



The PWT is a simple adjusting aid for HEIDENHAIN incremental encoders. In a small LCD window, the signals are shown as bar charts with reference to their tolerance limits.

Functions

- Qualitative evaluation of incremental-signal amplitude
- Qualitative evaluation of the reference mark signal
- Measuring the width of the reference mark signal
- Displaying the position of the reference mark signal with respect to the incremental signal

Interfaces

- PWT 10** Encoders with 11 μ App interface
PWT 17 Encoders with TTL interface and special switchover function
PWT 18 Encoders with 1 V_{PP} interface

Items supplied

Service case with appropriate accessories such as a universal power supply unit, accessories for cables and connectors.

Please note:

For a detailed evaluation of signal quality, HEIDENHAIN recommends the PWM 9 or PWM 20 phase angle measuring unit.



HEIDENHAIN

Do you have technical questions on our testing devices?

Please contact the free HEIDENHAIN helpline:

Encoders/machine inspection
 ☎ +49 (8669) 31-3104
 E-Mail: service.ms-support@heidenhain.de

Or visit us in the Internet:

- www.heidenhain.de
 > Documentation and Information
 > Documentation
 > Brochures on interface electronics

Do you need a quotation?

Ask for your individual quotation today:

☎ +49 (8669) 31-3121
 E-Mail: service.order@heidenhain.de

Do you need training on encoder diagnostics?

You'll find scheduled dates and prerequisites on our web site at:

- www.heidenhain.de
 > Documentation and Information
 > Training portal

Or contact us directly:

☎ +49 8669 31-1695
 ☒ +49 8669 31-1999
 E-Mail: mtt@heidenhain.de



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For HEIDENHAIN encoders with absolute as well as incremental interfaces, we offer you diverse adjusting and testing packages.

PWT 10/PWT 17/PWT 18

The PWT serves as an adjusting aid for initial commissioning of your encoders.



PWM 9

The PWM 9 is a universal measuring device for checking and adjusting incremental linear and angular encoders.



PWM 20

With the aid of the PWM 20, you can check and adjust encoders with absolute and incremental interfaces.



PWT

HEIDENHAIN

DR. JOHANNES HEIDENHAIN GmbH
 Dr.-Johannes-Heidenhain-Straße 5
 83301 Traunreut, Germany
 ☎ +49 8669 31-0
 ☒ +49 8669 5061
 E-mail: info@heidenhain.de

www.heidenhain.de

Testing Equipment for HEIDENHAIN Encoders

Overview of Testing Equipment



The PWM 9 phase angle measuring unit can be connected in series between the encoder and the subsequent electronics. The features are divided between the PWT mode and PWM mode.

PWT mode

The graphic bar display facilitates the quantitative and qualitative assessment of the analog incremental signals and of the reference mark signal. The integrated adjustment aid for exposed linear encoders speeds the scanning-head mounting process.

PWM mode

The user can measure quantities such as on-off ratios, phase angle, and amplitudes of current and voltage. He can also configure the settings of the PWM 9.

Interfaces

For adjusting for the various encoder signals, HEIDENHAIN offers a variety of expansion modules (interface boards) that are easily exchanged from outside the PWM housing.

Each plug-in module supports one interface:

- 1 V_{PP}
- 11 μA_{PP}
- TTL
- HTL
- EnDat/SSI/commutation signals (without display of position values or parameters)

Functions and benefits of the PWM 9

- Connection to the oscilloscope via BNC connectors
- Measurement of signal amplitudes, current consumption, operating voltage and scanning frequency
- Graphic display of incremental signals (amplitudes, phase angle and on-off ratio) and the length and width of the reference signal
- Display of symbols for the reference mark, fault detection signal and counting direction
- Universal counter (interpolation selectable from single to 1024-fold)
- Adjustment aid (PWT mode) for exposed linear encoders
- Convenient operation via soft keys and display on LCD monitor
- Measurements can be conducted even during operation

Do you still have the predecessor version, the PWM 8?

We'll gladly rebuild it into its compatible successor, the PWM 9. Please contact us for more information.

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Together with the included ATS adjusting and testing software, the PWM 20 phase angle measuring unit serves for diagnosis and adjustment of HEIDENHAIN encoders. The PWM 20 is the successor of the IK 215 and consists of the following components:

PWM 20

Phase angle measuring unit for connection to a PC via the USB interface

ATS

Adjusting and Testing Software with integrated local encoder database for automatic encoder identification

Interfaces

- EnDat 2.1 or EnDat 2.2 (absolute value with/without incremental signals)
- DRIVE-CLiQ
- Fanuc serial interface
- Mitsubishi high speed interface
- Yaskawa
- SSI
- 1 V_{PP} (3 V_{PP} only for service purposes)
- 11 μA_{PP} (25 μA_{PP} only for service purposes)
- TTL

DRIVE-CLiQ is a registered trademark of the Siemens Aktiengesellschaft

Functions and benefits of the PWM 20

- Diagnostics and adjustment of HEIDENHAIN encoders with absolute and incremental interfaces
- Mounting wizard for Exl, LIP 200 and LIC 4000
- Connection to the PC or notebook via USB 2.0 (high speed)
- Operation of a variety of interfaces
- Suitability as inspection and testing equipment is ensured by the HEIDENHAIN calibration service.
- Enables you to conduct independent, on-site tests of your devices
- Free software updates available on the HEIDENHAIN website

More information about the functions is available on the Internet at www.heidenhain.de > Documentation and Information

Our PWM 20 inspection device saves you time and money!

PWM 9

PWM 20