1756sc-IF8u Eight Channel Universal Input Module Voltage, Current, Resistance, RTDs and Thermocouple Allen-Bradley 1756 ControlLogix™ PLC

- Eight channels of voltage, current, resistance, RTD or thermocouple, input provide a flexible solution to analog monitoring applications.
- Features 1000 Vdc channel-to-backplane isolation; 1000 Vdc channel-to-chassis ground isolation; 12.5 Vdc channel-to-channel isolation.
- Easily configured using existing programming software.
- Provides several input noise filters that are selectable on a channel by channel basis to customize your installation for maximum speed with minimum noise.
- Enhanced features include 16-21 bit resolution, digital filtering, user scaling, time stamping and alarms.

Reduced System Costs

Unsurpassed flexibility is provided with the broad variety of input signals that can be applied. For systems requiring a variety of analog input types, the 1756sc-IF8u can help you save money on I/O racks, power supplies and enclosures.

Get State-of-the-Art Features

The 1756sc-IF8u applies the producer/consumer networking model. The I/O module produces information only when needed rather than waiting for the controller to poll for data. Communication is more efficient, the potential burden on the controller lessened, and integration with other products is improved. Productivity improves from the system's greater ease of maintenance, increased speed and efficiency of communication, as well as from software integration that provides a single view of the system that's easily understood. Removal-and-insertion-of modules under power (RIUP) enables easier, faster and more efficient maintenance with little interference to the application process.

Module-level fault detection (self-diagnosing)

Selectable time-stamping of control data

Flash memory allows upgrades to the module to be performed by the user

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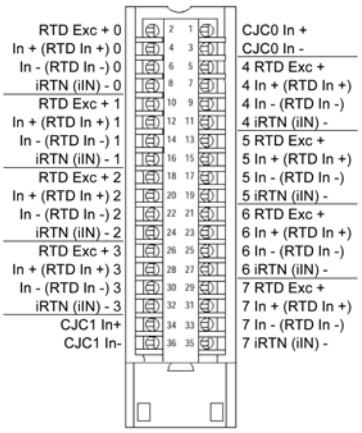
1756sc-IF8u Wiring



Note: RTBs are not included with the module.
Order Allen-Bradley Part Numbers:
1756-TBCH - 36 position screw terminals
1756-TBS6H - 36 position press terminals

Prewire Cable:
Specify Spectrum Controls Part Number:
1492-ACABLE-xx0sc xx=length in meters
Use Allen Bradley IFM P/N -
1492-IFM-40F Series A

Specifications

Inputs per Module	8 (eight)
Module Location	1756 I/O chassis—1 slot
Input Types Thermocouple RTD Resistance Current Voltage	 B, C, E, J, K, N, R, S, T PT 385/3916, N 618/672, NI 518, CU 426 250, 500, 1000, 2000, 3000, 4000 ohms 0-20 mA, 4-20 mA ±50mV, ±150mV, 0-5V, 1-5V, 0-10V, ±10V
Advanced Features	5 filter frequencies (individually selectable by channel); full auto-calibration; on-board error checking; open circuit detection for most input types, short circuit for RTDs
Accuracy	Better than 0.1% of Range @ 0° to 25°C
Resolution	16-21 Bits (filter frequency dependent)
Update Times*	With eight channels enabled: 0.99 sec @ 10 Hz 0.19 sec @ 50/60 Hz 0.13 sec @ 100 Hz 0.07 sec @ 250 Hz 0.04 sec @ 1000 Hz * = RTD/TC update times may be longer. Update times do not include autocalibration time.
Data Formats	Floating Point IEEE 32 bit
Electrical Isolation	±12.5 Vdc channel-to-channel for all but RTDs 1000 Vdc field-wiring-to-backplane 1000 Vdc field-wiring-to-chassis-ground
Input Impedance	>1 Mohm Thermocouple, Voltage, RTD <250 ohm, Current
Input Overvoltage Protection	14.5 Vdc continuous 250W pulsed for 1 msec.
Input Overcurrent Protection	28mA continuous 40mA, 1msec pulsed, 10% duty cycle max
Common Mode Rejection	96 dB @ 50/60 Hz
Normal Mode Rejection	64.5 dB @ 50/60 Hz
Backplane Current Required	75 mA @ 24 V max 230 mA @ 5 V max
Thermal Dissipation	3.00 Watts maximum
Environmental Conditions Operational Temperature Storage Temperature Relative Humidity	 0° to 60°C (32° to 140°F) -40° to 85°C (-40° to 185°F) 5 to 95% (non-condensing)
Certifications	UL/CUL (Class I, Div 2, Groups ABCD) and CE
Recommended Cable	For TC inputs: Shielded, twisted-pair TC extension wire For mV, V or mA inputs: Belden 8761 or equivalent For RTD inputs: Shielded Belden #9501, #9533 or #83503

SPECTRUM CONTROLS

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