Analog Input Modules

Cat. No.	Inputs/Outputs	Range	Resolution	Removable Terminal Block
1756-IF6CIS	6 individually isolated inputs, current sourcing	0…20 mA (over-range indication when exceeded)	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 2 high-speed differential inputs	±10V 0…10V 0…5V 0…20 mA	±10.25V: 320 μV/cnt (15 bits plus 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-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-IF8I	8 individually isolated inputs, current or voltage	±10V 0…10V 0…5V 0…20 mA	24 bits ±10.5V (1.49 μV/count) 0…10.5V (1.49 μV/count) 0…5.25V (1.49 μV/count) 0…21 mA (2.99 nA/count)	1756-TBCH 1756-TBS6H
1756-IF8IH	8 individually isolated current inputs	0…20 mA 4…20 mA	16…21 bits	1756-TBCH 1756-TBS6H
1756-IF16	16 single-ended inputs 8 differential or 4 differential (high speed) inputs	±10V 0…10V 0…5V 0…20 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-IF16H	16 differential current inputs, HART interface	0…20 mA 4…20 mA	16…21 bits	1756-TBCH 1756-TBS6H

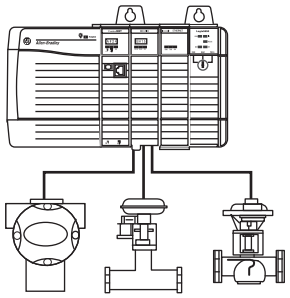
Analog RTD and Thermocouple Modules

Cat. No.	Inputs/Outputs	Range	Resolution	Removable Terminal Block
1756-IR6I	6 individually isolated RTD inputs	1…487 Ω 2…1000 Ω 4…2000 Ω 8…4000 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	1756-TBNH 1756-TBSH

HART Smart Instrumentation

HART (Highway Addressable Remote Transducer) is an open protocol that is designed to connect analog devices. For HART connectivity, select products available from Rockwell Automation and our Encompass™ Partner.

Typical HART Configuration



- ControlLogix
- 1756-IF8H or
- 1756-OF8H

HART Devices

HART Interfaces

If your application has	Select	Description
Analog and HART connectivity in one module No external hardware required to access HART signal HART commands can be transmitted as unscheduled messages Supports asset management software to HART device	1756-IF8H 1756-IF16H 1756-OF8H	Rockwell Automation analog I/O modules
Analog and HART connectivity in one module No external hardware required to access HART signal HART commands can be transmitted as unscheduled messages Supports asset management software to HART device Provides current isolation	1756-IF8IH 1756-OF8IH	Rockwell Automation isolated analog I/O modules
Data acquisition or control application with slow update requirements (such as a tank farm) No external hardware required to access HART signal Does not connect directly to asset management software	MVI56-HART	ProSoft interface
Analog and HART in one module Instrumentation in hazardous locations (FLEX Ex™ modules) HART commands can be transmitted as unscheduled messages Directly connects asset management software to HART devices	1794 FLEX I/O 1797 FLEX Ex I/O	There are FLEX I/O and FLEX Ex modules designed for HART systems. These catalog numbers end in an H, such as 1797-IE8H.