Allen-Bradley
by ROCKWELL AUTOMATION

Catalog #: 1756-IF16 Disponibilidade Preferida

ControlLogix 16 Pt A/I Module

Lifecycle status: ACTIVE

Technical Specifications

Electrical

Input, current	Yes
Input, voltage	Yes
Input, resistor	No
Input, resistance thermometer	No
Input, thermocouple	No
Input signal, configurable	Yes
Output, current	No
Output, voltage	No
Output signal configurable	No
Analogue inputs configurable	Yes
Analogue outputs configurable	No
Type of electric connection	Screw-/spring clamp connection
Terminal block torque specifications	1756-TBCH: 0.5 Nm (4.4 lb.in)
Channel bandwidth	15 Hz
Module keying	Electronic, software configurable
Module conversion method	Sigma-Delta
Offset drift	45 µV/°C
Input range	±10V, 0...10V, 0...5V, 0...20 mA
Data format	Integer mode (left justified, 2 s complement) IEEE 32-bit floating point

Wire category	2 - on signal ports
Overvoltage protection	Voltage: 30V DC maximum, Current: 8V DC maximum
Common mode noise rejection	>100 dB @ 50/60 Hz
Normal mode noise rejection	>80 dB @ 50/60 Hz
Module error	Voltage: 0.1% of range, Current: 0.3% of range
Gain drift with temperature	Voltage: 15 ppm/°C, Current: 20 ppm/°C
Module input scan time, min	16 pt single-ended: 16...488 ms, 8 pt differential: 8...244 ms, 4 pt differential: 5...122 ms
Voltage and current ratings	Backplane: 5.1V DC, 150 mA maximum, 24V DC, 65 mA maximum, Input voltage range: -10...+10V, Input current range: 4...20mA, Limited to 100VA
Settling time	<80 ms to 5% of full scale
Total backplane power	2.33 W
Thermal dissipation	Voltage: 7.84 BTU/hr, Current: 13.3 BTU/hr
Current draw	150 mA @ 5.1V, 65 mA @ 24V
Inputs	16 single ended, 8 differential or 4 differential (high speed)
Power dissipation	Voltage: 2.3 W, Current: 3.9 W
Resolution	320 µV/count (15 bits + sign bipolar) @ ±10.25V, 160 µV/count (16 bits) @ 0...10.25V, 80 µV/count (16 bits) @ 0...5.125V, 0.32 µA/count (16 bits) @ 0...20.5 mA
Wire size	Single wire connection (1756-TBCH): 0.33...2.1 mm^2 (22...14 AWG) solid or stranded shielded copper wire, rated at 105 °C (221 °F) or greater, 1.2 mm (3/64 in.) insulation maximum, Single wire connection (1756-TBS6H): 0.33...2.1 mm^2 (22...14 AWG) solid or
Calibrated accuracy	Voltage: Better than 0.05% of range @ 25 °C, Current: Better than 0.15% of range @ 25 °C
Open circuit detection time	Differential voltage - Positive full scale reading within 5 s, Single-ended/differential current - Negative full scale reading within 5 s, Single-ended voltage - Even-numbered channels go to positive full scale reading within 5 s, odd-numbered channels go
Suitable for safety functions	No
Onboard data alarming	Yes
Scaling to engineering units	Yes
Real-time channel sampling	Yes

Environmental

Surrounding air temperature, max	60 °C
North American temperature code	T4A
Power consumption	2.3 W

Emissions	IEC 61000-6-4
ESD immunity	6 kV contact discharges, 8 kV air discharges
EFT/B immunity	±2 kV at 5 kHz on shielded signal ports
Relative humidity	5…95% noncondensing
Conducted RF immunity	10V rms with 1 kHz sine wave 80% AM from 150 kHz…80 MHz on shielded signal ports
Surge transient immunity	±2 kV line-earth (CM) on shielded signal ports
Operating temperature	0 °C <Ta <60 °C (32 °F <Ta <140 °F)
Radiated RF immunity	10 V/m with 1 kHz sine-wave 80% AM from 80…2000 MHz, 10 V/m with 200 Hz 50% pulse 100% AM @ 900 MHz, 10 V/m with 200 Hz 50% pulse 100% AM @ 1890 MHz, 3 V/m with 1 kHz sine-wave 80% AM from 2000…2700 MHz
Nonoperating temperature	-40 °C

Mechanical

RTB keying	User-defined mechanical
Vibration	2 G @ 10…500 Hz
Shock	Operating: 30 G, Non operating: 50 G
Slot width	1

Input Specifications

Input impedance	Voltage: >10 MΩ, Current: 249 Ω

Power

Isolation voltage	250V (continuous), reinforced insulation type, inputs to backplane, No isolation between individual inputs. Routine tested at 1350V AC for 2 s

Certification

IEC temperature code	T4
ATEX temperature code	T4

Construction

Enclosure type rating	None (open-style)

Certificações

- China CCC
- Safety