

0.25W



The IF series is housed in a SIP7 or DIP14 plastic case for PCB mounting. Featuring a $\pm 10\%$ input voltage range for 5, 12 & 24VDC nominal inputs, offering single outputs of 3.3, 5, 9, 12 or 15VDC.

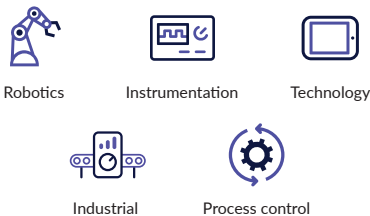
The 1W IF provides 1kVDC isolation between input and output as standard, with 3kVDC isolation available as an option. The operating temperature range is from -40°C to $+85^{\circ}\text{C}$.



Features

- ▶ Regulated single output
- ▶ $\pm 10\%$ input range
- ▶ Single outputs 3.3 to 15VDC
- ▶ SIP7 or DIP14 package
- ▶ 1.0kVDC isolation, 3.0kVDC optional
- ▶ Low ripple & noise
- ▶ -40°C to $+85^{\circ}\text{C}$ operating temperature
- ▶ 3 year warranty

Applications

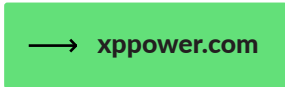


Dimensions

See mechanical details

More resources

Click the link or scan the code



Models & ratings

| Model number ^(1,2) | Input voltage | Output voltage | Output current ⁽³⁾ | Efficiency |
|-------------------------------|---------------|----------------|-------------------------------|------------|
| IF0503S | 5.0VDC | 3.3VDC | 333mA | 57% |
| IF0505S | | 5.0VDC | 200mA | 65% |
| IF0509S | | 9.0VDC | 111mA | 65% |
| IF0512S | | 12.0VDC | 84mA | 68% |
| IF0515S | | 15.0VDC | 67mA | 68% |

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Notes:

1. For DIP package, replace suffix 'S' with suffix 'D'.
2. For 3000 VDC isolation, add suffix '-H'.
3. Operation at no load will not damage unit but it may not meet all specifications.

Models & ratings

| Model number ^(1,2) | Input voltage | Output voltage | Output current ⁽³⁾ | Efficiency |
|-------------------------------|---------------|----------------|-------------------------------|------------|
| IF1203S | 12.0VDC | 3.3VDC | 333mA | 57% |
| IF1205S | | 5.0VDC | 200mA | 63% |
| IF1209S | | 9.0VDC | 111mA | 66% |
| IF1212S | | 12.0VDC | 84mA | 68% |
| IF1215S | | 15.0VDC | 67mA | 66% |
| IF2403S | 24.0VDC | 3.3VDC | 333mA | 60% |
| IF2405S | | 5.0VDC | 200mA | 65% |
| IF2409S | | 9.0VDC | 111mA | 68% |
| IF2412S | | 12.0VDC | 84mA | 68% |
| IF2415S | | 15.0VDC | 67mA | 68% |

Notes:

1. For DIP package, replace suffix 'S' with suffix 'D'.
2. For 3000 VDC isolation, add suffix '-H'.

3. Operation at no load will not damage unit but it may not meet all specifications.

Input

| Characteristic | Minimum | Typical | Maximum | Units | Notes & conditions |
|----------------------------------|---------|---------|---------|----------|-----------------------------|
| Input voltage range | | ±10 | | % | Nominal |
| Input reflected ripple current | | 20 | | mA pk-pk | 12µF inductor, 5Hz to 20MHz |
| Input reverse voltage protection | None | | | | |

Output

| Characteristic | Minimum | Typical | Maximum | Units | Notes & conditions |
|-------------------------|----------------------------|---------|---------|----------|---|
| Output voltage | See models & ratings table | | | | |
| Minimum load | 0 | | | % | Operation at no load will not damage unit but it may not meet all specifications. |
| Line regulation | | | ±0.5 | % | |
| Load regulation | | | ±0.5 | % | 10-100% load change (±1.0% for 3.3VDC output) |
| Setpoint accuracy | | | ±2 | % | |
| Ripple & noise | | 50 | | mV pk-pk | 20MHz bandwidth |
| Temperature coefficient | | 0.02 | | %/°C | |
| Maximum capacitive load | | 220 | | µF | |

