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JUMO variTRON 500 touch – Automation System

Central processing unit

Brief description

The JUMO variTRON 500 touch is a central processing unit with integrated TFT color screen for operation and visualization using CODESYS TargetVisu. Along with the proven input and output modules (incl. controller module), a complete automation system can be realized.

The central processing unit manages all configuration and parameter data in the overall system and makes a PLC acc. to IEC 61131-3 (CODESYS V3.5) available (extra code 224).

The PLC can be activated in different versions:

- CODESYS runtime system incl. CODESYS Remote TargetVisu and/or
- CODESYS Remote TargetVisu (extra code 280) and/or
- CODESYS WebVisu (extra code 281)

Commercially available panels that support the CODESYS Remote TargetVisu or CODESYS WebVisu functionality can be used for visualization. "Remote Target Visu" is required so that the central processing unit can provide the screen for the panel with "Remote Target Visu". Visualization is also possible via web browser. Visualizations have to be implemented with CODESYS resources.

With system version 9, the software was expanded to include visualization of the process data as a curve diagram, both on the HMI and on the web (extra code 276 "recorder app").

An easy-to-use setup program is used for configuration. JUMO standard functions for CODESYS are provided in libraries and can be individually integrated into the customer application.

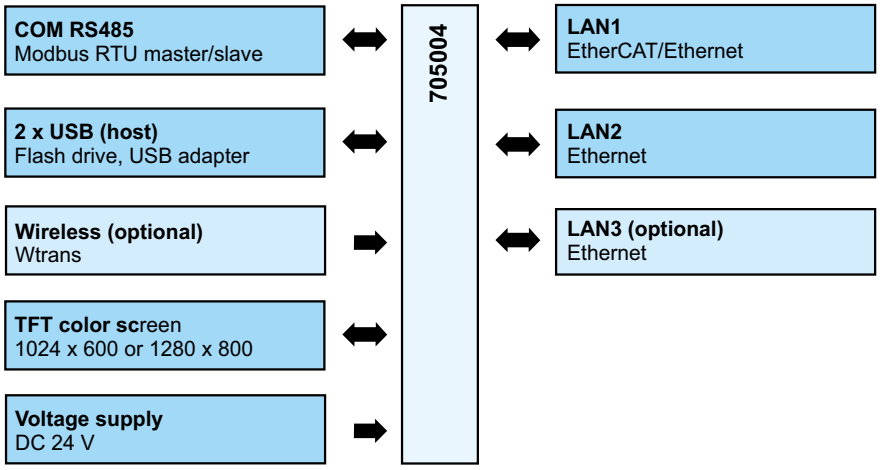


Type 705004/2



Type 705004/3

Block diagram



Features

- Process mapping for all connected input/output modules (including controller module)
- Recorder app (via integrated touch panel and web, as of system version 9)
- Program app (incl. JUMO variTRON Template, as of system version 8.2)
- Wireless interface for Wtrans transmitters
- PROFINET IO-Controller/Device (in conjunction with PLC, Device as of system version 8.2)
- Battery-buffered SRAM (synchronization of retain data in CODESYS application)
- Data evaluation with JUMO smartWARE Evaluation

Approval marks and certificates

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Description

JUMO variTRON 500 touch

The JUMO variTRON 500 touch central processing unit is based on the new hardware platform. It is equipped with an 800 MHz processor, which is used as a quad-core variant.

The JUMO variTRON 500 touch central processing unit is integrated into the housing of a TFT color screen, which is used for operation and visualization (capacitive touchscreen). It is available in screen sizes of 7 inches and 10.1 inches. Both sizes are also available with a stainless steel front.

Due to the scalability of hardware and software, a modular, flexible, and above all sustainable hardware platform is available that is combined with a modern software architecture. Based on this new platform, innovative operating concepts can now be implemented using state-of-the-art display technologies.

The advantages at a glance:

- High speed performance
- Flexible operating philosophy
- Modern communication interfaces (e.g. OPC UA, MQTT)
- Integration of different fieldbus protocols such as PROFINET IO, EtherCAT, Modbus TCP/RTU, and BACnet/IP
- Easy integration of new software functions via PLC (CODESYS V3.5)
- Availability of function and visualization libraries (as of system version 6)
- Easy adaptation of hardware inputs and outputs
- Connection of JUMO Wtrans transmitters
- Customer-specific operation and visualization with several operator stations via CODESYS remote target visualization or via web visualization (mixed operation is possible)
- Panels in various formats (portrait or landscape, 4:3 or 16:9)
- Web Cockpit
- Recorder app for recording and visualizing process data

Input/output modules

Both the JUMO variTRON input and output modules (7050xx series) and the JUMO I/O system modules (7051xx series) are available as module variants.

Up to 30 input and output modules can be connected to the JUMO variTRON (7050xx series). Up to 64 input and output modules can be connected to the JUMO I/O system (7051xx series).[1]

For example: the analog input module with universal inputs for thermocouples, RTD temperature probes, and voltage or current standard signals. As a result the same hardware can be used to precisely acquire and digitize a highly diverse range of process variables.

The mounting of the modules is possible in two variants. In variant 1, a DIN rail (accessory) is attached to the back cover of the JUMO variTRON 500 touch central processing unit, on which the modules are mounted. In variant 2, the modules are mounted on a separate DIN rail. In both variants, the connection to the central processing unit is established via a router module using a commercially available network cable (see Technical data or Accessories). The voltage for the modules is also supplied at the router module.

JUMO variTRON 500 touch enables simultaneous operation of numerous control loops so that it can also be used for sophisticated processes. The control loops here operate fully independently, which means they do not require resources from the central processing unit.

Thyristor power controllers can also be connected via EtherCAT or PROFINET. In addition, JUMO digiLine sensors for liquid analysis can be connected to the central processing unit.

Wireless measured value transmission

The JUMO variTRON 500 touch central processing unit is also available with a wireless interface that enables wireless transmission of measured values. The transmitters of the JUMO Wtrans series are available as measuring probes (Wtrans T, Wtrans B, Wtrans p, Wtrans E01). A maximum of 32 transmitters can be operated on the central processing unit.

