

3-portowy moduł routera

705042

Brief description

3-portowy moduł routera (705042) jest częścią składową systemu automatyki JUMO variTRON.

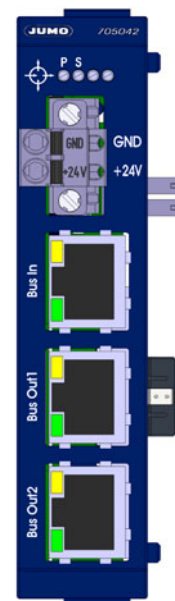
3-portowy moduł routera jest pierwszym modulem montowanym na oddzielnej szynie DIN i zapewnia wejście magistrali systemowej oraz 2 wyjścia od frontu. W połączeniu z 2-portowym modulem routera (705041) oraz, w razie potrzeby, dodatkowymi 3-portowymi modułami routera, moduły wejściowe/wyjściowe systemu automatyki mogą być rozmieszczone na kilku szynach DIN lub szafach sterowniczych.

Maksymalna odległość pomiędzy 2 modułami routera wynosi 100 m. W systemie można zastosować maksymalnie 30 modułów routera (705041/42) i ponad 30 modułów wejściowych/wyjściowych (w zależności od modułu).

Diody LED służą do sygnalizacji napięcia zasilania i stanu pracy modułu. Elektryczne połączenie napięcia zasilającego modułu routera odbywa się od frontu za pomocą wyjmowanej listwy zaciskowej.

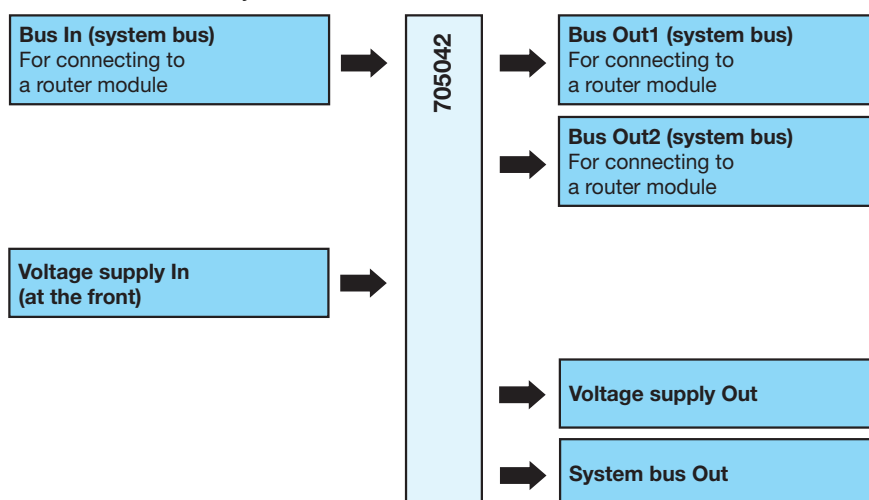
Konfiguracja 3-portowego modułu routera nie jest wymagana. Jest on zintegrowany z systemem automatyki za pomocą programu konfiguracyjnego.

Dla celów serwisowych wkład modułu można łatwo wyjąć z obudowy od frontu. Obudowa, łącznie z płytą magistrali, pozostaje zamontowana na szynie DIN.



