

Siemens 6ED1052-2FB08-0BA2

01 Product architecture

Product role

Siemens 6ED1052-2FB08-0BA2 provides eight digital inputs and four relay outputs in a LOGO! 230RCEo logic module without an integral display. Its supply options include 115/230 V AC or DC.

Operating context

The eight-input/four-relay arrangement suits compact switching sequences. The 400-block capacity describes program resources; it is not a count of physical terminals. Time-switching functions share the function-specific program capacity. Ethernet, web pages and MQTT extend access to the application without increasing the four physical relay outputs.

Function map

01	8 digital inputs
02	400-block logic
03	4 relay outputs
04	External load circuits

Key capabilities

Capability 1 Stores a control program of up to 400 function blocks.	Capability 2 Provides an Ethernet connection and an integrated web server.
Capability 3 Supports data logging and user-defined web pages.	Capability 4 Includes cloud connectivity and MQTT in the LOGO! 8.4 platform.

System integration

A standard microSD card supports the memory workflow, while LOGO! Soft Comfort V8.4 or later provides the engineering environment. Earlier projects remain executable, allowing existing logic to be carried forward after the application has been checked.



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02 Technical data and interfaces

Principal technical data

Parameter	Value
Digital inputs	8
Relay outputs	4
Program capacity	400 function blocks
Nominal AC supply	115 / 230 V AC
DC supply range	100-253 V DC
AC frequency	47-63 Hz
Resistive contact load	10 A maximum
Inductive contact load	3 A maximum
Clock power reserve	480 h
Operating temperature	-20 to +55 °C; non-condensing
Engineering software	LOGO! Soft Comfort V8.4 or later
Network interface	Ethernet

Additional engineering data

Item	Value or condition
Storage temperature	-40 to +70 °C
Time-switching capacity	Up to 400; function-specific
Radio interference	EN 55011, Class B
Programming standard	IEC 61131
Supply frequency	47-63 Hz
Memory medium	Standard microSD card

How to apply these data

Load assessment comes before program testing. A relay can be commanded correctly while its connected circuit is unsuitable for the contact rating. Keep the 10 A resistive and 3 A inductive limits distinct and provide external fusing. The module supply and independently powered relay circuits must both be included in the isolation plan.



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03 Integration and application

Interface map

Interface	Purpose	Engineering note
Discrete inputs	Eight input states enter the application logic.	Check each physical input against its assigned program function.
Relay contacts	Four outputs switch the connected load circuits.	A resistive load and an inductive load have different permissible current.
Ethernet	Web visualization and application communication.	A network link does not demonstrate a correct switching sequence.
microSD	Memory workflow for the controller.	Retain the intended project revision before exchanging media.

Application contexts

Timed switching Use timer and logic blocks for scheduled lighting or ventilation sequences.	Machine auxiliaries Combine discrete permissives and relay-controlled auxiliary loads.
Local web visualization Present application values through user-defined pages on the integrated server.	Data collection Record operating variables and exchange application data over MQTT.

Integration constraint

Check relay-load type before assigning circuit protection. A controller supply isolation point may leave externally fed relay contacts energized.

Commissioning record

Retain the final LOGO! Soft Comfort project, software version, I/O allocation, timer settings and network configuration. Separate the successful local logic test from successful web and MQTT tests so that a later communications problem does not obscure the condition of the switching function.



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04 Engineering decisions

Diagnostic decisions

Relay circuit trips

Check load type, connected current and external protection. Do not increase a protective-device rating simply to stop tripping.

Correct logic, wrong load action

Compare output assignment with the actual relay wiring. Verify the final load response with the application held in a controlled state.

Web page available, local function wrong

Test the discrete input and relay path separately. Web-server accessibility is independent of a successful process test.

Clock changed after an outage

Review outage duration and time settings. The time-switching clock has 480 h reserve.

Product precautions

01

Isolate the module supply and independently powered relay circuits before wiring.

02

Use the supply variant and voltage indicated for this 230RCEo model.

03

Fit external fusing because the relay outputs have no internal short-circuit protection.

04

Keep resistive switching loads within the 10 A contact limit.

05

Limit inductive contact loading to 3 A and evaluate the load switching characteristics.

06

Operate only within -20 to +55 °C without condensation.

07

Use LOGO! Soft Comfort V8.4 or later when preparing the project.

08

Test each input, relay action and required network function before enabling automatic operation.

Important notice

Check the response of the automatic sequence to a supply interruption before handing control back to the operator.



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05 Questions and functional acceptance

Product-specific engineering questions (continued)

Which software version can engineer Siemens 6ED1052-2FB08-0BA2?

LOGO! Soft Comfort V8.4 or later is required; projects from earlier versions remain executable.

What temperature conditions suit Siemens 6ED1052-2FB08-0BA2?

The operating range is -20 to +55 °C in non-condensing conditions.

Product-specific engineering questions (continued)

Is MQTT available on Siemens 6ED1052-2FB08-0BA2?

Yes. MQTT and cloud connectivity are included in the LOGO! 8.4 basic unit.

Related catalogue pages

Siemens 6ED1052-1FB00-0BA6

Siemens 6ED1052-1HB08-0BA1

Product-specific engineering questions

Can Siemens 6ED1052-2FB08-0BA2 switch a motor load at the same current as a heater?

No. The relay contact limit is 3 A for inductive loads and 10 A for resistive loads, so the load type changes the permissible current.

Why do relay circuits on Siemens 6ED1052-2FB08-0BA2 need separate fuses?

The relay outputs do not include short-circuit protection, so external fusing is required for the connected circuits.

Product-specific engineering questions (continued)

How long can the clock in Siemens 6ED1052-2FB08-0BA2 retain its time after supply loss?

The time-switching clock has a power reserve of 480 hours.

Does Siemens 6ED1052-2FB08-0BA2 need a local screen for web-based visualization?

No. This display-free module includes a web server and supports user-defined web pages accessed over Ethernet.

Technical basis

Siemens data sheet, 29 April 2024, pages 1-2