During startup, the display of the RSSI value (Received Signal Strength Indicator) in the Web Cockpit is helpful as an indicator of the signal strength of a received radio telegram.

Recorder – recording of process data

The JUMO variTRON 500 touch central processing unit has a function for acquiring process data as a standard feature. This allows up to 240 analog or digital channels (signals) to be logged. The channels are combined into groups for this purpose.

By grouping the channels, the user can, for example, create a separate group for each plant or log signals with a different memory cycle. The grouping of channels is also the basis for acquiring batches.

The process data is stored in the central processing unit before this data is transferred to the Datastore for storage. The Datastore is part of the JUMO smartWARE Evaluation software, which is used to visualize and evaluate the data. A fee-based license is required for this purpose.

Recorder app – recording and visualization of process data (extra code 276)

As of system version 9, the JUMO variTRON 500 touch central processing unit has the recorder app when extra code 276 is activated. This enables visualization of the process data as a live trend in the curve diagram (Recorder View).

The recorder app can be visualized via the integrated touch panel as part of the hybrid UI. It is also available on the web.

Hybrid UI

The hybrid UI (user interface) is a combination of firmware and CODESYS visualization in one device. The hybrid UI makes operation easier and increases user-friendliness.

Acquisition of batches

The scope of the JUMO variTRON 500 touch central processing unit also includes the acquisition of batches. As a result, up to 20 batches can be logged simultaneously.

The batch data is acquired together with the channels (signals) of the assigned groups and the event messages.

The batches are also only temporarily stored in the central processing unit. Storage, visualization, and evaluation are then carried out with the JUMO smartWARE Evaluation software. A fee-based license is also required for this purpose (number of batches).

[1] The number of modules depends on the cycle time configured for the system bus master, the active process values, the type of connection modules and the system load. Router modules are not taken into account when calculating the maximum admissible number of modules.

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JUMO Cloud

The IoT platform for process visualization as well as data acquisition, evaluation, and archiving enables worldwide access to measurement data using common web browsers. The JUMO Cloud is characterized by a high degree of security as well as valuable visualization, alarm, and planning functions.

Further information on the JUMO Cloud:

qr-en-cloud.jumo.info

JUMO smartWARE SCADA

The JUMO smartWARE SCADA software provides easy access to measurement data using conventional web browsers. It offers functions for process visualization as well as for evaluation of the acquired data. The software also supports manufacturing and work processes with valuable visualization, alarm, and planning functions.

Further information on the JUMO smartWARE SCADA software:

qr-en-scada.jumo.info

JUMO smartWARE Evaluation

JUMO smartWARE Evaluation is intended for evaluating and visualizing process data from the JUMO variTRON system. The process data can be evaluated in customizable dashboards based on time or batch and transferred into reports (e.g. PDF, Excel®, CSV).

Further information on the JUMO smartWARE Evaluation software:

qr-en-evaluation.jumo.info

JUMO variTRON Program App

The browser-based software solution JUMO variTRON Program App enables intuitive creation and editing of process technology programs and recipes on the JUMO variTRON 500 and the JUMO variTRON 500 touch via web access. As a result, plant manufacturers can define process steps and then link them into a program using the graphical editor. The plant user can control the program sequence via a connected web interface.

Further information about the JUMO variTRON Program App software:

qr-en-program.jumo.info

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Technical data

Interfaces

USB host	
Designation	USB
Type	A (socket)
Number	2
Device category	Mass Storage Class, Communications Device Class – Ethernet Control Module
Application	Connecting a USB flash drive or a USB to Ethernet converter
Data rate	Low Speed, Full Speed, Hi-Speed
Max. current	500 mA per interface
Ethernet	
Designation	LAN1, LAN2, LAN3 (optional)
Type	RJ45
Number	2 (optional: 3)
Protocol	TCP, IPv4, HTTP(S) Via CODESYS as an option: Modbus TCP, PROFINET IO-Controller/Device (Device as of system version 8.2), EtherCAT Master, OPC UA Server, BACnet/IP, Ethernet/IP (as of system version 10)
Application	Communication with: - PC (setup program, web browser) - mail server - Modbus TCP master/slave - PROFINET IO-Device/Controller - EtherCAT slave - OPC UA client - BACnet/IP server/client - JUMO system bus via JUMO variTRON router modules (to LAN1 only)
Transfer rate	10 Mbit/s, 100 Mbit/s (EtherCAT: 100 Mbit/s)
Connecting cable	Network cable, at least CAT5e (S/FTP)
Cable length	Up to 100 m
RS485 (serial interface)	
Designation	COM
Type	2-pole terminal strip
Number	1
Application	Fieldbus applications, communication via modem with a PC or with a mail server
Protocol	Via CODESYS: Modbus RTU Master/Slave
Data format	8/1/n, 8/1/e, 8/1/o
Transfer rate	9600 Bd, 19200 Bd, 38400 Bd, 115200 Bd

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Wireless interface (optional)	
Antenna connector	SMA socket
Radio frequency	868.4 MHz (Europe) or 915 MHz (USA, Australia, Canada, New Zealand, etc.)
	In the 915 MHz frequency band (912.6 MHz to 917.4 MHz) one of 10 fixed frequencies can be set.
Open air range	300 m with 868.4 MHz or 200 m with 915 MHz
	Range when using the antenna holder for wall mounting with 3 m long antenna cable; when mounting the antenna directly to the receiver, a reduction in the range must be taken into account.
Erforderlicher RSSI value for error-free transmission	> -90 (with stationary transmitter)
	The RSSI value is an indicator of the strength of the received signal (theoretical value range: -120 to 0).
Application	Receiver for JUMO Wtrans transmitters (wireless measured value transmission)
Compatible transmitters	Wtrans T (902930), Wtrans B (707060), Wtrans p (402060), Wtrans E01 (902928)
	Not supported thermocouple types with Wtrans B: MoRe5-MoRe41, W3Re-W26Re

