

# SWITCHMODE VOLTAGE REGULATOR



- AC/DC input voltage
- Adjustable output 5...24 VDC, max. 40 W
- Adjustable from external potentiometer
- Short-circuit protection
- Thermal overload protection
- Standard 11-pole relay socket



## Applications:

General voltage regulator for external transformer used in connexion with measurement systems requiring fixed stabilised 24 VDC or supply for any other sensors, transmitters or a general variable voltage regulator in the range 5...24 VDC.

- Used as a power efficient pre-regulator for 5 VDC linear regulator (e.g. from 32 V to 8 V).
- Used as adjustable power supply controlled from external potentiometer.

## Technical characteristics:

The unit is based on switchmode technology enabling an adjustable output with a minimum loss of power. A rectifier bridge in the input allows free choice of polarity for the DC input.

## Mounting:

The 2229 is for standard 11-pole socket mounting in all positions. To achieve maximum cooling of the module, mounting in a vertical position at a distance of minimum 10 mm between neighbouring units is recommended.

## Input:

AC or DC input voltages in accordance with the specifications. Input is not galvanically isolated from output.

## Output:

The output is adjustable from front potentiometer in the range 5...24 VDC or from an external potentiometer (potm. 20 k $\Omega$ ). Using external potentiometer the front potentiometer must be adjusted to the maximum wanted output plus 20%. A green LED indicates active output. Short-circuit protection limits the current to typ. 5.8 Amp. Short-circuit will zero the voltage to minimize the power. When removing the short-circuit, the output will turn back to the adjusted value.

## Electrical specifications:

### Specifications range:

(@-20°C to +60°C)

### Common specifications:

Internal consumption max.	10 W
Temperature coefficient	0.05%/°C
Mains effect ( $\pm 10\%$ )	< $\pm 30$ mV
Transient stability (10%-max. load)	< 250 mV
EMC immunity influence	< $\pm 0.5\%$
Relative air humidity	< 95% RH (non-cond.)
Dimensions (HxWxD)	80.5 x 35.5 x 84.5 mm
Tightness	IP30
Weight	170 g

### Input:

Input voltage (AC)	Max. 28 VAC
	Min. VAC = (Vout + 5) / 1.2
Input voltage (DC)	Max. 40 VDC
	Min. VDC = (Vout + 5)
Frequency	50...60 Hz

### Output:

Output voltage	5...24 VDC $\pm 10\%$
Output power	Max. 40 W
Output current	Max. 2.5 A / 5 VDC
	Max. 2.5 A / 12 VDC
	Max. 2.5 A / 15 VDC
	Max. 1.7 A / 24 VDC
Load effect, (0-max. load)	< 1.5% / A
Current limit (short circuit)	Typ. 5.8 A
Output ripple	< 20 mVRMS

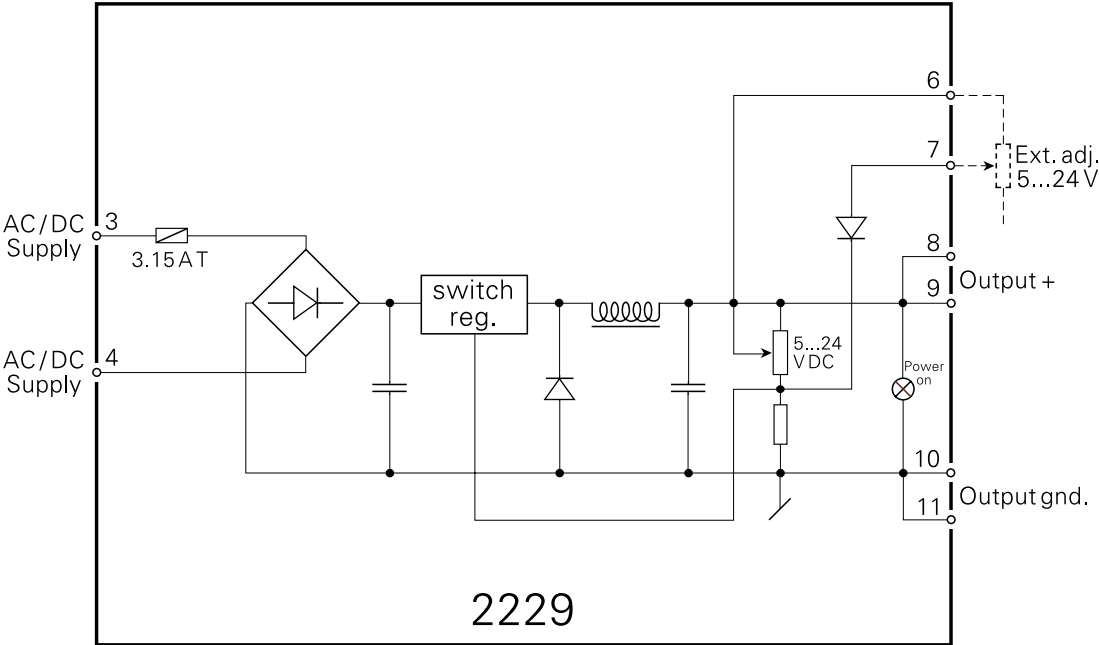
### Observed authority requirements: Standard:

EMC 89/336/EEC, Emission	EN 50 081-1, EN 50 081-2
Immunity	EN 50 082-2, EN 50 082-1
Emission and immunity	EN 61 326

Order: 2229

Type	Version	Output
2229	AC or DC : A	Special (5...24 V) : 0
		24 VDC : 1
		15 VDC : 2
		12 VDC : 3
		5 VDC : 4

Block diagram:



Front Layout:

