



# JUMO favoTRON 116/104

## Compact PID controller

### Description

The controller series comprises compact controllers, which offer versatile use and which are available in two different DIN sizes.

They are suitable for controlling temperature, pressure, and other process variables. The controllers offer user-friendly operation, which is clearly structured and supported with texts.

The devices can be used as two-state or three-state controllers. The basic equipment includes functions such as autotuning, ramp function, program controller, manual mode, limit value monitoring function, digital control signals, timer functions, and a service counter.

The devices can be configured conveniently via a PC using the free setup program including a program editor.

No additional power supply is required for configuration via the USB interface (USB-powered).

### Interfaces

- Setup interface (USB device)

### Areas of application

- Food and beverage industry
- Water and wastewater treatment
- Thermoprocess technology
- Renewable energy
- HVAC

### Special features

- Easy to read screen due to high-quality, vibrant display
- Intuitive operation, parameterization, and configuration via plain text display
- Spring terminals with PUSH IN technology for fast and secure wiring
- Simple and quick configuration on the PC via setup program and USB-powered interface



Type 702011 (48 mm × 48 mm)



Type 702014 (96 mm × 96 mm)

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## Trademark information

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

## Approval marks and certificates



Certificates for approved device versions are available for download on the manufacturer's website.

## Technical data

### Electrical safety

|                      |                     |
|----------------------|---------------------|
| Requirements         | DIN EN 61010-1:2020 |
| Overvoltage category | II                  |
| Pollution degree     | 2                   |

### Electrical data

|                                      |                                                                                     |                      |
|--------------------------------------|-------------------------------------------------------------------------------------|----------------------|
| Voltage supply galvanically isolated | DC 12 V to 24 V +15 %/ -10 % SELV<br>AC 110 V to 240 V +10 %/ -15 %, 48 Hz to 63 Hz |                      |
| Power consumption                    | For AC 110 V to 240 V:                                                              | For DC 12 V to 24 V: |
| Type 702011 (format 116)             | 2.2 W                                                                               | 2.1 W                |
| Type 702014 (format 104)             | 2.7 W                                                                               | 2.5 W                |
| Conductor cross section              | Min. 0.2 mm <sup>2</sup> , max. 1.5 mm <sup>2</sup>                                 |                      |
| Wire or stranded wire                | Min. 0.2 mm <sup>2</sup> , max. 1.5 mm <sup>2</sup>                                 |                      |
| Stranded wire with ferrule           | Min. 0.2 mm <sup>2</sup> , max. 1.5 mm <sup>2</sup>                                 |                      |
| Without plastic collar               | Min. 0.2 mm <sup>2</sup> , max. 0.75 mm <sup>2</sup>                                |                      |
| With plastic collar                  | Min. 0.2 mm <sup>2</sup> , max. 0.75 mm <sup>2</sup>                                |                      |
| Stripping length                     | 8 mm                                                                                |                      |

## Inputs

### Analog inputs

#### RTD temperature probe

| Designation | Standard       | ITS    | Connection type | Measuring range    | Accuracy <sup>a</sup> | Measuring current |
|-------------|----------------|--------|-----------------|--------------------|-----------------------|-------------------|
| Pt100       | IEC 60751:2008 | ITS-90 | Two/three-wire  | -200 °C to +600 °C | ±0.25 %               | < 0.5 mA          |
| Pt1000      | IEC 60751:2008 | ITS-90 | Two/three-wire  | -200 °C to +600 °C | ±0.25 %               | < 0.1 mA          |

<sup>a</sup> Accuracy refers to the measuring range.

#### General specifications

|                               |                                                                        |
|-------------------------------|------------------------------------------------------------------------|
| Connection type               | Two-wire circuit<br>Three-wire circuit                                 |
| Ambient temperature influence | ≤ 300 ppm/K                                                            |
| Sensor line resistance        | Maximum 30 Ω per wire                                                  |
| Input filter                  | Digital filter 2nd order; filter constant can be set from 0 s to 100 s |
| Sampling rate                 | 250 ms                                                                 |

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## Thermocouples

| Designation | Type | Standard            | ITS     | Measuring range     | Accuracy <sup>a</sup> |
|-------------|------|---------------------|---------|---------------------|-----------------------|
| Fe-CuNi     | L    | DIN 43710:1985-12   | IPTS-68 | -200 °C to +900 °C  | ±0.4 % from -80 °C    |
| Fe-CuNi     | J    | DIN EN 60584-1:2013 | ITS-90  | -210 °C to +1200 °C | ±0.4 % from -100 °C   |
| NiCr-Ni     | K    | DIN EN 60584-1:2013 | ITS-90  | -270 °C to +1300 °C | ±0.4 % from -80 °C    |
| Pt10RhTt    | S    | DIN EN 60584-1:2013 | ITS-90  | -40 °C to +1768 °C  | ±1 % from +20 °C      |

<sup>a</sup> Accuracy refers to the maximum measuring range.

### General specifications

|                               |                                                                        |
|-------------------------------|------------------------------------------------------------------------|
| Connection type               | Thermocouple                                                           |
| Ambient temperature influence | ≤ 300 ppm/K                                                            |
| Cold junction                 | Measurement of the internal temperature or external constant 0 °C      |
| Cold junction accuracy        | ±1 K                                                                   |
| Input filter                  | Digital filter 2nd order; filter constant can be set from 0 s to 100 s |
| Sampling rate                 | 250 ms                                                                 |

## Voltage, current (standard signals)

| Designation | Measuring range  | Accuracy <sup>a</sup> | Burden voltage | Input resistance |
|-------------|------------------|-----------------------|----------------|------------------|
| Voltage     | 0 V to 10 V      | ±0.15 %               |                | > 100 kΩ         |
| Current     | 0(4) mA to 20 mA | ±0.2 %                | ≤ 2.5 V        |                  |

<sup>a</sup> Accuracy refers to the maximum measuring range.

### General specifications

|                               |                                                                      |
|-------------------------------|----------------------------------------------------------------------|
| Ambient temperature influence | ≤ 100 ppm/K                                                          |
| Input filter                  | Digital filter 2nd order; filter constant can be set from 0 to 100 s |
| Sampling rate                 | 250 ms                                                               |

## Measuring circuit monitoring

The device behavior in the event of a fault is configurable.

| Measuring probe       | Measuring range underflow | Measuring range overflow | Short circuit of probe/line | Break of probe/line | Reverse polarity |
|-----------------------|---------------------------|--------------------------|-----------------------------|---------------------|------------------|
| RTD temperature probe | ++                        | ++                       | ++                          | ++                  | ---              |
| Thermo-couple         | ++                        | ++                       | ---                         | ++                  | ---              |
| Current 0 to 20 mA    | ---                       | ++                       | ---                         | ---                 | ---              |
| Current 4 to 20 mA    | ++                        | ++                       | ++                          | ++                  | ++               |
| Voltage 0 to 10 V     | ---                       | ++                       | ---                         | ---                 | ---              |
| ++ Is detected        |                           |                          | --- Is not detected         |                     |                  |

## Digital inputs

|                    |                                                                    |
|--------------------|--------------------------------------------------------------------|
| Operating mode     | Potential-free contact                                             |
| Function           | Contact closed: input is active ( $R_{ON} < 1 \text{ k}\Omega$ )   |
|                    | Contact open: input is inactive ( $R_{OFF} > 50 \text{ k}\Omega$ ) |
| Galvanic isolation | No                                                                 |
| Standard or option | Standard                                                           |

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## Outputs

### Digital outputs

#### Relay K1 to K4

|                                                 |                                                                                                                                                                                     |
|-------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Type                                            | Normally open contact                                                                                                                                                               |
| Switching capacity                              | AC 230 V, 3 A resistive load                                                                                                                                                        |
| Contact life                                    | 100,000 switching cycles at rated load                                                                                                                                              |
| Galvanic isolation                              | Yes                                                                                                                                                                                 |
| Standard or option<br><b>Note:</b> <sup>a</sup> | Type 702011 (format 116)<br>Standard: relay K1<br>Option: relay K2 and relay K3<br><br>Type 702014 (format 104)<br>Standard: relay K1 and relay K2<br>Option: relay K3 and relay K4 |

<sup>a</sup> Each relay output must be fused separately, even if they are operated with the same pole, as with relay K2 and K3 (702011) or K2, K3 and K4 (702014). The fuse size must not exceed the value specified under switching capacity.

#### Logic output K5

|                    |                                 |
|--------------------|---------------------------------|
| Output signal      | DC 0/ 14 V $\pm 15\%$           |
| Current            | Max. 20 mA, short-circuit proof |
| Galvanic isolation | No                              |
| Standard or option | Standard: K5                    |

## Interfaces

### USB

|                    |                       |
|--------------------|-----------------------|
| Type               | USB-C (socket)        |
| Standard           | Low-Speed, Full-Speed |
| Max. line length   | 3 m                   |
| Standard or option | Standard              |

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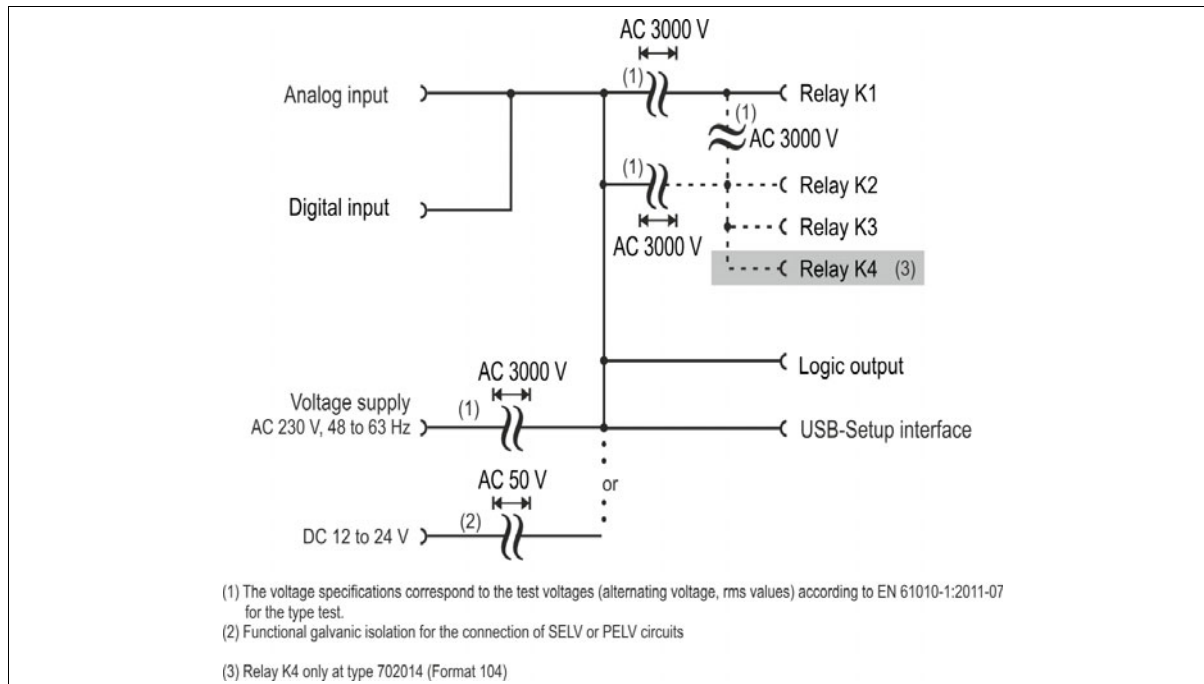
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## Electrical isolation

### Type 702011, type 702014



### CAUTION!

The analog input and digital input are not galvanically isolated from the setup interface (USB).

- Do not connect the USB with a grounded sensor if the ground of the PC is also grounded (e.g. a desktop PC).

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## Controller

### Controller types

The general features of the controller are defined in this menu.

| Parameter                                                                                            | Selection/text/value      | Description                                                                                            |
|------------------------------------------------------------------------------------------------------|---------------------------|--------------------------------------------------------------------------------------------------------|
| Controller type<br> | Off                       | Controller disabled                                                                                    |
|                                                                                                      | <b>2-state controller</b> | Two-state controller<br>Controller with a switched output<br>The second controller output is inactive. |
|                                                                                                      | 3-state controller        | Three-state controller<br>Controller with 2 switched outputs (for example, for heating/cooling)        |

### Controller parameters

The following table shows the parameters in a parameter block.

The transmission behavior is specified by the selection of the controller structure and determined by the configuration of the parameters for the proportional band (P component), derivative time (D component), and reset time (I component).

Parameters that appear in pairs such as proportional band 1 and proportional band 2 refer to the first and second controller outputs. Depending on the controller type configured, certain parameters may be omitted or ineffective.

| Parameter                      | Value                      | Description                                                                                                                                                                                                         |
|--------------------------------|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Controller structure 1         |                            | These settings determine the control structure (transmission behavior) and relate to the first controller output.                                                                                                   |
|                                | P                          | P controller                                                                                                                                                                                                        |
|                                | I                          | I controller                                                                                                                                                                                                        |
|                                | PI                         | PI controller                                                                                                                                                                                                       |
|                                | PD                         | PD controller                                                                                                                                                                                                       |
|                                | <b>PID</b>                 | PID controller                                                                                                                                                                                                      |
| Controller structure 2         | (see: Control structure 1) | These settings apply to the second controller output for a three-state controller.                                                                                                                                  |
| Proportional band 1 (Pb1)      | 0 to 9999                  | Value for the proportional band of the PID controller<br>The controller structure has no effect if Pb = 0 (behavior identical to limit value monitoring function)!                                                  |
| Proportional band 2 (Pb2)      | 0 to 9999                  |                                                                                                                                                                                                                     |
| Derivative time 1 (Tv1)        | 0 to 9999 ( <b>80</b> )    | The derivative time (in seconds) influences the differential component (D component) of the controller output signal.<br>The effect of the D component increases as the derivative time increases.                  |
| Derivative time 2 (Tv2)        | 0 to 9999 ( <b>80</b> )    |                                                                                                                                                                                                                     |
| Reset time 1 (rt1)             | 0 to 9999 ( <b>350</b> )   | The reset time (in seconds) influences the integral component (I component) of the controller output signal.<br>The larger the reset time the lower the effectiveness of the I component.                           |
| Reset time 2 (rt2)             | 0 to 9999 ( <b>350</b> )   |                                                                                                                                                                                                                     |
| Cycle time 1 (Cy1)             | 0 to 9999 ( <b>20</b> )    | Period duration for the controller output                                                                                                                                                                           |
| Cycle time 2 (Cy2)             | 0 to 9999 ( <b>20</b> )    | The cycle time (in seconds) should be chosen so that the energy supply to the process is as continuous as possible without overloading the switching elements.                                                      |
| Contact spacing (Xsh)          | 0 to 999                   | Spacing between the two control contacts of the three-state controller                                                                                                                                              |
| Switching differential 1 (Xd1) | 0 to 999 ( <b>1</b> )      | Hysteresis for a switching controller with proportional band Pb = 0                                                                                                                                                 |
| Switching differential 2 (Xd2) | 0 to 999 ( <b>1</b> )      |                                                                                                                                                                                                                     |
| Working point (Y0)             | -100 to +100 ( <b>0</b> )  | Working point correction (in percent) for a P or PD controller (correction value for the output level)<br>If the actual value has reached the setpoint value, the output level corresponds to the working point Y0. |

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| Parameter                         | Value                  | Description                                                                                                                                                                                                                                |
|-----------------------------------|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Max. output level limit (Y1)      | 0 to <b>100</b>        | Admissible maximum output level (in percent; only effective if $P_b > 0$ )                                                                                                                                                                 |
| Min. output level limit (Y2)      | <b>-100</b> to +100    | Admissible minimum output level (in percent; only effective if $P_b > 0$ )<br>Three-state controller: a negative value must be set for the second controller output to be active.                                                          |
| Min. relay switch-on time 1 (Tk1) | 0 to 9999 ( <b>0</b> ) | Minimum ON period (in seconds) to limit the switching frequency for switched outputs (digital outputs) for controller output 1 and controller output 2<br><br>Recommended setting if a relay is used as a controller output: $\geq 0.15$ s |
| Min. relay switch-on time 2 (Tk2) | 0 to 9999 ( <b>0</b> ) |                                                                                                                                                                                                                                            |

## Display

| Value, symbols                   | Color                     | 702011                                              | 702014                           |
|----------------------------------|---------------------------|-----------------------------------------------------|----------------------------------|
|                                  |                           | LCD display (33 x 27) mm                            | LCD display (76 x 56) mm         |
| Actual value                     | White at the top          | 4-digit with 18 segments each                       | 4-digit with 18 segments each    |
| Setpoint value                   | Green at the bottom       | 4-digit with 18 segments each                       | 4-digit with 18 segments each    |
| LCD pixel matrix                 | White on the left         | -                                                   | 2 x 8-digit, one above the other |
| Decimal places                   | -                         | 0, 1, or automatic decimal separator (configurable) |                                  |
| Text, values, menu/configuration |                           | White and green segment display is used             | 2x8-digit dot matrix LCD display |
| Function symbols                 | White at bottom right     | -                                                   |                                  |
| Relay output 1 to 4 LED          | Yellow at the bottom left | 1 to 3                                              | 1 to 4                           |
| Logic output 5 LED               |                           | 5                                                   | 5                                |

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## Environmental influences

|                                     |                                                           |
|-------------------------------------|-----------------------------------------------------------|
| Ambient temperature range           |                                                           |
| Storage                             | -30 °C to +70 °C                                          |
| Operation                           | -10 °C to +55 °C                                          |
| Site altitude                       | Max. 2000 m above sea level                               |
| Climatic environmental influences   |                                                           |
| Resistance to climatic conditions   | ≤ 85 % relative air humidity without condensation         |
| Storage                             | According to class 1K22 according to DIN EN IEC 60721-3-1 |
| Operation                           | According to class 3K22 according to DIN EN IEC 60721-3-3 |
| Protection type                     | According to DIN EN 60529                                 |
| Front                               | IP65                                                      |
| Rear                                | IP20                                                      |
| Vibration resistance                | According to DIN EN 60068-2-6, table C.2                  |
| Amplitude                           | 0.15 mm from 10 Hz to 58.1 Hz                             |
| Acceleration                        | 20 m/s <sup>2</sup> of 58.1 Hz to 150 Hz                  |
| Shock resistance                    | According to DIN EN 60068-2-7, table A.1                  |
| Peak acceleration                   | 150 m/s <sup>2</sup>                                      |
| Shock duration                      | 10 ms                                                     |
| Electromagnetic compatibility (EMC) | According to DIN EN 61326-1:2022                          |
| Interference emission               | Class A – only for industrial use –                       |
| Interference immunity               | Industrial requirement                                    |

## Mechanical features

|                          |                                                                      |                      |
|--------------------------|----------------------------------------------------------------------|----------------------|
| Housing type             | Plastic housing for installation in panels (indoor use only)         |                      |
| Housing front            | Plastic with membrane keyboard                                       |                      |
| Housing mounting         | In panel using the supplied mounting frame or both mounting elements |                      |
| Operating position       | Any <sup>a</sup>                                                     |                      |
| Flammability class       | V-0 according to UL94                                                |                      |
| Weight (maximum)         | For AC 110 V to 240 V:                                               | For DC 12 V to 24 V: |
| Type 702011 (format 116) | 92.7 g                                                               | 95.1 g               |
| Type 702014 (format 104) | 196.3 g                                                              | 194.1 g              |

<sup>a</sup> The maximum admissible ambient temperature only applies for the installation with the display in a vertical position.



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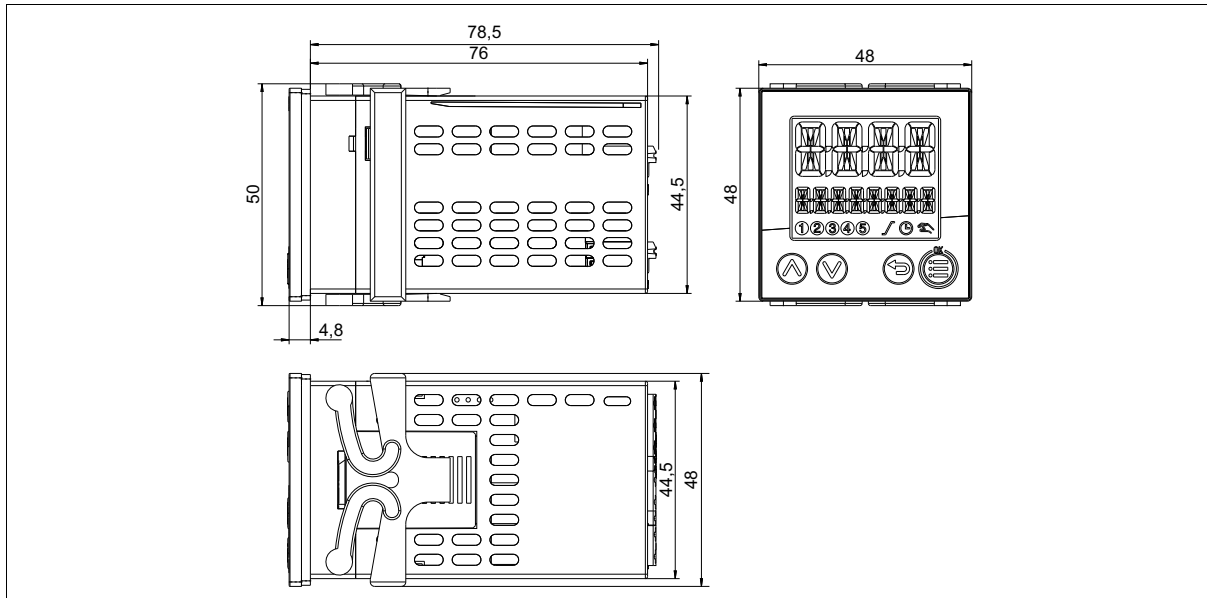
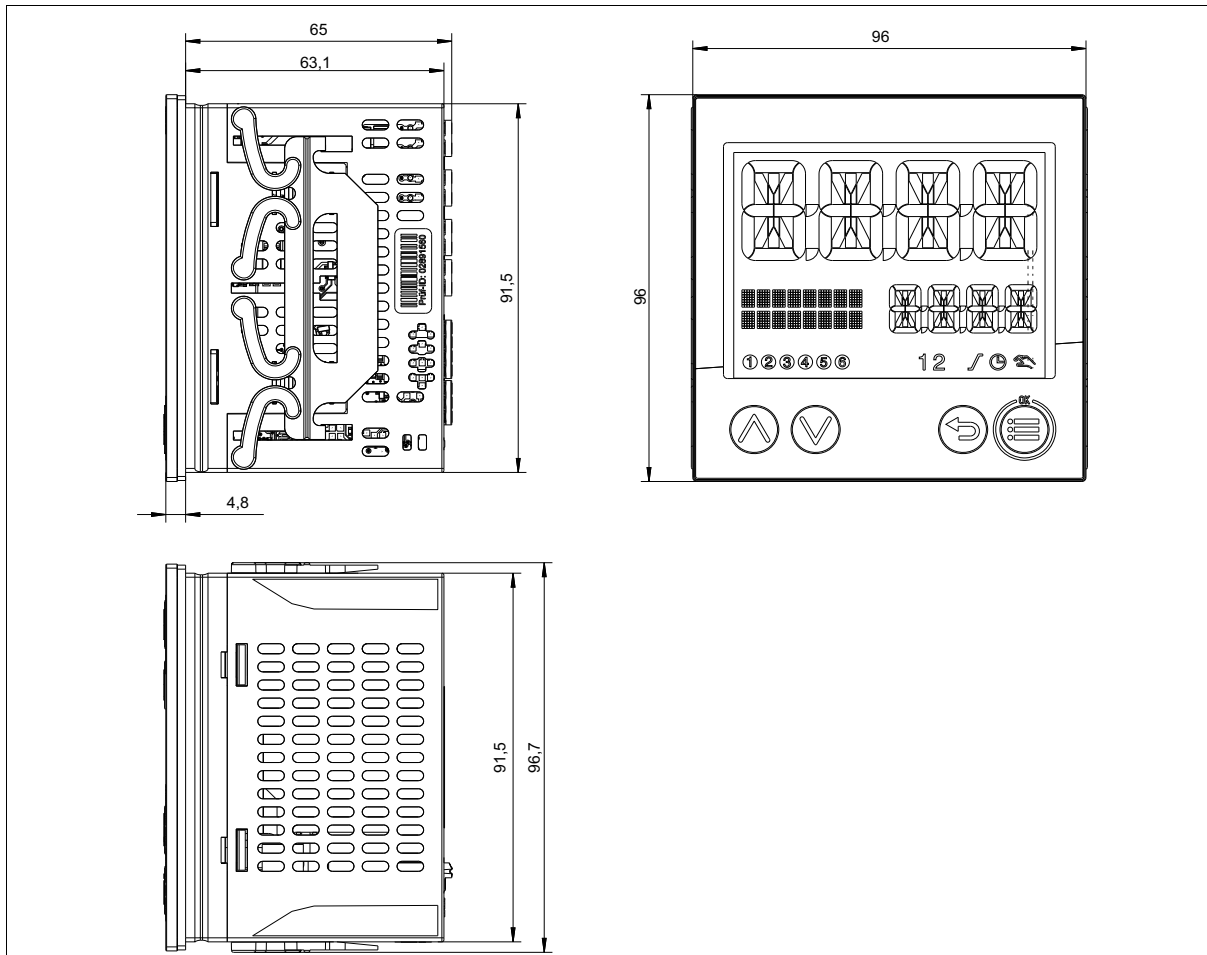
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## Dimensions