Screen

Type	TFT color screen
Touch technology	Capacitive
Screen size (diagonal)	
Types 705004/0, 705004/1	Approx. 17.8 cm (7")
Types 705004/2, 705004/3	Approx. 25.7 cm (10.1")
Resolution	
Types 705004/0, 705004/1	1024 × 600
Types 705004/2, 705004/3	1280 × 800
Number of colors	16.7M
Brightness (luminance)	Typically 400 cd/m^2
Backlight	LED (dimmable in 7 steps)

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Electrical data

Voltage supply	
Symbol (see nameplate)	⎓
Connection	Removable terminal strip 3-pole with push-in technology (incl. connection for functional ground)
Voltage	DC 24 V +25/-20 % SELV
Residual ripple	5 %
Current consumption	(at DC 19.2 V)
Type 705004/0	Max. 0.84 A
Type 705004/1	Max. 0.84 A
Type 705004/2	Max. 0.91 A
Type 705004/3	Max. 0.91 A
Power consumption	
Type 705004/0	Max. 17.5 W
Type 705004/1	Max. 17.5 W
Type 705004/2	Max. 19.4 W
Type 705004/3	Max. 19.4 W
Conductor cross section (terminals +24V, GND, FE)	
Wire or stranded wire without ferrule	Min. 0.2 mm^2, max. 2.5 mm^2
Stranded wire with ferrule	Min. 0.25 mm^2, max. 2.5 mm^2
2 × stranded wire with twin ferrule with plastic collar	Min. 0.5 mm^2, max.1.5 mm^2
Stripping length	10 mm
Conductor cross section COM (terminals 1, 2)	
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	9 mm
Electrical safety	According to DIN EN 61010-1:2020 Overvoltage category III, pollution degree 2
Protection rating	III
Electromagnetic compatibility	According to DIN EN 61326-1:2022
Interference emission	Class A – only for industrial use –
Interference immunity	Industrial requirement
Radio frequency spectrum	
868.4 MHz	According to ETSI EN 300 220-1 and ETSI EN 300 220-2
915 MHz (912.6 MHz to 917.4 MHz)	According to FCC - Title 47 CFR Part 15 and ANSI C63.4
Data backup	Buffered RAM
Buffer battery service life	Typically 6 years (lithium battery CR2032) Observe fault messages on battery status in the event list (battery almost empty, battery empty)!

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Housing and environmental conditions

Case type	Housing for installation in panel cut-out (indoor use), horizontal orientation only
Types 705004/0, 705004/2	Plastic housing, display with glass front
Types 705004/1, 705004/3	Plastic housing with stainless steel front (V2A), display with glass front
Front panel (width × height)	
Type 705004/0	199.7 mm × 134.7 mm
Type 705004/1	229 mm × 164 mm
Type 705004/2	265.1 mm × 180.5 mm
Type 705004/3	294.4 mm × 209.8 mm
Thickness of the front frame (without seal)	
Type 705004/0	8.1 mm
Type 705004/1	5.5 mm
Type 705004/2	8.1 mm
Type 705004/3	5.5 mm
Mounting depth (up to seal)	(without DIN rail)
Type 705004/0	49.6 mm (shallower housing), 58.7 mm (deeper housing)
Type 705004/1	53.6 mm (shallower housing), 62.7 mm (deeper housing)
Type 705004/2	49.6 mm (shallower housing), 58.7 mm (deeper housing)
Type 705004/3	53.6 mm (shallower housing), 62.7 mm (deeper housing)
Panel cut-out (width×height)	
Type 705004/0	190.2 mm × 125.2 mm (+ 1 mm)
Type 705004/1	214 mm × 149 mm (+ 1 mm)
Type 705004/2	253 mm × 168.4 mm (+ 1 mm)
Type 705004/3	279.4 mm × 194.8 mm (+ 1 mm)
Panel thickness	
Types 705004/0, 705004/2	Max. 7 mm
Types 705004/1, 705004/3	Max. 8 mm
Weight (fully fitted)	
Type 705004/0	Approx. 1020 g
Type 705004/1	Approx. 1810 g
Type 705004/2	Approx. 1440 g
Type 705004/3	Approx. 2430 g
Protection type	According to DIN EN 60529
Types 705004/0, 705004/2	At the front IP65, at the rear IP20
Types 705004/1, 705004/3	At the front IP69K (high-pressure cleaning > 70 °C only when switched off), at the rear IP20
Ambient temperature range (operation)	
Types 705004/0, 705004/1	-20 to +55 °C
Types 705004/2, 705004/3	-20 to +50 °C
Storage temperature range	-30 to +70 °C
Resistance to climatic conditions	Relative humidity ≤ 90 % annual average, no condensation
Operation	Climate class 3K22 according to DIN EN 60721-3-3 with extended temperature and humidity range
Storage	Climate class 1K21 according to DIN EN 60721-3-3 with extended temperature and humidity range
Site altitude	Up to 2000 m above sea level
Oscillation	According 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

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Shock	According to DIN EN 60068-2-27, table A.1
Peak acceleration	150 m/s^2
Shock duration	11 ms
Degree of protection against mechanical loads (shock resistance)	According to DIN EN 50102/A1
Types 705004/1, 705004/3	IK08 (shatterproof)

Approval marks and certificates

c UL us	
Test facility	Underwriters Laboratories
Certificate/certification number	E201387
Inspection basis	UL 61010-1 (3. Ed.), CAN/CSA-22.2 No. 61010-1 (3. Ed.)
Valid for	All types without DIN rail on the rear side

NEMA 4X	
Test facility	Keystone Compliance, LLC.
Certificate/certification number	2310-272N
Inspection basis	NEMA 250
Valid for	Variant with stainless steel front