Typ 705042

Schemat blokowy



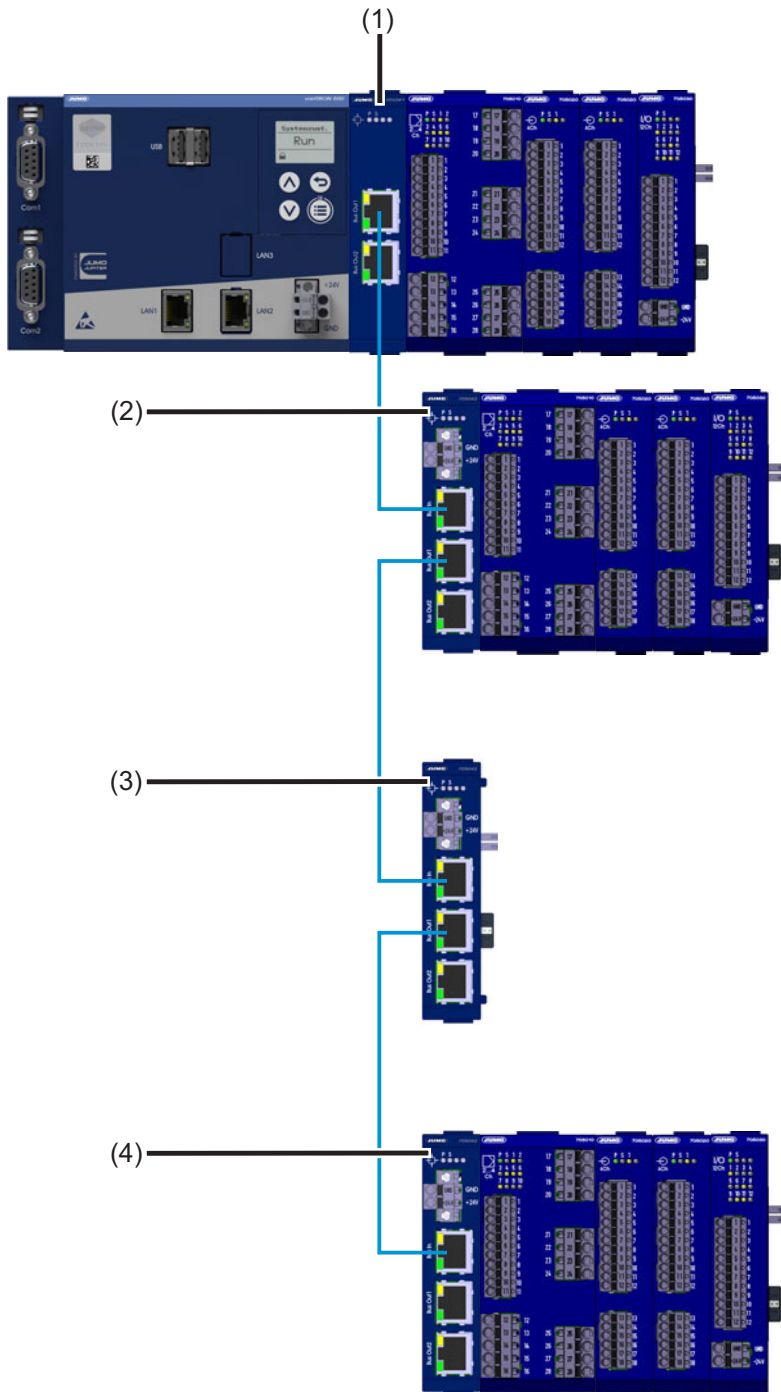
Właściwości

- Kompatybilny z systemem JUMO variTRON od wersji systemowej 3
- Obsługa zdecentralizowanego przydzielania modułów
- Pierwszy moduł na dodatkowej szynie DIN celem połączenia dalszych modułów
- Rozbudowa magistrali systemowej poprzez gniazda RJ45 od frontu (1 x Bus In, 2 x Bus Out)
- Galwaniczna izolacja połączeń magistrali systemowej
- Zasilanie napięciem roboczym
- Szybkie okablowanie napięcia roboczego i magistrali systemowej dzięki prostej zasadzie połączeniowej

Dopuszczenia i oznaczenia homologacji (patrz Dane techniczne)

Description

Connection example



- (1) Router module 2-port (705041), attached to JUMO variTRON 500 central processing unit (705002)
- (2) Router module 3-port (705042) with downstream modules
- (3) Router module 3-port (705042) to increase the range
- (4) Router module 3-port (705042) with downstream modules

The router module 2-port (705041) is used on the same DIN rail as the central processing unit and enables system bus networking with standard network cables (see Technical Data). The position of the router module 2-port on the DIN rail is freely selectable.

The router module 3-port (705042) is always used as the first module on a separate DIN rail and is designed for system expansion with additional modules. The router module 3-port can also be used to increase the system bus range.

System bus interconnection is only possible with the router modules of the JUMO variTRON system (closed system); conventional Ethernet switch technology cannot be used.

In the illustrated connection example, the voltage supply of the central processing unit and the modules is not shown (terminals +24 V and GND).

Technical data

Interfaces

System bus (output, lateral)	
Description	None (side plug connector)
Type	System specific
Number	1
Application	Connection to an input/output module
System bus (input, front side)	
Description	Bus In
Type	RJ45
Number	1
Connecting cable	Network cable (patch or crossover cable), at least CAT5 (S/FTP)
Application	Connection with a router module 705041 (on the same DIN rail as the central processing unit) or 705042 (on separate DIN rail)
System bus (output, front side)	
Description	Bus Out1, Bus Out2
Type	RJ45
Number	2
Connecting cable	Network cable (patch or crossover cable), at least CAT5 (S/FTP)
Application	Connection with router modules of the JUMO variTRON automation system

Electrical data

Voltage supply	
Connection	At the front (removable terminal strip, 2-pole with Push In technology)
Voltage	DC 24 V +25/-20 % SELV
Residual ripple	5 %
Current consumption	100 mA (at DC 19.2 V) Current consumption of lined-up modules also has to be considered!
Power consumption	2 W
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 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 × 7.5 mm × 1 mm
Dimensions (W × H × D)	22.5 mm × 103.6 mm × 101.5 mm (without connection elements)
Weight (fully fitted)	Approx. 150 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

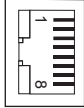
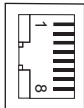
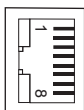
Approvals and approval marks

