

CC-PDIL01 51405040-176

CC-PDIL01 24 VDC Discrete Input Module

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PRODUCT SNAPSHOT

BRAND
Honeywell

FAMILY
Experion PKS Series C I/O

PART
CC-PDIL01 51405040-176

DOCUMENT STATUS
Controlled engineering copy

APTER POWER

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PRODUCT OVERVIEW

Honeywell CC-PDIL01 51405040-176 provides acquisition and supervision of thirty-two 24 VDC discrete inputs in a documented Experion PKS Series C I/O installation.

Thirty-two 24 VDC inputs

Galvanic isolation

Open-wire detection

Optional redundancy and configurable field excitation

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4 Siemens C98043-A7109-L100	5 Siemens 6SE7090-0XX87-4AH0	6 Siemens C98043-A7106-L1
7 Siemens 6RY1803-0DA03	8 Siemens C98043-A7106-L4	9 Siemens 6RY1803-0DA04

SYSTEM COMPONENTS

DOCUMENTED COMPONENT	ROLE IN SYSTEM
Proximity probe	Matched extension cable
Proximitor Sensor	AISI 4140 target

ENGINEERING CONTEXT

The component remains matched to its documented host position, field connections and approved engineering configuration. Commissioning restores that architecture and verifies the intended function under controlled conditions.

TECHNICAL DATA

PARAMETER	VALUE
Product type	24 VDC discrete input module
Module model	CC-PDIL01
Manufacturer item number	51405040-176
I/O family	Experion PKS Series C I/O
Channels	32 discrete inputs
Field voltage	18-30 V DC
ON state	At least 13 V or 3 mA
OFF state	No more than 5 V or 1.2 mA
Input impedance	4.2 kohm
Input delay	5 ms +/-20%
Field resistance ON	No more than 300 ohm at 15 V

PARAMETER	VALUE
Field resistance OFF	At least 30 kohm at 30 V
Isolation	1500 V AC RMS or +/-1500 V DC, optical
Redundancy	Optional
Field excitation	Internal or external
Indication	Direct or reverse
Diagnostics	Open-wire and module/channel diagnostics
Non-redundant IOTA	CC-TDIL01
Redundant IOTA	CC-TDIL11
Galvanically isolated IOTA options	CC-GDIL01, CC-GDIL11 and CC-GDIL21
Safety IOTA option	CC-SDXX01 where documented

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TECHNICAL NOTE

Install CC-PDIL01 51405040-176 only in the documented Experion PKS Series C I/O position and preserve its exact wiring, interfaces and configuration. After controlled energization, verify diagnostics and acquisition and supervision of thirty-two 24 VDC discrete inputs before release.

APPLICATIONS & PRECAUTIONS

COMMON APPLICATIONS

Process contact monitoring

Acquires documented 24 VDC field states for Experion control.

Redundant digital input

Uses the approved redundant IOTA and peer-module configuration.

Galvanically isolated input

Supports the documented isolated IOTA execution.

Series C replacement

Restores polarity, indication, excitation and channel diagnostics.

PRODUCT PRECAUTIONS

1

Confirm CC-PDIL01 and item number 51405040-176 on the module record.

2

Place all thirty-two input loops in the approved maintenance state.

3

Record channel assignments, normal states, excitation source and redundancy status.

4

Isolate Series C and field power before disconnection.

5

Verify the installed IOTA and all field-loop polarity.

6

Restore direct or reverse indication and channel configuration.

7

Review open-wire, module and channel diagnostics.

8

Exercise every assigned contact and verify the configured state before release.

RELATED APTER POWER PAGES

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9

Siemens 6RY1803-0DA04

ENGINEER FAQ

Q1 How many 24 VDC input channels does CC-PDIL01 51405040-176 provide?

It provides thirty-two discrete input channels.

Q2 Which field-voltage range applies to CC-PDIL01 51405040-176?

The documented field-voltage range is 18-30 V DC.

Q3 Which ON-state threshold is documented for CC-PDIL01 51405040-176?

An ON state is at least 13 V or 3 mA.

Q4 Which OFF-state threshold is documented for CC-PDIL01 51405040-176?

An OFF state is no more than 5 V or 1.2 mA.

Q5 What nominal input impedance applies to CC-PDIL01 51405040-176?

The documented input impedance is 4.2 kohm.

Q6 Which input delay applies to CC-PDIL01 51405040-176?

The documented input delay is 5 ms +/-20%.

Q7 How is galvanic isolation provided for CC-PDIL01 51405040-176?

The official specification documents optical isolation and the applicable isolated IOTA choices.

Q8 What proves all channels of CC-PDIL01 51405040-176 after replacement?

Exercise every assigned contact and confirm indication, diagnostics and configured state.

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SOURCE Honeywell Series C I/O Specification EP03-490-520, Version 1.5 | Official Honeywell manufacturer publication

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