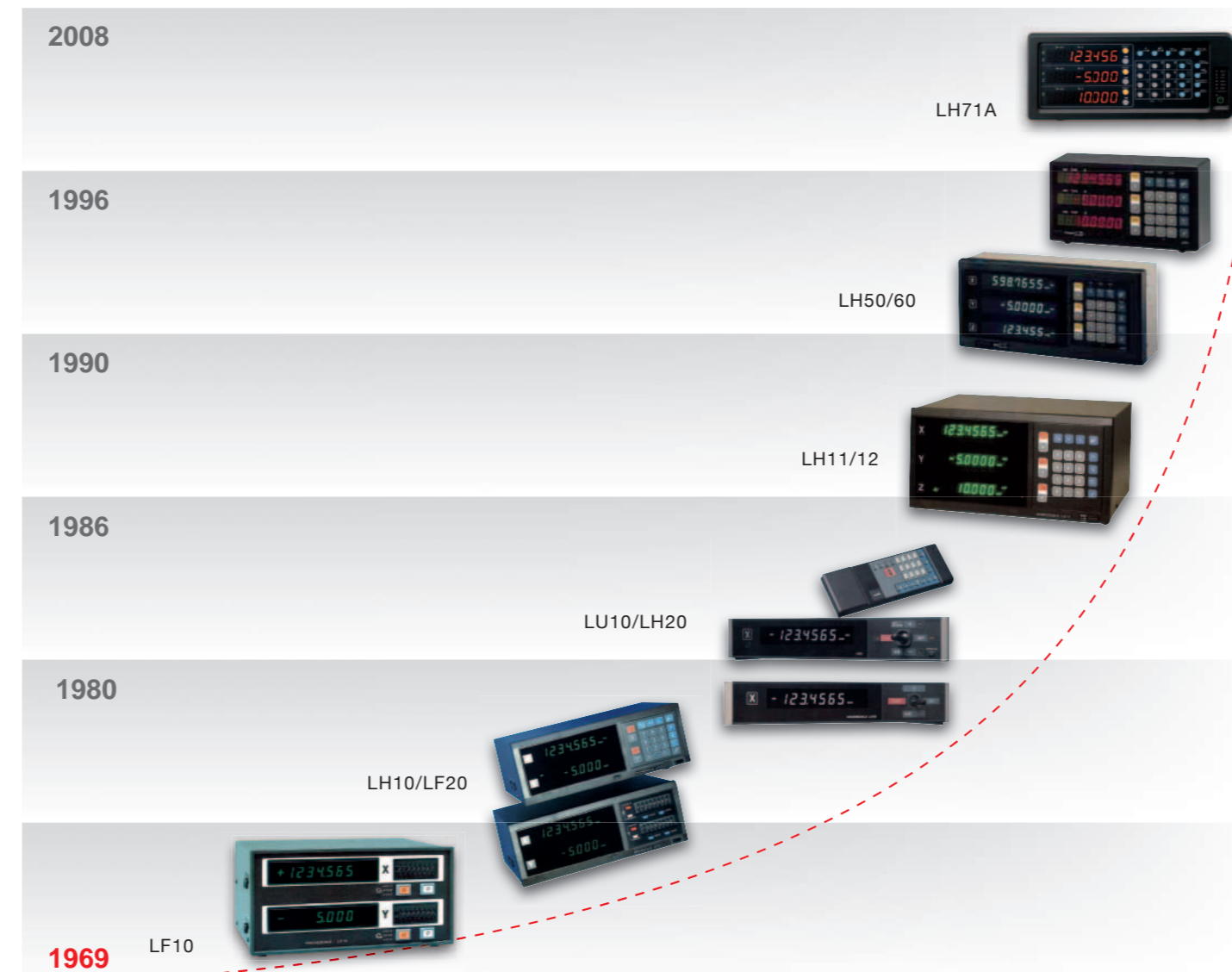
Reading head PL20C for SL110/130

Model	PL20C
	-3C -5C -10C -15C -20C -30
Resolution	10 µm
Max. response speed	300 m/min
Distance scale-reading head	max. 1,5 mm (no contact)
Protective design grade	equivalent to IP 67
Operating temperature	-5 °C to 45 °C
Storage temperature	-10 °C to 50 °C
Compatible scale	SL110 and SL130
Armoured cable	yes
Compatible display	LG20 / LH70/71
Reading head cable length	3 m / 5 m / 10 m / 15 m / 20 m / 30 m