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## Display and control elements



- 1 Actual value
- 2 Setpoint value, also for displaying menu items, parameters, and text
- 3 Activity display for ramp function/program, timer and manual mode
- 4 Menu/OK key
- 5 Back key
- 6 Down key
- 7 Up key
- 8 Switch position of the digital outputs (yellow = active)
- 9 (Only for type 702014) LCD pixel matrix display for displaying menu items, parameters, values, and customer-specific text

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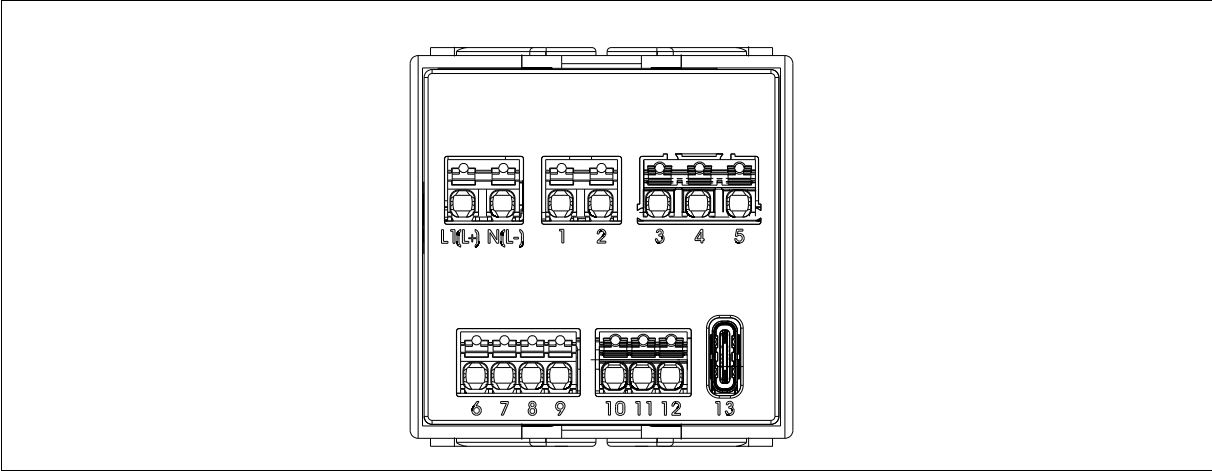
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Connection elements

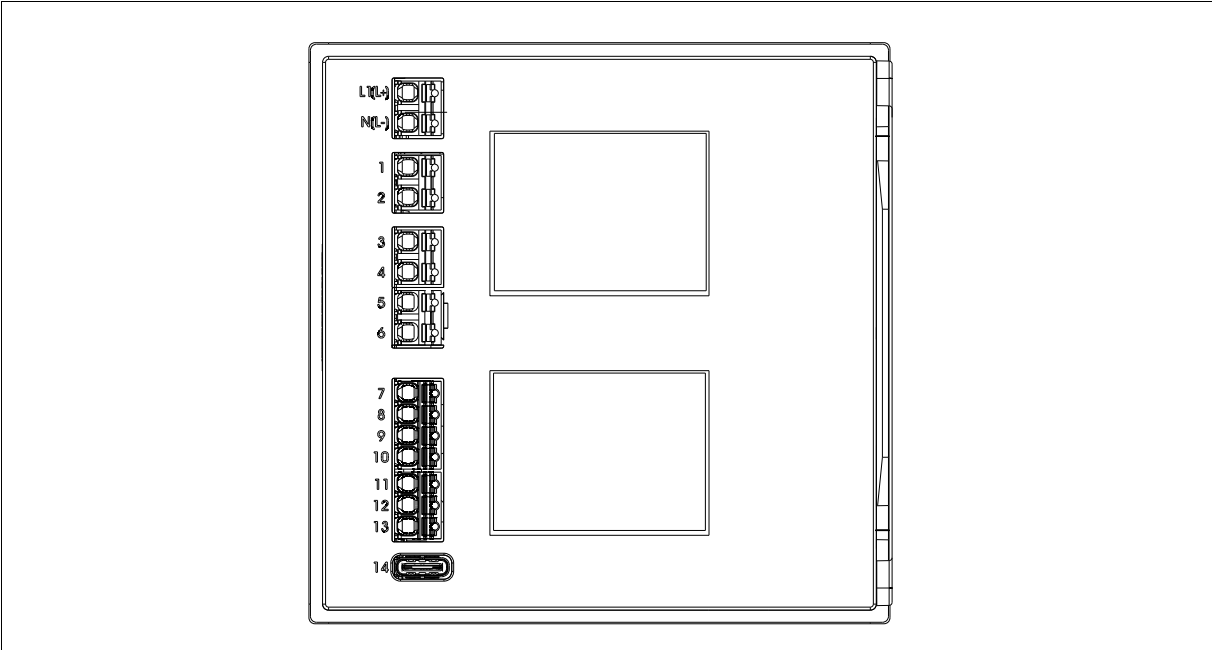
The connection elements in the data sheet provide information on product selection.  
For the electrical connection, only use the installation instructions or the operating manual.