General

| Characteristic | Minimum | Typical | Maximum | Units | Notes & conditions |
|---------------------------|----------------------------|---------|---------|-------|---|
| Efficiency | See models & ratings table | | | | |
| Isolation voltage | | 1000 | | VDC | Standard (3000VDC option, for 3000VDC isolation, add suffix '-H') |
| Isolation resistance | 1000 | | | MΩ | |
| Isolation capacitance | | 60 | | pF | |
| Switching frequency | 36 | | 150 | kHz | Variable |
| Mean time between failure | | 4.2 | | Mhrs | MIL-HDBK-217F, +25°C GB |

Environmental

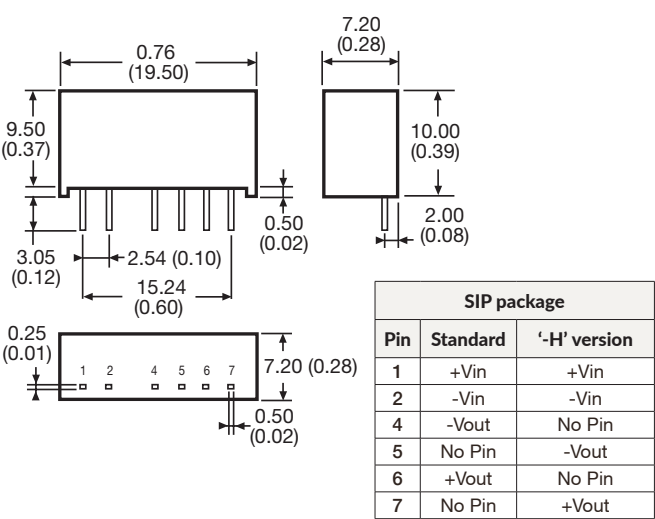
| Characteristic | Minimum | Typical | Maximum | Units | Notes & conditions |
|-----------------------|-------------------|---------|---------|-------|--------------------|
| Operating temperature | -40 | | +85 | °C | No derating |
| Storage temperature | -40 | | +125 | °C | |
| Case temperature | | | +100 | °C | |
| Cooling | Convection cooled | | | | |

Safety approvals

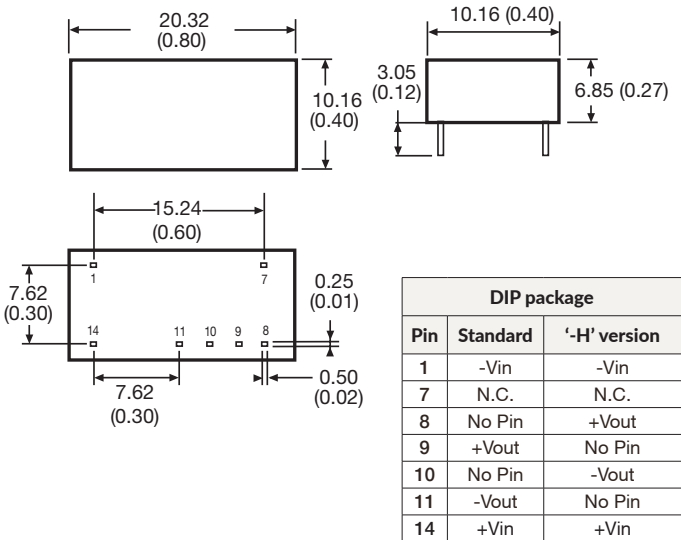
| Certification | Standard | Notes & conditions |
|---------------|----------------------------------|--------------------|
| CE | Meets all applicable directives | |
| UKCA | Meets all applicable legislation | |

Mechanical details

SIP package



DIP package



- Notes:
1. All dimensions in mm (inches).

2. Pin pitch tolerance: ± 0.35 (± 0.014)

3. Case tolerance: ± 0.5 (± 0.02)

4. Weight: 2.4g (0.005lbs)