

## Specifications

### General Specifications

Attribute	Value
Number of inputs	4 isolated
Module location	1794-TB2, 1794-TB3, 1794-TB3S, 1794-TB3T, 1794-TB3TS, and 1794-TBN terminal base.
Flexbus voltage	5V DC
Flexbus current	55 mA
External DC power supply, nom voltage range	24V DC 19.2...31.2V DC (includes 5% AC ripple)
External DC power supply current	145 mA @ 24V DC
Thermal dissipation, max	6.8 BTU/hr @ 31.2V DC
Power dissipation, max	2.0 W @ 31.2V DC
Isolation voltage	120V (continuous), Basic Insulation Type, channel to channel, channel to user, channel to system, and user power to system when used with 1794-TB2, 1794-TB3, 1794-TB3S, 1794-TB3T, or 1794-TB3TS. 250V (continuous), Basic Insulation Type, channel to channel, channel to user, channel to system, and user power to system when used with 1794-TBN. Type tested at 1000V AC for 60 s.
Data format	2's complement 2's complement % Binary Offset binary
Indicators	1 red/green power/status indicator
Keyswitch position	3
Dimensions, with module installed in base; (H x W x D)	94.0 x 94.0 x 66.0 mm (3.7 x 3.7 x 2.6 in.)
Conductor category <sup>(1)</sup>	2 - on signal ports 2 - on power ports
Conductor wire size	Determined by installed terminal base
Wire type	Shielded on signal ports
North American temp code	T4A
IECEX temp code	T4
UKEX/ATEX temp code	T4

(1) Use this conductor category information for planning conductor routing. Refer to Industrial Automation Wiring and Grounding Guidelines, publication [1770-4.1](#).

### Module Specifications - 1794-IF4I

Attribute	Value
Resolution Voltage Current	16 bits - unipolar; 15 bits plus sign - bipolar 0.156 mV/cnt unipolar; 0.313 mV/cnt bipolar 0.320 µA/cnt unipolar; 0.640 µA/cnt bipolar
Conversion type	Sigma Delta
Update rate	2.5/5.0/7.5 ms all channels (see the <a href="#">Input Update Rate for Real-Time Sample Interval = 0</a> table)
Input current terminal	4...20 mA (configurable) 0...20 mA (configurable) ±20 mA (configurable)
Input voltage terminal	±10V (configurable) 0...10V (configurable) ±5V (configurable) 0...5V (configurable)
Step response to 63% of full scale	1200 Hz conversion rate = 0.6 ms 600 Hz conversion rate = 6.7 ms 300 Hz conversion rate = 13.4 ms 150 Hz conversion rate = 26.7 ms
Input resistance voltage Voltage terminal Current terminal	>10 MΩ <100 Ω <sup>(1)</sup>
Normal mode rejection ratio - voltage or current terminal	-3 dB @ 12 Hz (300 Hz conversion rate) -80 dB @ 50 Hz (300 Hz conversion rate) -3 dB @ 6 Hz (150 Hz conversion rate) -80 dB @ 60 Hz (150 Hz conversion rate)
Common mode rejection ratio	-120 dB @ 50/60 Hz

**Module Specifications - 1794-IF4I (Continued)**

Absolute accuracy <sup>(2)</sup> Voltage terminal Current terminal	0.1% full scale @ 25 °C 0.1% full scale @ 25 °C
Accuracy drift w/temperature Voltage terminal Current terminal	0.0028% full scale/°C 0.0038% full scale/°C
Calibration required	Factory-calibrated. Can be calibrated in field when necessary.
Maximum overload	30V continuous or 32 mA continuous, one channel at a time.

(1) If 24V DC is removed from the module, input resistance = 10 kΩ

(2) Includes offset, gain, non-linearity, and repeatability error terms.

**Environmental Specifications**

Attribute	Value
Temperature, operating	IEC 60068-2-1 (Test Ad, Operating Cold), IEC 60068-2-2 (Test Bd, Operating Dry Heat), IEC 60068-2-14 (Test Nb, Operating Thermal Shock): -20...+55 °C (-4...+131 °F)
Temperature, surrounding air, max	55 °C (131 °F)
Temperature, nonoperating	IEC 60068-2-1 (Test Ab, Unpackaged Nonoperating Cold), IEC 60068-2-2 (Test Bb, Unpackaged Nonoperating Dry Heat), IEC 60068-2-14 (Test Na, Unpackaged Nonoperating Thermal Shock): -40...+85 °C (-40...+185 °F)
Relative humidity	IEC 60068-2-30 (Test Db, Unpackaged Damp Heat): 5...95% noncondensing
Vibration	IEC60068-2-6 (Test Fc, Operating): 5 g @ 10...500 Hz
Shock, operating	IEC60068-2-27 (Test Ea, Unpackaged shock): 30 g
Shock, nonoperating	IEC60068-2-27 (Test Ea, Unpackaged shock): 50 g
Emissions	IEC 61000-6-4
ESD immunity	IEC 61000-4-2: 6 kV contact discharges 8 kV air discharges
Radiated RF immunity	IEC 61000-4-3: 10V/m with 1 kHz sine-wave 80% AM from 80...6000 MHz
EFT/B immunity	IEC 61000-4-4: ±2 kV @ 5 kHz on power ports ±2 kV @ 5 kHz on signal ports
Surge transient immunity	IEC 61000-4-5: ±1 kV line-line(DM) and ±2 kV line-earth(CM) on power ports ±2 kV line-earth(CM) on shielded signal ports
Conducted RF immunity	IEC 61000-4-6: 10V rms with 1 kHz sine-wave 80% AM from 150 kHz...80 MHz
Enclosure type rating	None (open-style)