

1MRK000508-BDR06

Relion 670 Series Binary Input Module

INSTALLATION, INTERFACE AND VALIDATION WORKBOOK

ABB 1MRK000508-BDR06 is a Relion 670 Series binary input module based on the documented 1MRK000508-BD sixteen-input execution. It acquires station binary signals for the installed protection and control IED.

STEP	GATE	ENGINEERING PURPOSE
01	IDENTIFY	Confirm article, host and hardware
02	ISOLATE	Secure power and stored energy
03	CONNECT	Restore documented interfaces
04	VALIDATE	Prove diagnostics and function

WORKBOOK PURPOSE

Field-ready identity, isolation, connection, commissioning and closeout records for this exact ABB article.

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1MRK000508-BDR06

Installation Readiness Gate

Complete the identity, host-system and isolation checks before disturbing the installed hardware.

- 1

Confirm ABB 1MRK000508-BDR06 and base ordering number 1MRK000508-BD.
- 2

Place the protected equipment and IED logic in the approved maintenance state.
- 3

Isolate every connected binary-input circuit and apply ESD controls.
- 4

Record all sixteen channel assignments, terminal labels, commons and input-voltage class.

Pre-Work Evidence

EVIDENCE ITEM	RECORDED VALUE
Complete article marking	1MRK000508-BDR06
Host / carrier	ABB Relion 670 protection and control IED
Primary system role	Acquires sixteen documented binary inputs
Acceptance boundary	Simulate every assigned input and confirm the intended logic response before release.
Source record	Relion 670 Series product guide and hardware ordering information

WORK AUTHORIZATION RECORD

Work order: _____ Drawing / revision: _____
Checked by: _____ Date: _____

Isolation and Access Register

CONTROL POINT	ENGINEER RECORD
Incoming supply	Isolated / proved
Stored energy	Discharged / proved
Field connections	Identified / protected
ESD control	Established / recorded

Pre-Work Documentation

DOCUMENT	ENGINEER RECORD
Connection photograph	Reference / file
Configuration backup	Reference / revision
Diagnostic baseline	Reference / result

Connection and Installation Sequence

INSTALLATION PRINCIPLE

Record all sixteen input assignments, terminal labels, input-voltage class and IED hardware position before removing 1MRK000508-BDR06. Restore the approved input map and perform controlled channel simulation with normal IED diagnostics before enabling protection logic.

- 1 Confirm the Relion 670 slot and installed terminal execution.
- 2 Restore the approved channel map and IED hardware configuration.
- 3 Review module recognition, input states, sequence-of-event indications and self-supervision.
- 4 Simulate every assigned input and confirm the intended logic response before release.

Connection Record

CONNECTION GROUP	AS-FOUND / AS-LEFT RECORD	STATUS
Power / field connection	Reference / terminal	Checked
Signal / interface	Reference / connector	Checked
Ground / shield	Reference / point	Checked
Accessory / carrier	Reference / part	Checked

MODEL-SPECIFIC RELEASE LIMIT

Confirm ABB 1MRK000508-BDR06, base order 1MRK000508-BD, Relion 670 host, sixteen-channel map, input-voltage class, terminals, commons, grounding, IED configuration and point-test results before commissioning.

Interface Acceptance Criteria

ACCEPTANCE ITEM	REQUIRED EVIDENCE
Identity	1MRK000508-BDR06
Host match	ABB Relion 670 protection and control IED
Connection proof	Restore the approved channel map and IED hardware configuration.
Configuration proof	Review module recognition, input states, sequence-of-event indications and self-supervision.

Commissioning and Acceptance Record

Record each controlled verification step before the equipment returns to automatic operation.

NO.	ACCEPTANCE CHECK	RESULT	RECORD
1	Article and host identity	PASS / FAIL	Initial / date
2	Mechanical installation	PASS / FAIL	Initial / date
3	Power and field wiring	PASS / FAIL	Initial / date
4	Grounding and shielding	PASS / FAIL	Initial / date
5	Configuration restoration	PASS / FAIL	Initial / date
6	Signal or power-path response	PASS / FAIL	Initial / date
7	Diagnostics and alarms	PASS / FAIL	Initial / date
8	Final functional release	PASS / FAIL	Initial / date

Engineering Notes

RECORD AREA	ENGINEER ENTRY
As-found condition	
Corrective action	
As-left configuration	
Outstanding restriction	
Release authorization	

CONTROLLED COMMISSIONING

Simulate every assigned input and confirm the intended logic response before release.

Diagnostics and Release Log

EVENT	ENGINEERING RECORD
Initial energization	Result / observation
Interface or signal response	Result / observation
Alarm and diagnostic review	Result / observation
Functional release	Name / date

ACCEPTANCE AND RELEASE EVIDENCE

Breaker-status acquisition

Brings documented auxiliary-contact states into the protection IED.

Protection interlocking

Acquires binary permissive and blocking signals in the approved logic.

Alarm and indication input

Transfers station equipment states to IED supervision functions.

IED hardware replacement

Restores the exact input-module execution with a verified channel map.

Maintenance Verification and Closeout

Breaker-status acquisition

Brings documented auxiliary-contact states into the protection IED.

Protection interlocking

Acquires binary permissive and blocking signals in the approved logic.

Alarm and indication input

Transfers station equipment states to IED supervision functions.

IED hardware replacement

Restores the exact input-module execution with a verified channel map.

Related Engineering Pages

MODEL	ENGINEERING ROLE	APTER POWER PAGE
ABB DSDX180-3BSE003859R1-VERIFICATION	Related Apter Power product	View ABB DSDX180-3BSE003859R1-VERIFICATION page
ABB DSDO110-57160001-K	Related Apter Power product	View ABB DSDO110-57160001-K page
ABB DSDI131-57160001-GV-VERIFICATION	Related Apter Power product	View ABB DSDI131-57160001-GV-VERIFICATION page
ABB DSDI130-57160001-AA-VERIFICATION	Related Apter Power product	View ABB DSDI130-57160001-AA-VERIFICATION page
ABB DSDI110A-57160001-AAA	Related Apter Power product	View ABB DSDI110A-57160001-AAA page
ABB DSDC110B-57310001-FT-VERIFICATION	Related Apter Power product	View ABB DSDC110B-57310001-FT-VERIFICATION page
ABB DSCA160A-IDENTITY-VERIFICATION	Related Apter Power product	View ABB DSCA160A-IDENTITY-VERIFICATION page
ABB DSCA125A-57520001-CY-VERIFICATION	Related Apter Power product	View ABB DSCA125A-57520001-CY-VERIFICATION page

MANUFACTURER SOURCE RECORD

Relion 670 Series product guide and hardware ordering information
Hitachi Energy Relion 670 Series

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