

MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Selected official Honeywell Series C product data

HONEYWELL SERIES C

CC-PSP401

51454122-175 SPEED PROTECTION MODULE

Selected official planning, compatibility, IOTA and terminal pages follow.

I/O module/IOTA	Feature/function
Analog Output w/HART	• Extensive self-diagnostics • Optional redundancy • HART capable, multivariable instruments • Safe-state (FAILOPT) behaviors – Each channel can be configured to HOLD, LAST, VALUE, or SHED to a SAFE VALUE. • Output read back checking of current delivered to the field • PV protection through a broken-wire detection diagnostic – Each channel can detect broken field wire. A soft failure alerts the maintenance staff for corrective action. • Non-incendive output – No external marshalling required to support the 4-20ma loop, and still provides for channel power protection.
Analog Output non-HART	• Extensive self-diagnostics • Optional redundancy • Safe-state (FAILOPT) behaviors – Each channel can be configured to HOLD, LAST, VALUE, or SHED to a SAFE VALUE. • Output read back checking of current delivered to the field • Non-incendive output
Digital Input 24VDC	• Extensive self-diagnostics • IOM redundancy • Input direct/reverse • Internal or external field power selections • Galvanic isolation • PV protection through a broken-wire detection diagnostic – Each channel can detect broken field wire. A soft failure alerts the maintenance staff for corrective action. • Non-incendive output – No external marshalling required to support the 4-20ma loop, and still provides for channel power protection.
Direct Input High Voltage	• Extensive self-diagnostics • Optional redundancy • Input direct/reverse • Galvanic isolation
Digital Input High Voltage PROX	• Extensive self-diagnostics • Input direct/reverse • Galvanic isolation

IOM model names	IOM block name	Description	# of chnls	Similar to PMIO type	IOP model names
CU-PAOH01 CC-PAOH01	AO-HART	Analog Output with HART	16	AO16HART	
CC-PAOH51	AO-HART	1 Modem, Analog Output with HART	16	AO16HART	
CU-PDIH01 CC-PDIH01	DI-HV	High Voltage Digital Input (IOM supports both 120 and 240 volts AC)	32	DI	
CU-PDIL01 CC-PDIL01	DI-24	Low Voltage Digital Input (24 volts DC)	32	DI or DI24V	
CC-PDIL51	DI-24	Low Voltage, Digital Input (24 volts DC)	32	DI	
CU-PDIS01 CC-PDIS01	DI-SOE	Low Voltage Digital Input (24 volts DC)	32	DISOE	Mx-PDIS12
CU-PDOB01 CC-PDOB01	DO-24B ²	Bussed Low Voltage Digital Output (24 volts DC)	32	DO_32	
CC-PDOD51	DO-24B	Bussed Low Voltage, Digital Output (24 volts DC)	32	DO32	
CU-PSOE01 CC-PSOE01	DI-SOE	Low Voltage Digital Input SOE (24 volts DC)	32	DISOE	
CC-PSP401	SP	Speed Protection	26		
CC-PSV201	SVP	Servo Valve Positioner	8		
CC-PPIX01	PIM	Pulse Input Module	8	PI IOP	
CC-PUIO01	UIO	Universal Input/Output Module	32		
CC-PUIO31	UIO	Universal Input/Output Module	32		
Series C Mark II IOM					
CC-PAIH01	AI-HART	High Level Analog Input with HART	16		
CC-PAOH01	AO-HART	Analog Output with HART	16		
DC-PDIL51	DI-24V	Digital Input (24 volt DC) without Open Wire Detection	32		
DC-PDIS51	DI-SOE	Low-Voltage Digital Input SOE- Low Resolution (24 volts DC) without Open Wire Detection	32		
DC-PDOD51	DO-24B	Bussed Low Voltage Digital Output (24 volts DC) without Open Wire Detection	32		
CC-PAIH51	AI-HART	1 Modem, High Level Analog Input with HART	16	HLAIHART	
CC-PAOH51	AO-HART	1 Modem, Analog Output with HART	16	AO16HART	
CC-PAIN01	AI-HL	High Level Analog Input with non-HART	16	HLAI	
CC-PAON01	AO	Analog Output with non-HART	16	AO16	

