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NI 9425

32-Channel, 24 V, 7 μ s, Sinking Digital Input Module

- 32-channel, 7 μ s sinking digital inputs
- Compatible with 12 and 24 V levels
- Industry-standard 37-pin D-Sub connector
- Hot-swappable operation
- Extreme industrial certifications/ratings
- -40 to 70 °C operating range



Overview

The National Instruments 9425 is a 32-channel, 7 μ s, sinking digital input C Series module for any NI CompactDAQ or CompactRIO chassis. Each channel is compatible with 12 and 24 V levels and features 1,000 Vrms of transient overvoltage protection from channel to earth ground. The NI 9425 contains an industry-standard 37-pin D-Sub connector for low-cost cabling to a wide variety of 37-pin accessories available from NI or other vendors. It works with industrial logic levels and signals for direct connection to a wide array of industrial switches, transducers, and other devices.

The NI 9425 is a static digital module, so you can use it only to perform software-timed or static operations when installed in an NI CompactDAQ chassis. The NI 9933 (or other 37-pin D-Sub connector) is required for use with the NI 9425. The NI 9933 includes a screw-terminal connector with strain relief as well as a D-Sub solder cup backshell for creating custom cable assemblies.

Specifications

Specifications Documents

- Specifications
- Data Sheet

Specifications Summary

General

Product Name	NI 9425
Product Family	Industrial I/O
Form Factor	CompactDAQ , CompactRIO
Part Number	779139-01 , 780176-01
Operating System/Target	Real-Time , Windows
Measurement Type	Digital

Isolation Type	Ch-Earth Ground Isolation
RoHS Compliant	Yes
Analog Input	
Channels	0
Single-Ended Channels	0
Differential Channels	0
Analog Output	
Channels	0
Digital I/O	
Bidirectional Channels	0
Input-Only Channels	32
Output-Only Channels	0
Timing	Software
Maximum Clock Rate	140 kHz
Logic Levels	12 V , 24 V
Input Current Flow	Sinking
Supports Handshaking I/O?	No
Supports Pattern I/O?	Yes
Maximum Input Range	0 V , 24 V
Counter/Timers	
Counters	0
Physical Specifications	
Length	9 cm
Width	2.3 cm
I/O Connector	37-pin D-Sub
Minimum Operating Temperature	-40 °C
Maximum Operating Temperature	70 °C
Minimum Storage Temperature	-40 °C
Maximum Storage Temperature	85 °C

Triggering	Digital
Triggers cDAQ Chassis	Yes

Services

System Assurance Programs

Reduce your setup time and total cost of ownership, and get a system you can use out of the box with National Instruments system assurance programs. System assurance programs include:

- Installation and integration test of all individual hardware
- Courtesy installation of system driver sets and application development environments
- Extended warranty and calibration coverage for up to five years
- Custom documentation plus a custom restore and startup utility

This service is only available for PXI, NI CompactRIO, and NI Compact FieldPoint systems.

- [Learn More about System Configuration and Deployment Services](http://www.ni.com/services/configuration.htm) [http://www.ni.com/services/configuration.htm]
- [Customize Your CompactRIO System](http://ohm.ni.com/advisors/crio) [http://ohm.ni.com/advisors/crio]
- [Customize Your Compact FieldPoint System](http://ohm.ni.com/advisors/cfp) [http://ohm.ni.com/advisors/cfp]
- [Customize Your PXI System](http://ohm.ni.com/advisors/pxi) [http://ohm.ni.com/advisors/pxi]
- [Talk to an Expert about Custom System Configurations](#) [javascript:openCallMeWindowCTA(document.referrer,%20'US')]

Extended Warranties

National Instruments designs and manufactures all products to minimize failures, however unexpected failures can still occur. Extended warranties provide a fixed economical price at the time of system purchase, covering any repair costs for up to three years. In addition, they offer the following benefits:

- Significant cost savings compared to individual repair incidents
- Fault location, diagnostics, and repair by NI any time the system product fails
- All parts and labor costs covered as well as any adjustments needed to restore the hardware to manufacturing specifications

For more information about your warranty options:

- [Learn More about Warranty Services](http://www.ni.com/services/warranty.htm) [http://www.ni.com/services/warranty.htm]
- [Talk to an Expert about Extended Warranties](#) [javascript:openCallMeWindowCTA(document.referrer,%20'US')]
- [View Warranty Repair Policies](http://www.ni.com/services/warranty_repair_policies.htm) [http://www.ni.com/services/warranty_repair_policies.htm]

Calibration

NI recognizes the need to maintain properly calibrated devices for high-accuracy measurements. NI provides manual calibration procedures, services to recalibrate your products, and automated calibration software to calibrate many NI measurement products.

- [Learn More about Calibration Services](http://www.ni.com/services/calibration.htm) [http://www.ni.com/services/calibration.htm]

Training

NI training is the fastest, most certain route to productivity with NI tools and successful application development.

- [Learn More about NI Training and Certification](http://www.ni.com/training/) [http://www.ni.com/training/]
- [Find a Course Near You and View Schedules](http://sine.ni.com/tacs/app/fp/p/ap/ov/pg/1/) [http://sine.ni.com/tacs/app/fp/p/ap/ov/pg/1/]

Repair Services

Return your registered product under warranty at no additional labor and parts cost. NI offers fault location,

diagnostics, and repair any time the system fails as well as any adjustments needed to restore the hardware to manufacturing specifications.

- Learn More about Repair Services [<http://www.ni.com/services/warranty.htm>]
- Contact NI to Obtain a Return Material Authorization (RMA) Form and Shipping Instructions [http://sine.ni.com/apps/utf8/nicc.call_me]
- View Your RMA Support Request Status Online [<http://www.ni.com/support/servicereq/>]
- Register Your Product [<http://www.ni.com/register>]

Technical Support

[ni.com/support](http://www.ni.com/support) [<http://www.ni.com/support/>]