General Electric 8121-DI-DC-01

Complete Product Information

8121-DI-DC-01 is a 16-channel, 24 Vdc non-isolated PAC8000 discrete input module for dry-contact status collection and pulse counting. The complete -01 suffix remains the offered identity while electrical values are applied from the published 8121-DI-DC base module.

01 Product identity and verified data

Complete model	8121-DI-DC-01
Product type	PAC8000 16-Channel DC Discrete Input Module
Manufacturer	General Electric
Technical source	GE Intelligent Platforms PAC8000 8121-DI-DC datasheet
Input channels	16
Nominal field voltage	24 Vdc
Input isolation	Non-isolated; returns commoned internally
OFF-state threshold	Less than 0.3 mA
ON-state threshold	Greater than 1.2 mA
Typical wetting current	2.8 mA
Minimum pulse width	5 ms
Maximum count frequency	100 Hz without debounce

Engineering purpose

The module sources wetting current to field contacts and returns sixteen input states, optional counts and filtered transitions through the PAC8000 Railbus.

Selected order-code snapshot

Input structure	Sixteen 24 Vdc dry-contact channels with internally commoned returns
Event handling	5 ms minimum pulse, up to 100 Hz counting and 0-512 ms configurable filtering
Installation identity	E1-keyed module used with the 8617-FT-NI terminal unit

02 Technical capability and engineering overview

Configurable filter	0 to 512 ms in 2 ms steps
Channel-to-Railbus isolation	250 Vac
Railbus current	90 mA typical; 135 mA maximum
Field-power current	60 mA at 18 to 30 Vdc

Module key	E1
Published module width	42 mm
Published unit weight	210 g
Terminal unit	8617-FT-NI

Evidence boundary

The public datasheet defines the 8121-DI-DC base module; -01 is retained as the complete offered marking and is not assigned unsupported option meanings.

Engineering overview

Each field contact is monitored with module-provided wetting current. Because channel returns are commoned internally, the module must not be used where channel-to-channel galvanic isolation is required.

Pulse counting is available only when the input filter and debounce settings preserve the event width. The published 100 Hz limit assumes no debounce and a pulse width of at least 5 ms.

The E1 key and 8617-FT-NI terminal unit form the mechanical and field-wiring boundary. Record the terminal-unit identity and every channel assignment before exchange.

Application map

Dry-contact status collection

Monitor switches, auxiliary contacts and relay contacts supplied by the module's 24 Vdc wetting circuit.

Pulse accumulation

Enable counting on selected channels whose pulse width and frequency remain within 5 ms and 100 Hz.

Filtered alarm inputs

Set the 0-512 ms filter per module to reject documented contact bounce without hiding required events.

PAC8000 sequence inputs

Use the 5 ms Railbus response with the configured latch and polarity settings for plant event logic.

03 System interpretation and selection boundaries

Product boundary	Apply the listed facts to 8121-DI-DC-01 and the documented GE PAC8000 Remote I/O discrete input modules context only.
Interface boundary	Connector, terminal, bus, cable and companion-device assignments must match the installed drawing.
Electrical boundary	Use exact-model values only; system-level ratings remain conditional on the complete installed configuration.
Configuration boundary	Switches, jumpers, addresses, firmware and project settings must be reconciled before energization.
Diagnostic boundary	Interpret indicators and fault states together with measured inputs, outputs and host-system status.
Acceptance rule	Use the approved system baseline and maintenance procedure for the final as-left decision.

Installed-system context

Retain the E1 keyed slot, 8617-FT-NI terminal, 24 Vdc field power, common-return design and sixteen-channel configuration.

04 Lifecycle, offered scope and related references

Lifecycle status

Exact offered identity	The complete marking is 8121-DI-DC-01; the accessible GE datasheet is for base module 8121-DI-DC.

Evidence boundary	No electrical meaning is assigned to suffix -01 without an exact option record.
Replacement rule	Match channel count, common-return architecture, keying, terminal unit, filters and pulse functions.

Available unit details

Supply scope	One 8121-DI-DC-01 input module; 8617-FT-NI terminal unit and field wiring are separate unless quoted.
Unit evidence	Request full label, E1 key, Railbus connector and front-condition photographs.
Configuration evidence	Keep the sixteen-channel map, filter/latch/count settings and field-power drawing with the unit.

Source and applicability record

Verified source	GE Intelligent Platforms PAC8000 8121-DI-DC datasheet
Applicability boundary	The public datasheet defines the 8121-DI-DC base module; -01 is retained as the complete offered marking and is not assigned unsupported option meanings.
Product family	GE PAC8000 Remote I/O discrete input modules

Additional related product references

Related product	General Electric 531X133PRUALG1
Related product	General Electric IS420ESWBH3AX
Related product	General Electric DS200DSPCH1AEA
Related product	General Electric IS220PTURH1A

Product-specific purchasing decisions

How many inputs are provided by 8121-DI-DC-01?	The base module provides 16 discrete input channels.

Model-specific release records

Wiring record	Photograph the E1 key, terminal unit and channel wiring.
Configuration record	Export channel filters, latches, polarities and counter enables.
Test record	Record state and pulse-count results for every used channel.

Engineering contact

Discuss the exact marking and installed application with Apter Power.
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