Motorola FRN1420A

Installation & Commissioning | field workflow

Use this guide to prepare, fit, test and document the offered FRN1420A within its actual installed system.

Exact offered identity	FRN1420A
Engineering role	MOSCAD Sixteen-Channel Digital Input Module
Installed-system reference	Motorola MOSCAD RTU digital input platform

Before work starts

The Motorola price book identifies exact FRN1420A as a 16-discrete-input MOSCAD module. The related Motorola 16DI specification uses base field-install code FRN1420; detailed functions are stated as platform-family information pending the installed A-suffix revision.

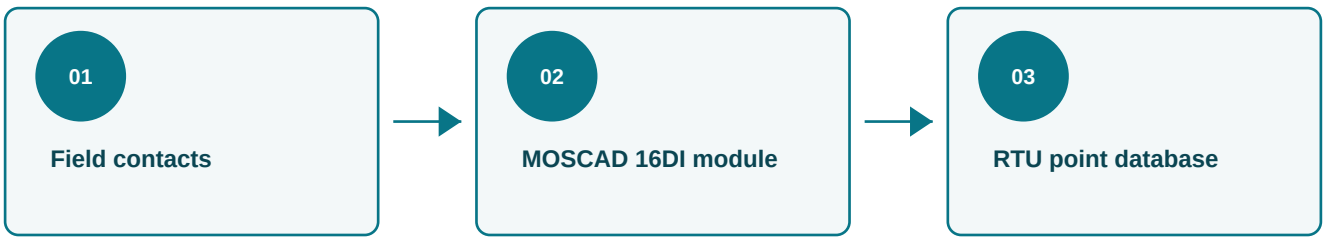
Record first

Send the complete FRN1420A marking, installed revision, quantity and system configuration with your enquiry.

Work package

Exact catalog identity	16 discrete input module for MOSCAD
Input purpose	Dry-contact status sensing in 16DI family
Counter capability	Two dedicated high-speed inputs in 16DI family
Low-speed count	Application-controlled use of digital inputs in 16DI family

Engineering path



02 Pre-installation readiness

STEP	ACTION	ACCEPTANCE
01	Power isolation	De-energize the RTU and isolate field circuits before removing the module.
02	Revision match	Compare the A-suffix label, connector layout and motherboard position with the installed unit.
03	Dry-contact boundary	Verify each field device presents the specified contact interface rather than an unapproved powered signal.
04	Common wiring	Trace input commons and removable terminal blocks before moving conductors.

Companion and host check

Confirm the complete FRN1420A marking, terminal block and RTU motherboard compatibility in the offer; field contacts and application program are separate.

03 Fit and interface

Equipment status

Map switches or relay contacts to the RTU point database for operating-state monitoring.

Alarm detection

Use contact changes as application inputs for approved alarm or interlock logic.

Event history

Where the RTU configuration supports it, record time-tagged input changes for sequence review.

Pulse count duties

Apply supported counter channels only after confirming the exact A-suffix module and field pulse characteristics.

A-suffix identity

FRN1420A is the exact catalog code. Confirm its physical revision and terminal arrangement before applying base FRN1420 wiring details.

04 Commission and prove

STEP	ACTION	ACCEPTANCE
01	Point database	Preserve channel mapping, alarm rules and counter/time-tag options in the RTU program.
02	Channel proof	Exercise every used contact, observe local indication and verify the corresponding host point and event behavior.

STEP	ACTION	ACCEPTANCE
03	Record the functional result	Operate each used field contact and confirm the matching RTU point, alarm or counter event; record the channel-by-channel result against the original schedule.

Signal type

The 16DI family senses contact closure states; it does not source an analog measurement or drive an output load.

05 Handover record

Log the fitted marking, firmware or board revision, wiring changes and measured acceptance results.

Diagnostic decisions

When may FRN1420A be used for pulse counting?	The related 16DI platform supports counter functions, but the exact A-suffix hardware and RTU program must be checked against pulse rate and channel wiring first.
How does time tagging on FRN1420A depend on the RTU?	Event time meaning comes from the related 16DI module capability together with CPU and application setup. Confirm clock synchronization and recorded event sequence in the installed system.
How can a stuck input on FRN1420A be isolated?	Test the field contact and common path, then compare local indication with the CPU point state to separate wiring, module and program faults.
What verifies FRN1420A after replacement?	Operate each used field contact and confirm the matching RTU point, alarm or counter event; record the channel-by-channel result against the original schedule.

Discuss the complete model and fitted revision with Apter Power.
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Technical basis: Motorola MOSCAD 16DI Digital Input Module specification, R3-11-83; Motorola 2005 U.S. Price Book, FRN1420A entry