

2W MINIATURE PHOTOMULTIPLIER / APD MODULES 300V TO 2KV

APPLIED KILOVOLTS

4479 Series

Application:

Photomultiplier tubes & avalanche photo diodes

Features:

- 300V, 600V, 1kV and 2kV versions
- Positive and negative polarity options
- Remote voltage programming or potentiometer setting
- Voltage monitor & current monitor
- Flashover & short circuit protected
- UL approved



ELECTRICAL SPECIFICATION: 4479 SERIES

ORDER CODE FOR 12V INPUT TYPES	ORDER CODE FOR 24V INPUT TYPES	POLARITY	OUTPUT VOLTAGE	OUTPUT CURRENT	CONNECTION
4479-101	4479-107	Positive	300V	3mA	Connector
4479-102	4479-108	Positive	600V	3mA	Connector
4479-104	4479-110	Positive	1kV	2mA	Connector
4479-106	4479-112	Positive	2kV	1mA	Connector
4479-2XX	4479-2XX	Negative	As above for negative output.		

12V TYPES	
Input voltage range:	+11V to +15V dc. Maximum input voltage surge <5 seconds is 18V.
Input current:	400mA at full load and 125mA at zero load (at 12V).
Control of the output:	0 to +5V for 0 to 100% rated output voltage, $Z_{in} = 1M\Omega$. Maximum slew rate: 50V/ms typ.
Fixed reference output:	+5V $\pm 0.05\%$. Maximum current: 3mA. Temperature coefficient: 50ppm / $^{\circ}C$.
Variable reference output:	0 to +5V, multi-turn potentiometer.
Voltage monitor:	0 to +5V for zero to 100% of output voltage. Accuracy $\pm 1\% \pm 50mV$. $Z_{out} = 10k\Omega$.
Current monitor:	0 to +5V for zero to 100% of output current Accuracy $\pm 1.5\% \pm 50mV$. $Z_{out} = 10k\Omega$.

24V TYPES	
Input voltage range:	+22V to +28V dc. Maximum input voltage surge <5 seconds is 32V.
Input current:	250mA at full load and 100mA at zero load (at 24V).
Control of the output:	0 to +10V for 0 to 100% rated output voltage, $Z_{in} = 1M\Omega$. Maximum slew rate: 50V/ms typ.
Fixed reference output:	+10V $\pm 0.05\%$. Maximum current: 3mA. Temperature coefficient: 50ppm / $^{\circ}C$.
Variable reference output:	0 to +10V, multi-turn potentiometer.
Voltage monitor:	0 to +10V for zero to 100% of output voltage. Accuracy $\pm 1\% \pm 50mV$. $Z_{out} = 10k\Omega$.
Current monitor:	0 to +10V for zero to 100% of output current Accuracy $\pm 1.5\% \pm 50mV$. $Z_{out} = 10k\Omega$.

4479 Series

ELECTRICAL SPECIFICATION (12V & 24V INPUT TYPES)

High frequency ripple:	<6mVp-p, <1mVp-p typical
Low frequency noise:	<12mVp-p , <4mVp-p typical
Line regulation:	<20ppm over input voltage
Load regulation:	<20ppm for zero to full load
Drift (after 1 hour warm up):	<15ppm in any 15 minute period, <50ppm in any 8 hour period
Temperature coefficient:	<50ppm /°C at maximum rated output
Protection:	Proof against output short circuit (current limited to 110%-180% of max depending on model). Input protected against polarity reversal
Safety approved to:	UL1950 Marked

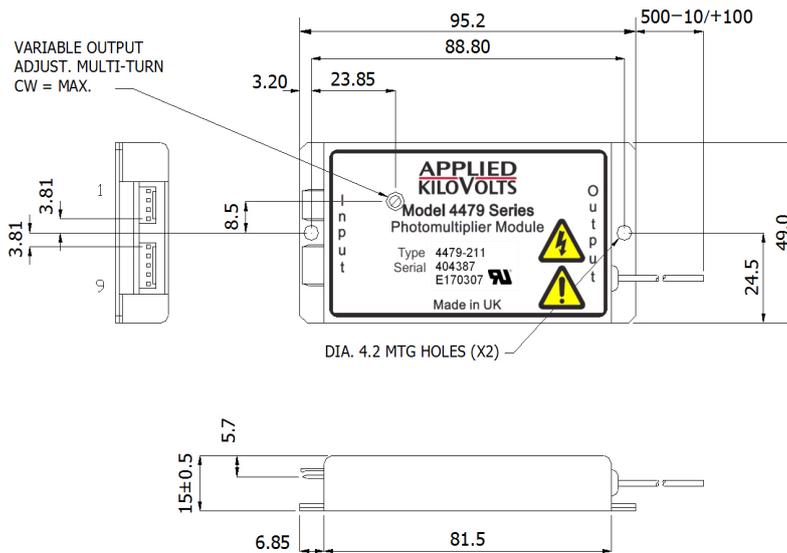
MECHANICAL SPECIFICATION

Dimensions (L x B x H):	95.2 x 49.0 x 15.0 mm (3.75" x 1.94" x 0.6"). 2 off mounting holes on 88.8mm (3.5") centres
Weight:	70g (2.5 oz.) approximately
Input / control (Connector):	2 off (4 way & 5 way) 0.1" pitch (Molex) connectors
Output:	Fly lead, RG178B/U cable 0.5m (19") long also available with RG58 or other types to special order

ENVIRONMENTAL SPECIFICATION

Temperature, operating:	-10°C to +50°C	Humidity (RH) <31°C non-condensing:	80% maximum
Temperature, storage:	-20°C to +75°C	Humidity (RH) >30°C non-condensing:	Decrease linearly to 50% at 40°C
Altitude, operating:	Up to 2,000m	Altitude, storage:	Up to 18,000m

The unit is to be supplied from a current limited supply providing 24V dc, impulse limited to overvoltage Category I (of IEC60364-4-443) For use in an environment of pollution degree 2.



PIN ASSIGNMENTS

- 1 Power input (+12V or +24V dc)
- 2 Power return / 0V
- 3 Power return / 0V
- 4 Fixed reference output
- 5 Control input
- 6 Variable reference output
- 7 Voltage monitor
- 8 Current monitor

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