Type 702011



| Designation       | Description                                    | Assignment |
|-------------------|------------------------------------------------|------------|
| PUSH IN terminals | Voltage supply                                 | L1 and N   |
|                   |                                                | L+ and L-  |
|                   | Digital output 1 (relay K1)                    | 1 and 2    |
|                   | Digital output 2 (relay K2 option)             | 3 and 4    |
|                   | Digital output 3 (relay K3 option)             | 3 and 5    |
|                   | Analog input                                   | 6 to 9     |
|                   | Digital input/digital output (logic output K5) | 10 to 12   |
| USB-C             | Setup interface                                | 13         |

Type 702014



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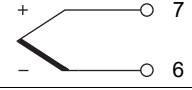
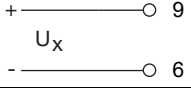
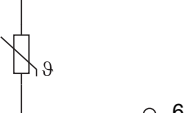
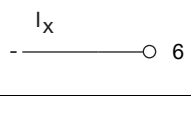
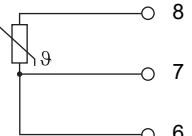
| Designation       | Description                                    | Assignment |
|-------------------|------------------------------------------------|------------|
| PUSH IN terminals | Voltage supply                                 | L1 and N   |
|                   |                                                | L+ and L-  |
|                   | Digital output 1 (relay K1)                    | 1 and 2    |
|                   | Digital output 2 (relay K2)                    | 3 and 4    |
|                   | Digital output 3 (relay K3 option)             | 3 and 5    |
|                   | Digital output 4 (relay K4 option)             | 3 and 6    |
|                   | Analog input                                   | 7 to 10    |
|                   | Digital input/digital output (logic output K5) | 11 to 13   |
| USB-C             | Setup interface                                | 14         |

## Connection diagram

### Analog inputs

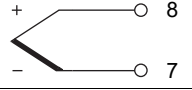
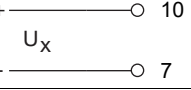
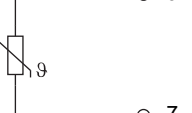
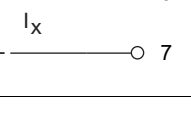
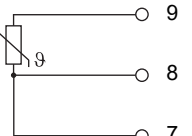
#### Type 702011

Analog input: standard feature (terminals 6 to 9)

| Description                                  | Assignment                                                                          | Description                                  | Assignment                                                                            |
|----------------------------------------------|-------------------------------------------------------------------------------------|----------------------------------------------|---------------------------------------------------------------------------------------|
| Thermocouple                                 |  | Voltage DC<br>0 V to 10 V                    |  |
| RTD temperature probe,<br>two-wire circuit   |  | Current<br>0 mA to 20 mA or<br>4 mA to 20 mA |  |
| RTD temperature probe,<br>three-wire circuit |  |                                              |                                                                                       |

#### Type 702014

Analog input: standard feature (terminals 7 to 10)

| Description                                  | Assignment                                                                          | Description                                  | Assignment                                                                            |
|----------------------------------------------|-------------------------------------------------------------------------------------|----------------------------------------------|---------------------------------------------------------------------------------------|
| Thermocouple                                 |  | Voltage DC<br>0 V to 10 V                    |  |
| RTD temperature probe,<br>two-wire circuit   |  | Current<br>0 mA to 20 mA or<br>4 mA to 20 mA |  |
| RTD temperature probe,<br>three-wire circuit |  |                                              |                                                                                       |

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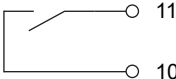
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## Digital inputs

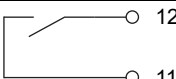
### Type 702011

Digital input: standard feature (terminals 10 and 11)

| Description                              | Assignment                                                                         |
|------------------------------------------|------------------------------------------------------------------------------------|
| Digital input for potential-free contact |  |

### Type 702014

Digital input: standard feature (terminals 11 and 12)

| Description                              | Assignment                                                                         |
|------------------------------------------|------------------------------------------------------------------------------------|
| Digital input for potential-free contact |  |

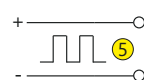
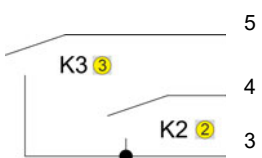
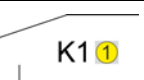
## Digital outputs