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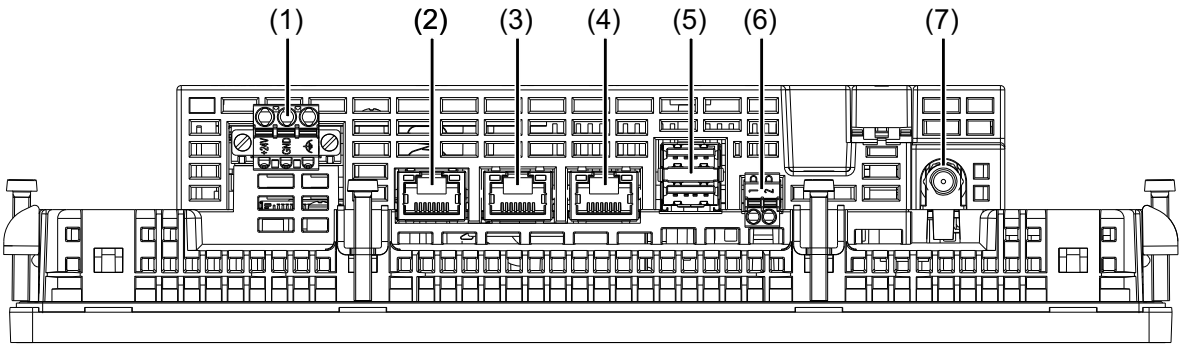
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Connection diagram

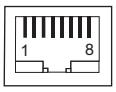
The connection diagram in the data sheet provides information on product selection.

For the electrical connection, only use the installation instructions or the operating manual.

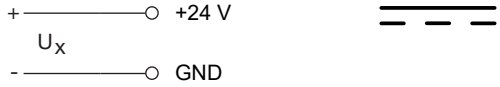


1 Voltage supply and functional ground
2 Interface LAN3 (Ethernet), optional
3 Interface LAN2 (Ethernet)
4 Interface LAN1 (Ethernet/JUMO system bus)
5 2 USB host interfaces
6 Interface COM (RS485)
7 Antenna connector for wireless interface, optional

Interfaces

Connection	Product name	Number	Connection element	Assignment	
USB host (2 ×)	USB	(5)	USB socket type A (2 ×)		
Ethernet	LAN1	(4)		1 TX+	Transmission data +
	LAN2	(3)		2 TX-	Transmission data -
	LAN3 (optional)	(2)		3 RX+	Received data +
				6 RX-	Received data -
Serial interface RS485	COM	(6)	Terminal strip 2-pole	1 TxD+/RxD+	Transmission/received data +
				2 TxD-/RxD-	Transmission/received data -
Antenna		(7)	SMA socket		

Voltage supply

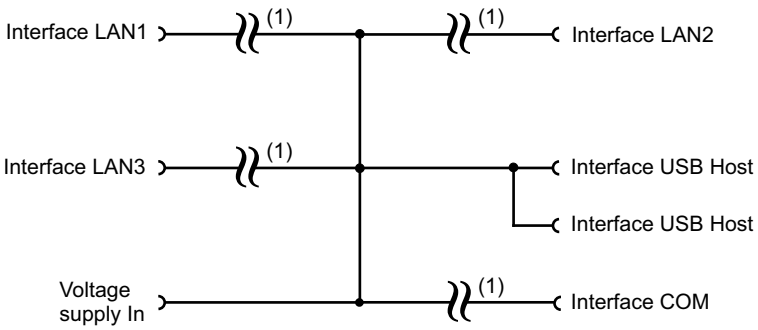
Connection	Product name	Number	Symbol and terminal designation
Voltage supply In	+24 V and GND	(1)	
Functional ground			

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Internet: www.jumousa.com

Electrical isolation



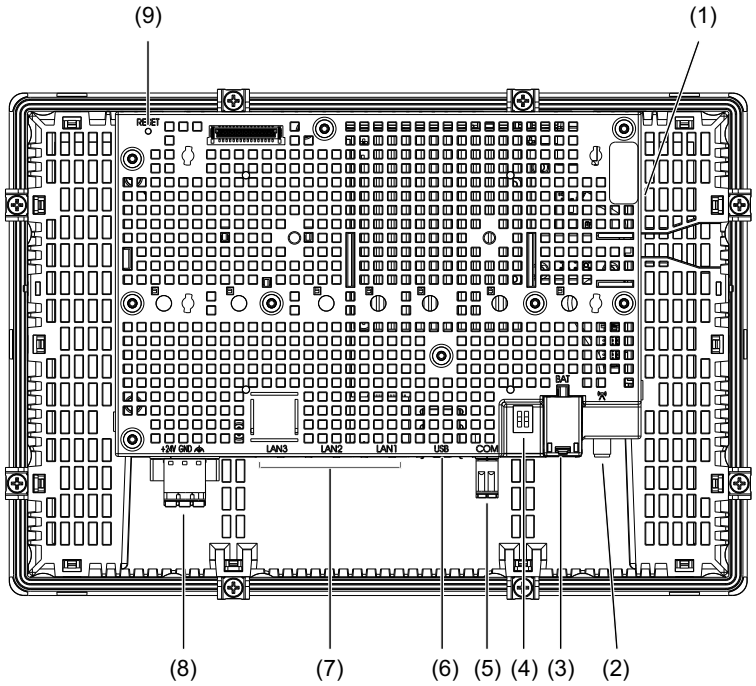
1 Functional galvanic isolation for connection of SELV or PELV electrical circuits.

