

SERIE *HWD 15*

Battery powered Display Unit with Rotative Encoder



- Easy operation and mounting on a shaft
- Resolution encoder: 1250 ppr / indicator: 0.01 mm
- Spindle pitch adjustable via parameters
- Battery operation (no wirings required)
- LCD display with signs, special characters and battery status
- „°“-Symbol for angular measurement assignable
- Fraction display in inch mode possible
- Display inch mode „0.001 Inch“ is possible
- Tool offset and incremental measurement function

HWD15 - Battery powered Display Unit with Rotative Encoder

General:

The battery-operated measuring and display system HWD15 provides a hollow shaft (\varnothing 20 mm) and is directly attached to the spindle. The position is detected by the integrated sensor and displayed on the LCD display.

Due to its housing with a stable rear wall and flange option including torque support, the HWD15 is a robust measuring system. However, the mechanical loads should be absorbed by the spindle. The hollow shaft rotates in a maintenance-free plain bearing.

The extensive basic functions and parameters allow a wide range of applications. For example, the display can easily be adapted to the respective spindle pitch. The device provides a common baby cell (good quality). So the system operates within 12 months of continuous operation.

Essential Features:

- Easy operation and installation
- Up to 12 months in continuous operation
- Wear-free measuring principle
- Battery status indicator

Application Examples:

- Manual and motorized adjustment units
- Digital measurement of handwheels
- Valve adjustments
- Wrapping fixtures



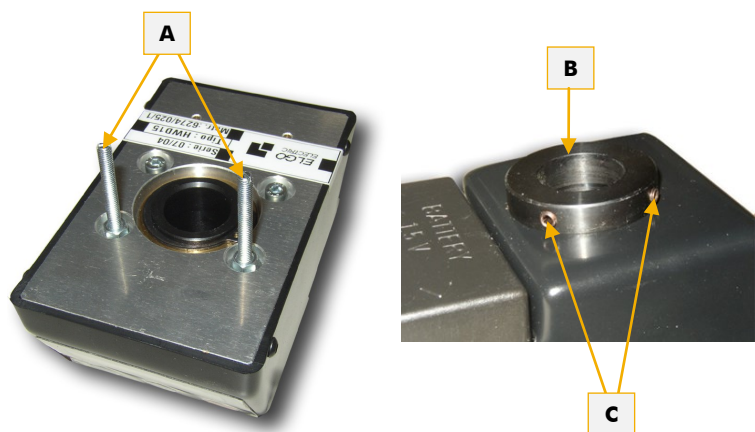
HWD15 - Battery case for baby cell

Programmable Functions:

The HWD15 has a large number of programmable functions which can be set at the parameter level, e.g. switchover of the counting direction, switchable display symbols, selectable decimal place, key lock function, switchable resolution (0.01 mm / 0.1 mm), pulse factor for adaptation to the spindle pitch, storable reference value as well as three individually settable tool-offsets. In addition, the "Incr/Abs" key can be used in normal operation mode to switch directly from incremental to absolute measurement.

Mounting on the Shaft:

1. Place the HWD15 on the shaft so that the two 30 mm long M4 stud bolts (A) fit into the prepared fixing holes (drilling distance 40 mm).
2. Fix the HWD15 on the shaft by tightening the two grub screws (B) with 2 mm hexagon socket, which are attached to the side of the hollow shaft body (C).
3. Finally fix the two M4 studs bolts (A) with corresponding nuts.



Adaptation to the Spindle Pitch:

Calculate the correct pulse multiplication factor for the HWD15 according to the spindle pitch as follows:

Spindle pitch : 1250

Example for 5 mm pitch: $50 : 1250 = 0.04$ (factor)

Then enter the calculated factor in parameter P08.