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

Connection diagram

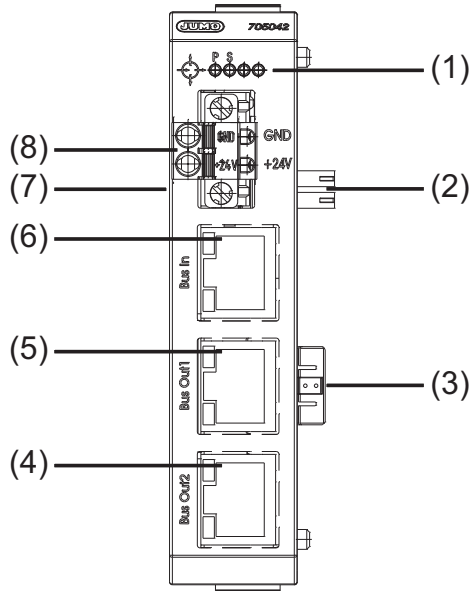
The connection diagram in the data sheet provides preliminary information about the connection options. For the electrical connection, only use the installation instructions or the operating manual. The knowledge and the correct technical compliance with the safety information and warnings contained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

Interfaces

Connection	Description	Connection element	Assignment
System bus In (input)	Bus In		1 TX+ Transmission data + 2 TX- Transmission data - 3 RX+ Received data + 6 RX- Received data -
System bus Out1 (output)	Bus Out1		1 TX+ Transmission data + 2 TX- Transmission data - 3 RX+ Received data + 6 RX- Received data -
System bus Out2 (output)	Bus Out2		1 TX+ Transmission data + 2 TX- Transmission data - 3 RX+ Received data + 6 RX- Received data -

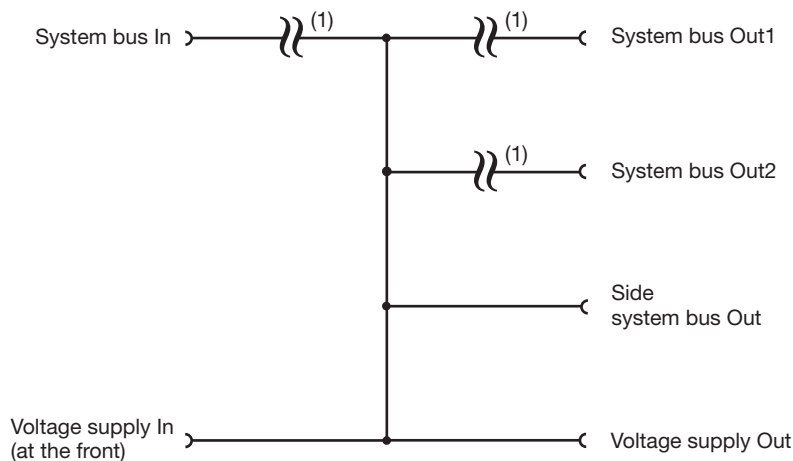
Connection	Terminals	Symbol and terminal designation
DC 24 V (front)	+24 V and GND	+ ———— ○ +24 V U_x - ———— ○ GND

Display, operating, and connection elements



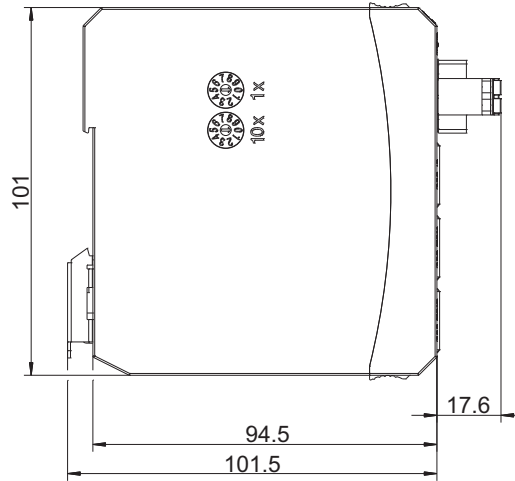
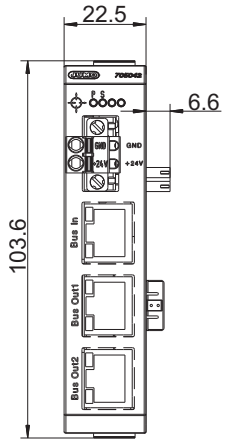
- (1) Status displays (LED):
 P = Voltage supply
 S = Status
- (2) Voltage supply Out, DC 24 V
- (3) Side system bus Out (output)
- (4) System bus Out2 (output)
- (5) System bus Out1 (output)
- (6) System bus In (input)
- (7) 2 rotary coding switches (setting of the alias device address)
- (8) Voltage supply In, DC 24 V

Electrical isolation



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

Wymiary



Kompatybilność

JUMO variTRON
Patrz karta katalogowa odpowiedniej
jednostki centralnej JUMO variTRON:
Karta katalogowa 70500x



Order details

(1)	Basic type
705042	Router module 3-port
(2)	Voltage supply
36	DC 24 V +25/-20 %, SELV
(3)	DNV GL approval
000	Without approval

Order code (1) (2) (3)
 705042 / 36 / 000
Order example 705042 / 36 / 000

Scope of delivery

1 router module 3-port
1 cover for system bus
2 screw-on end clamps for DIN rail
1 installation instructions