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**JUMO Process Control, Inc.**  
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# JUMO I/O system

## System module

### Areas of application

- Heating, ventilation, and air-conditioning
- Industrial furnaces and heating systems
- Water and wastewater
- Food and beverage industry

The module is worth considering for a variety of other areas of application due to its universal usability.

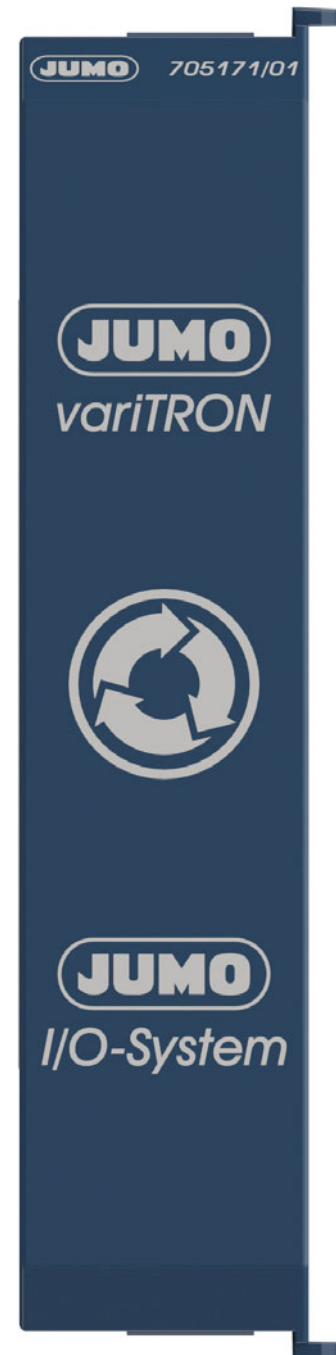
### Special features

- Adapter module for mixed operation with the modules from the 7050xx series
- Arrangement on DIN rail (side plug connectors for system bus and operating voltage)
- Connection of the modules due to easy plugging together
- Increased vibration and shock resistance due to optional connector bars

### Description

The system module (705171) is a module of the JUMO I/O system (7051xx) and is intended to connect the system bus and voltage supply between the JUMO variTRON (7050xx) automation system and the JUMO I/O system. The system module is suitable for use indoors and is mounted on a DIN rail within a control cabinet.

The system module connects the JUMO variTRON 500 central processing unit or an input and output module of the JUMO variTRON automation system with an input and output module (7051xx) or the 2-channel communication module (705162) of the JUMO I/O system.






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## Approval marks and certificates

	Designation	DNV®
	Test facility	DNV®
	Certificate no.	Submitted
	Inspection basis	Class Guidelines CG 0339
	Valid for	Module with extra code 062
	Designation	UL
	Test facility	Underwriters Laboratories
	Certificate no.	Submitted
	Inspection basis	CAN/CSA-C22.2 No. 61010-1-12 (3rd Ed.) / UL 61010-1 (3rd Ed.)
	Valid for	All versions of the module

## Technical data

### Electrical data

Voltage supply	Only for connected input and output modules
Connection	Side on the left (supply via central processing unit or input and output module 7050xx)
Voltage	DC 24 V +25/-20 % SELV
Residual ripple	5 %
Current consumption (system module)	0 mA (current consumption of lined-up modules has to be considered)
Electrical safety	According to DIN EN 61010-1:2020 Overvoltage category III, pollution degree 2

### Electrical isolation

	1	EtherCAT (side) Out system bus
	2	Voltage supply (side) Out
	3	Voltage supply (side) In
	4	EtherCAT (side) In system bus

