

Unregulated
Case Style: SIP 12

MEDICAL - INDUSTRIAL DC/DC Converters

EN/UL/CSA 60601-1 & 2

REINFORCED INSULATION
single / dual output

1 - 2 Watt
Series:
MED-FS12U

Electrical specifications:

Input voltage range: $\pm 10\%$
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°C to $+95^{\circ}\text{C}$
Ambient temperature: -40°C to $+71^{\circ}\text{C}$

Ripple:
Temperature coefficient:
Insulation test voltage:
Efficiency:
Short circuit protection:
Inrush overload:
couple capacitance:
creepage distance

typ. 150mVp-p
 $\pm 0,02\%$ / $^{\circ}\text{C}$
4kV AC rms *
up to 80%
continuous
max. 30%
~10pF
15mm min.

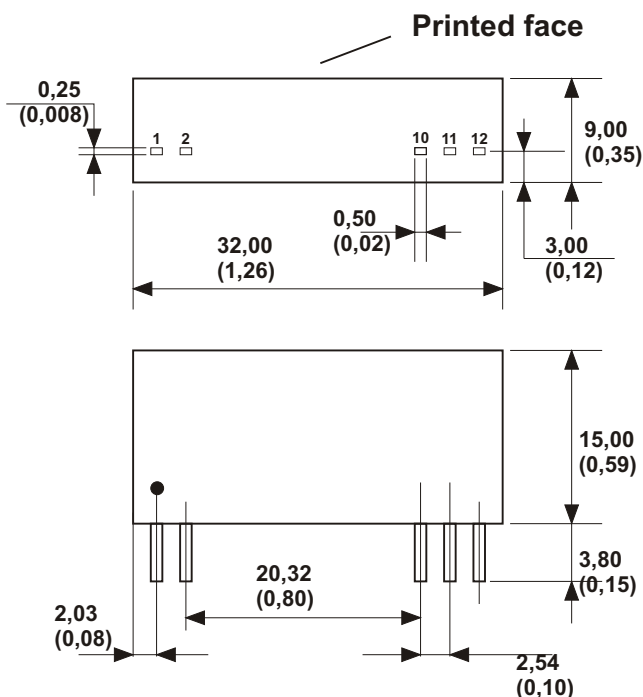
* type test time 1 min.
part test time 1 sec.

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
MED-FS12U-0505 MED-FS12U-0512 MED-FS12U-0515	5V DC	5V DC 12V 15V	200mA 83mA 66mA	400mA 166mA 133mA	MED-FS12U-0505D MED-FS12U-0512D MED-FS12U-0515D	5V DC	± 5V DC ±12V ±15V	±100mA ± 42mA ± 33mA	±200mA ± 83mA ± 67mA
MED-FS12U-1205 MED-FS12U-1212 MED-FS12U-1215	12V DC	5V DC 12V 15V	200mA 83mA 66mA	400mA 166mA 133mA	MED-FS12U-1205D MED-FS12U-1212D MED-FS12U-1215D	12V DC	± 5V DC ±12V ±15V	±100mA ± 42mA ± 33mA	±200mA ± 83mA ± 67mA
MED-FS12U-1505 MED-FS12U-1512 MED-FS12U-1515	15V DC	5V DC 12V 15V	200mA 83mA 66mA	400mA 166mA 133mA	MED-FS12U-1505D MED-FS12U-1512D MED-FS12U-1515D	15V DC	± 5V DC ±12V ±15V	±100mA ± 42mA ± 33mA	±200mA ± 83mA ± 67mA
MED-FS12U-2405 MED-FS12U-2412 MED-FS12U-2415	24V DC	5V DC 12V 15V	200mA 83mA 66mA	400mA 166mA 133mA	MED-FS12U-2405D MED-FS12U-2412D MED-FS12U-2415D	24V DC	± 5V DC ±12V ±15V	±100mA ± 42mA ± 33mA	±200mA ± 83mA ± 67mA

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

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



PIN CONNECTION		
PIN	single	dual
1	+ IN	+ IN
2	- IN	- IN
9	NP	NP
10	+ Vout	+ Vout
11	NC	- Vout
12	- Vout	COM

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

ALL DIMENSIONS IN MM (INCHES)
MILLIMETERS $\pm 0,50\text{mm}$
(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 @ $T_a +25^{\circ}\text{C}$
Nom. V_{in} & full load, unless otherwise specified!

