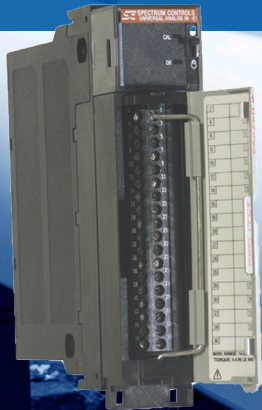


ControlLogix™ 1756sc-IF8u 8-Channel Universal Analog Input Module



The 1756sc-IF8u Input Module provides full universal analog capability in one I/O module. The 1756sc-IF8u module can replace analog input, thermocouple, and RTD modules without compromising performance or price.

Reduce System Costs

- Eight voltage, current, thermocouple, or RTD/resistance inputs (2-, 3-, or 4-wire).
- 32 input types.
- Use any combination of input types at one time.
- Accuracy comparable with dedicated analog modules.
- Individually programmable for each channel; user scaling; time stamping and alarms.
- Easy to configure using ladder register settings or RSLogix programming software.
- Channel-selectable filtering for fastest analog update time and noise rejection.
- Cold junction compensation included for thermocouples.
- 4-wire support for RTDs.
- Removal and Insertion Under Power (RIUP).

1756sc-IF8u Specifications

| | | | | | |
|--|--|----------|--------|--------|---------|
| Input Types | 8 V, C, TC, or 8 RTD/Res | | | | |
| Input Ranges | | | | | |
| Thermocouple | J, K, T, B, E, R, S, N, C | | | | |
| RTD | PT385/3916, Ni618/672, NiFe518, Cu426 | | | | |
| Resistance | 250, 500, 1000, 2000, 3000, 4000 ohms | | | | |
| Current | 0-20 mA, 4-20 mA | | | | |
| Voltage | ±50 mV, ±150 mV, 0-5 V, 1-5 V, 0-10 V, ±10 V | | | | |
| Resolution | 16 to 21 bits (filter dependent) bits | | | | |
| Advanced Features | 5 filter frequencies (individually selectable by channel) | | | | |
| Accuracy | Better than 0.1% of range at 0 °C to 25 °C | | | | |
| Update Times (ms) * | 10 Hz | 50/60 Hz | 100 Hz | 250 Hz | 1000 Hz |
| 8-Channel Sample Time (sec) * with TC/RTD, update times may be longer. Update times do not include autocalibration time | 0.99 | 0.19 | 0.13 | 0.07 | 0.04 |
| Electrical Isolation (continuous) | 12.5 VDC channel-to-channel isolation 1000 VAC field-wiring-to-backplane 1000 VAC field-wiring-to-chassis-ground | | | | |
| Input Impedance | >1 Mohm; thermocouple, voltage, RTD <250 ohm, current | | | | |
| Input Overvoltage Protection | 14.5VDC continuous; 250 W pulsed for 1 ms | | | | |
| Input Overcurrent Protection | 28 mA continuous; 40 mA, 1 ms, pulsed, 10% duty cycle, maximum | | | | |
| Backplane Current Required | 230 mA at 5 V maximum , 75 mA at 24 V maximum | | | | |
| Common Mode Rejection | 96 dB at 50/60 Hz | | | | |
| Normal Mode Rejection | 64.5 dB at 50/60 Hz | | | | |
| Environmental Conditions | | | | | |
| Operational Temperature | -0 °C - 60 °C (32 °F - 140 °F) | | | | |
| Storage Temperature | -40 °C - 85 °C (-40 °F - 185 °F) | | | | |
| Relative Humidity | 5% - 95% (non-condensing) | | | | |
| Thermal Dissipation | 3.00 Watts, maximum | | | | |
| Certifications | UL/cUL Listed ANSI ISA 12.12.01 (Class I, Div 2, Groups ABCD), CE | | | | |
| Weight | 380 g (13.4 ozs) | | | | |
| 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 | | | | |