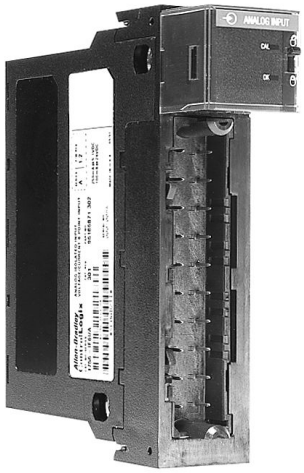
I/O Modules

Analog I/O Modules



The 1756 analog I/O modules support these features.

- 6-pt Modules
  - On-board data alarming
  - Scaling to engineering units
  - Real-time channel sampling
  - Data Format: Integer mode (left justified, 2s complement) IEEE 32-bit floating point
  - Module keying: Electronic software configurable
  - RTB keying: User-defined mechanical
- 8-pt Modules
  - Increased accuracy, repeatability and stability over entire temperature operating ranges
  - No field calibration requirement
  - Increased precision with 24 bits of usable resolution
  - CIPSynch-enabled, allowing Timestamping in PTP
  - Synchronized input sampling across all modules anywhere in a CIPSynch system
  - Fast (1 ms) input sampling of floating point values and faster output response times
  - Per channel status and fault LED annunciation

Analog Input Modules

Specifications [PDF]

Cat. No.	Inputs/Outputs	Range	Resolution	Removable Terminal Block
1756-IF6CIS	6 individually isolated inputs, current sourcing	0...21 mA	16 bits 0.34 µA/bit	1756-TBNH 1756-TBSH
1756-IF6I	6 individually isolated inputs	±10.5V 0...10.5V 0...5.25V 0...21 mA	16 bits 10.5V: 343 µV/bit 0...10.5V: 171 µV/bit 0...5.25V: 86 µV/bit 0...21 mA: 0.34 µA/bit	1756-TBNH 1756-TBSH
1756-IF8	8 single-ended inputs 4 differential inputs	±10.25V 0...10.25V	±10.25V: 320 µV/cnt (15 bits + sign bipolar)	1756-TBCH 1756-TBS6H

	2 high-speed differential inputs	0...5.125V 0...20.5 mA	0...10.25V: 160 μV/cnt (16 bits) 0...5.125V: 80 μV/cnt (16 bits) 0...20.5 mA: 0.32 μA/cnt (16 bits)	
1756-IF8K	Conformal coated - 8 single-ended inputs 4 differential inputs 2 high-speed differential inputs			
1756-IF8H	8 differential voltage or current inputs, HART interface	±10V 0...5V 1...5V 0...10V 0...20 mA 4...20 mA	16...21 bits	1756-TBCH 1756-TBS6H
1756-IF8HK	8 differential voltage or current inputs, conformal coated HART interface			
1756-IF8I	8 single-ended inputs, 4 differential inputs, or 2 high-speed differential inputs individually isolated, Configurable as voltage or current inputs	±10V 0...10V 0...5V 0...20 mA	±10.25V: 320 μV/cnt (15 bits + sign bipolar) 0...10.25V: 160 μV/cnt (16 bits) 0...5.125V: 80 μV/cnt (16 bits) 0...20.5 mA: 0.32 μA/cnt (16 bits)	1756-TBCH 1756-TBS6H
1756-IF8IK	Conformal coated 8 single-ended inputs, 4 differential inputs, or 2 high-speed differential inputs individually isolated, Configurable as voltage or current inputs			
1756-IF16	16 single-ended inputs 8 differential or 4 differential (high speed) inputs	±10.5V 0...10.5V 0...5.25V 0...21 mA	16 bits ±10.5V: 343 μV/bit 0...10.5V: 171 μV/bit 0...5.25V: 86 μV/bit 0...21 mA: 0.34 μA/bit	1756-TBCH 1756-TBS6H
1756-IF16K	Conformal coated 16 single-ended inputs 8 differential or 4 differential (high speed) inputs			
1756-IF16H	16 differential current inputs, HART interface	0...20 mA 4...20 mA	16...21 bits 0...21mA: 0.32 μA/bit	1756-TBCH 1756-TBS6H
1756-IF16HK	16 differential current inputs, conformal coated HART interface			

Analog RTD and Thermocouple Modules

Specifications [PDF]

Cat. No.	Inputs/Outputs	Range	Resolution	Thermocouple Types	Removable Terminal Block
1756-IR6I	6 individually isolated RTD inputs	1...487 Ω 2...1000 Ω 4...2000 Ω 8...4020 Ω	16 bits 1...487 Ω: 7.7 mΩ/bit 2...1000 Ω: 15 mΩ/bit 4...2000 Ω: 30 mΩ/bit 8...4020 Ω: 60 mΩ/bit	N/A	1756-TBNH 1756-TBSH
1756-IT6I	6 individually isolated thermocouple inputs 1 CJC	-12...78 mV -12...30 mV	16 bits -12...78 mV: 1.4 μV/bit -12...30 mV: 0.7 μV/bit	B, E, J, K, R, S, T, N, C	
1756-IT6I2	6 individually isolated thermocouple inputs 2 CJC	-12...78 mV (1.4 μV per bit) -12...30 mV (0.7 μV per bit - high resolution range)	16 bits -12...78 mV: 1.4 Vμ/bit -12...30 mV: 0.7 μV/bit	B, E, J, K, R, S, T, N, C, D, L (TXK/XK)	
1756-IRT8I ⋆	8 isolated channels - Any combination of RTD or Thermocouple mode	1...500 Ω 2...1000 Ω 4...2000 Ω 8...4000 Ω -100...100 mV	24 bits 0...510 Ω: 0.06 m Ω /count 0...1020 Ω: 0.12 m Ω/count 0...2040 Ω: 0.25 m Ω /count 0...4080 Ω: 0.50 m Ω /count -101...101 mV: 0.01 μV/count	B, C, D, E, J, K, N, R, S, T, TXK/XK (L)	
1756-IRT8IK ⋆	Conformal coated 8 isolated channels - Any combination of RTD or Thermocouple mode				

⋆ Two CJC sensors for Thermocouple use. The CJC sensors, product catalog number 1756-CJC, do not come with the module.