

CIB –DIN rail mounted relay outputs

Type	DI	DO	AI	AO	Comm
SA2-02M		2x			CIB
SA2-04M		4x			CIB
SA2-012M		12x			CIB

Basic features

- The modules are designed to switch independent loads by the relay contact.
- Modules SA2-02M and SA2-04M have both NO/NC contacts (NO – normally open, NC – normally closed).
- Module SA2-012M has 3 groups of relays with one common pole and NO contacts.
- Each relay output is independently addressable and controlled.
- Each relay has its own push button on the front panel. It can be used to change the status of relay contact in mode without communication on CIB.
- In mode of communication, the push buttons are evaluated by the program as independent inputs.
- Each module is available with contacts AgSb for 16 A and AgNi for 8 A of switching current.
- Status of Run/Error is indicated by the LED on the front panel.

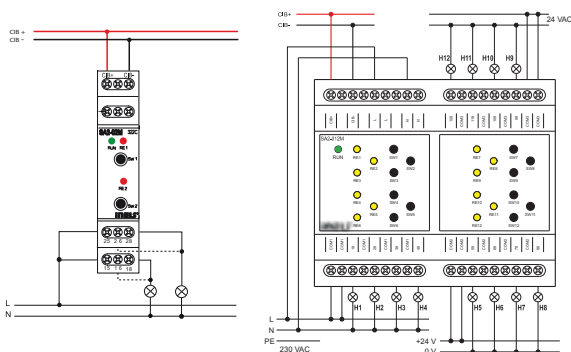
Connecting

- SA2-02M a SA2-04M are connected by two wires of CIB, which provide both the power supply and communication channel.
- SA2-012M must be connected to the power line 230 V AC to be supplied. CIB is used only for communication.
- The device is designed for mounting on the DIN rail.

Use

- The device is suitable to switch on/off the R, L, C loads.
- They are used for installations with central switchboard cabinet where all loads are connected to it in star topology.
- The care must be taken in the project and the max current and the protection of contacts for different type of loads must be taken into account.

Connection example



Binary inputs	SA2-02M	SA2-04M	SA2-012M
Type of input	2x push-button	4x push-button	12x push-button

Power supply	SA2-02M	SA2-04M	SA2-012M
Power supply	24 V (27 V) from the bus CIB	24 V (27 V) from the bus CIB	230 V AC
On board local power supply	12 V DC for sensors	12 V DC for sensors	12 V DC for sensors
Current consumption	55 mA	100 mA	50 mA

Operating conditions

Operating temperature	-20 ÷ +55 °C
Storage temperature	-30 ÷ +70 °C
Electric strength	according EN 60950
IP Degree of protection IEC EN 60529	IP 20, IP-40 in the covered cabinet
Overvoltage category	III
Degree of pollution IEC EN 61131-2	2
Working position	Any
Installation	On DIN rail
Connections	screw terminals
Conductors cross-section	max. 2,5 mm²

Relay Outputs	SA2-02M	SA2-04M	SA2-012M
No. of outputs	2x NO/NC contacts 16 A/AC1	4x NO/NC contacts 16 A/AC1	12x NO contacts 8 A/AC1
Galvanic isolation	yes	yes	yes
Switched voltage	min. 5 V DC; max. 250 V AC	min. 5 V DC; max. 250 V AC	min. 5 V DC; max. 250 V AC
Switched load	4000 VA/AC1, 384 W/DC	4000 VA/AC1, 384 W/DC	2000 VA/AC1, 240 W/DC
Peak current	30 A/ <3s	30 A/ <3s	20 A/ <3s
Time of close/open the contact	typ. 10 ms/ 4 ms	typ. 10 ms/ 4 ms	typ. 10 ms/ 4 ms
Min. switched current	100 mA	100 mA	10 mA
Switching frequency without load	max. 1200 min ⁻¹	max. 1200 min ⁻¹	max. 300 min ⁻¹
Switching frequency with rated load	max. 6 min ⁻¹	max. 6 min ⁻¹	max. 15 min ⁻¹
Mechanical lifetime at max load	30 mil. switchings	30 mil. switchings	10 mil. switchings
Electrical lifetime at max load	70 000 switchings	70 000 switchings	100 000 switchings
Short-circuit protection	None	None	None
Spike suppressor of inductive load	External RC, varistor or diode snubber	External RC, varistor or diode snubber	External RC, varistor or diode snubber
Insulation voltage between relay outputs	1000 V AC	1000 V AC	1000 V AC

Dimensions and weight	SA2-02M	SA2-04M	SA2-012M
Dimensions	90 x 18 x 65 mm	90 x 52 x 65 mm	90 x 105 x 65 mm
Weight	82 g	161 g	440 g

Teco a.s. supplies units under the name INELS

Order number

SA2-02M	SA2-02M, CIB, 2x relay contact NO/NC 16A, manual control, contact AgSnO ₂
SA2-02M/Ni	SA2-02M/Ni, CIB, 2x relay contact NO/NC 8A, manual control, contact AgNi
SA2-04M	SA2-04M, CIB, 4x relay contact NO/NC 16A, manual control, contact AgSnO ₂
SA2-04M/Ni	SA2-04M/Ni, CIB, 4x relay contact NO/NC 8A, manual control, contact AgNi
SA2-012M	SA2-012M, CIB, 12x relay contact NO 8A, manual control, contact AgSnO ₂



SA2-02M



SA2-04M



SA2-012M

SA2-01B