COMPLETE PRODUCT INFORMATION / 01

Honeywell CC-PDIL01 51405040-175

32-channel 24 VDC digital input module

Product role	Exact-model source
Acquires thirty-two 24 VDC discrete field states for an Experion Series C I/O position while applying optical isolation, diagnostics and open-wire status handling.	Honeywell Experion Series-C I/O Specification EP03-490-520, Version 1.5, Dec 2021, section 5.12, PDF page 29
System boundary	**Acceptance principle**
CC-TDIL01, CC-TDIL11, CC-GDIL11, CC-GDIL21, CC-GDIL01 and CC-SDXX01 are listed IOTA arrangements for CC-PDIL01 in the source specification.	Verify every used channel in the installed hardware, wiring and project configuration before service.

FUNCTIONAL PATH

24 VDC FIELD STATE	IOTA	CC-PDIL01	EXPERION
Documented contact or device	Termination and field power	32 isolated discrete inputs	Configured state and diagnostics

VERIFIED SNAPSHOT

Parameter	Verified value
Input / output model	CC-PDIL01 - 24Volt Digital Input
Input channels	32
DI power voltage range	18 to 30 VDC
ON sense	13 VDC minimum or 3 mA minimum
OFF sense	5 VDC maximum or 1.2 mA maximum
Input impedance	4.2 kOhm

ENGINEERING DATA / 02

Exact-model technical matrix

Only values explicitly supported by the cited Honeywell source are presented as specifications.

Parameter	Verified value
Input / output model	CC-PDIL01 - 24Volt Digital Input
Input channels	32
DI power voltage range	18 to 30 VDC
ON sense	13 VDC minimum or 3 mA minimum
OFF sense	5 VDC maximum or 1.2 mA maximum

Parameter	Verified value
Input impedance	4.2 kOhm
Isolation	1500 VAC RMS or +/-1500 VDC; optical in the IOM
Input-filter and isolation delay	5 ms +/-20%
Guaranteed ON field resistance	300 Ohm maximum at 15 VDC
Guaranteed OFF field resistance	30 kOhm minimum at 30 VDC

PRODUCT CHARACTERISTICS

Thirty-two inputs	Open-wire handling	Power flexibility	Configuration options
Consolidates 32 discrete channels in one Series C input module.	Detects and annunciates an open field wire and marks the affected process value invalid.	Supports internal or external field power selection and onboard excitation power.	Supports optional redundancy and direct or reverse input indication.

SYSTEM-IDENTITY CHECK

Identity field	Recorded value
Manufacturer	Honeywell
Complete product identity	CC-PDIL01 51405040-175
Function	32-channel 24 VDC digital input module
Controlled source	Honeywell Experion Series-C I/O Specification EP03-490-520, Version 1.5, Dec 2021, section 5.12, PDF page 29

BOUNDARY NOTE

Installation-specific sensor, terminal, rack, revision and configuration details must come from the installed nameplate, controlled drawings and current project database; they are not inferred from a nearby model.

APPLICATION & INTEGRATION / 03

Documented use and engineering context

Applications describe the module role without implying an unverified substitute or end-use certification.

Discrete equipment status Acquires 24 VDC on/off states from engineered field circuits.	**Alarm and interlock inputs** Feeds documented discrete conditions into the configured control strategy.
Series C cabinet renewal Supports controlled replacement of an existing CC-PDIL01 position.	**Redundant input positions** Can be used where the approved IOTA and project configuration implement redundancy.

INTEGRATION CHECKS

Hardware identity	Configuration identity	Field identity	Functional identity
Match complete model, item marking, physical interface and installed position.	Match channel allocation, expected state or range, diagnostics and control references.	Match terminal, conductor, device tag, common/reference and energy source.	Prove the correct controller indication, alarm, trend or control response.

CHANGE-CONTROL FLOW

AS-FOUND	REVIEW	INSTALL	TEST	RELEASE
Capture identity and wiring	Compare controlled records	Preserve interfaces	Stimulate every used channel	Retain signed evidence

APPLICATION RELEASE QUESTION

Does the installed product identity, channel assignment and verified field response match the controlled design with no unresolved diagnostic or documentation differences?

FAQ & PRECAUTIONS / 04

Engineering questions and release limits

The FAQ and precautions keep factual product data separate from installation checks.

How many discrete inputs does Honeywell CC-PDIL01 51405040-175 provide?

Honeywell CC-PDIL01 51405040-175 provides 32 discrete input channels.

What field-power range applies to Honeywell CC-PDIL01 51405040-175?

The documented digital-input power range is 18 to 30 VDC.

What ON threshold should be checked for Honeywell CC-PDIL01 51405040-175?

An input is in the documented ON region at 13 VDC minimum or 3 mA minimum.

What OFF threshold should be checked for Honeywell CC-PDIL01 51405040-175?

The documented OFF threshold is 5 VDC maximum or 1.2 mA maximum.

How is Honeywell CC-PDIL01 51405040-175 isolated?

The module uses optical isolation in the IOM and is rated at 1500 VAC RMS or plus/minus 1500 VDC from an input terminal to common.

What does the open-wire function do on Honeywell CC-PDIL01 51405040-175?

It detects and annunciates an open field wire and marks the affected process value invalid so it is not treated as a valid field state.

Which IOTA arrangement must be verified for Honeywell CC-PDIL01 51405040-175?

Match the installed position to the exact project drawing and one of the CC-PDIL01 IOTA arrangements listed in the Series C specification.

How should Honeywell CC-PDIL01 51405040-175 be commissioned?

Verify field power, command or stimulate each used input, confirm the channel state and diagnostic status, and retain the results before return to service.

EIGHT PRODUCT PRECAUTIONS

1

Verify CC-PDIL01 and the complete 51405040-175 item identity before work.

2

Confirm the assigned Series C IOTA model and whether the position is nonredundant or redundant.

3

Isolate applicable field energy and apply approved ESD controls before module handling.

4

Record all 32 channel assignments, field-power selection and direct/reverse settings.

5

Keep the DI power supply within the documented 18 to 30 VDC range.

6

Check ON and OFF states against the documented voltage/current thresholds.

7

Investigate an open-wire diagnostic before accepting the associated process value.

8

Commission every used channel from field contact through controller indication before service.

TRACEABILITY & SUPPORT / 05

Source, handover and related portfolio

Related links are Apter Power catalog references only and do not imply compatibility or substitution.

Traceability field	Recorded value
Manufacturer	Honeywell
Exact model	CC-PDIL01 51405040-175
Primary source	Honeywell Experion Series-C I/O Specification EP03-490-520, Version 1.5, Dec 2021, section 5.12, PDF page 29
Specification policy	Only exact-model statements supported by the cited source are represented as technical data.
Installation policy	Verify the installed hardware, project drawings and controller configuration before work.

RELATED HONEYWELL PRODUCTS

Honeywell CC-TAID11	Redundant Series C analog-input IOTA
Honeywell 51198685-100 SPS5710-2-LF	Series C power-supply listing
Honeywell 10024/I/F	FSC communication-module listing
Honeywell 10105/2/1	FSC analog-input module listing

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Honeywell CC-PDIL01
51405040-175