

PWM 9

Description

Dimensions

Mounting

Electrical Connection

Universal Test Unit



<p>Features</p>	<ul style="list-style-type: none"> • Measuring • Graphic display • Display symbols • Universal counter • Adjustment aid for exposed linear encoders
<p>Display</p>	<p>LCD</p>
<p>Inputs</p>	<p>Expansion modules (interface boards) for</p> <ul style="list-style-type: none"> • $\sim 11 \mu A_{pp}$ • $\sim 1 V_{pp}$ • \square TTL • \square HTL • EnDat/SSI/commutation signals without display of position values or parameters



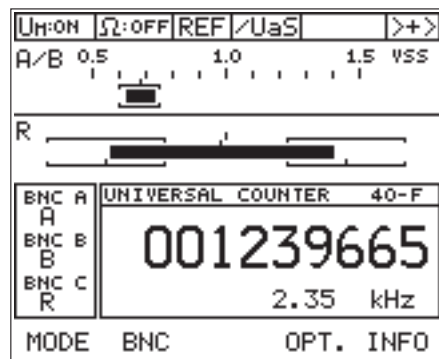
Description

The **PWM 9** is a universal measuring device for checking and adjusting incremental linear and angular encoders from HEIDENHAIN. The values can be read on an LCD monitor. Soft keys provide ease of operation.

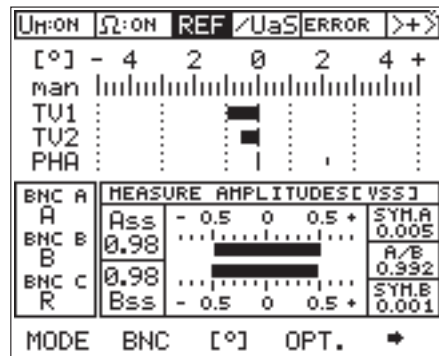
The PWM 9 can be connected in series between the encoder and the subsequent electronics. Because the control loop is not interrupted, it is also possible to conduct **measurements during running operations**. The features are divided between the PWT mode and PWM mode.

In the **PWT mode**, the graphic bar display facilitates quantitative and qualitative evaluation of the analog incremental signals and the reference signal. The integrated adjustment aid for exposed linear encoders speeds the scanning-head mounting process.

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







PWT mode








PWM mode



Specifications

	PWM 9
Inputs	Expansion modules (interface boards) for <ul style="list-style-type: none"> •  11 μApp •  1 Vpp •  TTL •  HTL • EnDat/SSI/commutation signals without display of position values or parameters
Features	<ul style="list-style-type: none"> • Measurement of signal amplitudes, current consumption, operating voltage, scanning frequency • Graphic display of incremental signals (amplitudes, phase angle and on-off ratio) and the length and width of the reference signal • Display symbols for the reference mark, fault detection signal, counting direction • Universal counter, interpolation selectable from single to 1024-fold • Adjustment aid (PWT mode) for exposed linear encoders
Outputs	<ul style="list-style-type: none"> • Inputs are connected through to the subsequent electronics • BNC sockets for connection to an oscilloscope
Power supply	10 to 30 V, max 15 W, power supply unit included
Dimensions	150 mm x 205 mm x 96 mm
Weight (approx.)	2 kg (4.4 lb)

Accessories

Items supplied	1 PWM 9 (basic device) 1 power cable 3 m 1 plug-in power adapter (clocked) 3 BNC cables (oscilloscope connection) 1 connecting cable, 9-pin 1 connecting cable, 12-pin 1 connecting cable 17-pin 1 aluminum case (with foam padding) 1 User's Manual
Available on order	1 expansion module (interface board) for  11 μ App 1 expansion module (interface board) for  1 Vpp 1 expansion module (interface board) for  TTL 1 expansion module (interface board) for  HTL 1 expansion module (interface board) absolute for  1 Vpp (EnDat/SSI/commutation signals) 4 plug-in adapter (for adapting the connector layout) 4 adapter cable 1 m (for adapting the connector layout and as extension) 1 ROD 486 with 1000 lines (1 Vpp rotary encoder for signal simulation) 1 FST 2 leak tester (for testing high-impedance electrical connections)

Training

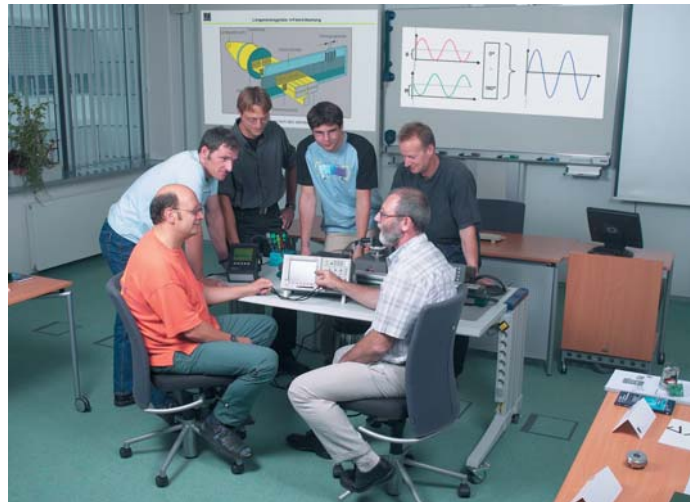
The handling of the PWM 9 test unit, its operation and applications together with HEIDENHAIN encoders are the subject of the training courses *Service for Encoders* and *PWM 8/9 Test Unit*.

For schedule dates and prerequisites, look into our Web page at www.heidenhain.de/Training Center

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