MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

HONEYWELL

CC-PAIN01 51410069-176

ANALOG INPUT MODULE

Used with the applicable analog input module configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

Source: Honeywell Experion Series C I/O Specification EP03-490-520

4. I/O Module Sizes

IOTA Sizing is nominal (6in = 152mm, 9in =228mm, 12in =304mm, 18in = 457mm)I/O modules are associated with their respective IOTAs in the table below. An I/O Module is supported by one or more IOTAs.

I/O Module	IOTA	Description	Circuits	Size (in ")	Red.
CC-PAIH01		High-Level AI HART	16		√
	CC-TAIX01	AI IOTA		6	
	CC-TAIX11	AI IOTA Red		12	√
CC-PAIH02 CC-PAIX01 / 02		High-level AI HART High-level AI w/o HART	16		√
	CC-TAIX01	AI IOTA		6	
	CC-TAIX11	AI IOTA Red		12	√
	CC-TAID01	AI IOTA – 16 Channel Differential		9	
	CC-TAID11	AI IOTA Red – 16 Channel Differential		12	√
CC-PAIH51		High-level AI HART	16		√
	CC-TAIX51	AI IOTA		6	
	CC-TAIX61	AI IOTA Red		12	√
CC-PAIN01		High-level AI w/o HART	16		√
	CC-TAIN01	AI IOTA		6	
	CC-TAIN11	AI IOTA Red		12	√
CC-PPIX01		Pulse Input w/ Fast Cut-off	8		√
	CC-TPIX11	PI IOTA Red		12	√
CC-PAIM01		PMIO LL Mux	64		
	CC-TAIM01	PMIO LL Mux IOTA		6	
	FTA				
	Mx-TAMT04	LL Mux TC FTA	16	12	
	Mx-TAMT14	LL Mux TC FTA w/Remote CJR	16	12	
	Mx-TAMR04	LL Mux RTD FTA	16	12	
CC-PAIL51	CC-TAIL51	Low-level AI	16	9	
CC-PPIX01	CC-TPIX01	Pulse Input	8	12	√

5.4. Analog Input – CC-PAIN01

Function

The Analog Input Module accepts high level current input from sensing devices.

Notable Features

- Extensive self-diagnostics
- Optional redundancy
- Supplies non-incendive field power
- Fast loop scan

Non-Incendive Power

Non-incendive power is provided with no external marshalling to support the 4-20mA loop and still provide for channel power protection. This protection supports the Division 2 hazardous protection non-incendive power rating.

Detail Specifications –Analog Input

Parameter	Specification		
Input / Output Model	CC-PAIN01 - High-Level Analog Input		
IOTA Models	CC-TAIN01	Non Redundant	6”
	CC-TAIN11	Redundant	12”
Input Type	Current (2-wire or self-powered transmitters)		
Input Channels	16 Channels (16 Single Ended)		
Common Mode Rejection Ratio, dc to 60 Hz (500 Ω source imbalance)	70 dB		
A/D Converter Resolution	16 bits		
Input Range	4-20 mA (through 200 Ω)		
Normal Mode Rejection Ratio, at 60 Hz	20 dB		
Normal Mode Filter Response	Single-pole RC, -3 dB @ 6.0 Hz		
Maximum Normal Mode Input	± 30 Volts		
Crosstalk, dc to 60 Hz (channel-to-channel)	-60 dB		
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)		
Transmitter Field Power Conditioning	Individually Protected Current Limiting Circuits for Class 1, Div 2 non-incendive interfacing. No fusing required		

6. Function Matrix

The following tables assist in selecting I/O Modules and IOTAs with similar functional characteristics

AI Function Matrix

Series-C IO			Function							
IOM	NR IOTA	Red IOTA	AI 4-20ma	HART Conf / Status	HART on CTL	HART Fast Ctl	AI 0-5V 1-5V	Int. IS	NR IOTA Size	Differential Inputs
CC-PAIH01 CC-PAIH02	CC-TAIX01	CC-TAIX11	♦	♦	♦	♦	♦		6"	13 - 16
CC-PAIH02	CC-TAID01	CC-TAID11	♦	♦	♦	♦	♦		9"	1 - 16
CC-PAIH01 CC-PAIH02	CC-GAIX21	CC-GAIX11	♦	♦	♦			♦	6"	NA
CC-PAIH51	CC-TAIX51	CC-TAIX61	♦	♦					6"	NA
CC-PAIX01 CC-PAIX02	CC-GAIX21	CC-GAIX11	♦			♦	♦	♦	6"	NA
CC-PAIX01 CC-PAIX02	CC-TAIX01	CC-TAIX11	♦			♦	♦		6"	13 - 16
CC-PAIX02	CC-TAID01	CC-TAID11	♦			♦	♦		9"	1 - 16
CC-PAIN01	CC-TAIN01	CC-TAIN11	♦						6"	None
CC-PUIO31	CC-TUIO31	CC-TUIO41	♦	♦	♦				9”	None

AO Function Matrix

Series-C IO				Function						
IOM	NR IOTA	Red IOTA	AO 4-20ma	HART Conf / Status	HART on CTL	HART Fast CTL	Output Vali-dation	Open Wire Det.	NR IOTA Size	Int IS
CC-PAOH01	CC-TAOX01	CC-TAOX11	♦	♦	♦		♦	♦	6"	
CC-PAOH01	CC-GAOX21	CC-GAOX11	♦	♦	♦		♦	♦	9"	♦
CC-PAOH51	CC-TAOX51	CC-TAOX61	♦	♦				♦	6"	
CC-PAOX01	CC-TAOX01	CC-TAOX11	♦				♦	♦	6"	
CC-PAOX01	CC-GAOX21	CC-GAOX11	♦				♦	♦	9"	♦
CC-PAON01	CC-TAON01	CC-TAON11	♦				♦	♦	6"	
CC-PUIO31	CC-TUIO31	CC-TUIO41	♦	♦	♦	♦	♦	♦	9”	