

Power supply PS7000/12MC data sheet

1 description

The PS7000 provides three HV outputs:

photocathode	-200V
MCP	+1kV to +2kV
phosphor screen	+6kV to +7kV

A control input in the range 0 to +5V sets the value of both MCP and phosphor screen voltages, which track.

2 electrical specification

absolute maximum ratings

input voltage +20V to -20V

recommend operating conditions

input voltage	
minimum	+10V
typical	+12V
maximum	15V
load on photocathode output	100nA
load on MCP output	30µA
load on phosphor screen output	7µA
MCP control voltage	
minimum	0V
maximum	+5V

typical performance specification¹

supply input current no load (MCP control = 0V)	51mA
supply input current no load (MCP control = +5V)	57mA
100M load on 1kV MCP output	55mA
100M load on 2kV MCP output	66mA

photocathode output impedance 1G
photocathode output voltage (no load) -200V

MCP output voltage (MCP control 0V) +1000V
MCP output voltage (MCP control +5V) +2000V

phosphor screen output voltage (MCP control 0V) +6000V
phosphor screen output voltage (MCP control +5V) +7000V

control input gain
MCP control input to MCP output and phosphor screen output +200V/V

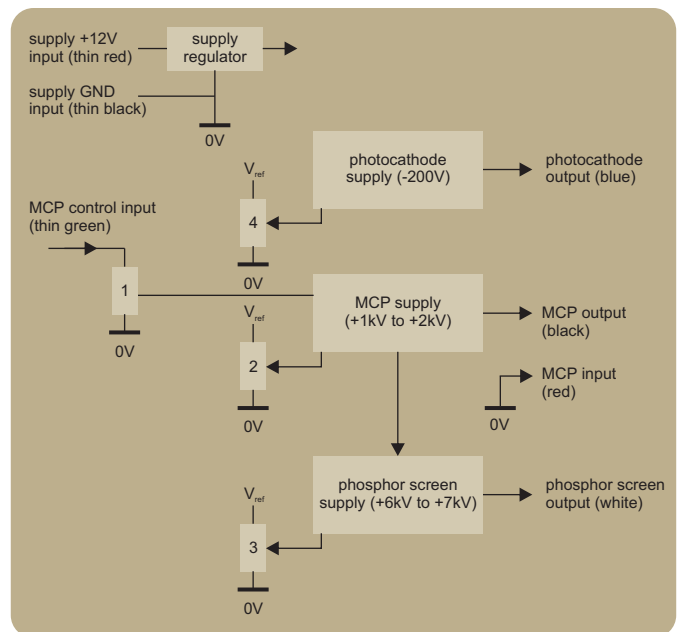
¹ with supply 12V and temperature 25°C

3 package size

dimensions	21.5mm x 91mm x 46mm
weight	145g
cable length (all)	280mm



4 block diagram



5 adjustments

- 1 MCP maximum.** Set "MCP out" volts with 5V on MCP control in, factory setting +2kV.
- 2 MCP minimum.** Set "MCP out" volts with 0V on MCP control in, factory setting +1kV.
- 3 Phosphor screen out minimum.** Set "Phosphor screen out" volts with 0V on MCP control in, factory setting +6kV.
- 4 Photocathode out.** Set "Photocathode out" volts, factory setting -200V.