Control elements

Front

Touch operation (depending on application)

Back cover



1 Nameplate
2 SMA antenna screw connection
3 Buffer battery compartment
4 Switches for terminating resistors (RS485)
5 COM port
6 2 Type A USB ports
7 RJ45 LAN1, LAN2 connections; LAN3 optional
8 DC 24 V voltage supply connection
9 Reset push-button (resetting to default settings)

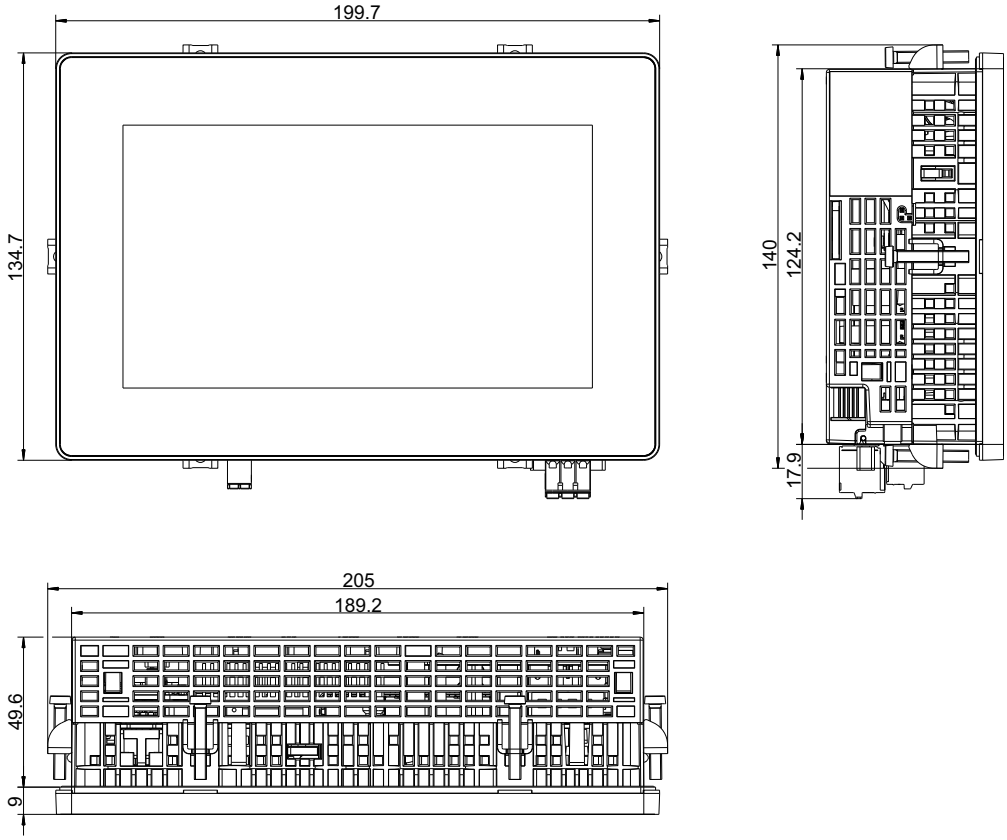
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Dimensions

705004/0 (shallower housing)

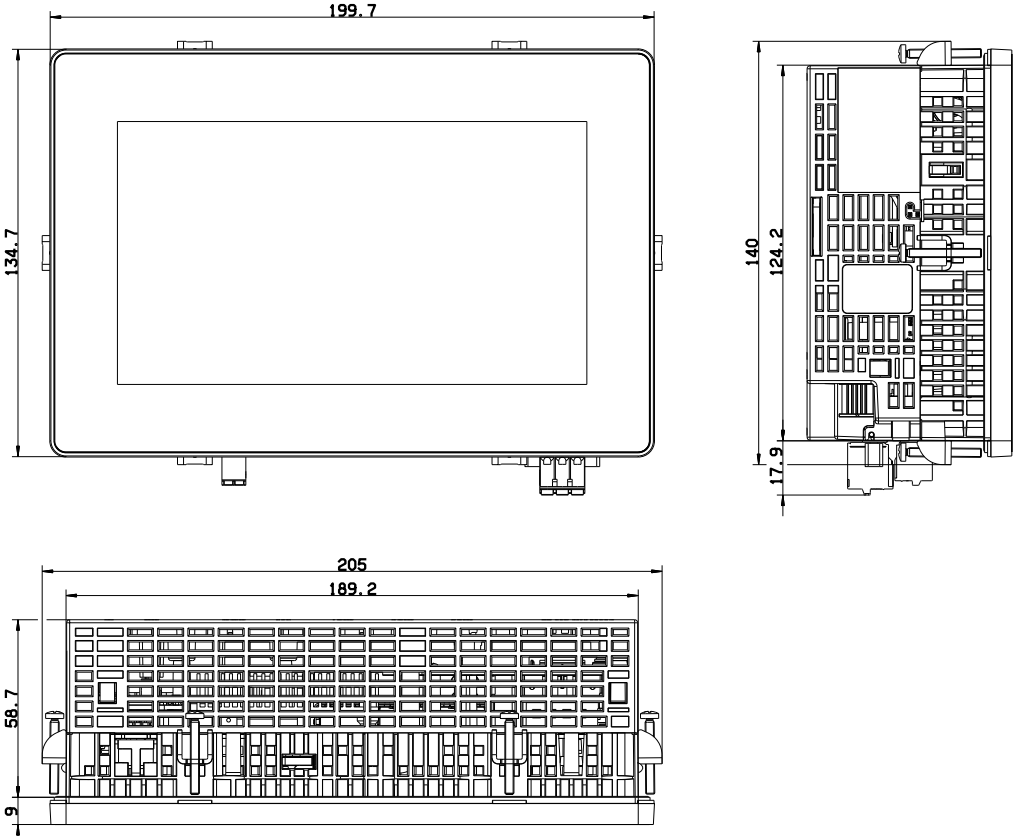


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705004/0 (deeper housing)

