

32-kanalowy moduł wejść i wyjść cyfrowych

705031

Opis skrócony

32-kanalowy moduł cyfrowych wejść i wyjść (705031) jest komponentem zaawansowanego systemu automatyki JUMO variTRON.

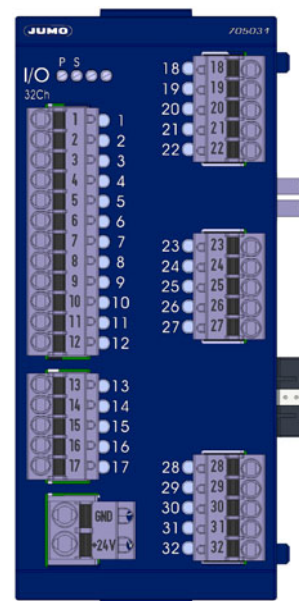
Moduł wyposażony jest w 17 stałych wyjść cyfrowych 0/24 V DC. Dzięki trzem gniazdom rozszerzeń moduł może być rozbudowany o maksymalnie dodatkowych 15 wejść lub wyjść cyfrowych w różnych kombinacjach.

Cyfrowe stany wejść są dostępne w systemie w celu dalszego przetwarzania. Wyjścia cyfrowe są sterowane przez magistralę systemową za pomocą sygnałów cyfrowych.

Prąd obciążenia ma być dostarczany przez przednie zaciski +24 V/GND. Diody LED służą do informowania o stanach zasilania i pracy modułu.

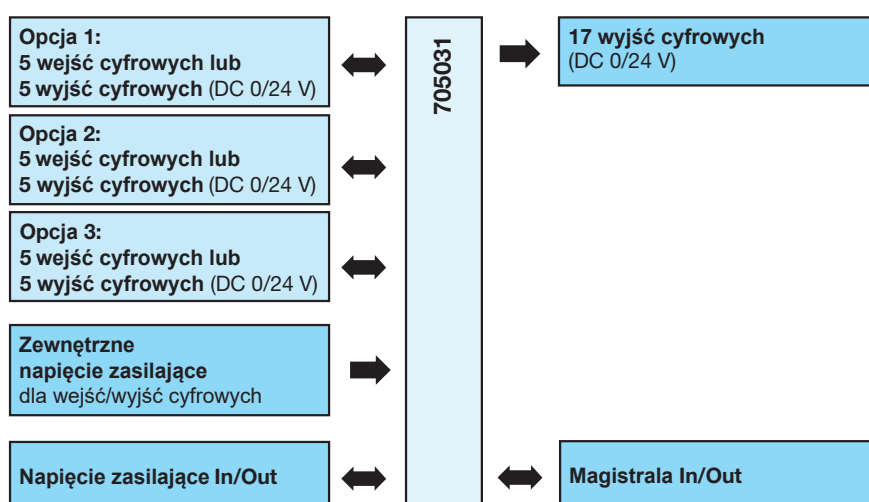
Do wygodnej konfiguracji modułu wejść/wyjść cyfrowych można wykorzystać program Setup.

Dla celów serwisowych wkład modułu można w prosty sposób wyciągnąć z obudowy od frontu. Obudowa, łącznie z płytą magistrali, pozostaje zainstalowana na szynie DIN.



Typ 705031

Schemat blokowy



Cechy

- Kompatybilny z systemem JUMO variTRON od wersji systemowej 3
- 17 wyjść cyfrowych
- Do 15 dodatkowych wejść lub wyjść cyfrowych
- Zewnętrzne napięcie zasilające dla wejść i wyjść poprzez zaciski od frontu
- Automatyczna konfiguracja po wymianie wkładki modułu (również podczas pracy)
- Podłączanie wejść i wyjść od frontu
- Demontowane listwy zaciskowe z technologią Push-In
- Szybkie okablowanie napięcia roboczego i magistrali systemowej dzięki prostej zasadzie łączenia modułów

Dopuszczenia i oznaczenia homologacji (patrz "Dane techniczne")

Technical data

Digital inputs

Quantity	Max. 15
Per optional board (expansion slots 1 to 3)	5
Input signal	DC 0/24 V (PLC level; logical "0" = -3 to +5 V; logical "1" = 15 to 30 V)
Current	Max. 5 mA per input

Digital outputs

Quantity	Max. 32
Standard version	17
Per optional board (expansion slots 1 to 3)	5
Output signal	DC 0/24 V (depending on external voltage supply)
Current per output	Max. 500 mA, short-circuit proof
Total current of all outputs	Max. 16 A
	Observe electrical data for the external voltage supply!

