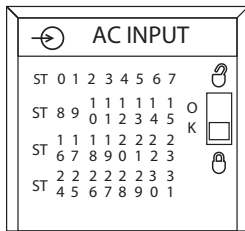
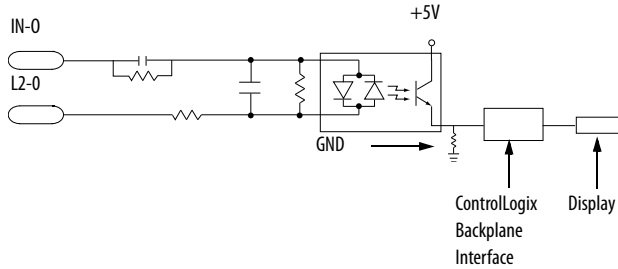


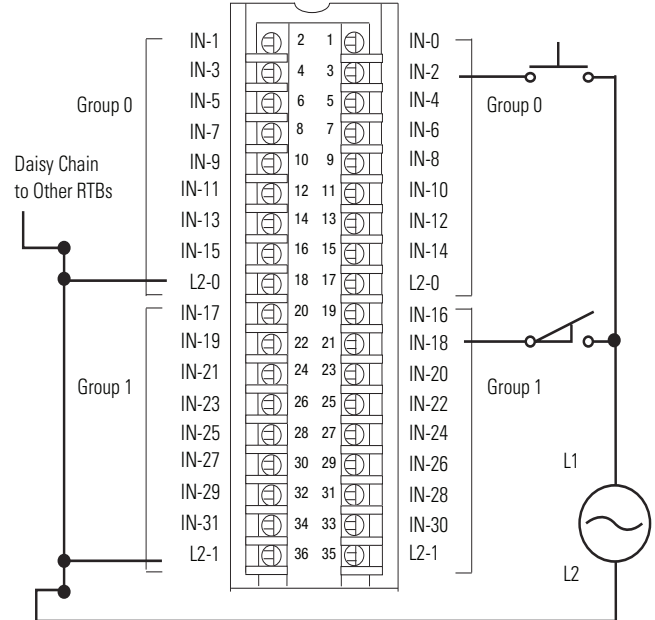
1756-IA32

ControlLogix AC (74...132V) input module

Simplified Schematic



1756-IA32



Technical Specifications - 1756-IA32

Attribute	1756-IA32
Inputs	32 (16 points/group)
Voltage category	120V AC 50/60 Hz
Operating voltage range	74...132V AC, 47...63 Hz
Input voltage, nom	120V AC 50/60 Hz
Input delay time (screw to backplane)	
Off to On	Hardware delay: 1.5 ms nom/10 ms max + filter time User-selectable filter time: 1 ms or 2 ms
On to Off	Hardware delay: 1 ms nom/8 ms max + filter time User-selectable filter time: 9 ms or 18 ms
Current draw @ 5.1V	165 mA
Current draw @ 24V	2 mA
Total backplane power	0.9 W
Power dissipation, max	6.1 W @ 60 °C (140 °F)
Thermal dissipation	20.8 BTU/hr
Off-state voltage, max	20V
Off-state current, max	2.5 mA
On-state current, min	5 mA @ 74V AC
On-state current, max	15 mA @ 132V AC

Technical Specifications - 1756-IA32 (continued)

Attribute	1756-IA32
Inrush current, max	390 mA
Input impedance, max	14.0 k Ω @ 132V AC, 60 Hz
Cyclic update time	200 μ s...750 ms
Change of stat	Software configurable
Time stamp of inputs	\pm 200 μ s
Isolation voltage	250V (continuous), basic insulation type, inputs-to-backplane 125V (continuous), basic insulation type, input group-to-group No isolation between individual group inputs Routine tested @ 1350V AC for 2 s
Module keying	Electronic, software configurable
Removable terminal block housing	1756-TBCH 1756-TBS6H
RTB keying	User-defined mechanical
Slot width	1
Wire category	1 ⁽¹⁾
North American temperature code	T4
Enclosure type	None (open-style)

(1) Use this conductor category information for planning conductor routing as described in the system-level installation manual. See the Industrial Automation Wiring and Grounding Guidelines, publication [1770-4.1](#).

Environmental Specifications - 1756-IA32

Attribute	1756-IA32
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)	0...60 °C (32...140 °F)
Temperature, surrounding air, max	60 °C (140 °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 IEC 60068-2-6 (Test Fc, Operating)	2 g @ 10...500 Hz
Shock, operating IEC 60068-2-27 (Test Ea, Unpackaged Shock)	30 g
Shock, nonoperating IEC 60068-2-27 (Test Ea, Unpackaged Shock)	50 g
Emissions	CISPR 11, Class A
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...2000 MHz 10V/m with 200 Hz 50% Pulse 100% AM @ 900 MHz 10V/m with 200 Hz 50% Pulse 100% AM @ 1890 MHz 3V/m with 1 kHz sine-wave 80% AM from 2000...2700 MHz

Environmental Specifications - 1756-IA32 (continued)

Attribute	1756-IA32
EFT/B immunity IEC 61000-4-4	±4 kV at 5 kHz on signal ports
Surge transient immunity IEC 61000-4-5	±1 kV line-line (DM) and ±2 kV line-earth (CM) on signal ports
Conducted RF immunity IEC 61000-4-6	10V rms with 1 kHz sine-wave 80% AM from 150 kHz . . . 80 MHz

Certifications - 1756-IA32

Certification ⁽¹⁾	1756-IA32
UL	UL Listed Industrial Control Equipment. See UL File E65584.
CSA	CSA Certified Process Control Equipment. See CSA File LR54689C. CSA Certified Process Control Equipment for Class I, Division 2 Group A,B,C,D Hazardous Locations. See CSA File LR69960C.
CE	European Union 2004/108/IEC EMC Directive, compliant with: <ul style="list-style-type: none"> • EN 61326-1; Meas./Control/Lab., Industrial Requirements • EN 61000-6-2; Industrial Immunity • EN 61000-6-4; Industrial Emissions • EN 61131-2; Programmable Controllers (Clause 8, Zone A & B) European Union 2006/95/EC LVD, compliant with: EN 61131-2; Programmable Controllers (Clause 11)
C-Tick	Australian Radiocommunications Act, compliant with: AS/NZS CISPR 11; Industrial Emissions
KC	Korean Registration of Broadcasting and Communications Equipment, compliant with: Article 58-2 of Radio Waves Act, Clause 3

(1) When marked. See the Product Certification link at <http://www.ab.com> for Declarations of Conformity, Certificates, and other certification details.