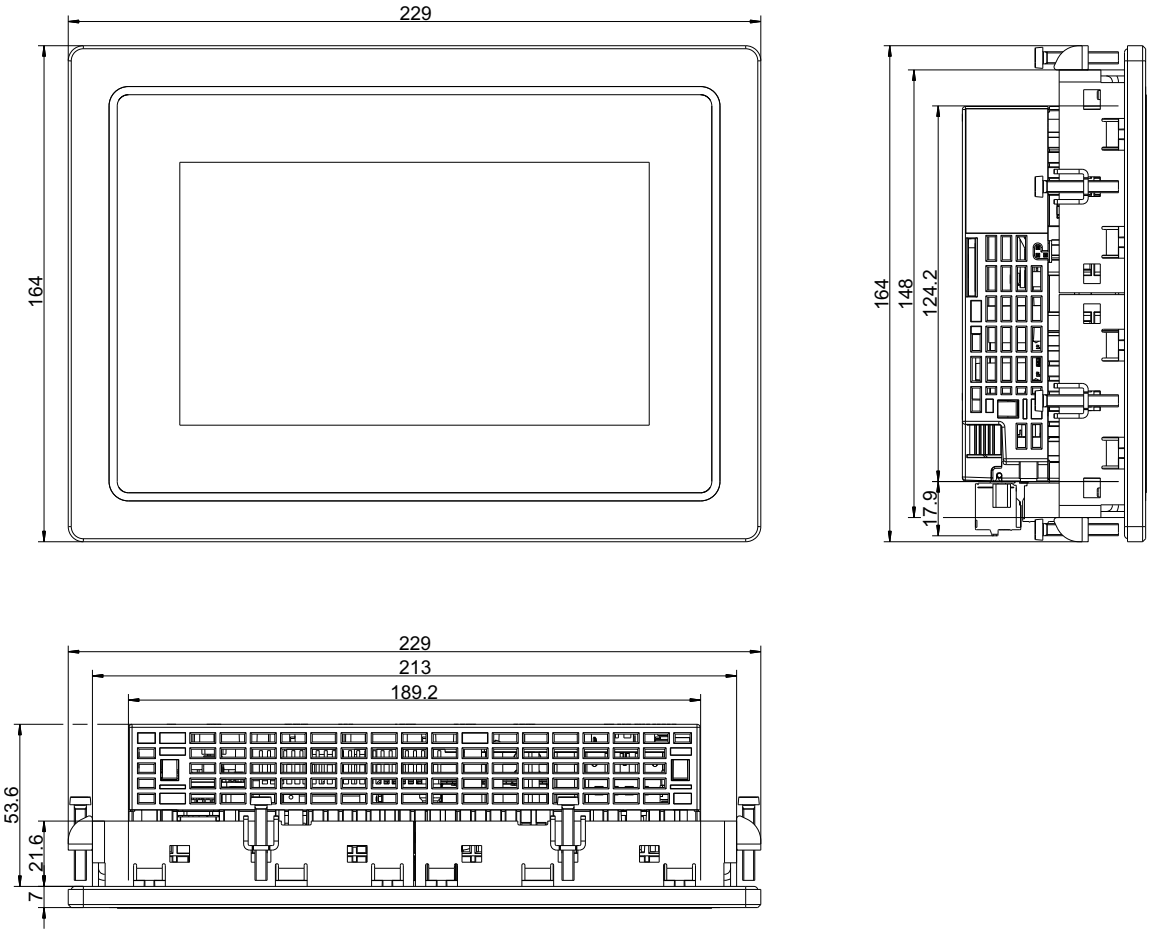


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705004/1 (shallower housing)

