

1781, Classic & WRC4 Series Single Point Discrete I/O

SPECIFICATIONS

AC/DC input modules

- To specify the WRC4 package, use the prefix "WRC4" (eg. WRC4-IA5S.)
- To specify the slim package, use the "S" suffix with the 1781 prefix (eg. 1781-IA5S.)
- To specify the mini package, use the "M" suffix with the 1781 prefix (eg. 1781-IA5M.)
- To specify the standard package, use the "Classic" part number (eg. IAC5.)

Discrete I/O Modules

| INPUT: INPUT: | WRC4 & 1781 CLASSIC | IA5S IAC5 | IAYS IAC15 | IAXS IAC24 | IM5S IAC5A | IMYS IAC15A | IMXS IAC24A | IN5S IDC5 | INYS IDC15 | INXS IDC24 | Units |
|-----------------------------|------------------------|--------------|---------------|---------------|---------------|----------------|----------------|--------------|---------------|---------------|----------|
| Nominal Input Voltage | | 120 | 120 | 120 | 240 | 240 | 240 | 24 | 24 | 24 | Vrms/Vdc |
| Minimum Input Voltage | | 90 | 90 | 90 | 180 | 180 | 180 | 10 | 10 | 10 | Vrms/Vdc |
| Maximum Input Voltage | | 140 | 140 | 140 | 280 | 280 | 280 | 60 | 60 | 60 | Vrms/Vdc |
| Maximum Input Current | | 10 | 10 | 10 | 8 | 8 | 8 | 30 | 30 | 30 | mA rms |
| Drop Out Current | | 2.5 | 2.5 | 2.5 | 1.5 | 1.5 | 1.5 | 1.0 | 1.0 | 1.0 | mA rms |
| Allowable Off-state Current | | 3.0 | 3.0 | 3.0 | 2.0 | 2.0 | 2.0 | 1.0 | 1.0 | 1.0 | mA rms |
| Allowable Off-state Voltage | | 50 | 50 | 50 | 120 | 120 | 120 | 2.0 | 2.0 | 2.0 | Vrms/Vdc |

| OUTPUT | | | | | | | | | | | |
|---------------------------------|------|-----|------|------|-----|------|------|-----|------|--|-------|
| Nominal Logic Voltage | 5 | 15 | 24 | 5 | 15 | 24 | 5 | 15 | 25 | | V dc |
| Minimum Logic Voltage - WRC4 | 3 | 10 | 18 | 3 | 10 | 18 | 3 | 10 | 18 | | V dc |
| Minimum Logic Voltage - 1781* | 1.5 | 8.5 | 16.5 | 1.5 | 8.5 | 16.5 | 1.5 | 8.5 | 16.5 | | V dc |
| Maximum Logic Voltage - WRC4 | 7 | 20 | 32 | 7 | 20 | 32 | 7 | 20 | 32 | | V dc |
| Maximum Logic Voltage - 1781* | 6 | 19 | 30.5 | 6 | 19 | 30.5 | 6 | 19 | 30.5 | | V dc |
| Typical Logic Supply Current | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | | mA dc |
| Max. Logic Supply Current** | 18.5 | 16 | 14 | 18.5 | 16 | 14 | 18.5 | 16 | 14 | | mA dc |
| Max. Logic Sup. Leak. Current** | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | | uA dc |
| Maximum Output Voltage | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | | V dc |
| Maximum Output Current | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | | mA dc |
| Max. Output Leakage Current** | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | | uA dc |
| Max. Output Voltage Drop | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | | mV dc |
| Maximum Turn-on Time (Vac) | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | | msec |
| Maximum Turn-off Time (Vac) | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | | msec |
| Maximum Turn-on Time (Vdc) | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | msec |
| Maximum Turn-off Time (Vdc) | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | msec |

* @ nominal voltage with LED on mounting board

** @ maximum logic voltage

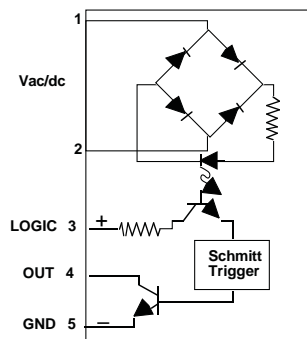
General specifications

| | |
|-----------------------------|---------------|
| Operating temperature range | -30 to +80°C |
| Storage temperature range | -40 to +100°C |
| Isolation | 4,000 V rms |
| Capacitance input to output | 8 pF |
| Line frequency range | 0 to 63 Hz |

Application notes

- Do not install or remove modules in live (electrically hot) circuits. High voltage may be present.
- Input connections are non-polarized.

1781 and Classic



WRC4

