# Hegewald & Peschke
## Meß- und Prüftechnik GmbH

# 1D measurement device "light"

For tubes, profiles, poles, bars, belts, cords, cuts...

## General product description

The 1D measurement device "light" serves for the length measurement of long, narrow workpieces in the productions environment.

This product offers a cost-effective alternative exactly for such measurement tasks where a sliding calliper is too short and a measuring tape is too inaccurate. With the 1D measurement device "light", linear dimensions can be gathered quickly and reliably in the simplest manner.

The concept of the new series "8" places great importance on flexibility and cost effectiveness.

## Essential characteristics

- Light-weight, cost-effective construction using high-quality components with deliberate renunciation of not immediately required things
- High-quality, robust measuring system by Magnescale®
- Precise and smooth-running linear guiding
- Universal modular system – the equipment can be individually arranged
- Long-lasting and robust – has proven itself for many years in harsh industrial environments at well-known customers

## Application examples

Length measurement on steel pipes
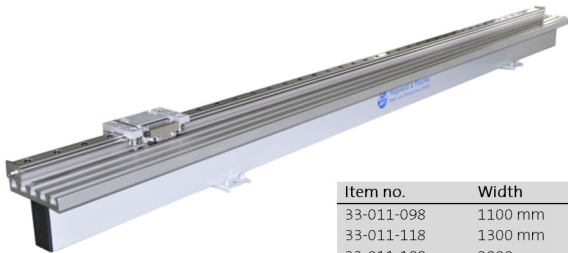
Length measurement on plastic pipes

Length measurement on bars

Length measurement on sheet metal strips

Length measurement on cardboard tubes
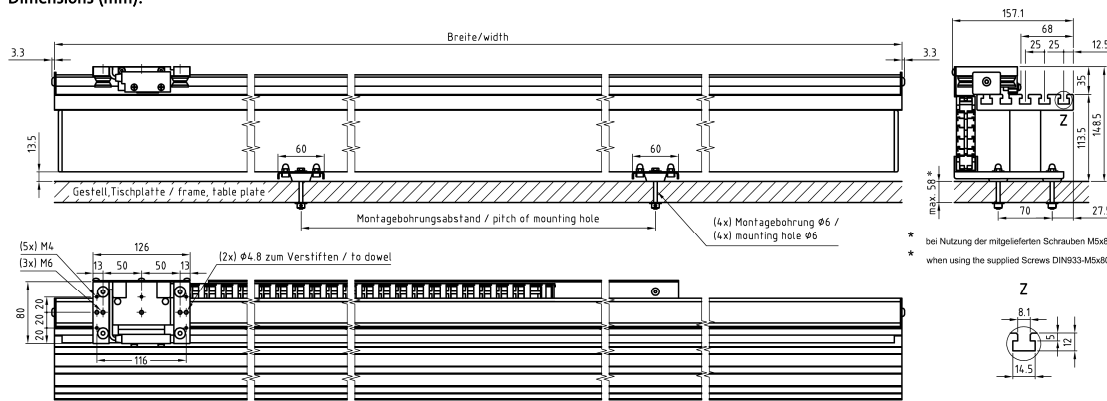
## 1D measurement device - basic device

Universal basic device, consisting of:
- Basic carrier made of light metal with T-grooves and linear guiding.
- Movable measuring carriage (for attaching of stops, gauges, optics etc.).
- Magnetic incremental measuring system Magnescale® SL130/PL20C. Factory calibration with protocol.

**Measuring accuracy:** ± (0.06mm + 0.02mm x L), L = measuring length in m
**Without display device and accessories (required for operation).**

| Item no. | Width | Measuring length | Workpiece weight max. | Pitch of mounting hole |
|---|---|---|---|---|
| 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



Display unit LY72

**Display unit LG20-1:** Magnescale® Display unit with reset/pre-set function. One measuring channel can be connected. Mains adapter PSC23 required.

**Display unit LY72:** robust Magnescale® multifunctional display unit with with large display, measured value plus error message, RS232 interface (HP Keysim required); up to three measuring channels can be connected. Mains adapter PSC23 required.



