

Unregulated  
Case Style: SIP 7  
Short circuit proof

## INDUSTRIAL DC/DC Converters

1 Watt / 2 Watt  
Series: FS7U- /E

EN60950 + UL60950 / EN50124-1 UL50124-1

Reinforced partial discharge free insulation 1kV AC rms

### Electrical specifications:

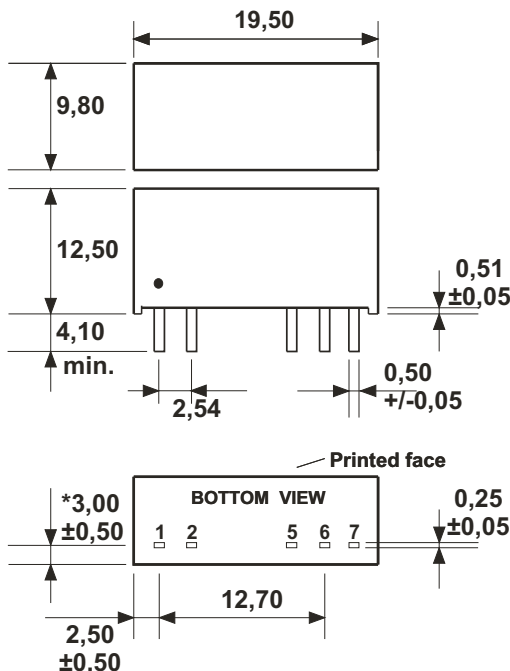
Input voltage range: +/- 10%  
Output voltage accuracy: +/- 2% (Vin=nominal & full load)  
Line Vin/Vout: +/- 1% / +/-1%  
Output voltage change: 3,3V, 5V output types 15% max.  
(10% to 100% full load) 2W 5V input series 15% max.  
Output Ripple & Noise: 9V ~ 24V output types 10% max.  
Temperature: 1W: 150mVp-p // 2W: 200mVp-p  
Ambient -40°C to +71°C  
Operating temperature max. 95°C

Efficiency: min. 66%  
Short circuit protection: continuous  
Insulation: 1000V AC rms partial discharge free  
Insulation test voltage: 2000V AC rms base insulation  
Optional:  
Part-Nr. /R: 4000V AC rms Reinforced / double insulation  
8mm clearance / creepage  
Part-Nr. /8: asymmetric load @ dual output  
Part-Nr. /2: 0,25W output power  
Part-Nr. /5: 0,5W output power

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

| Single Output |               |                |                | 1 Watt         | 2 Watt       | Dual Output   |                |                |                | 1 Watt | 2 Watt |
|---------------|---------------|----------------|----------------|----------------|--------------|---------------|----------------|----------------|----------------|--------|--------|
| Part - No.    | Input Voltage | Output Voltage | Output current | Output current | Part - No.   | Input Voltage | Output Voltage | Output current | Output current |        |        |
| FS7U-0505/E   | 5V            | 5V             | 200mA          | 400mA          | FS7U-0505D/E | 5V            | +/- 5V         | +/-100mA       | +/-200mA       |        |        |
| FS7U-0512/E   |               | 12V            | 83mA           | 166mA          | FS7U-0512D/E |               | +/-12V         | +/- 41mA       | +/- 83mA       |        |        |
| FS7U-0515/E   |               | 15V            | 66mA           | 132mA          | FS7U-0515D/E |               | +/-15V         | +/- 33mA       | +/- 66mA       |        |        |
| FS7U-1205/E   | 12V           | 5V             | 200mA          | 400mA          | FS7U-1205D/E | 12V           | +/- 5V         | +/-100mA       | +/-200mA       |        |        |
| FS7U-1212/E   |               | 12V            | 83mA           | 166mA          | FS7U-1212D/E |               | +/-12V         | +/- 41mA       | +/- 83mA       |        |        |
| FS7U-1215/E   |               | 15V            | 66mA           | 132mA          | FS7U-1215D/E |               | +/-15V         | +/- 33mA       | +/- 66mA       |        |        |
| FS7U-1505/E   | 15V           | 5V             | 200mA          | 400mA          | FS7U-1505D/E | 15V           | +/- 5V         | +/-100mA       | +/-200mA       |        |        |
| FS7U-1512/E   |               | 12V            | 83mA           | 166mA          | FS7U-1512D/E |               | +/-12V         | +/- 41mA       | +/- 83mA       |        |        |
| FS7U-1515/E   |               | 15V            | 66mA           | 132mA          | FS7U-1515D/E |               | +/-15V         | +/- 33mA       | +/- 66mA       |        |        |
| FS7U-2405/E   | 24V           | 5V             | 200mA          | 400mA          | FS7U-2405D/E | 24V           | +/- 5V         | +/-100mA       | +/-200mA       |        |        |
| FS7U-2412/E   |               | 12V            | 83mA           | 166mA          | FS7U-2412D/E |               | +/-12V         | +/- 41mA       | +/- 83mA       |        |        |
| FS7U-2415/E   |               | 15V            | 66mA           | 132mA          | FS7U-2415D/E |               | +/-15V         | +/- 33mA       | +/- 66mA       |        |        |
| FS7U-2424/E   |               | 24V            | 41mA           | 82mA           |              |               |                |                |                |        |        |

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



| PIN CONNECTION |            |            |          |
|----------------|------------|------------|----------|
| PIN            | SINGLE / E | SINGLE / R | DUAL / E |
| 1              | VCC        | VCC        | VCC      |
| 2              | GND        | GND        | GND      |
| 3              | NP         | NP         | NP       |
| 4              | NP         | NP         | NP       |
| 5              | -Vout      | NP         | -Vout    |
| 6              | NP         | -Vout      | COM      |
| 7              | +Vout      | +Vout      | +Vout    |

ALL DIMENSIONS IN MM  
MILLIMETERS +/- 0,25mm  
All pins on a 2,54mm pitch  
Note: NP = No pin; NC = No connection;  
Dot denotes pin 1

Input capacitor 4,7µF - 10µF is a must.

Specification may be changed without notice  
please contact office for verification

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