IOM block type	IOM model number	IOTA model number	IOTA description ⁷	IOTA supported FTAs or ancillary cards
DI-HV PROX	Cx-PDIH01	CC-TDII51	DI, 120VAC non-redundant	None
DI-24	Cx-PDIL01	Cx-TDIL01	DI-24V, non-redundant	None
		Cx-TDIL11	DI-24V, redundant	None
		Cx-GDIL11	DI-24VDC, GI-IS, redundant	MTL4516 MTL4517
		Cx-GDIL21	DI-24VDC, GI-IS, non-redundant	MTL4510
		Cx-GDIL01	DI-24VDC, GI-IS, redundant (for expander)	MTL4511
		Cx-SDXX01	GI-IS expander	MTL4511
	Cx-PDIL51	Cx-TDIL51	DI-24V, non-redundant	None
		Cx-TDIL61	DI-24V, redundant	None
DI-SOE	Cx-PSOE01 (note 4)	Cx-TDIL01	DI-24V, non-redundant	None
DO-24B	Cx-PDOB01	Cx-TDOB01	DO-24V, bussed, non-redundant	None
		Cx-TDOB11	DO-24V, bussed, redundant	None
		Cx-TDOR01	DO- High Voltage Relay, non-redundant	Cx-SDOR01 ² (note 2)
		Cx-TDOR11	DO- High Voltage Relay, redundant	Cx-SDOR01 ² (note 2)
		Cx-GDOL01	DO-24VDC, GI-IS, redundant (for expander)	MTL4521
		Cx-SDXX01	GI-IS expander	MTL4521
	Cx-PDOD51	Cx-TDOD51	DO-24V, bussed, non-redundant	None
		Cx-TDOD61	DO-24V, bussed, redundant	None
SVPM	CC-PSV201	CC-TSV211	Servo Valve Positioner IOTA, Redundant, Coated	None
SPM	CC-PSP401	CC-TSP411	Speed Protection IOTA, Redundant, Coated	None
PI	CC-PPIX01	CC-TPIX11	Pulse Input w/ Fast Cutout, Redundant	None
UIO	CC-PUIO01	CC-TUIO01	UIO, Non-Redundant	None
		CC-TUIO11	UIO, Redundant	
UIO-2	CC-PUIO31	CC-TUIO31	Universal IO-2, non-redundant, coated	None
		CC-TUIO41	Universal IO-2, redundant, coated	
DI-24	DC-PDIL51	DC-TDIL01	DI 24V IOTA (Non-Redundant)	None
		DC-TDIL11	DI 24V IOTA (Redundant)	
DI-SOE	DC-PDIS51	DC-TDIL01	DI 24V IOTA (Non-Redundant)	None
		DC-TDIL11	DI 24V IOTA (Redundant)	
DO-24B	DC-PDOD51	DC-TDOD51	DO 24V Bussed without RB IOTA (Non-Redundant)	None
		DC-TDOD61	DO 24V Bussed without RB IOTA (Redundant)	

NOTES

5.16 Speed Protection Module IOTA Model CC-TSP411

The Series C Speed Protection Module (SPM) IOTA board is represented by the following information and graphic.

Series C SPM 18 inch, redundant IOTA is displayed.

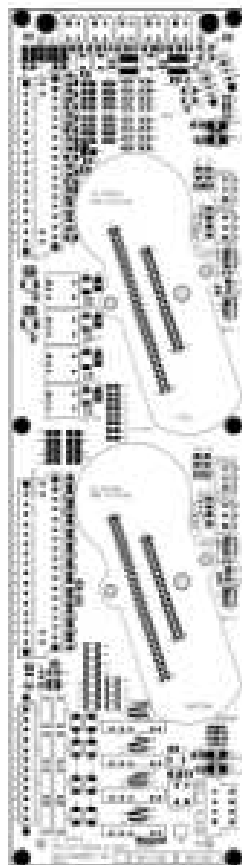


Figure 62: Series C Speed Protection Module 18 inch, redundant IOTA

To properly wire your module to the Series C Speed Protection Module (SPM) IOTA board with terminal block 1 (TB1), terminal block 2 (TB2), and terminal block 3 (TB3) use the following table.

Table 60: SPM 18 inch, redundant - terminal block 1

Terminal Number	Signal Name	Signal Name and Description
1	AI1+	Analog Input Positive - Channel 1
2	AI1-	Analog Input Negative - Channel 1
3	AI1 24V	Analog Input 24V Supply - Channel 1
4	AI2 24V	Analog Input 24V Supply - Channel 2
5	AI2+	Analog Input Positive - Channel 2
6	AI2-	Analog Input Negative - Channel 2
7	AI3+	Analog Input Positive - Channel 3
8	AI3-	Analog Input Negative - Channel 3
9	AI3 24V	Analog Input 24V Supply - Channel 3

