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**JUMO Process Control, Inc.**  
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# JUMO mTRON T Measuring, Control, and Automation System

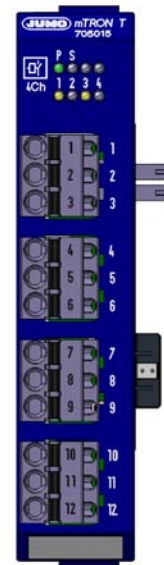
## Relay module 4-channel

### Brief description

The relay module provides four relay outputs controlled through the system bus by digital signals (assignment in the connection list or directly by the PLC). Each relay output is equipped with an AC 230V/3A changeover contact.

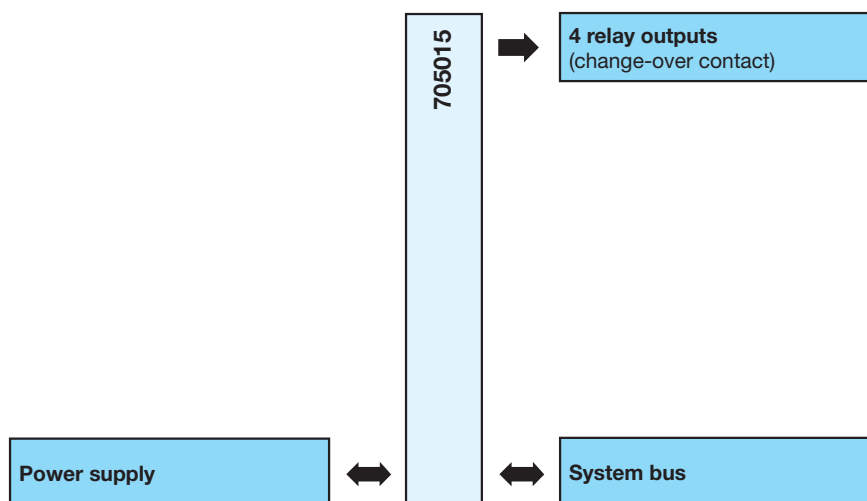
LEDs are used to indicate applied voltage supply, the module operating status, as well as the status of the relay outputs.

For service work, the module insert can be easily pulled out of the case at the front. The case including the bus PCB remains mounted on the DIN rail.



Type 705015/...

### Block diagram



### Features

- Four relay outputs with changeover contact AC 230 V / 3 A
- Automatic configuration after the module insert has been exchanged (Plug and Play)
- Connection of the outputs at the front
- Removable terminal strips with Push-In technology
- Quick wiring of operating voltage and system bus due to easy module connection

Approval/approval marks (see “Technical data”)



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## Technical data

### Outputs

4 relay outputs (changeover contact)	
Switching capacity	3A at AC 230V resistive load 3A at DC 30V resistive load
Contact life	350,000 operations at rated load / 750,000 operations at 1 A

### Electrical data

Voltage supply	
Connection	Lateral (feed via base unit or router module)
Voltage	DC 24 V +25/-20 %
Residual ripple	5 %
Current consumption	120 mA (at DC 19.2 V)
Power consumption	3 W
Relay outputs	
Connection	At the front (removable terminal strips with Push-In technology)
Conductor cross section	
Wire or strand without ferrule	Min. 0.5 mm <sup>2</sup> , max. 2.5 mm <sup>2</sup>
Strand with ferrule	Min. 0.5 mm <sup>2</sup> , max. 2.5 mm <sup>2</sup>
2 x strand with twin ferrule with plastic collar	Min. 0.5 mm <sup>2</sup> , max. 1.5 mm <sup>2</sup> (both strands with the same cross section)
Stripping length	10 mm
Electrical safety	Acc. to EN 61010-1 Overvoltage category III, pollution degree 2
Electromagnetic compatibility	
Interference emission	Acc. to EN 61326-1 Class A – only for industrial use –
Interference immunity	To industrial requirements

### Case and ambient 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 x H x D)	22.5 mm x 103.6 mm x 101.5 mm (without connection elements)
Weight	Approx. 160 g
Protection type	IP20, acc. 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 (climatic class 3K3 acc. to DIN EN 60721-3-3 with extended temperature and humidity range)
Site altitude	Up to 2000 m above sea level
Mechanical ambient conditions <sup>a</sup>	Classification acc. to DIN EN 60721-3-3, table 6, class 3M2

<sup>a</sup> Test conditions are listed in the System Description B 705000.8.

