PeakTech 3296 Analog Voltmeter User Manual

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PeakTech 3296 Analog Voltmeter

Safety Precautions

This product complies with the requirements of the following directives of the European Union for CE conformity: 2014/30/EU (electromagnetic compatibility), 2014/35/EU (low voltage), 2011/65/EU (RoHS).
Overvoltage Category II 1000V, Pollution degree 2.
To ensure safe operation of the equipment, the following safety precautions must be observed.
Damages resulting from failure to observe these safety precautions are exempt
from any legal claims whatever.

- Do not place water filled containers on the equipment (danger of short- circuit in case of knock over of the container).
- Do not operate the equipment near strong magnetic fields (motors, transformers etc.).
- Do not operate the meter before the cabinet has been closed.
- Check instrument and accessories for any damages.
- Comply with the warning labels and other info on the equipment.
- Do not subject the equipment to direct sunlight or extreme temperatures, humidity or dampness.
- Do not subject the equipment to shocks or strong vibrations.
- Keep hot soldering irons or guns away from the equipment.
- Allow the equipment to stabilize at room temperature before taking up measurement (important for exact measurements).
- The meter is suitable for indoor use only
- Do not store the meter in a place of explosive, inflammable substances.
- Do not modify the equipment in any way.
- Opening the equipment and service – and repair work must only be performed by qualified service personnel
- Measuring instruments don’t belong to children hands.

Cleaning the cabinet

Clean only with a damp, soft cloth and a commercially available mild household cleanser. Ensure that no water gets inside the equipment to prevent possible shorts and damage to the equipment.

Meaning of the symbol 

CAUTION! Please consult the operating instructions before using the device. In these operating instructions, failure to follow or carry out instructions preceded by this symbol may result in personal injury or damage to the device and the installations.

Meaning of the symbol 
This appliance is protected by double insulation or reinforced insulation. It does not have to be connected to an earth protection terminal for electrical safety.
To obtain the best service from your unit:

- Read these operating instructions carefully,
- Comply with the precautions for use.

Precautions for Use

- Never use on a voltage network over 1000Vpp with respect to the earth connection. This voltage surge category II voltmeter complies with stringent reliability and availability requirements, corresponding to fixed industrial and domestic installations (see IEC 664-1).
- Do not use on alternate and continuous voltages > 1000Vpp.
- Indoor use in environments with a maximum pollution level of 2 (EN 50419:2006), temperature of -10 °C to +50 °C and relative humidity below 90%.
- Respect the value and type of the fuses to avoid damaging the instrument and canceling the warranty.
- Fuse: 250V/0.5A quick-acting glass tube, 5x20mm.
- Use accessories corresponding to safety standards (EN 61010-1:2001) with 1000V min. voltage ratings and surge category II.
- Before any measurement, ensure correct positioning of the leads on the ammeter. When the value range of a measurement is not known, begin at the highest range, and then gradually reduce it until the appropriate range is achieved: the reading should preferably be in the upper 2/3 of the full scale deflection.
- The leads must be disconnected to open the lower half of the meter case.
- Never connect to the circuit to be measured if the casing is not properly closed.

Features

- Analog mirror scale
- Robust Plastic housing
- DC and AC voltage measurements
- No batteries required

Accessories

- Operation manual

Description

This voltmeter was developed for everyday use by electricity professionals and persons acquainted with electricity. It offers the following functions:

Voltage measurement (VDC and VAC)