Electrical data

Voltage supply	For module electronics		
Connection	Lateral (supply via central processing unit or router module 705042)		
Voltage	DC 24 V +25/-20 % SELV		
Residual ripple	5 %		
Current consumption	Max. 123 mA (module electronics only; at DC 19.2 V)		
Power consumption	Max. 3 W (module electronics only)		
External voltage supply	For digital inputs/outputs		
Connection	At the front (removable terminal strip, 2-pole with Push In technology)		
Voltage	DC 24 V +25/-20 % SELV		
Residual ripple	5 %		
Admissible current	Depending on the ambient temperature and mounting distance above the module		
	At 70 mm distance:	At 35 mm distance:	
	55 °C: max. 13.0 A	55 °C: max. 10.0 A	
	54 °C: max. 13.5 A		
	51 °C: max. 14.0 A		
	48 °C: max. 14.5 A		
	45 °C: max. 15.0 A		
	42 °C: max. 15.5 A		
	≤ 40 °C: max. 16.0 A		
Inputs and outputs (terminals 1 to 32) and external voltage supply (terminals GND and +24 V)	At the front (removable terminal strips with Push In technology)		
Conductor cross section on terminals 1 to 32			
Wire or stranded wire without ferrule	Min. 0.14 mm ² , max. 1.5 mm ²		
Stranded wire with ferrule	Without plastic collar: min. 0.25 mm ² , max. 1.5 mm ² With plastic collar: min. 0.25 mm ² , max. 0.5 mm ²		
Stripping length on terminals 1 to 32	9 mm		

Conductor cross section on terminals GND and +24 V	
Wire or stranded wire without ferrule	Min. 1.5 mm ² , max. 2.5 mm ²
Stranded wire with ferrule	Min. 1.5 mm ² , max. 2.5 mm ²
2 × stranded wire with twin core-end ferrule with plastic collar	1.5 mm ²
Stripping length on terminals GND and +24 V	10 mm
Electrical safety	According to DIN EN 61010-1 Overvoltage category III, pollution degree 2
Protection rating	III
Electromagnetic compatibility	Acc. to DIN EN 61326-1
Interference emission	Class A - only for industrial use -
Interference immunity	Industrial requirement

Housing and environmental conditions

Case type	Plastic case for DIN rail mounting in the control cabinet (indoor use); DIN rail acc. to DIN EN 60715, 35 mm x 7.5 mm x 1 mm
Dimensions (W × H × D)	45 mm × 103.6 mm × 101.5 mm (without connection elements)
Weight (fully fitted)	Approx. 205 g
Protection type	IP20, according to DIN EN 60529
Ambient temperature range	-20 to +55 °C
Storage temperature range	-40 to +70 °C
Resistance to climatic conditions	Relative humidity ≤ 90 % annual average without condensation (climate class 3K3 acc. to DIN EN 60721-3-3 with extended temperature and humidity range)
Site altitude	Up to 2000 m above sea level
Vibration	Acc. to DIN EN 60068-2-6, table C.2
Amplitude	0.15 mm from 10 to 58.1 Hz
Acceleration	20 m/s ² from 58.1 to 150 Hz
Shock	Acc. to DIN EN 60068-2-27, table A.1
Peak acceleration	150 m/s ²
Shock duration	11 ms

Approvals and approval marks

Approval mark	Test facility	Certificate/certification number	Inspection basis	Valid for
c UL us	Underwriters Laboratories	E201387	UL 61010-1 (3. Ed.), CAN/CSA-22.2 No. 61010-1 (3. Ed.)	All types

Connection diagram

The connection diagram in the data sheet provides preliminary information about the connection options. For the electrical connection, only use the installation instructions or the operating manual. The knowledge and the correct technical compliance with the safety information and warnings contained in these documents are mandatory for mounting, electrical connection, and startup as well as for safety during operation.

Digital inputs

All digital inputs are optional. The connection depends on the device version.

Connection	Input	Terminals	Symbol and terminal designation
Apply signal DC 0/24 V to the terminal of the relevant input (terminal 18 to 32). Ground reference via GND terminal required!	18 to 32	18 and GND to 32 and GND	 + ————○ 18 to 32 ————○ GND - ————○
Or (alternative connection option):			
Apply the voltage DC 24 V from terminal +24 V via a potential-free contact to the terminal of the relevant input (terminal 18 to 32). External voltage supply DC 24 V required at terminals +24 V and GND!	18 to 32	18 and +24 V to 32 and +24 V	 + ————○ 18 to 32 ————○ +24 V - ————○