How to order

LG20 - <input type="checkbox"/>		PSC23
LH70 - <input type="checkbox"/>		Separate power supply
LH71 - <input type="checkbox"/>		
LH71A - <input type="checkbox"/>		
Series	Number of axes (1, 2 or 3)	
GB - <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> ER		SJ700A - <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Series	L of scales in cm	Series L in cm
SL110 - <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> + PL20C - <input type="checkbox"/> C		With armour
Series	L in cm	Series Length of connecting cable (m)

Magnescale counter history



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Magnescale

SPEED X PRECISION

Displays:

LG Series
LH Series

Scales:

GB-ER Series
SJ700A Series
SL110/130 Series

DRO

Digital Readout



Magnescale Co., Ltd.

Reliable measuring systems – higher quality and increased profit

Magnescale magnetic scales fulfil the highest expectations for precision and reliability. The Magnescale™ principle ensures the system's resistance against typical workshop conditions, external magnetic fields and vibration, resulting in the scales being ideal for conventional metal cutting machine tools like lathes, mills and grinding machines...

More than 40 years experience demonstrates that the high manufacturing quality of Magnescale scales and displays increases the quality of your production output and the productivity of your machine tools. Thereby a fast return on investment is guaranteed so maximising your profit!

The advantages of magnetic scales:

- resistant to oil, water and dust
- compact design
- easy installation

Suiting a wide range of machine applications:

- grinding machines
- milling machines
- measuring machines
- lathes
- special machine applications
- drilling machines
- measuring fixtures

Digital readouts – compact intelligence



Multifunction unit LG20 / LH70/71 series

The multifunction LH70 series has been particularly designed and developed for cost-efficient retrofitting of manual machine tools. The LH70 display combines popular, easy to use functions for both Mills and Lathes in one unit and can therefore be used on all machine applications. The display LG20 provides simple "reset/preset" functions.

Multifunction units LG20 / LH70/71 series			
	LG20	LH70	LH71 / LH71A
Display axes	1, 2, 3		
Display	7 digits, orange LEDs, floating minus sign		
Display resolution	0,1/0,5/1/5/10 µm	0,1/0,5/1/5/10 µm 1 s /10 s/ 1 min/10 min	
Input signal	TTL line driver RS422		
Compatible measuring systems	GB-ER, SJ700A and PL20C (SL110/130)		
Power supply	DC12 V using separate power supply unit PSC23 with AC 100 – 240 V		
Weight	1,5 kg		

Functions at a glance

Model	LH70	LH71	LH71A	LG20
Reset	■	■	■	■
Preset	■	■	■	■
Absolute/Incremental	■	■	■	
Diameter display	■	■	■	■
Angle display	■	■	■	
Alarm display	■	■	■	■
Zero point detection	■	■	■	
Datum points	10	150	150	
Tool memory*	12	99	99	
Midpoint calculation	■	■	■	
Scaling		■	■	
Addition function*	■	■	■	
Programming function		■	■	
Bolt hole circle	■	■	■	
Line hole		■	■	
Simple R cutting	■	■	■	
Linear error compensation	■	■	■	■
Segment error compensation		■	■	
Data storage	■	■	■	■
Energy saving function	■	■	■	■
Navigation function	■	■	■	
External reset			■	
Touch sensor function			■	

* only 3 axis display

Precision scales for retrofitting

GB-ER series, 0.5 µm resolution, reference point

Renowned for its precision and robustness thanks to the Magnescale™ Technology. It's the compact series for retrofitting to high precision machine tools, perfect for lathes and grinding machines.



SJ700A series, 5 µm resolution

Tough standard scale for retrofitting of machine tools. The Magnescale™ principle and the high quality guarantee a long product life.



SL110 series, 10 µm resolution

The Digiruler™ series is extremely tough and resistant against workshop conditions. Reading head and scale work, using the tried and tested Magnescale™ principle, absolutely contactless and therefore very reliable.



SL130 series, 10 µm resolution

The Digiruler™ SL130 is a flexible steel band, simply mounted onto the machine with adhesive tape. Based on the well known Magnescale™ Technology it is available in measuring lengths up to 30 m and can therefore be easily and cost effectively retrofitted to large lathes and sawing machines.

