



Hegewald & Peschke

Meß- und Prüftechnik GmbH

1D-Measuring Device "Light"

for pipes, profiles, rods, bars, bands, cords, cuts...



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General product description

The 1D measuring device "light" is used to measure the length of long, narrow workpieces in the production environment.

This product offers a cost-effective alternative for measuring tasks where a caliper is too short and a tape measure is too inaccurate. With the 1D measuring device "light", length measurements can be recorded quickly and safely in the simplest way possible.

The concept of this devices places particular emphasis on flexibility and cost effectiveness.

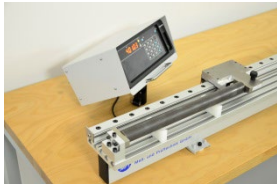


Key features

- Lightweight, cost-effective construction using high-quality components while deliberately omitting what is not immediately required
- High-quality, robust measuring system by Magnescale®
- Precise and smooth linear guide
- Universal modular system – for effective customization
- Durable and robust –proven for many years in rough industrial use by reputable companies



Application examples



Length measurement on steel pipes



Length measurement on plastic pipes



Length measurement on rods



Length measurement on sheet metal strips



Length measurement on cardboard tubes



[Video 1D length measuring device »](#)



1D measuring device - basic device

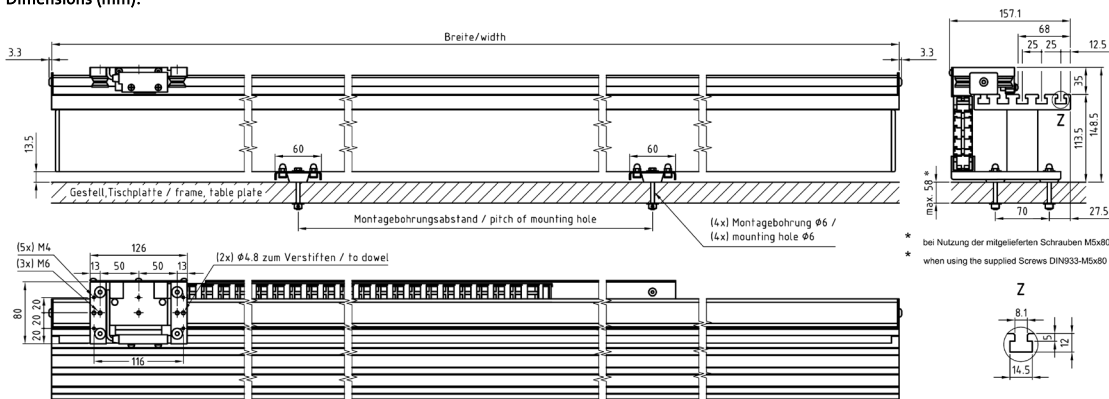
Universal basic device, consisting of:

- Basic support made of light metal with T-slots and linear guide.
- Movable measuring carriage (for attaching of stops, measuring probes, optics etc.).
- Magnetic incremental measuring system Magnescale® SL130/PL20C, including factory calibration with protocol.

Measuring accuracy: $\pm (0.04\text{mm} + 0.02\text{mm} \times L)$, L = measuring length in m
Without display device and accessories (required for operation).

Item no.	Width	Measuring length	Workpiece weight max.	Mounting hole spacing
33-011-098	1100 mm	950 mm	15 kg	620 mm
33-011-118	1300 mm	1150 mm	15 kg	700 mm
33-011-188	2000 mm	1850 mm	12 kg	1240 mm
33-011-238	2500 mm	2350 mm	10 kg	1460 mm
33-011-288	3000 mm	2850 mm	8 kg	1680 mm
33-011-308	3200 mm	3050 mm	6 kg	1780 mm
33-011-388	4000 mm	3850 mm	4 kg	2220 mm

Dimensions (mm):



Accessories

Display devices and software



LG20-1 with table mount and protective cover

Display unit LG20-1: Magnescale® Display unit with reset/pre-set function. One measuring channel can be connected.

Display unit LY72: robust Magnescale® multifunctional display unit with large display, measured value plus error message, RS232 interface (HP Keysim required); up to three measuring channels can be connected.

Display unit M3: digital Display unit M3 (4.3-inch color touchscreen, can be operated with gloves) incl. RS232 (HP Keysim required) and USB interface, connection adapter cable for Magnescale® measuring system; with USB cable and main adapter and table base; no installation/no further software required for USB connection (standard keyboard driver for Windows®), HP Keysim for transfer of the displayed measured value via touch display or external push-button (optional) into active application (e.g. MS-Excel®).

Multifunction counter MC331: Industrial counter with RS232 interface. Reset / preset function. Three measuring channels can be connected. Connection: 230V/ max. 30VA. Supplied complete with bracket, power supply unit, protective cover and separate "RESET" and "DATA" button. Without alarm display for measuring system error

HP KeySim: Useful utility programme for direct transmission of the measured values via RS232 interface to any application running under MS-Windows® (e.g. MS-Excel®). An interface cable is included in the scope of delivery.