Display unit M3 with table base

**Display unit M3: digital** Display unit M3 (4.3-inch colour 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 mains 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 [Print] or external push-button (optional) into active application (e. g. MS-Excel®) and [Enter].

**PSC23:** Magnescale® tabletop mains adaptor for display units LG/LH/LY. Required for operation.
Connection: 230V, max. 32VA.

**LG20-1/LY72 with table bracket and mains adapter:** Complete set, consisting of display unit, mains adapter and console plate with adapter piece to fasten it to the table. Can be rotated and swivelled. Without protective cover.



LG20-1 with table bracket and protective cover

**Protective cover:** Protects display unit, mains adapter and plug connections against damage and pollution. Steel sheet powder-coated with brackets and fastening elements. Can be combined with table bracket LG20/LY72.

**MC150** *(low-cost alternative to LY72)***:** Industrial counter with RS232 interface. Reset/pre-set function. One measuring channel can be connected. Connection: 230V/ max. 30VA. Delivered completely with holder, mains adapter, protective cover and separate "RESET" and "DATA" key. Without alarm display in case of measuring system error!



MC150 with table bracket and protective cover

**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.

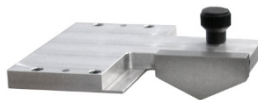| Item no. | | |
|---|---|---|
| 97928727 | Display unit LG20-1, without mains adapter, without holder | |
| 97928723 | Display unit LY72, without mains adapter, without holder | with RS232 |
| 97900479 | mains adapter PSC23 for LG20 or LY72 | |
| 33-011-601 | LG20-1 with table bracket and mains adapter | |
| 33-011-602 | LY72 with table bracket and mains adapter | with RS232 |
| 33-011-604 | Display unit M3 with table base and mains adapter | with RS232 & USB |
| 32-001-502 | protective cover for LG20 or LY72 | |
| 18-100-01 | Software HPKeySim RS232 | |

## Measuring accessories


Device with measurement accessories "5"

### Workpiece supports/clamping

| Item no. | Article description | Design/application |
|---|---|---|
| 33-011-705 | Workpiece support 5, L=16 mm | Universal workpiece support, prismatic 130°. Suitable for tubes up to D = 150 mm and many other profile shapes. Depending on the sag of the workpiece, two or more workpiece supports are needed. Attached to the basic carrier. material: PE. |
| 33-011-735 | Workpiece support 5, L= 350 mm | See above, but suitable for the formation of a continuous support for flexible workpieces, that don't have the stability for punctual bearing (cable, rubber profile or similar). Destined for the fix installation at the basic carrier (without lower centring) |
| 33-011-750 | Workpiece support 5, 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 fixing to the base support material: PE (natural), |


Workpiece support 5

Depending on requirements, the workpiece supports of the "5" series can be easily and flexibly combined for different specimen and measuring lengths:
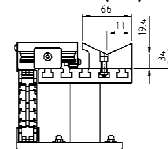
| For measuring length | Recommended combination: | | Dimensions (mm): |
|---|---|---|---|
| 950 mm | 2 x 500 mm | = 1000 mm | |
| 1150 mm | 1 x 500 mm + 2 x 350 mm | = 1200 mm | |
| 1850 mm | 3 x 500 mm + 1 x 350 mm | = 1850 mm | |
| 2350 mm | 4 x 500 mm + 1 x 350 mm | = 2350 mm | |
| 2850 mm | 5 x 500 mm + 1 x 350 mm | = 2850 mm | |
| 3050 mm | 4 x 500 mm + 3 x 350 mm | = 3050 mm | |
| 3850 mm | 7 x 500 mm + 1 x 350 mm | = 3850 mm | |



### Fixed / reference stops


Fixed stop 5

| Item no. | Article description | Design/application |
|---|---|---|
| 33-011-805 | Fixed stop 5 | Universal fixed stop with wide touching surface. Suitable for tubes up to D = 150 mm and many other profile shapes. Attached to the basic carrier. |
| 33-011-806 | Fixed stop 90° special | Prismatic shape 90° for rectangular workpieces up to 100x100 mm, including fastening parts for fixing to the base support |