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

Specification may be changed without notice
please contact office for verification

Unregulated
Case Style: SIP 12

MEDICAL - INDUSTRIAL DC/DC Converters

EN/UL/CSA 60601-1 & 2

**REINFORCED INSULATION
triple output**

**1 - 2 Watt
Series:
MED-FS12U**

Electrical specifications:

Input voltage range:	+/-10% U _{in} =5V -5% +10%	Ripple:	typ. 150mVp-p +/-0,02% / °C
Output voltage accuracy:	+/- 2% (V _{in} =nominal & full load) +/- 5% (2W Series) +/- 1% / +/- 1%	Temperature coefficient:	4kV AC rms *
Line Vin/Vout:		Insulation test voltage:	up to 80%
Output voltage change:	3,3V, 5V output types 15% max. 2W 5V input series 15% max. 9V ~ 24V output types 10% max.	Efficiency:	continuous
Operating temperature:	-40°C to +95°C	short circuit protection:	max. 30%
Ambient temperature:	-40°C to +71°C	Inrush overload:	~10pF
		coupling capacitance:	15mm min.
		creepage distance	

* type test time 1 min.
part test time 1 sec.

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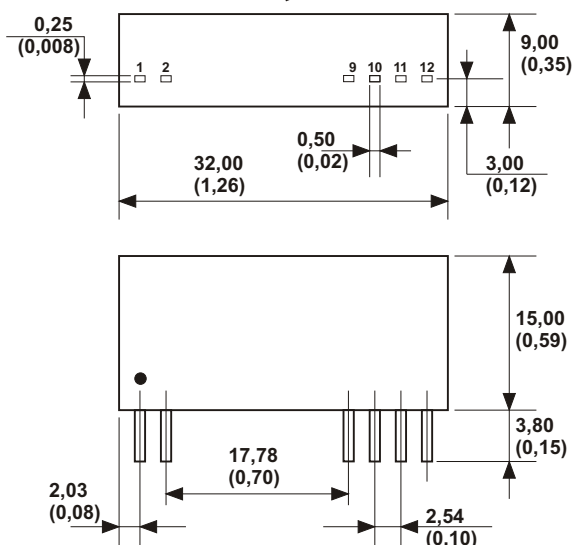
Part No.: triple	Input voltage DC	Output voltage DC 1&2	Triple Output voltage DC 3	Output current 1&2	Output current 3
MED-FS12U-0505Dzz MED-FS12U-0512Dzz MED-FS12U-0515Dzz	5V	± 5V ±12V ±15V	zzV zzV zzV	± 75mA	150mA
MED-FS12U-1205Dzz MED-FS12U-1212Dzz MED-FS12U-1215Dzz	12V	± 5V ±12V ±15V	zzV zzV zzV	±125mA	150mA
MED-FS12U-1505Dzz MED-FS12U-1512Dzz MED-FS12U-1515Dzz	15V	± 5V ±12V ±15V	zzV zzV zzV		
MED-FS12U-2405Dzz MED-FS12U-2412Dzz MED-FS12U-2415Dzz	24V	± 5V ±12V ±15V	zzV zzV zzV		

Any voltage & current combination available.

Input capacitor 6,8 - 10µF is a must.

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

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PIN CONNECTION	
PIN	triple
1	+ IN
2	- IN
9	+ Vout U3
10	+ Vout U1
11	- Vout U2
12	COM

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

All specifications typical @ T_a +25°C
Nom. Vin & full load, unless otherwise specified!

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