PeakTech 3204 Analog Galvanometer User Manual

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Contents

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 III 600 V; Pollution degree 2.

To ensure safe operation of the equipment and eliminate the danger of serious injury due to short-circuits (arcing), 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 use this instrument for high-energy industrial installation measurement.
- Do not place the equipment on damp or wet surfaces.
- Do not operate the equipment near strong magnetic fields (motors, transformers etc.).
- Do not exceed the maximum permissible input ratings (danger of serious injury and/or destruction of the equipment).
- Do not operate the meter before the cabinet has been closed and screwed safely as terminal can carry voltage.
- Replace a defective fuse only with a fuse of the original rating.
  Never short-circuit fuse or fuse holding.
- To avoid electric shock, do not operate this product in wet or damp conditions. Conduct measuring works only in dry clothing and rubber shoes, i. e. on isolating mats.
- Never touch the tips of the test leads or probe.
- Disconnect test leads or probe from the measuring circuit before switching modes or functions.
- Check test leads and probes for faulty insulation or bare wires before connection to the equipment.
- Comply with the warning labels and other info on the equipment.
- The measurement instrument is not to be to operated unattended.
- Do not subject the equipment to direct sunlight or extreme temperatures, humidity or dampness.
- Do not subject the equipment to shocks or strong vibrations.
- 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.
- Opening the equipment and service – and repair work must only be performed by qualified service personnel
- Do not place the equipment face-down on any table or work bench to prevent damaging the controls at the

front.

Cleaning the cabinet
Periodically wipe the cabinet with a damp cloth and mid detergent.
Do not use abrasives or solvents.
Ensure that no water gets inside the equipment to prevent possible shorts and damage to the equipment.

Features

- Analogue mirror scale with point bearing moving-coil.
- Easy operation, compact size
- 3 ranges: 100 mV, 50 µA, 5 mA
- High input impedance of 20 k /V
- Application: Education, Maintenance, Production line, School, Laboratory, Industrial and Quality control.

Specifications

General specifications

display	analogue display
overload protection	A-ranges: 0,5A/500V-fuse
operation temperature	0°C to +40°C; < 75% RH
storage temperature	-10°C to +50°C; < 75% RH
dimensions (WxHxD)	105 x 150 x 45 mm
weight	300g

technical specifications

DC voltage (DCV)	DC current (DCA)	accuracy
100 mV		+/- 3,0% of full scale
	50 µA	
	5 mA	