### Type 702011

Digital output 1: relay K1 (code 01) ⇒ "Type 702011 ", Page 14

Digital output 2 + 3: relay K2 + K3 (code 03) ⇒ "Type 702011 ", Page 14

Digital output 5: logic output, standard feature

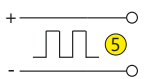
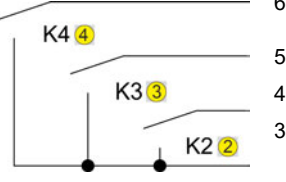
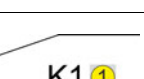
| Description                      | Assignment                                                                          | Pin      | Description                      | Assignment                                                                            | Pin         |
|----------------------------------|-------------------------------------------------------------------------------------|----------|----------------------------------|---------------------------------------------------------------------------------------|-------------|
| Logic output 0/14 V              |  | 12<br>10 | Relay K2 (normally open contact) |  | 5<br>4<br>3 |
| Relay K1 (normally open contact) |  | 2<br>1   | Relay K3 (normally open contact) |                                                                                       |             |

### Type 702014

Digital output 1 + 2: relay K1 + K2 (code 02) ⇒ "Type 702014 ", Page 14

Digital output 3 + 4: relay K3 + K4 (code 04) ⇒ "Type 702014 ", Page 14

Digital output 5: logic output, standard feature

| Description                      | Assignment                                                                          | Pin      | Description                      | Assignment                                                                           | Pin              |
|----------------------------------|-------------------------------------------------------------------------------------|----------|----------------------------------|--------------------------------------------------------------------------------------|------------------|
| Logic output 0/14 V              |  | 13<br>11 | Relay K2 (normally open contact) |  | 6<br>5<br>4<br>3 |
| Relay K1 (normally open contact) |  | 2<br>1   | Relay K3 (normally open contact) |                                                                                      |                  |
|                                  |                                                                                     |          | Relay K4 (normally open contact) |                                                                                      |                  |

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## Voltage supply

| Version<br>230 V AC | Symbol and terminal designation    | Version<br>24 V DC | Symbol and terminal designation     |
|---------------------|------------------------------------|--------------------|-------------------------------------|
| AC 110 V to 240 V   | L1 ————○ L1/L+<br><br>N ————○ N/L- | DC 12 V to 24 V    | L+ ————○ L1/L+<br><br>L- ————○ N/L- |

## Order details

### Type 702011

|        |                                                                                                            |
|--------|------------------------------------------------------------------------------------------------------------|
| (1)    | <b>Basic type</b>                                                                                          |
| 702011 | JUMO favoTRON 116 (48 × 48 mm format),<br>1 analog input, 1 digital input, 1 digital output, max. 3 relays |
| (2)    | <b>Version</b>                                                                                             |
| 0      | Standard version                                                                                           |
| 1      | Customer-specific modified hardware                                                                        |
| 2      | Customer-specific modified software                                                                        |
| 3      | Customer-specific modified hardware and software                                                           |
| (3)    | <b>Output</b>                                                                                              |
| 01     | 1 relay (normally open 3 A)                                                                                |
| 03     | 3 relays (1 NO contact, 2 NO contacts with common pole 3 A)                                                |
| (4)    | <b>Voltage supply</b>                                                                                      |
| 23     | AC 110 to 240 V, +10/-15 %, 48 to 63 Hz                                                                    |
| 30     | DC 12 to 24 V +15/-10 %                                                                                    |

Order code                      (1)      (2)      (3)      (4)  
                                           /  -  -   
 Order example                702011 / 0 - 03 - 23

### Type 702014

|        |                                                                                                            |
|--------|------------------------------------------------------------------------------------------------------------|
| (1)    | <b>Basic type</b>                                                                                          |
| 702014 | JUMO favoTRON 104 (96 × 96 mm format),<br>1 analog input, 1 digital input, 1 digital output, max. 4 relays |
| (2)    | <b>Version</b>                                                                                             |
| 0      | Standard version                                                                                           |
| 1      | Customer-specific modified hardware                                                                        |
| 2      | Customer-specific modified software                                                                        |
| 3      | Customer-specific modified hardware and software                                                           |
| (3)    | <b>Output</b>                                                                                              |
| 02     | 2 relays (NO contacts 3 A)                                                                                 |
| 04     | 4 relays (1 NO contact, 3 NO contacts with common pole 3 A)                                                |
| (4)    | <b>Voltage supply</b>                                                                                      |
| 23     | AC 110 to 240 V, +10/-15 %, 48 to 63 Hz                                                                    |
| 30     | DC 12 to 24 V +15/-10 %                                                                                    |

Order code                      (1)      (2)      (3)      (4)  
                                           /  -  -   
 Order example                702014 / 0 - 04 - 23

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**Accessories**

| Designation                                    | Material number |
|------------------------------------------------|-----------------|
| USB cable 2.0 Type-A to Type-C, 3 m            | 30073383        |
| DIN rail holder                                | 00688237        |
| Bracket for DIN rail 96 x 96 for type 702014   | 00754309        |
| Surface-mounted housing for 96 x 96 mm devices | 00750965        |
| Stainless steel case cut-out 96 x 96 mm        | 00628452        |

**Further information and downloads**

[jmo.to/702011-en](http://jmo.to/702011-en)