HEIDENHAIN

Product Information

PWT 100

Testing Device for
HEIDENHAIN Encoders

PWT 100
Testing device for HEIDENHAIN encoders

The PWT 100 is a testing device for functional testing and adjustment of incremental and absolute HEIDENHAIN encoders. Thanks to its compact dimensions and sturdy design, the PWT 100 is ideal for mobile use. A 4.3-inch color flat-panel display with touch functionality provides for display and operation.

The PWT 100 supports a variety of functions depending on the encoder or the interface. For encoders with EnDat interface, for example, besides displaying position values it enables you to read out the on-line diagnostics, shift datums and use further inspection functions.

Inspection and testing devices from HEIDENHAIN

HEIDENHAIN encoders provide all information necessary for commissioning, monitoring, and diagnostics. HEIDENHAIN offers the appropriate PWM inspection devices and PWT testing devices for encoder analysis. The PWM inspection devices can be used universally. They have low measuring tolerances and can be calibrated. Testing devices, such as the PWT 100, provide fewer functions and significantly larger measuring tolerances. They cannot be calibrated.
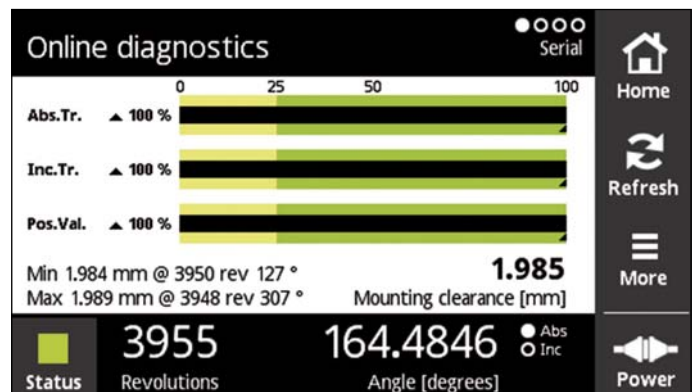
Available functions

The performance range of the PWT 100 can be expanded by firmware update. Appropriate firmware files that can be imported to the PWT 100 through a memory card (not included in delivery) are available at www.heidenhain.de.
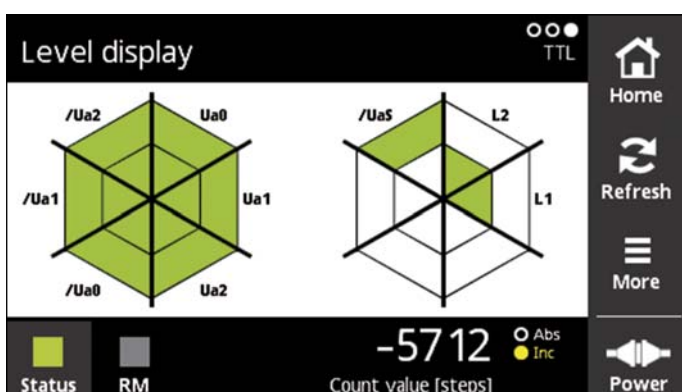
Important innovations with firmware V2.2.1:
- Display of count values between two reference marks, especially for checking the function of encoders with distance-coded reference marks.
- For switching signals (homing and limit), the respective levels and incremental positions are displayed on the switching edges.
- For encoders with serial interface and additional incremental signals, the PWT display and a view for comparing the absolute and incremental positions are also displayed.
- With the PWT display, a direct reading of the amplitude values is now possible.
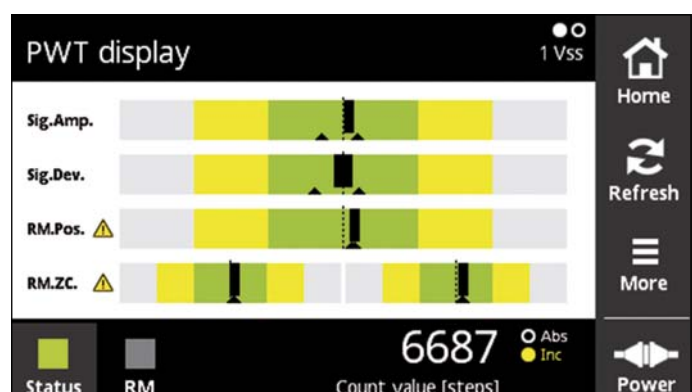
Mounting wizard

