

Unregulated  
Case Style: SIP 12  
Short circuit proof

## INDUSTRIAL DC/DC Converters

1 - 2 Watt  
Series:  
FS12U- /E

**EN50178 / EN50124 / EN50155 / EN61800-5**

Reinforced partial discharge free insulation min. 1kV AC rms up to 3kV

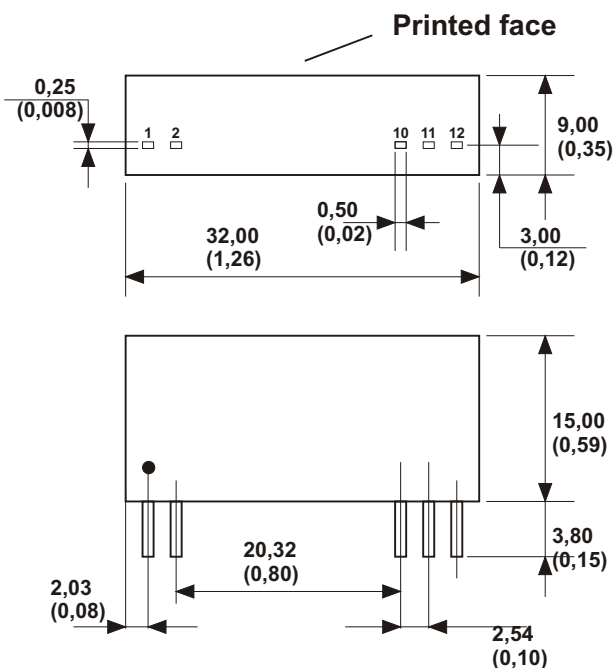
### Electrical specifications:

Input voltage range:	+/-10% Uin=5V -5% + 10%	Ripple:	typ. 150mVp-p
Output voltage accuracy:	+/- 2% (Vin=nominal & full load) +/- 5% (2W series) +/- 1% / +/- 1%	Temperature coefficient:	+/-0,02% / °C
Line Vin/Vout:		Insulation:	1000V AC rms partial discharge free
Output voltage change:	3,3V, 5V output types 15% max. 2W 5V input series 15% max. 9V ~ 24V output types 10% max.	Insulation test voltage:	7500V AC rms
Ambient temperature:	-40°C to + 71°C	Efficiency:	min. 70%
Operating temperature:	-40°C to + 95°C	short circuit protection:	continuous
		Inrush overload:	max. 30%
		coupling capacitance:	~10pF
		creepage distance	15mm min.
		PD-free insulation up to 3kV AC rms with respective test voltage magnitudes to notify with /E2 (2kV partial discharge free) /E3 (3kV partial discharge free)	

**CAUTION: NO INPUT POLARITY CHANGE ALLOWED!**

Part No.: SINGLE	Input voltage	Output voltage	1 Watt		2 Watt		Part No.: DUAL	Input voltage	Output voltage	1 Watt		2 Watt	
			Output current	Output current	Output current	Output current				Output current	Output current		
FS12U-0505/E FS12U-0512/E FS12U-0515/E	5V DC	5V DC 12V 15V	200mA 83mA 66mA	400mA 166mA 133mA	FS12U-0505D/E FS12U-0512D/E FS12U-0515D/E	5V DC	± 5V DC ±12V ±15V	±100mA ± 42mA ± 33mA	±200mA ± 83mA ± 67mA				
FS12U-1205/E FS12U-1212/E FS12U-1215/E	12V DC	5V DC 12V 15V	200mA 83mA 66mA	400mA 166mA 133mA	FS12U-1205D/E FS12U-1212D/E FS12U-1215D/E	12V DC	± 5V DC ±12V ±15V	±100mA ± 42mA ± 33mA	±200mA ± 83mA ± 67mA				
FS12U-1505/E FS12U-1512/E FS12U-1515/E	15V DC	5V DC 12V 15V	200mA 83mA 66mA	400mA 166mA 133mA	FS12U-1505D/E FS12U-1512D/E FS12U-1515D/E	15V DC	± 5V DC ±12V ±15V	±100mA ± 42mA ± 33mA	±200mA ± 83mA ± 67mA				
FS12U-2405/E FS12U-2412/E FS12U-2415/E	24V DC	5V DC 12V 15V	200mA 83mA 66mA	400mA 166mA 133mA	FS12U-2405D/E FS12U-2412D/E FS12U-2415D/E	24V DC	± 5V DC ±12V ±15V	±100mA ± 42mA ± 33mA	±200mA ± 83mA ± 67mA				

**Any other input & output voltages available**  
(for example 3,3V)



PIN CONNECTION		
PIN	SINGLE /E	DUAL /E
1	+ IN	+ IN
2	- IN	- IN
9	NP	NP
10	+ Vout	+ Vout
11	NC	- Vout
12	- Vout	COM

**Input capacitor 6,8 - 10µF is a must.**

ALL DIMENSIONS IN MM (INCHES)  
MILLIMETERS +/- 0,50mm  
(INCHES +/- 0,02")  
All pins on a 2,54mm pitch  
Note: NC = No connection; NP = No pin  
Dot denote pin 1

Specification may be changed without notice  
please contact office for verification

We can offer EMC - Filter  
according to EN55011/22 Class B.