Mobile stop 5

### Movable touch tools & optics

| Item no. | Article description | Design/application |
|---|---|---|
| 33-011-905 | Mobile stop 5 | Universal measuring stop with wide sensing surface. Suitable for pipes up to D= 150 mm and many other profile shapes. Attached to the measuring carriage. For quick referencing of the measuring device, the stop can be slid over the workpiece supports "5" (gap approx. 1 mm) without having to dismantle them. |
| 33-011-906 | Mobile stop  90° special | Prismatic shape 90° for rectangular workpieces up to 100x100 mm, including fastening parts for fixing 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 adjusting wheel. Useful as a supplement for optical mobile stops (line 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 illumination, USB or mains operation | |


Combi mobile stop with line laser


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. Arbeitsplatzeinrichtungen".

If a workbench is ordered together with a measurement 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 |
| --- | --- | --- |
| 038000-1-157B4S.12_RAL9006 | 1500 x 700 x 840 | fits with measurement device -098, -118 and -188 |
| 038000-1-207B4S.12_RAL9006 | 2000 x 700 x 840 | fits with measurement device -235, -288 and -305 |
| 038000-1-307B4S.12_RAL9006 | 3000 x 700 x 840 | three pairs of feet, fits with measurement device -388 |

### Levelling

For levelling the working height of workbenches in frame design.
Black. Slip resistant. Can be retrofitted.
Content: 1 piece, suitable for one foot

| Item no. | Content | |
| --- | --- | --- |
| 09NA45 | 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 |
| --- | --- | --- |
| 09HV200-4.12_RAL9006 | 200 mm | 1 set = 4 pieces |
| 09HV300-4.12_RAL9006 | 300 mm | 1 set = 4 pieces |
| 09HV200-6.12_RAL9006 | 200 mm | 1 set = 6 pieces |
| 09HV300-6.12_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 |
| --- | --- | --- |
| 09RS125EP-4LF | 1 set = 4 pieces | fits with workbench with 4 feet |
| 09RS125EP-6LF | 1 set = 6 pieces | fits with workbench with 6 feet |

![Hegewald & Peschke Meß- und Prüftechnik GmbH logo]

## 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 Bock- 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 |
|---|---|---|
| 058000-6-157B4F.12_RAL9006 | 1500 x 700 x 880 | Suitable for measurement device -098, -118 and -188 |
| 058000-6-207B4F.12_RAL9006 | 2000 x 700 x 880 | Suitable for measurement 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 |
|---|---|
| 09BB1500 | 1500 (2 pieces = 3000) |
| 09BB2000 | 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 |
|---|---|
| 03US.11_RAL9006 | 245 x 650 x 360 |

## 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 |
|---|---|---|
| 03200.1A.10_RAL5010 | 520 x 650 x 175 | RAL5010 (gentian blue) |
| 03200.1A.10_RAL9006 | 520 x 650 x 175 | 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 |
|---|---|
| 09L150DM.12_RAL9006 | 450 x 1500 (2 pieces = 3000) |
| 09L200DM.12_RAL9006 | 450 x 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 |
|---|---|
| 09AL1500.12_RAL9006 | 1500 (2 pieces = 3000) |
| 09AL2000.12_RAL9006 | 2000 |

## 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 |
|---|---|---|
| 03300.1.12_RAL9006 | 360 x 650 x 620 | RAL9006 (white aluminium) |

## Sliding keyboard shelf 2

Assembled to the table frame.
Can be retrofitted.

| Item no. | W x D x H mm | Colour |
|---|---|---|
| 03TA2.11_RAL9006 | 720 x 350 x 85 | RAL9006 (white aluminium) |

## 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 |
|---|---|---|
| 075500.11_RAL9006 | 720 x 300 x 710 | RAL9006 (white aluminium) |