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Technical Data:

Mechanical Data	
Measurement principle	quasi-absolute
Housing design	for shaft-mounting
Dimensions (W x H x D)	72 x 114 x 61.5 mm
Hollow shaft	Ø 20 mm
Shaft bearing	plain bearing
Maximum load	axial: 20 Nm; radial 200 Nm
Keyboard	foil with short stroke keys
Electrical Data	
LCD display	7 digits (height 9 mm) with sign, battery state and measurement units
Measurement units	mm, m, Inch or °
Perspective	12 o'clock
Measurement principle	quasi absolute
Measurement type	rotative
Battery supply	1,5 V baby cell (Type C / LR14)
Current consumption	< 1 mA at 1.5 V
Battery service life	approx. 12 months (depending on battery type)
Resolution encoder	1250 ppr
Basic resolution display	0.01 mm
Operation speed	max. 2.5 m/s
Rotation speed	max. 1500 U/min
Environmental Conditions	
Operating temperature	0 ... +50° C
Storage temperature	0 ... +70° C
Protection class	IP43 (installed state)
Humidity	max. 80 %, non-condensing

Type Designation:

To order, please use the following code

HWD15 - $\bar{A} \bar{A} \bar{A} - \bar{B} \bar{B} \bar{B}$

A Version

- 000 = standard version
- 001 = first special version etc.

B Versorgung

- 001 = 1.5 V baby cell (Type C / LR14); integrated battery case with cover

Order designation for a standard device:

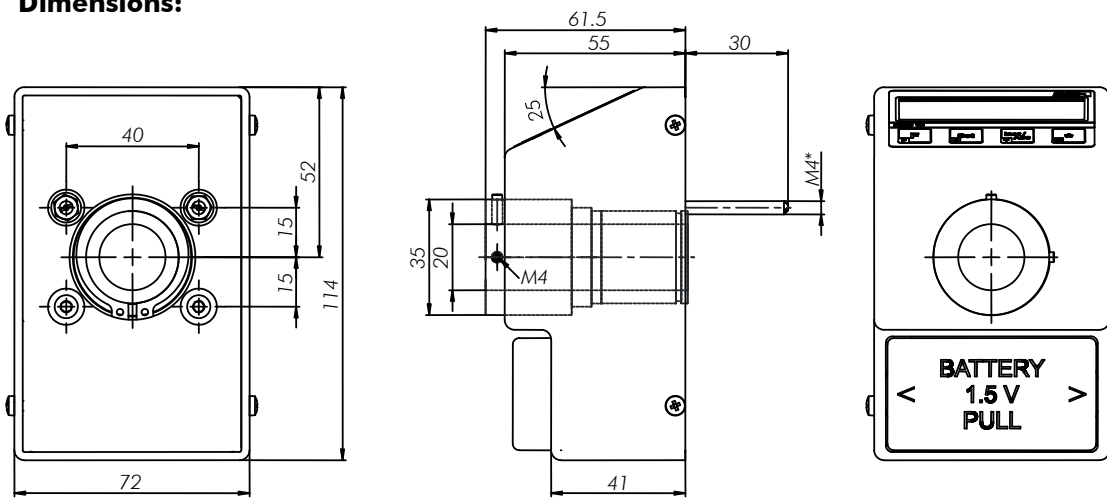
HWD15-000-001

Parameter List:

Parameter	Function
P01: A	System configuration: A = 0: positive counting direction A = 1: negative counting direction
P02: A	Display mode (only affects the display symbols!): A = 0: mm mode / display symbol „ mm “ A = 1: Inch mode / display symbol „ Inch “ A = 2: mm mode / display symbol „ m “ A = 3: mm mode / display symbol „ ° “ A = 4: mm mode / no display symbol
P03: A	Decimal place (0 ... 4) à only for mm mode
P05: ABC	Key lock: A: „Set“ key (0= enabled / 1= disabled) B: „Incr/Abs“ key (0= enabled / 1= disabled) C: „*“ key (0= enabled / 1= disabled)
P07: A	Basic resolution (only firmware V1.50 and higher): A = 0: resolution 0.01 mm A = 1: resolution 0.1 mm
P08	Pulse multiplication factor (0.0001 ... 9.9999)
P09:	Reference value (-9999999 ... +9999999)
P10:	Offset 1 (-9999999 ... +9999999)
P11:	Offset 2 (-9999999 ... +9999999)
P12:	Offset 3 (-9999999 ... +9999999)
P13: A	Offset Configuration (0 ... 3) A = 0: offset cannot be activated A = 1: offset 1 can be activated A = 2: offset 1 & 2 can be activated A = 3: offset 1 & 2 & 3 can be activated
P99:	Display firmware version

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Dimensions:



*) 2 x M4 x 30 screws can be offset or removed in the hole pattern (internal thread usable)