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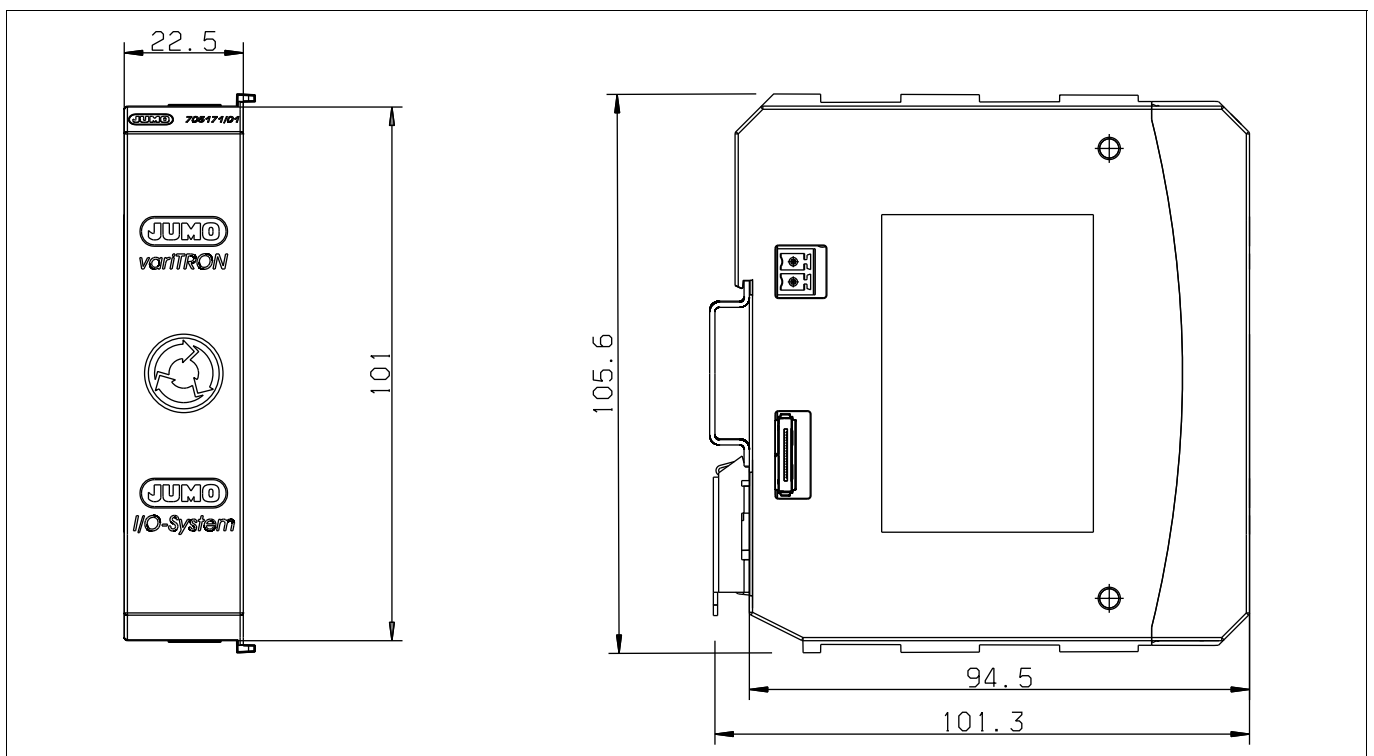
## Environmental influences

Storage conditions	1K21 according to DIN EN 60721-3-1:2018-12
Temperature range (expanded)	-40 to +70 °C
Operating conditions	3K22 according to DIN EN 60721-3-3:2018-12
Temperature range (expanded)	-20 to +55 °C
Relative humidity (expanded)	≤ 90 % without condensation
Vibration resistance	According to DIN EN 60068-2-6:2008-10
Amplitude	0.15 mm from 10 to 58.1 Hz
Acceleration	20 m/s <sup>2</sup> from 58.1 to 150 Hz
Shock resistance	According to DIN EN 60068-2-27:2010-02
Peak acceleration	150 m/s <sup>2</sup>
Shock duration	11 ms
Shock resistance	IK06 according to DIN EN 62262:2022-02
Site altitude	Max. 2000 m above sea level
Protection type	IP20 according to DIN EN 60529:2014-09
Electromagnetic compatibility	According to DIN EN 61326-1:2022-11
Interference emission	Class A – only for industrial use –
Interference immunity	Industrial requirement