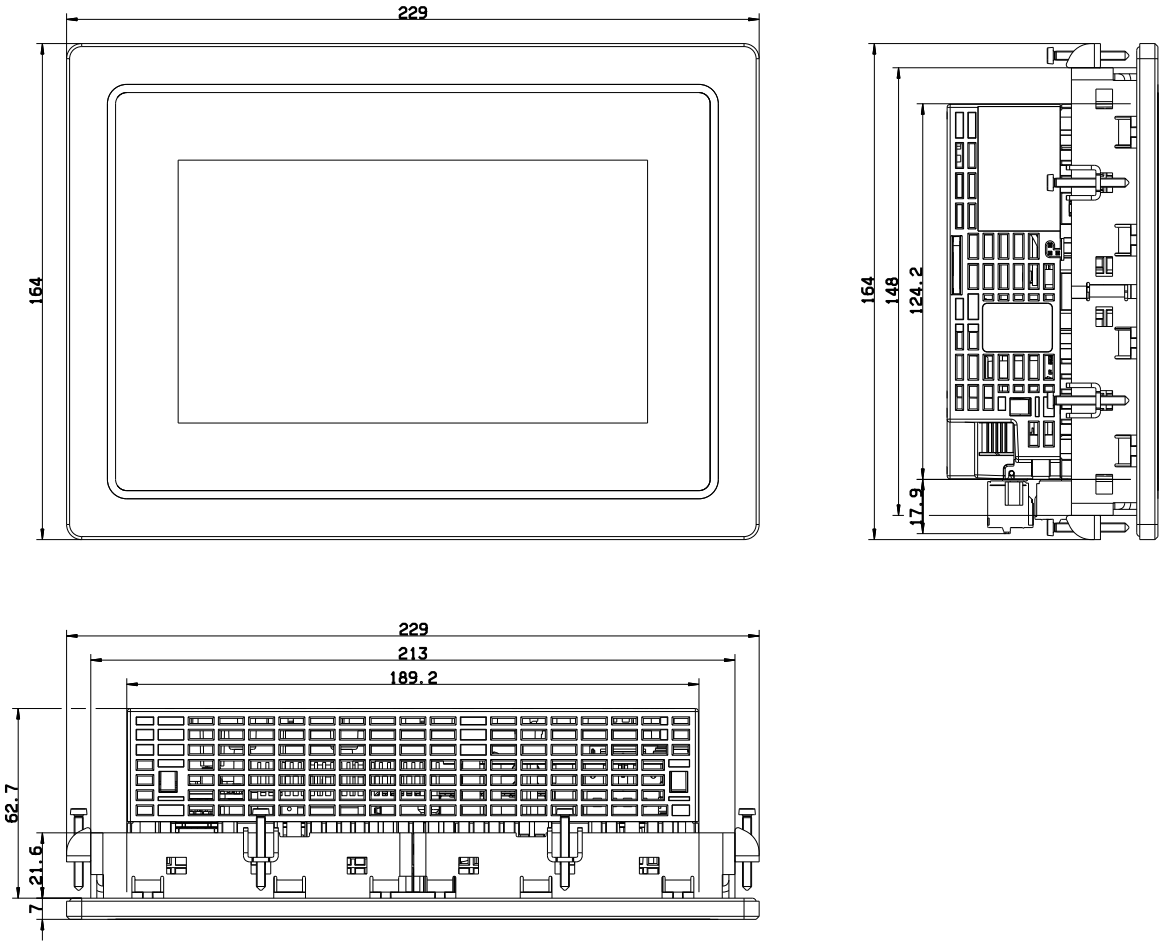


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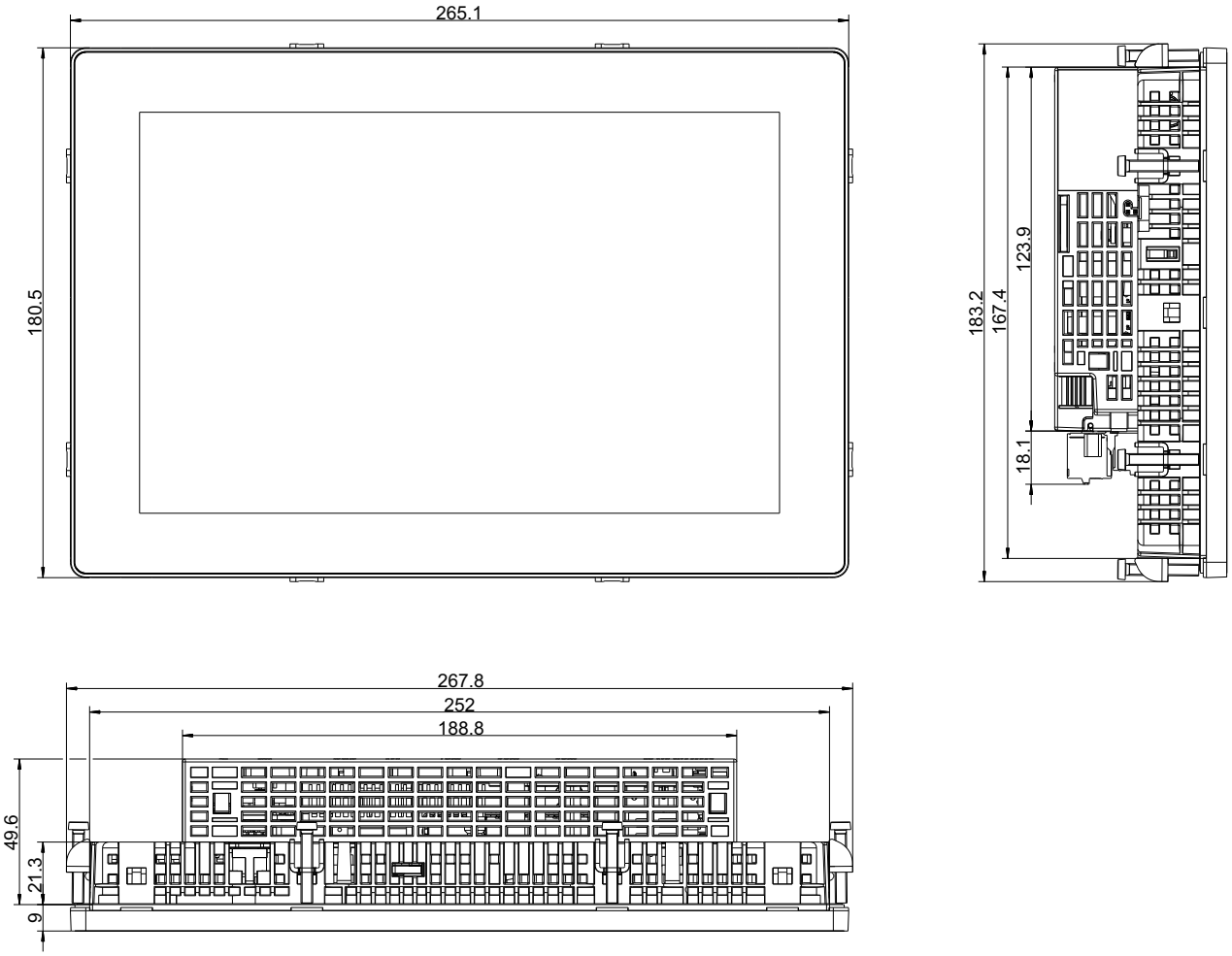


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705004/2 (shallower housing)