Display unit M3 with table base

Item no.	Description
33-011-601	LG20-1 with table bracket and main adapter
33-011-602	LY72 with table bracket and main adapter with RS232
33-011-603	MC331 with RS232
33-011-604	Display unit M3 with table base and main adapter with RS232 & USB
18-100-01	Software HPKeySim RS232



Display unit LY72



Multifunction counter MC331

Measuring accessories



Device with measuring accessories: fixed stop, workpiece supports and mobile stop

Workpiece supports/clamping

Item no.	Article description	Design/application
33-011-705	Workpiece support, L=16 mm	Universal workpiece support, prismatic 130°. Suitable for tubes up to D = 150 mm and many other profile shapes. Material: PE. Attached on the base support with lower centering for quick positioning on the longitudinal axis. Depending on the stiffness of the workpiece, two or more workpiece supports are required.
33-011-735	Workpiece support, L= 350 mm	As above, but suitable for forming a continuous support. For flexible workpieces that do not have the strength for point-based support (e.g., cables, rubber profiles). Intended for permanent installation on the base carrier (without lower centering).
33-011-750	Workpiece support, L= 500 mm	
33-011-706	Workpiece support 90° special L=16 mm	Prismatic shape 90° for rectangular workpieces up to approx. 100x100 mm, including fastening parts for base carrier. Material: PE (natural).

Depending on requirements, the workpiece supports can be easily and flexibly combined for different specimens and measuring lengths:

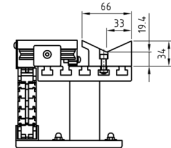
For measuring length

950 mm
1150 mm
1850 mm
2350 mm
2850 mm
3050 mm
3850 mm

Recommended combination:

2 x 500 mm = 1000 mm
1 x 500 mm + 2 x 350 mm = 1200 mm
3 x 500 mm + 1 x 350 mm = 1850 mm
4 x 500 mm + 1 x 350 mm = 2350 mm
5 x 500 mm + 1 x 350 mm = 2850 mm
4 x 500 mm + 3 x 350 mm = 3050 mm
7 x 500 mm + 1 x 350 mm = 3850 mm

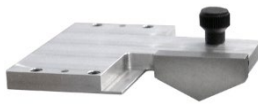
Dimensions (mm):



Workpiece support



Fixed stop



Mobile stop

Fixed / reference stops

Item no.	Article description	Design/application
33-011-805	Fixed stop	Universal fixed stop with wide contact surface. Suitable for tubes up to D = 150 mm and many other profile shapes. Attached to the base carrier.
33-011-806	Fixed stop 90° special	Prismatic shape 90° for rectangular workpieces up to 100x100 mm, including mounting parts for attachment to the base carrier.

Movable touch tools & optics

Item no.	Article description	Design/application
33-011-905	Mobile stop	Universal measuring stop with wide sensing surface. Suitable for pipes up to D= 150 mm and many other profile shapes. Mounted on the measuring carriage. For quick referencing of the measuring device, the stop can be slid over the workpiece supports (gap approx. 1 mm) without needing to remove them.
33-011-906	Mobile stop 90° special	Prismatic shape 90° for rectangular workpieces up to 100x100 mm, including mounting parts for attachment to the base support.
33-011-910	Combi mobile stop with line laser	Enables the measurement of the total length of bars, tubes, etc. by mechanical sensing as well as the measurement of any points along the workpiece optically via the line laser.
33-011-901	Line microscope for linear measurements	Consisting of eyepiece with crosshairs, precision guide with fine height adjustment, objectives 1:1 and 2.5:1, single illumination, base plate for attachment to movable measuring carriage.
33-011-186-BG02	Fine drive X-axis	For fine positioning of the measuring optics by means of an adjustment wheel. Useful as a supplement for optical mobile stops (crosshair micrometer). (Microscope 33-011-901, combi mobile stop 33-011-910).
on request	USB camera with eyepiece adapter and viewing software	
on request	LED ring light, USB or network operation	



Combi mobile stop with line laser (left: optical measurement of sample center / right: mechanical probing at the sample end)



Line microscope



Accessories for workplace equipment

An ergonomically designed workplace with purposeful equipment is the basis for an efficient performance of tasks. In order to facilitate for you the design of your new measuring workplace as well as the procurement from a single source, we gladly offer you the suitable accessories from the portfolio of the German manufacturer "RAU GmbH".

If a workbench is ordered together with a measuring device, then the required fastening bores are drilled into the work plate at the factory.



Workbench

Work plate made of solid beech wood, glue-laminated finger joint, and thickness: 40 mm, surface protection by use of environmentally-friendly refined linseed oil.

Welded construction for high stability and load capacity.

Distributed load: max. 1250 kg.

Powder-coating white aluminium (RAL9006)

Workbenches with a width of 3000 mm have three pairs of feet (= 6 feet).

Can be combined with roller set and/or height adjustment set.

Item no.	W x D x H in mm	Remark
03-8000-1-157B4S.947_RAL9006	1500 x 700 x 840	fits with measurement device -098, -118 and -188
03-8000-1-207B4S.947_RAL9006	2000 x 700 x 840	fits with measurement device -238, -288 and -308
03-8000-1-307B4S.947_RAL9006	3000 x 700 x 840	three pairs of feet, fits with measurement device -338 and -388



Leveling

For leveling the working height of workbenches in frame design.