internal resistance: 20 kΩ / V

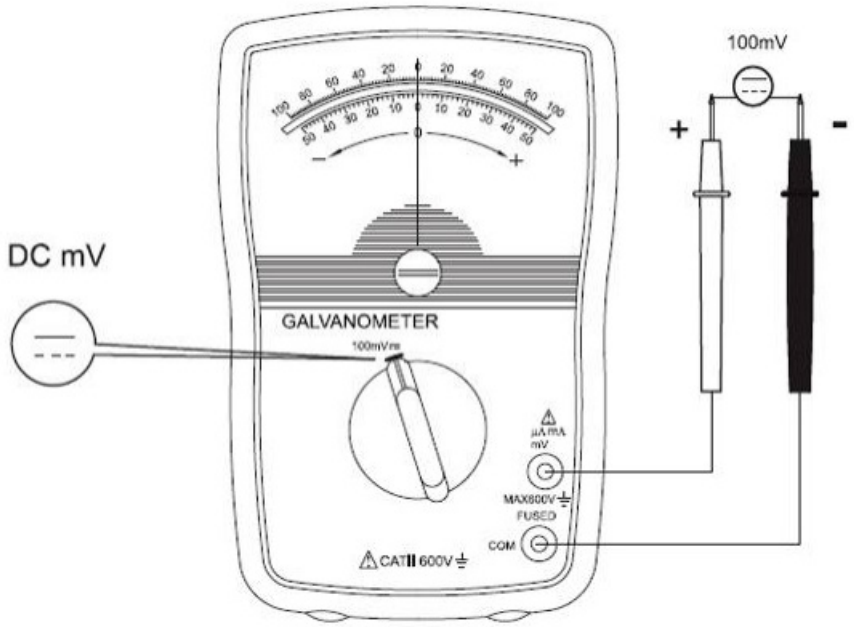
Front Panel Description

1. Display
2. Range Switch
3. Zero Adjust of pointer
4. Input Terminal „mV, µA, mA“
5. Input Terminal „COM“

Measuring Procedure

Measurement voltage in 100mV DC-range

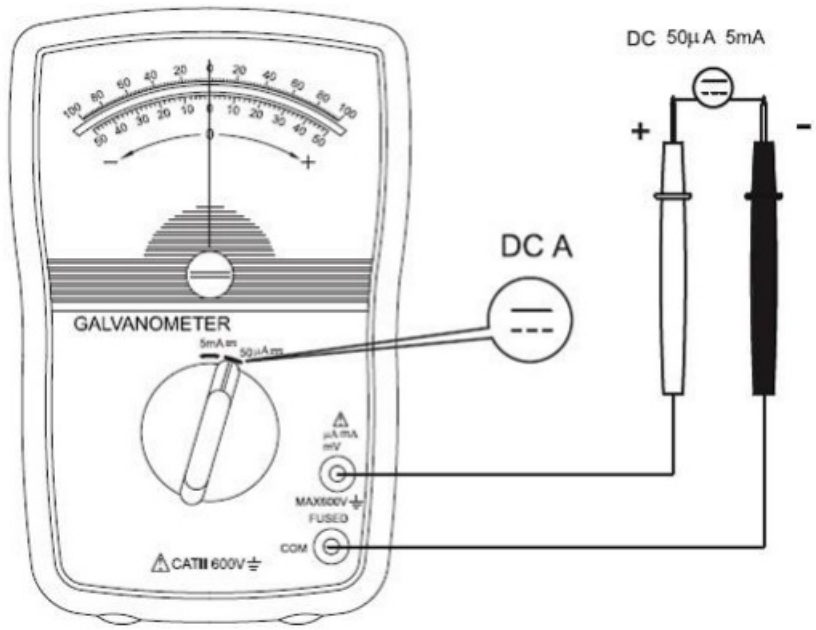
1. Choose with the rotary switch the 100mV-position.
2. Insert the black and red test leads into the COM – and the mA/µA/mV-sockets.
3. Connect the test lead tips in parallel with the circuit to be measured.
4. Read the measured value from the analogue display. If the point turns left, it means the value is negative, if it turns right, it means the value is positive.



Measurement current in 50µA/5mA-ranges

Note:
Always start with the higher range

1. Choose with the rotary switch the 50µA or 5mA-position.
2. Insert the black and red test leads into the COM and mA/µA/mV-sockets.
3. Switch OFF or disconnect the circuit to be measured from all power sources, connect the multimeter in series with the conductor in which the current to be measured flows.
4. Switch ON the circuit.
5. Read the measured value from the analogue display. If the point turns left, it means the value is negative, if it turns right, it means the value is positive.
6. Then switch OFF or disconnect the circuit and remove the test leads from the instrument.



Replacement of the fuse

WARNING!
To avoid electric shock, disconnect all the test probes before removing the fuse. Replace only with the same type of fuse. Not note remove the top cover. Service should be performed only by qualified personnel.

CAUTION!
For continued protection against fire or other hazard, replace only with fuse of the specified voltage and current ratings.

Follow these steps to replace the fuse:

1. Disconnect all the test probes.
2. Remove the back cover by unscrewing the four screws and pulling off the meter's cover.
3. Remove the blown fuse.
4. Install the new fuse in the fuse compartment.
5. Replace the cover and secure it with the screws.

Specifications of fuse: 0,5 A / 500 V FF; 6x30mm

WARNING!
Do not operate your meter until the back cover is in place and fully closed.

This manual considers the latest technical knowing. Technical changings which are in the interest of progress 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 one year.

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Documents / Resources

	PeakTech 3204 Analog Galvanometer [pdf] User Manual 3204 Analog Galvanometer, 3204, Analog Galvanometer, Galvanometer

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