Honeywell

EXPERION PKS

Series C I/O User's Guide

EPDOC-X126-en-A

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5.11.2 Using DI 24V module (Cx - TDIL51, Cx - TDIL61) channels to report system alarms

You must include digital input channels in the control strategy to generate and report alarms based on their PVs. A typical strategy consists of a Control Module that contains the DI channel blocks where each PV (output) is connected to a PVFL input of a FLAGARRAY block configured for alarming.

The normal condition of the alarm input is ON.

Refer to the Control Building Guide for the following topics

- Creating and saving a control module
- Creating an instance of a basic function block
- Configuring alarms

Prerequisites

- You have installed and configured Series C 24V digital input I/O modules and associated IOTAs.
- You have alarm cables 51202343-001 (12-foot long) to connect power supply alarm contacts to 24V dc digital inputs on the IOM.

To connect the Power System alarm cable for RAM Charger Assembly 51199932-200

1. Plug the connection end of the alarm cable into the alarm connection on top of the power supply.
2. Connect the twisted pair wires to the terminal block 1 on the DI 24V IOTA in the following configuration. The associated alarm pins are also displayed.

TERMINAL BLOCK 1			PWR SUPPLY ALARM CONNECTOR (20A power system)	
Wire color	Channel	Screw	Description	
White	1	1	Power supply 1 alarm +	(pin 8)
Black	1	2	Power supply 1 alarm -	(pin 3)
Blue	2	3	Power supply 2 alarm +	(pin 7)
Black	2	4	Power supply 2 alarm -	(pin 4)
Red	3	5	Battery alarm +	(pin 2)
Black	3	6	Battery alarm -	(pin 1)
Green	4	7	Not Used (No Cable)	
Black	4	8	Not Used (No Cable)	

3. Ensure terminal block 3 connections are made in the following configuration

   Screw 1 + (internal 24V) to Screw 3 + (external 24V)

   Screw 2 - (internal return) to Screw 4 - (external return)

TERMINAL BLOCK 1		PWR SUPPLY ALARM CONNECTOR (40A power system)	
Wire color	Channel	Screw	Description
White	1	1	Power supply 1 alarm + (pin 8)
Black	1	2	Power supply 1 alarm - (pin 3)
Blue	2	3	Power supply 2 alarm + (pin 7)
Black	2	4	Power supply 2 alarm - (pin 4)
Red	3	5	Power supply 3 alarm + (pin 1)
TERMINAL BLOCK 1		**PWR SUPPLY ALARM CONNECTOR (40A power system)**	
Wire color	**Channel**	**Screw**	**Description**
Black	3	6	Power supply 3 alarm - (pin 2
Green	4	7	Not Used (No Cable)
Black	4	8	Not Used (No Cable)

Part name		Part number	Description
DI-24V Non-Redundant. IOTA		CC- TDIL0 51308371-175	24V Digital Input, non-redundant, coated
		Cx-TDIL51 51306969-175	24V Digital Input, non-redundant, coated
DI-24V Redundant. IOTA		CC- TDIL11 51308373-175	24V Digital Input, redundant, coated
		Cx-TDIL61 51306967-175	24V Digital Input, redundant, coated
Terminal plug-in assembly			
16-terminal plug-in assembly		51506273-216	2 per non-redundant IOTA 2 per redundant IOTA
4-terminal plug-in assembly		51506269-204	1 per non-redundant IOTA 1 per redundant IOTA
Fuses			
Description	*Part number*	*Quantity*	*Reference designator* / *Function*
Fuse 0.5A Fast acting 5x20mm	51190582-150	3 per non-red. IOTA	F1: Fuse for field power if system power is connected through TB3, in series with F3 F2: Top IOM kernel F3: Fuse for field power if external power is connected through TB3
		4 per red. IOTA	F1: Fuse for field power if system power is connected through TB3, in series with F4 F2: Top IOM kernel F3: Bottom IOM kernel F4: Fuse for field power if external power is connected through TB3
DIGITAL OUTPUT 24V			
Series C DO IOM		CC--PDOB01	Series C Digital Output Module
		CC-PDOD51	Series C Digital Output Module
IOTA			
24V DO Non-Redundant IOTA		CC--TDOB01 51308371-175	24V Digital Output, bussed, non-redundant
		Cx-TDOD51 51306975-175	24V Digital Output, bussed, non-redundant
24V DO Redundant IOTA		CC--TDOB11 51308373-175	24V Digital Output, bussed, redundant, coated
		Cx-TDOD61 51306973-175	24V Digital Output, bussed, redundant, coated
Terminal plug-in assemblies			
16-terminal plug-in assembly		51506273-216	2 per non-redundant IOTA 2 per redundant IOTA