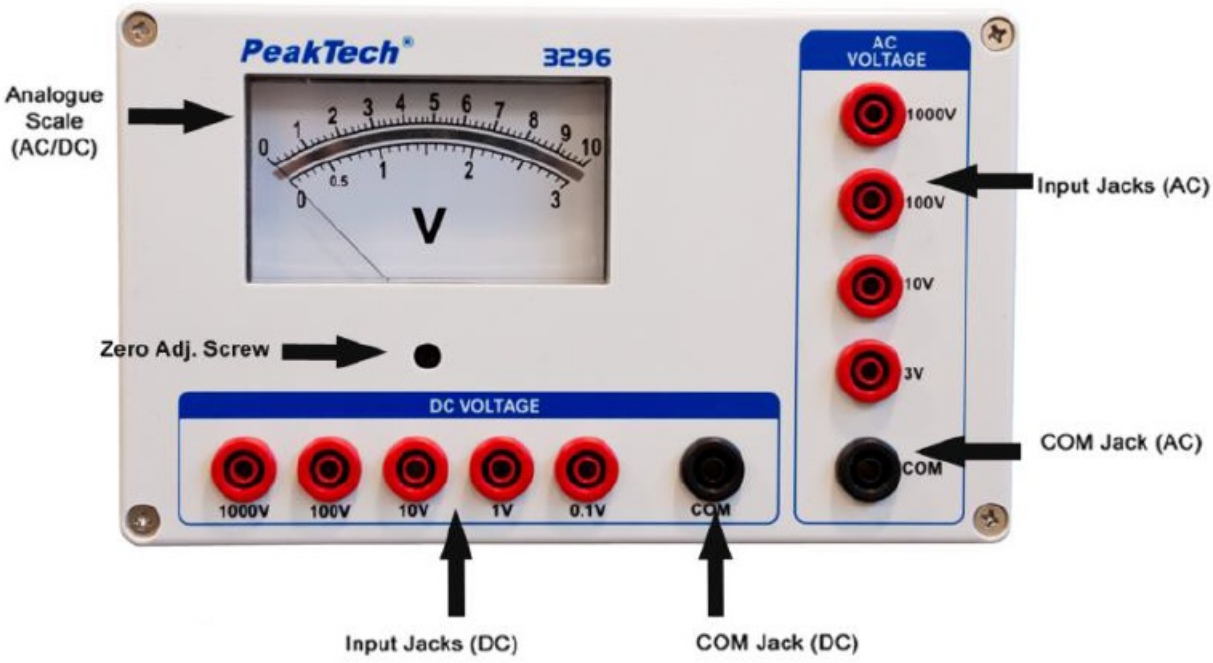
Safety Terminals, Ø4mm

- COM – Common terminals for VAC and VDC, respectively
- 0.1V, 1V, 10V, 100V, 1kV – Terminals for VDC Ranges, 3V, 10V, 100V, 1kV – for VAC Ranges

Analogue Scale

One linear black scale, with anti-parallax mirror, for VDC & VAC. One scale for the 3V VAC range.

Function Selection



Reference Conditions

- Temperature: 23°C ± 2°C
- Humidity: 45% RH ± 5%
- Position: horizontal ± 2°

Ensure that the pointer is at zero before starting any measurements. Mechanical zero adjustment is carried out by turning the screw on the front of the voltmeter.
When an estimated voltage value is unknown, start measurement at the highest range, and then gradually reduce it until the appropriate range is achieved: the reading should preferably be in the upper 2/3 of the full scale deflection.

Specifications

DC Voltage

V-DC Range	Reading coefficient	Internal Resistance	Accuracy	Admissive Overload
0.1V	×1	2k	2.0% of F.S.	250V
1V	×0.01	20k		250V
10V	×0.1	200k		1kV
100V	×1	2M		1kV
1000V	×10	20M		1kV

AC Voltage (Sine Wave)

A-AC Range	Reading coefficient	Internal Resistance	Accuracy	Admissive Overloa d
3V	×0.01	27k	3.0% of F.S.	250V
10V	×0.1	90k		1kV
100V	×1	900k		1kV
1000V	×10	9M		1kV

The presence of a DC component falsifies the measurement. Bandwidth: 40Hz-1kHz.

General Characteristics

Dimensions and Weight

- Dimensions: 200×120×5 mm
- Weight: 450 g

Maximum Climatic Conditions

- Temperature (use): -0°C to +40°C
- Temperature (storage): -20°C to +50°C
- Relative humidity (use): ≤80% RH
- Altitude (use): <2000m

Compliance with International Standards

Electrical safety (EN 61010-1 -2001)
CEI 1010-1 EN61010 NF-C 42020 VDE 0411

- Double insulation: ⧈
- Pollution level: 2
- Installation category: II according to CEI 664
- Allocated voltage: 1000V

Electromagnetic Compatibility

- EN 61326-1:2013
- EN 61326-2-2:2013

Warranty

Our warranty lasts three years for the voltmeter after the delivery date.

Maintenance

Only use the specified spare parts for maintenance. The manufacturer shall not be held liable for any incident occurring following repairs carried out by a party other than its after-sales service or approved repairers.
Fuse Change
Open the device. Use the same type of fuse to ensure the safety of users and of the device.

This manual is according the latest technical knowing. Technical alterations reserved.
We herewith confirm that the units are calibrated by the factory according to the specifications as per the technical specifications. We recommend to calibrate the unit again, after 1 year.

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Documents / Resources

	PeakTech 3296 Analog Voltmeter [pdf] User Manual 3296 Analog Voltmeter, 3296, Analog Voltmeter, Voltmeter

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