Terminal Number	Signal Name	Signal Name and Description
10	AI4 24V	Analog Input 24V Supply - Channel 4
11	AI4+	Analog Input Positive - Channel 4
12	AI4-	Analog Input Negative - Channel 4
13	AI5+	Analog Input Positive - Channel 5
14	AI5-	Analog Input Negative - Channel 5
15	AI5 24V	Analog Input 24V Supply - Channel 5
16	AI6 24V	Analog Input 24V Supply - Channel 6
17	AI6+	Analog Input Positive - Channel 6
18	AI6-	Analog Input Negative - Channel 6
19	AI7+	Analog Input Positive - Channel 7
20	AI7-	Analog Input Negative - Channel 7
21	AI7 24V	Analog Input 24V Supply - Channel 7
22	AI8 24V	Analog Input 24V Supply - Channel 8
23	AI8+	Analog Input Positive - Channel 8
24	AI8-	Analog Input Negative - Channel 8
25	PASS1+	Passive Speed Sensor Input Positive - Channel 1
26	PASS1-	Passive Speed Sensor Input Negative - Channel 1
27	PASS2+	Passive Speed Sensor Input Positive - Channel 2
28	PASS2-	Passive Speed Sensor Input Negative - Channel 2
29	PASS3+	Passive Speed Sensor Input Positive - Channel 3
30	PASS3-	Passive Speed Sensor Input Negative - Channel 3
31	PASS4+	Passive Speed Sensor Input Positive - Channel 4
32	PASS4-	Passive Speed Sensor Input Negative - Channel 4

Table 61: SPM 18 inch, redundant - terminal block 2

Terminal Number	Signal Name	Signal Name and Description
1	ACT1+	Active Speed Sensor 1 Positive - Channel 1
2	ACT1-	Active Speed Sensor 1 Negative - Channel 1
3	ACT1 24V	Active Speed Sensor 24V Supply - Channel 1
4	ACT2 24V	Active Speed Sensor 24V Supply - Channel 2
5	ACT2+	Active Speed Sensor 2 Positive - Channel 2
6	ACT2-	Active Speed Sensor 2 Negative - Channel 2
7	ACT3+	Active Speed Sensor 3 Positive - Channel 3
8	ACT3-	Active Speed Sensor 3 Negative - Channel 3
9	ACT3 24V	Active Speed Sensor 24V Supply - Channel 3
10	ACT4 24V	Active Speed Sensor 24V Supply - Channel 4
11	ACT4+	Active Speed Sensor 4 Positive - Channel 4
12	ACT4-	Active Speed Sensor 4 Negative - Channel 4
13	DI1 24V	Digital Input 1, 24V Field Supply
14	DI1	Digital Input 1 - Channel 1
15	DI2 24V	Digital Input 2, 24V Field Supply

Terminal Number	Signal Name	Signal Name and Description
16	D12	Digital Input 2 - Channel 2
17	D13 24V	Digital Input 3, 24V Field Supply
18	D13	Digital Input 3 - Channel 3
19	D14 24V	Digital Input 4, 24V Field Supply
20	D14	Digital Input 4 - Channel 4
21	D15 24V	Digital Input 5, 24V Field Supply
22	D15	Digital Input 5 - Channel 5
23	D16 24V	Digital Input 6, 24V Field Supply
24	D16	Digital Input 6 - Channel 6
25	D17 24V	Digital Input 7, 24V Field Supply
26	D17	Digital Input 7 - Channel 7
27	D18 24V	Digital Input 8, 24V Field Supply
28	D18	Digital Input 8 - Channel 8
29, 30		NC
31	AO1	Analog Output 1 - Channel 1
32	GND	Analog Output 1 Return

Table 62: SPM 18 inch, redundant - terminal block 3

Terminal Number	Signal Name	Signal Name and Description
1	DO1_RTN	Digital Output 1 Return - Channel 1
2	DO1_NC	Digital Output 1 Normally Closed Pin - Channel 1
3	DO1_NO	Digital Output 1 Normally Open Pin - Channel 1
4	DO2_RTN	Digital Output 2 Return - Channel 2
5	DO2_NC	Digital Output 2 Normally Closed Pin - Channel 2
6	DO2_NO	Digital Output 2 Normally Open Pin - Channel 2
7	DO3_RTN	Digital Output 3 Return - Channel 3
8	DO3_NC	Digital Output 3 Normally Closed Pin - Channel 3
9	DO3_NO	Digital Output 3 Normally Open Pin - Channel 3
10	DO4_RTN	Digital Output 4 Return - Channel 4
11	DO4_NC	Digital Output 4 Normally Closed Pin - Channel 4
12	DO4_NO	Digital Output 4 Normally Open - Channel 4

5.16.1 SPM Input wiring

Series C SPM 18 inch, redundant IOTA and field wiring connections for different channels are displayed.