Black. Slip resistant. Can be retrofitted.

Content: 1 piece, suitable for one foot

Item no.	Content
09-NA45	1 piece Order 4 or 6 pieces



Height adjustment set 4, height adjustment set 6

Adjustment range 200 mm for total height of 840-1040 mm or 300 mm for total height of 840-1140 mm.

Incl. levelling and anti-slip knob.

Content: 1 set = 4 or 6 pieces, suitable for one workbench with 2 or 3 pairs of feet.

Can be combined with roller set. Can be retrofitted.

Powder-coating white aluminium (RAL9006)

Item no.	Adjustment range	Content
09HV200-4.947_RAL9006	200 mm	1 set = 4 pieces
09HV300-4.947_RAL9006	300 mm	1 set = 4 pieces
09HV200-6.947_RAL9006	200 mm	1 set = 6 pieces
09HV300-6.947_RAL9006	300 mm	1 set = 6 pieces



Roller set 4LF, roller set 6LF

Steering rollers with locking device, roller Ø 125 mm, design height 150 mm, expander fastening.

Distributed load of the workbench with roller set: max. 450 kg.

Content: 1 set = 4 pieces or 6 pieces, suitable for one workbench with 2 or 3 pairs of feet

Can be combined with height adjustment set. Can be retrofitted.

Item no.	Content	Remark
09-RS125EP-4LF	1 set = 4 pieces	fits with workbench with 4 feet
09-RS125EP-6LF	1 set = 6 pieces	fits with workbench with 6 feet



Workbench with lowerable running gear

Workplate made of solid beech wood, glue-laminated finger joint, and thickness: 40 mm, surface protection by use of environmentally-friendly refined linseed oil.
Welded construction for high stability and load capacity.
2 Back- and 2 steering rollers with locking device. Roller Ø 125 mm, design height 150 mm.
Distributed load: max. 1250 kg, in extended position max. 450 kg.
Powder-coating white aluminium (RAL9006)

Item no.	W x D x H in mm	Remark
05-8000-6-157B4F.947_RAL9006	1500 x 700 x 880	Suitable for measuring device -098, -118 and -188
05-8000-6-207B4F.947_RAL9006	2000 x 700 x 880	Suitable for measuring device -235, -288 and -305



Backboard

Height 100 mm
Assembled to the workbench on the rear side.
Can be retrofitted.

Item no.	Width in mm
09-BB1500	1500 (2 pieces = 3000)
09-BB2000	2000



Rack

Height 375 mm, depth 300 mm.
Steel plate with raised edge on 3 sides.
Assembled to the workbench.
Can be retrofitted.

Item no.	Width in mm
09-AL1500.947_RAL9006	1500 (2 pieces = 3000)
09-AL2000.947_RAL9006	2000



Utensil cabinet

Double wing door with changeable door stop.
Lockable.
Welded on at the factory (not suitable for retrofitting).

Item no.	W x D x H in mm
03-US.947_RAL9006/RAL9006	245 x 650 x 360



Roller shutter cabinet for CPU

Back board with cable entry (brush mounting included) as well as integrated device fan with ventilator and filter mat (ventilation and dust protection).
For the positioning on the right or left hand side of the table frame.
Welded on at the factory (not suitable for retrofitting).

Item no.	W x D x H mm	Colour
03-300.1.947_RAL9006	360 x 650 x 620	RAL9006 (white aluminium)



Base frame drawer

Inside dimensions of drawer: W 490 x D 560 mm.
Extraction mounted on roller bearings, extraction approx. 90 %. Bearing capacity: 50 kg. Lockable.
Montage: Welded on at the factory (not suitable for retrofitting).

Item no.	W x D x H in mm	Colour
03-200.1A.10_RAL5010	520 x 650 x 175	RAL5010 (gentian blue)
03-200.1A.947_RAL9006	520 x 650 x 175	RAL9006 (white aluminium)



Sliding keyboard shelf 2

Assembled to the table frame.
Can be retrofitted.

Item no.	W x D x H mm	Colour
03-TA2.947_RAL9006	720 x 350 x 85	RAL9006 (white aluminium)



Perforated plate for workbench assembly

With square system perforation.
Including fastening set for workbench assembly.
Can be retrofitted.

Item no.	Height x Width in mm
09-L150DM.947_RAL9006	450 x 1500 (2 pieces = 3000)
09-L200DM.947_RAL9006	450 x 2000



Monitor housing

Suitable for monitors up to 26 inches.
Lockable monitor compartment (inside dimensions W 705 x D 280 x H 530 mm) with viewing window (W 545 x H 495 mm). Cable entry integrated into the floor and device fan with dust protection filter).
Open storage compartment under the monitor compartment (compartment height 140 mm), e.g. for keyboard.
Optional positioning on the table board. Can be retrofitted.

Item no.	W x D x H mm	Colour
07-5500.947_RAL9006	720 x 300 x 710	RAL9006 (white aluminium)