## Mechanical features

Housing type	Plastic housing for DIN-rail mounting in the control cabinet (indoor use); DIN rail according to DIN EN 60715, 35 mm × 7.5 mm × 1 mm
Weight	Approx. 70 g

## Dimensions



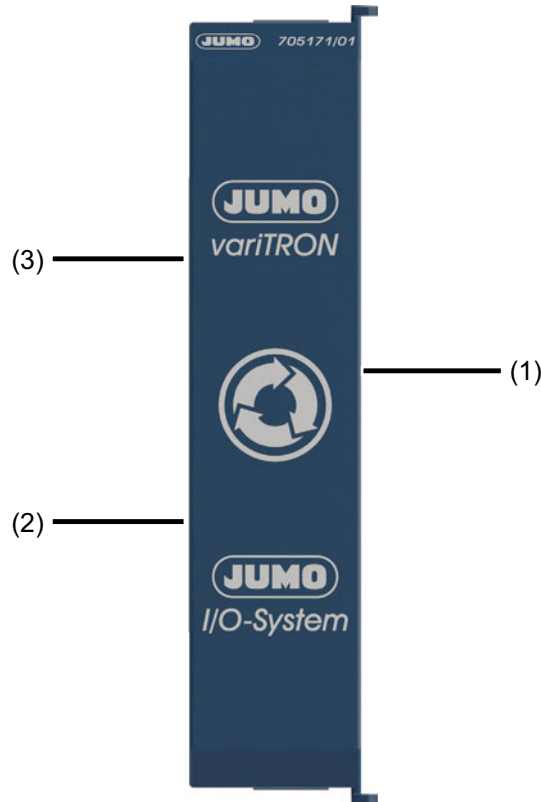
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## Connection elements



- 1 JUMO I/O system: Plug connectors (socket, side) for Out voltage supply and EtherCAT Out system bus
- 2 JUMO variTRON: Plug connector (socket, side) for EtherCAT In system bus
- 3 JUMO variTRON: Plug connector (socket, side) for In voltage supply

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## Order details

<b>(1) Basic type</b>	
705171	System module
<b>(2) Basic type extension</b>	
01	mTRON T adapter to I/O system
<b>(3) Version</b>	
0	Standard version
<b>(4) Voltage supply</b>	
36	DC 24 V +25/-20 %
<b>(5) Extra codes</b>	
000	None
062	DNV® approval <sup>a</sup>

<sup>a</sup> The power supply unit used must also have a DNV® approval (e.g. type 705090).

Order code                    **(1)**                    **(2)**                    **(3)**                    **(4)**                    **(5)**  
 Order example                705171                /                01                -                0                -                36                /                000

## Scope of delivery

1 module in the ordered version
1 documentation

## Accessories

Designation	Part no.
10 connector bars for increased vibration and shock resistance (2 bars are required for connecting 2 modules)	30065481

## Trademark information

All trademarks and trade and company names used are the property of their rightful owners or authors.

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## Module overview of the automation system

### Central processing units

- JUMO variTRON 300  
Data sheet 705003  
705163 communication module required.
- JUMO variTRON 500  
Data sheet 705002  
705171 system module required.
- JUMO variTRON 500 touch  
Data sheet 705004  
705163 communication module required.

### Input/output modules

- 16-channel digital input module  
705135 data sheet
- 4-channel digital output module (relay)  
705143 data sheet
- 16-channel digital output module  
705145 data sheet
- Input and output modules from the 7050xx series (JUMO mTRON T/variTRON)  
(see data sheet of the central processing unit)

### Special modules

- 2-channel communication module  
705162 data sheet
- 3-channel communication module  
705163 data sheet
- System module  
705171 data sheet

### Panels

- JUMO variTRON web panels  
Data sheet 705070

### 24 V power supply units

- Type 705090/03-33 (3.4 A)  
705090 data sheet
- Type 705090/05-33 (5 A)  
705090 data sheet
- Type 705090/10-33 (10 A)  
705090 data sheet