### Approval/approval marks

Approval mark	Testing agency	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

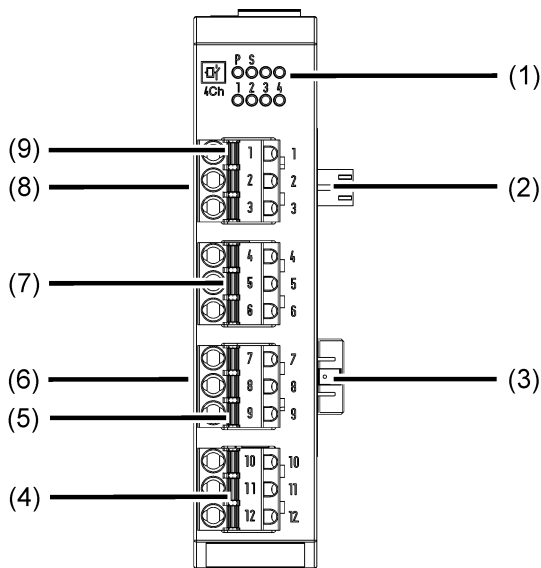
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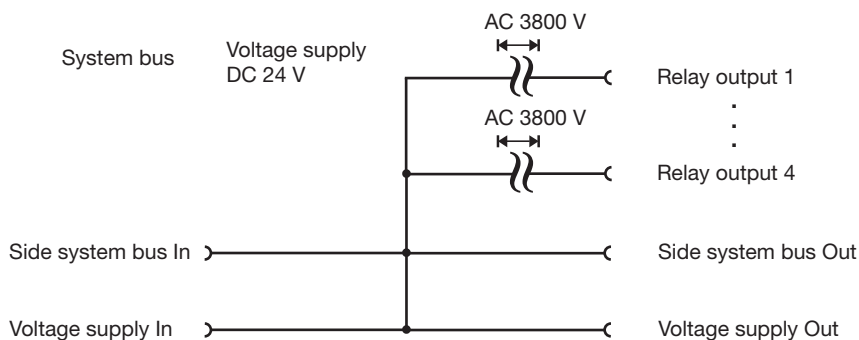


## Display and connection elements



- (1) Status displays (LED):  
 P = Voltage supply  
 S = Status  
 1 to 4 = Relay outputs  
 (LED is lit: Active)
- (2) Voltage supply Out, DC 24 V
- (3) Side system bus Out
- (4) Relay output 4
- (5) Relay output 3
- (6) Side system bus In
- (7) Relay output 2
- (8) Voltage supply In, DC 24 V
- (9) Relay output 1

## Electrical isolation



## Connection diagram

The connection diagram included in the data sheet provides initial information about the connection options. Only use the installation instructions or the operating manual for the electrical connection. The know-how and the correct technical implementation of the safety warnings/instructions contained in these documents are the prerequisite for the installation, electrical connection, and initial start as well as for the safety during operation.

Connection	Output	Terminals	Symbol and terminal designation
Relay output (changeover contact)	1 2 3 4	1 to 3 4 to 6 7 to 9 10 to 12	

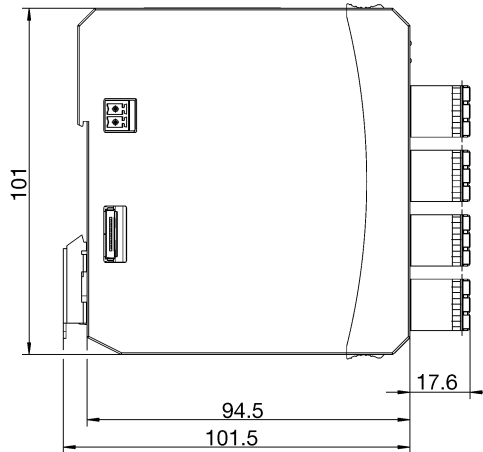
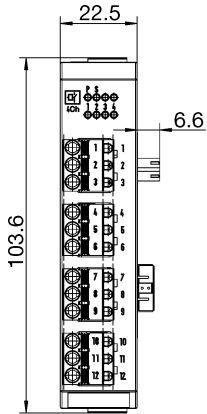
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## Dimensions



## Module overview

### Base units

- Central processing unit  
Data sheet 705001

### Input/output modules

- Multichannel controller module  
Data sheet 705010
- Relay module 4-channel  
Data sheet 705015
- Analog input module 4-channel  
Data sheet 705020
- Analog input module 8-channel  
Data sheet 705021
- Digital input/output module 12-channel  
Data sheet 705030

### Special modules

- Router module  
Data sheet 705040

### Operating, visualization, recording

- Multifunction panel 840  
Data sheet 705060

### Power supply units

- 705090/05-33  
Data sheet 705090
- 705090/10-33  
Data sheet 705090

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## Order details

<b>(1) Basic type</b>	
705015	Relay module 4-channel
<b>(2) Voltage supply</b>	
36	DC 24 V +25/-20 %

Order code  /   
Order example 705015 / 36

## Scope of delivery

1 relay module
1 Installation Instructions B 705015.4

## General accessories

Article	Part no.
JUMO mTRON T system manual, English	00575577
MiniDVD with setup program (full version), programming software CODESYS V3, and detailed documentation; incl. USB cable	00569494
PC Evaluation Software PCA3000	00431882
Release automatic print for PC Evaluation Software PCA3000	00505548
PCA Communication Software PCC	00431879
Plant Visualization Software JUMO SVS3000: See data sheet 700755	-
USB cable A-plug mini-B-plug 3 m	00506265