



Reliance Electric 57C421

DCS 5000 / AutoMax Pulsetach Input Module

Product scope

- Accepts one high-speed pulsetach input at up to 125 kHz.
- Supports differential, open-collector, emitter-follower or single-ended signals.
- Conditions and isolates the pulse path before backplane processing.
- Supports speed, count and synchronization functions in AutoMax applications.

Manufacturer source

Rockwell Automation / Reliance Electric DCS-5000/AutoMax Pulsetach Input Module M/N 57C421, AMAX-IN255.

The enclosed record and retained manufacturer pages identify the exact product and explain its function, operating principle, application and critical matching requirements.

Request a fast quote	Product reference	
Email: info@apterpower.com Phone: +86 18106909650 apter.com/inquiry.php	Reliance Electric 57C421	

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Reliance Electric 57C421

DCS 5000 / AutoMax Pulsetach Input Module

Manufacturer-source product record

This record consolidates exact-model facts from the manufacturer references listed below. It is included to identify the ordering configuration before the retained source pages.

Input channels	1
Supported input forms	Differential, emitter-follower, open-collector or single-ended
Input level	TTL to 13.2 V DC maximum
Maximum frequency	125 kHz
Combined filter cutoff	250 kHz
Maximum cable length	600 ft / 180 m
Isolation	2500 V AC RMS
Backplane power	+5 V at 900 mA
Dimensions and weight	11.75 x 1.25 x 7.37 in; 0.815 kg

Official references

- Rockwell Automation / Reliance Electric DCS-5000/AutoMax Pulsetach Input Module M/N 57C421, AMAX-IN255.
- Official source: https://literature.rockwellautomation.com/idc/groups/literature/documents/in/amax-in255_-en-p.pdf

Only the exact configuration shown above is represented. Adjacent model variants, optional assemblies and system accessories are not treated as part of this ordering identity.

Function, operating principle and application

The notes below explain how this product is used and how its documented signal, power or control path operates. They remain limited to the manufacturer evidence for this model.

Purpose

The module accepts a high-speed pulse-train from a tachometer or compatible position sensor so the AutoMax control system can determine machine speed or position-related events.

Operating principle

Input conditioning accepts several electrical sensor forms, applies isolation and filtering, and presents the pulse information to the controller. Frequency is proportional to shaft or machine speed according to the installed transducer pulse count.

Signal integrity

The differential option supports stronger noise rejection over the documented cable distance. Single-ended or open-collector circuits require the correct bias, reference and grounding arrangement.

Control application

Typical tasks include rotating-speed feedback, pulse counting, line synchronization and supervisory monitoring in coordinated drive or machine-control systems.

Selection caution

Confirm sensor output type, voltage, maximum frequency, cable shielding and pulse-per-revolution value before replacement. Mechanical speed limits are determined by the connected transducer and application.

DCS-5000/AutoMax™ Pulsetach Input Module (M/N 57C421)

Module Specifications

Model number 57C421 contains one (1) Pulsetach Input Module.

Ambient Conditions

- Operating Temperature (at the module): 32° to 140°F (0° to 60°C)
- Storage Temperature: -40° to 185°F (-40° to 85°C)
- Humidity: 5-90% (Non-Condensing)

Dimensions

- Height: 11.75 inches (29.8 cm)
- Width: 1.25 inches (3.2 cm)
- Depth: 7.37 inches (18.7 cm)
- Weight: 1 pound, 13 ounces (0.815 kilograms)

Maximum Module Power Dissipation

- 5.4 watts

Module Power Requirements

- Backplane: 5 volts x 900 mA = 4.5 watts
- Pulsetach Power Supply: (12 volts x 10 mA x 3) + (12 volts x 15 mA x 3) = 0.9 watts

Pulse Input Specifications

- Input Channel: 1
- Type of Input: Differential, Emitter-Follower, Open-Collector, or Single-Ended
- Voltage Level: TTL to Maximum 13.2 VDC
- Minimum Input Current: 5 mA
- Rated Input Current: 10 mA @ 4.0 VDC
- Isolation: 2500 VAC (rms)
- Digital and Analog Filter Combined: Cut-off Frequency 250 kHz
- Maximum Wire Length: 600 feet (180 meters)
- Maximum Input Frequency: 125 kHz

