

PMT Detectorhead- Controller



>> Operating Instructions <<

PMT-Detectorhead-Controller

Operating Instructions

1. Description

The instrument provides all the necessary supply and reference voltages and control functions to operate the PMT-detectorheads offered by WMT.

The controller is connected to the detectorhead by a special 10-wire cable, that is terminated by a 9-pole Sub-D-connector on the controller side and an 8-pole round connector plus a BNC-plug on the detectorhead side.

Option 01: Two outputs parallel.

Option 02: For use with VCT01 modules.

2. Technical Data

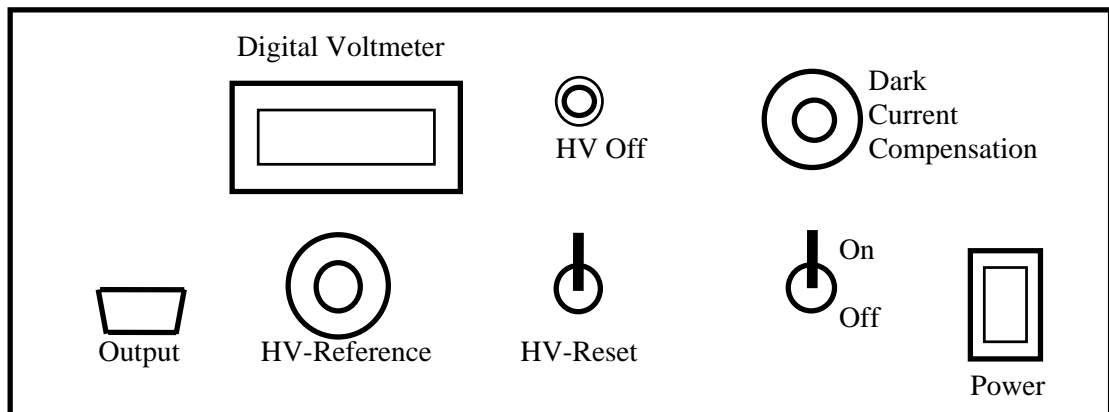
2.1. Mains Supply

Mains: 115 - 230 V_~, 50 - 60Hz, 15 VA, connector on the rear side, power switch on front panel.

Safety GND connected to case and to AGND and DGND.

Fuse: 250 mA, slow, located in mains connector.

2.2. Front Panel Elements and Connecting Cable



Digital Voltmeter: Input is connected to the BNC-plug, input resistance is 1 M Ω .
Measurement range: -1999mV to +1999mV.
Can be used to control the HV (BNC-plug connected to HV-Monitor)
or the dc-voltage at the signal output, e.g. to adjust the dark current
compensation.

Output: 9-pole Sub-D (female)

Pinout:	1	Coax shield / Digital Voltmeter "-"-Input
	2	HV-Reference
	3	Dark Current Compensation (note opt.02)
	4	HV-Reset
	5	-15V
	6	BNC-jack / Digital Voltmeter "+"-Input
	7	GND (AN and DIG)
	8	HV-Off
	9	+15V

Maximum load is 300mA on +15V, 300mA on -15V, short circuit protected,
sufficient for all types of PMT-Detectorheads.

HV-Reference: 10-turn potentiometer provides HV-reference voltage 0 to 10V.

HV Off: LED indicator, turns on in standby mode, i. e. HV switched off.

HV-Reset: Push button to turn HV on.

Dark Current Compensation: 10-turn potentiometer provides dc-voltage -10mV to +2V.
Can be disabled by On/Off-switch.

Option 01: An additional 9-pole Sub-D-connector output plus an extra cable are
provided. This feature allows the parallel operation of two detectorheads with
identical HV and dark current compensation.
The digital voltmeter can be switched onto either one of the two detectorheads.
The HV-Off LED indicator is ON, if the high voltage is turned off in either one
(or both) detectorhead(s).

Option 02: For use with VCT01 preamplifier/discriminator. Instead of dark current com-
pensation a second digital voltmeter is provided for the ratemeter output. If the
ratemeter is of no interest, the standard detectorhead controller can be used with
dark current compensation turned "Off".