The PWM 21 is recommended as a mounting tool for adjusting HEIDENHAIN encoders (e.g. LIP 2xx, ERO 2xxx) that require a special mounting wizard.

On-line diagnostics

Level display

PWT display

Available functions

Performance range of PWT 100 with V2.2.1	EnDat	Fanuc	Mitsubishi	Panasonic	Yaskawa[2]	1 V_{PP}/ 11 µA$_{PP}$	TTL
Position display							
Display of the absolute position	✔	✔	✔	✔	✔	–	–
Display of the incremental position[1]	✔	✔	✔	–	–	–	–
Display and resetting of error messages	✔	✔	✔	✔	✔	–	–
Display and resetting of warnings	✔	✔	✔	✔	✔	–	–
Display of transmission status	✔	✔	✔	✔	✔	–	–
Datum shift ("electrical zeroing of position")[1]	✔	–	–	–	–	–	–
Display of the reference mark status	–	–	–	–	–	✔	✔
Display of count values between reference marks	–	–	–	–	–	✔	✔
Incremental counter with adjustable counting function	–	–	–	–	–	✔	✔
Diagnostics							
Display of on-line diagnostics[1]	✔	✔	✔	✔	✔	–	–
PWT display of incremental signals	(✔)	–	–	–	–	✔	✔[1]
Display of signal level (quality)	–	–	–	–	–	–	✔
Display of supply voltage and supply current	✔	✔	✔	✔	✔	✔	✔
Memory contents							
Display of encoder information[1]	✔	✔	✔	✔	✔	✔	✔
Additional functions							
Adjustable voltage supply to encoder	✔	✔	✔	✔	✔	✔	✔
Display of homing and limit	–	–	–	–	–	✔	✔

Expansion of the supported interfaces or functions through future firmware versions.

[1] If supported by the encoder
[2] EIB 3391Y is not supported
(✔) Please refer to the Operating Instructions

PWT 100 testing device

Testing device	PWT 100
Area of application	• Testing the correct operation of absolute and incremental HEIDENHAIN encoders
Encoder input Only for HEIDENHAIN encoders	• EnDat • Fanuc Serial Interface • Mitsubishi High Speed Interface • Panasonic Serial Interface • Yaskawa Serial Interface • 1 V_{PP} • 11 μA_{PP} • TTL
Display	4.3-inch touchscreen
Supply voltage	DC 24 V Power consumption: max. 15 W
Operating temperature	0 °C to 40 °C
Protection EN 60529	IP20
Dimensions	Approx. 145 mm x 85 mm x 35 mm
Languages	German, English, French, Italian, Spanish, Japanese, Korean, Chinese (simplified), Chinese (traditional)

Items supplied
• PWT 100
• Documentation

Accessories
• Service case
• Wall adapter power supply (including exchangeable adapter for Europe, USA, UK, and Australia)

There may be country-specific restrictions on plug-in power converters with regard to the test standards to be complied with. Consult your contact person at HEIDENHAIN if required.

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This Product Information document supersedes all previous editions, which thereby become invalid. The basis for ordering from HEIDENHAIN is always the Product Information document edition valid when the order is made.

📖 **Further information:**

Information on the correct and intended operation of the PWT is provided in the following documents:
• *Interfaces of HEIDENHAIN Encoders* brochure: 1078628-xx
• *Cables and Connectors* brochure: 1206103-xx