

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: $\pm 10\%$
 $U_{in}=5V -5\% + 10\%$
Output voltage accuracy: $\pm 2\%$ (V_{in} =nominal & full load)
 $\pm 5\%$ (2W series)
Line V_{in}/V_{out} : $\pm 1\%$ / $\pm 1\%$
Output voltage change: 3,3V, 5V output types 15% max.
(10% to 100% full load) 2W 5V input series 15% max.
9V ~ 24V output types 10% max.
Operating temperature: $-40^{\circ}C$ to $+95^{\circ}C$
Ambient temperature: $-40^{\circ}C$ to $+71^{\circ}C$

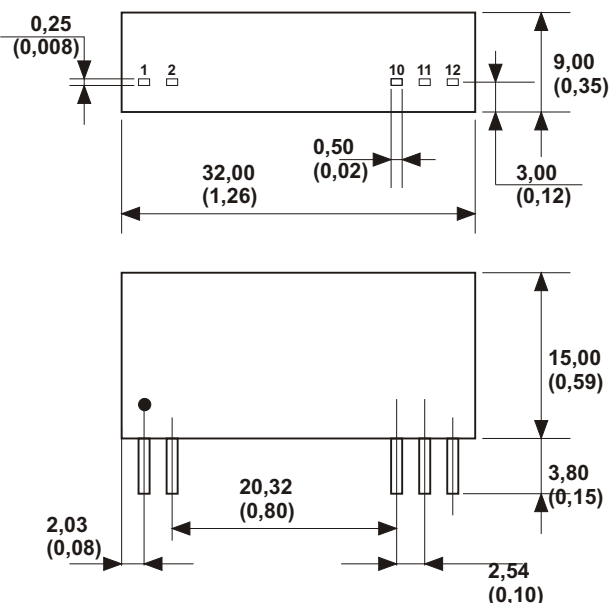
Ripple: typ. 150mVp-p
Temperature coefficient: $\pm 0,02\%$ / $^{\circ}C$
Insulation: 1000V AC rms partial discharge free
Insulation test voltage: 4000V AC rms
Efficiency: up to 80%
short circuit protection: continuous
Inrush overload: max. 30%
coupling capacitance: $\sim 10pF$
creepage distance: 15mm 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!

			1 Watt	2 Watt				1 Watt	2 Watt
Part No.: SINGLE	Input voltage	Output voltage	Output current	Output current	Part No.: DUAL	Input voltage	Output voltage	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	$\pm 5V$ DC $\pm 12V$ $\pm 15V$	$\pm 100mA$ $\pm 42mA$ $\pm 33mA$	$\pm 200mA$ $\pm 83mA$ $\pm 67mA$
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	$\pm 5V$ DC $\pm 12V$ $\pm 15V$	$\pm 100mA$ $\pm 42mA$ $\pm 33mA$	$\pm 200mA$ $\pm 83mA$ $\pm 67mA$
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	$\pm 5V$ DC $\pm 12V$ $\pm 15V$	$\pm 100mA$ $\pm 42mA$ $\pm 33mA$	$\pm 200mA$ $\pm 83mA$ $\pm 67mA$
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	$\pm 5V$ DC $\pm 12V$ $\pm 15V$	$\pm 100mA$ $\pm 42mA$ $\pm 33mA$	$\pm 200mA$ $\pm 83mA$ $\pm 67mA$

The input voltage can be increased by the value of the selected output voltage in boost operation (see Application Note C43, page 149).

Printed face



Specification may be changed without notice
please contact office for verification

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 - 10 μ F is a must.

ALL DIMENSIONS IN MM (INCHES)
MILLIMETERS $\pm 0,50mm$
(INCHES $\pm 0,02"$)

All pins on a 2,54mm pitch

Note: NC = No connection; NP = No pin
Dot denote pin 1

All specifications typical @ $T_a +25^{\circ}C$
Nom. V_{in} & full load, unless otherwise specified!

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