Digital outputs

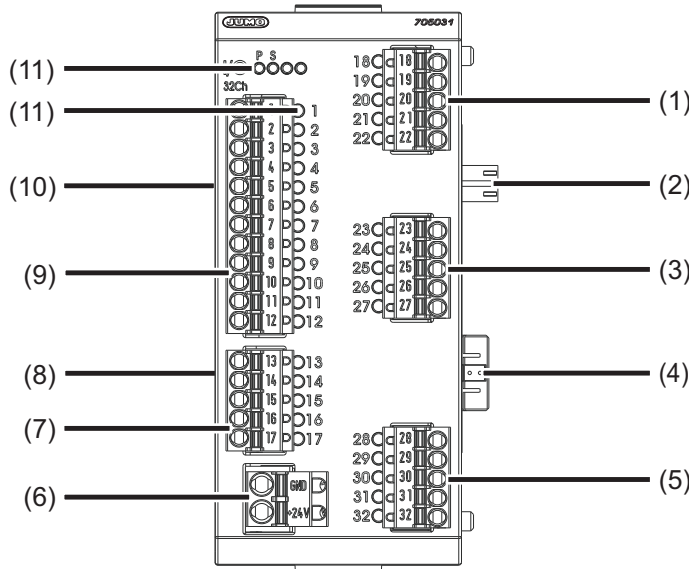
The digital outputs 1 to 17 are available by default, the digital outputs 18 to 32 are optional. The connection of the optional digital outputs depends on the device version.

Connection	Output	Terminals	Symbol and terminal designation
Output signal DC 0/24 V / max. 500 mA External voltage supply DC 24 V required at terminals +24 V and GND!	1 to 17	1 and GND to 17 and GND	 + ————○ 1 to 17 ————○ GND - ————○
	18 to 32	18 and GND to 32 and GND	 + ————○ 18 to 32 ————○ GND - ————○

External voltage supply

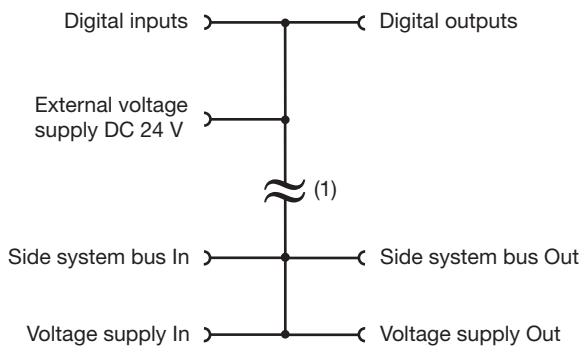
Connection	Terminals	Symbol and terminal designation
DC 24 V (front)	+24 V and GND	 + ————○ +24 V U _x - ————○ GND

Display and connection elements



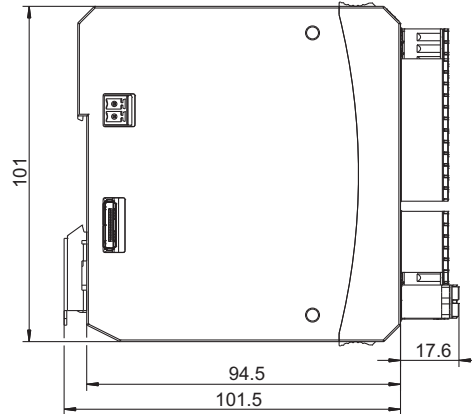
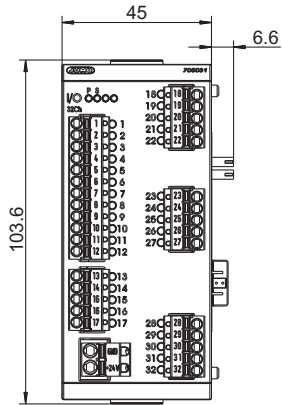
- (1) Expansion slot 1:
Digital inputs or outputs 18 to 22
- (2) Voltage supply Out, DC 24 V
- (3) Expansion slot 2:
Digital inputs or outputs 23 to 27
- (4) Side system bus Out
- (5) Expansion slot 3:
Digital inputs or outputs 28 to 32
- (6) External voltage supply DC 24 V
- (7) Digital outputs 13 to 17
- (8) Side system bus In
- (9) Digital outputs 1 to 12
- (10) Voltage supply In, DC 24 V
- (11) Status displays (LED):
P = Voltage supply
S = Status
1 to 17 = Digital outputs (lit = active)
18 to 32 = Digital inputs/outputs (lit = active)

Electrical isolation



(1) Functional galvanic isolation for connection of SELV or PELV electrical circuits.

Dimensions



Compatibility

JUMO variTRON

See data sheet of the relevant central processing unit JUMO variTRON:
Data sheet 70500x



Order details

(1) Basic type	
705031	Digital input/output module 32-channel (17 digital outputs)
(2) Expansion slot 1	
00	Not used
01	5 digital inputs
02	5 digital outputs
(3) Expansion slot 2	
00	Not used
01	5 digital inputs
02	5 digital outputs
(4) Expansion slot 3	
00	Not used
01	5 digital inputs
02	5 digital outputs
(5) Voltage supply	
36	DC 24 V +25/-20 %, SELV
(6) DNV GL approval	
000	Without approval

	(1)	(2)	(3)	(4)	(5)	(6)
Order code	705031	/			- 36	/ 000
Order example	705031	/	00	00	00	- 36 / 000

Scope of delivery

1 digital input/output module 32-channel
1 installation instructions

Accessories

Description	Part no.
Modules for option slots (expansion boards):	
5 digital inputs	00695900
5 digital outputs	00695902