3.3. Specifications for Series 8 I/O

Specifications for Series 8 I/O modules are shown below. Note only the Coated S8 modules (model number starting with 8C) are mentioned in the detailed specifications below. However below specifications apply equally for the uncoated modules as well. Refer section 2.2.3.2 for more details on uncoated Series 8 I/O model numbers.

3.3.1. Analog Input with HART - Differential

Function

Analog Input Module accepts high level current or voltage inputs from transmitters and sensing devices.

Notable Features

- Extensive self-diagnostics
- Optional redundancy
- Supports either Single Ended / Differential Inputs
- HART-capable, multivariable instruments and multiple modems for fast collection of control variables
- Fast loop scan

Detailed Specification- Analog Input with HART - (8C-PAIH54)

Parameter	Specification		
Input / Output Module	8C-PAIH54 - Analog Input with HART (16), Coated		
IOTA Modules	8C-TAIDA1	Non Redundant, Coated	9”
	8C-TAIDB1	Redundant, Coated	12’’
Input Type	Voltage, Current (2-wire or self-powered transmitters), Single ended or Differential inputs		
Input Channels [1]	16 Channels (All 16 Single Ended or Differential type)		
A/D Converter Resolution	16 bits		
Input Range [1]	0 to 5 V, 1 to 5 V, 0.4 to 2 V, 4-20 mA (through 250 Ω)		
Voltage Rating	24 VDC		
Module Current Rating	310 mA		
Common Mode Rejection Ratio, dc to 60 Hz (500 Ω source imbalance)	70 dB		
Common Mode Voltage, dc to 60 Hz	-6 to +5 V peak		
Normal Mode Rejection Ratio, at 60 Hz	19 dB		
Normal Mode Filter Response	Single-pole RC, -3 dB @ 6.5 Hz		
Crosstalk, dc to 60 Hz (channel-to-channel)	-60 dB		
Input Impedance (voltage inputs)	> 10 M Ω powered		

Maximum Normal Mode Input (any input referenced to common, no damage)	± 30 Volts
Input Scan Rate	50 ms
Hardware Accuracy (@ CMV = 0 V)	± 0.075% of full-scale (23.5°± 2°C) ± 0.15% of full-scale (0 to 60°C)
Module Removal and Insertion Under Power	Supported
Transmitter Field Power Conditioning	Individually Protected Current Limiting Circuits, No fuse required
Note 1 – 8C-PAIH54 supports voltage inputs for channels 1-16 when used with 8C-TAIDx1 IOTA. Each channel's 250-Ohm load resistor is connected to the input terminal through a wire jumper on the IOTA. This jumper should be cut by the user on channels to be used with voltage transmitters.	