Industrial CONTROLS

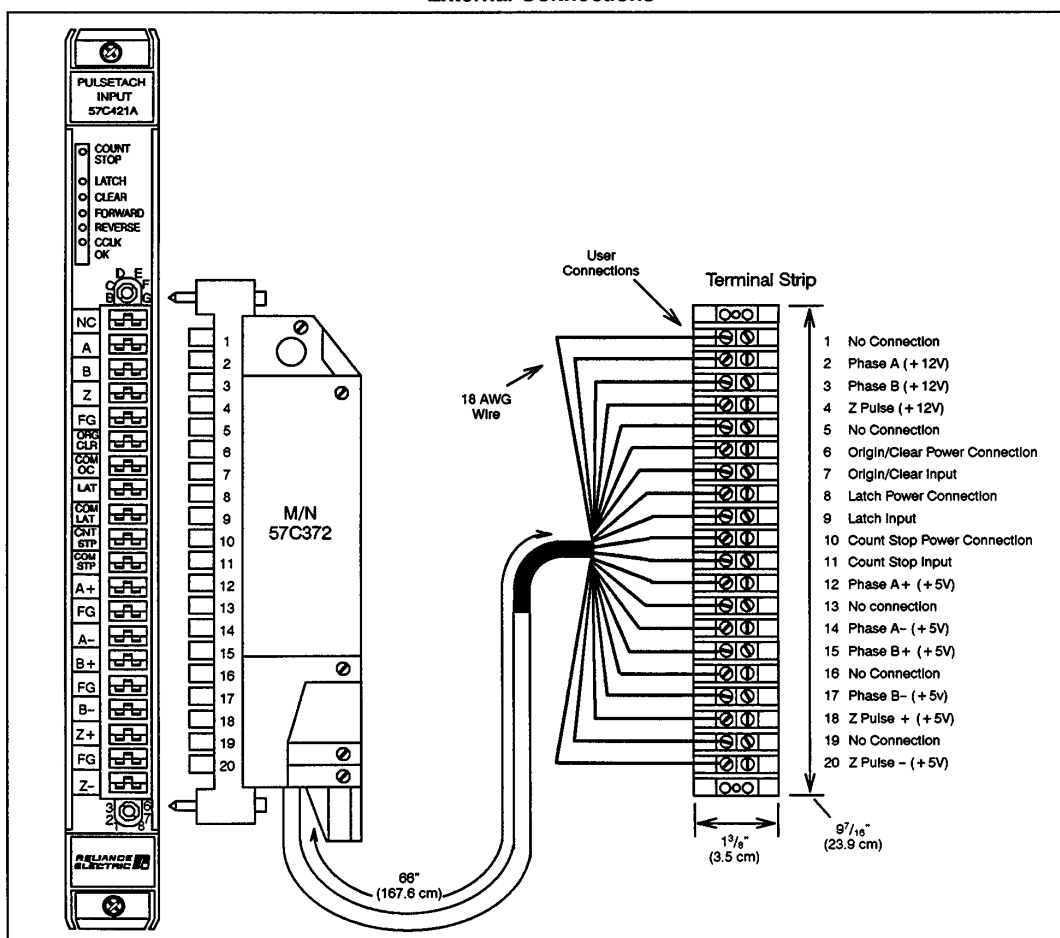
J-3749

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Control Signal Specifications

- Type of Input: Current Sink or Source
- Voltage Level: 5 VDC or 12 VDC
- Nominal On-State Current: 10 mA
- Maximum Input Frequency: 150 kHz
- Isolation: 2500 VAC (rms)
- Digital and Analog Filter Combined: Cut-off Frequency 250 kHz
- Maximum Wire Length: 600 feet (180 meters)

External Connections



This material is not intended to provide operating instructions. The appropriate Reliance Electric Company instruction manuals and precautions should be studied prior to installation, operation, or maintenance of this equipment.

For additional information please refer to the DCS 5000/AutoMax Pulsetach Input Module Instruction Manual, J-3680.

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