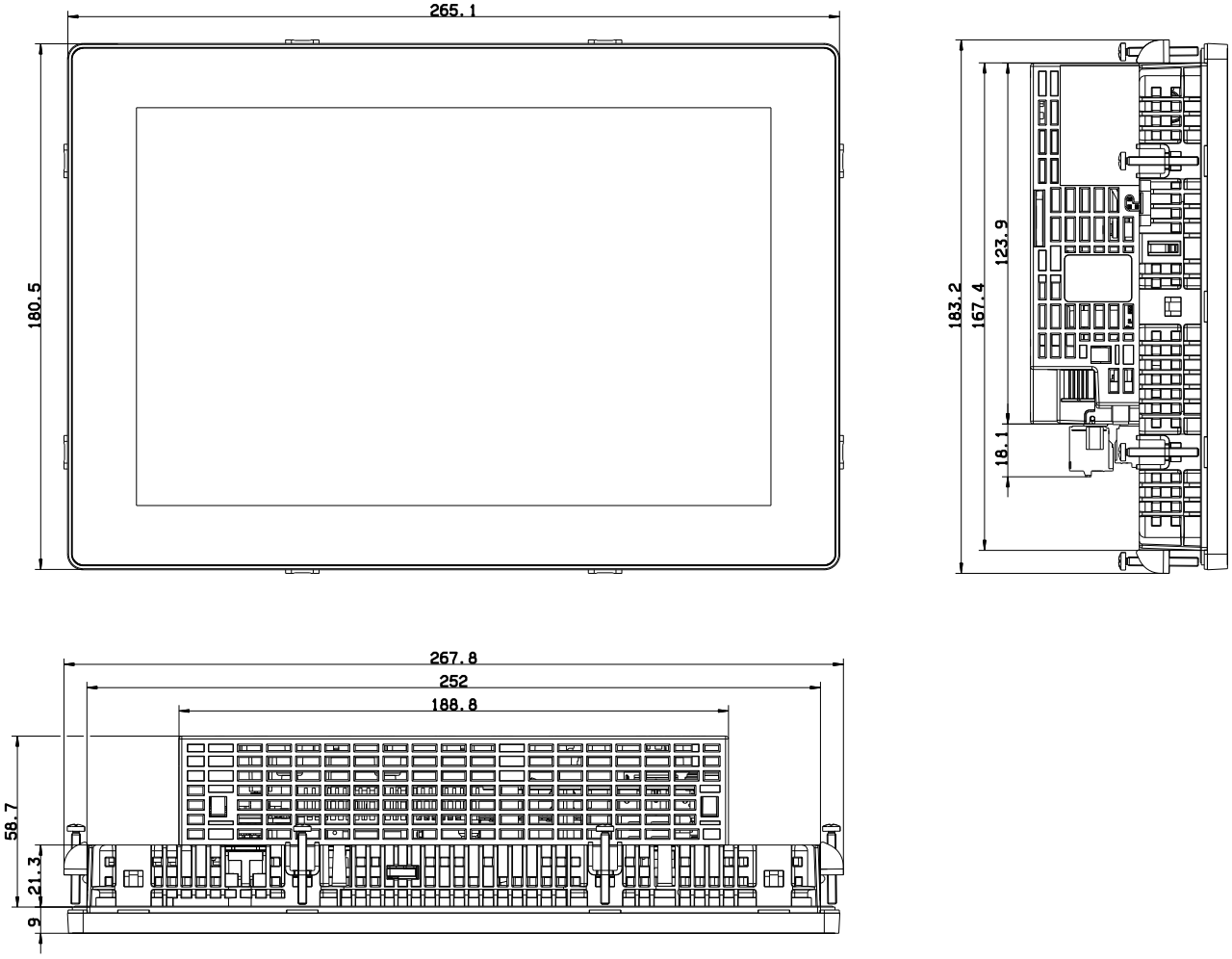


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705004/2 (deeper housing)

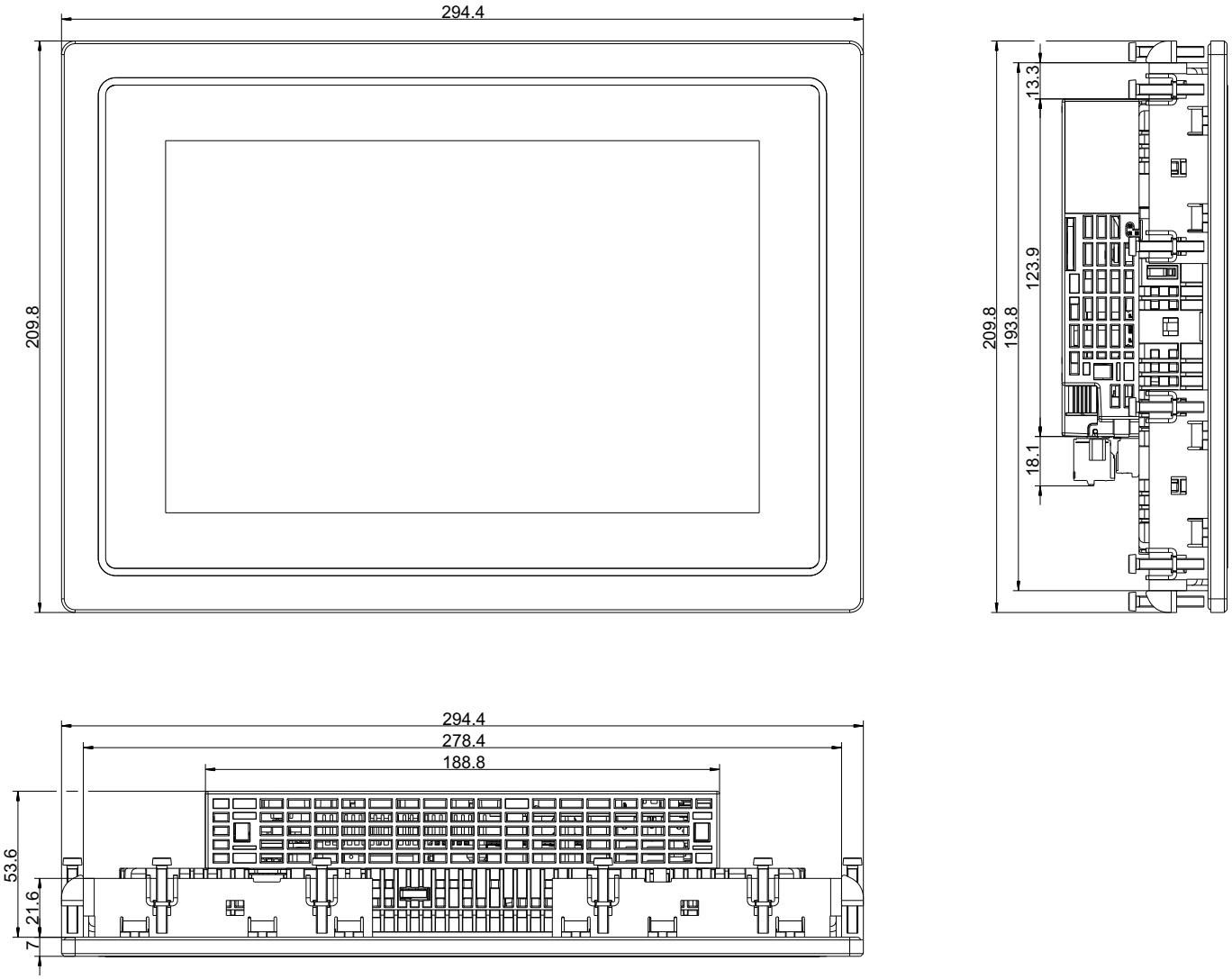


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705004/3 (shallower housing)

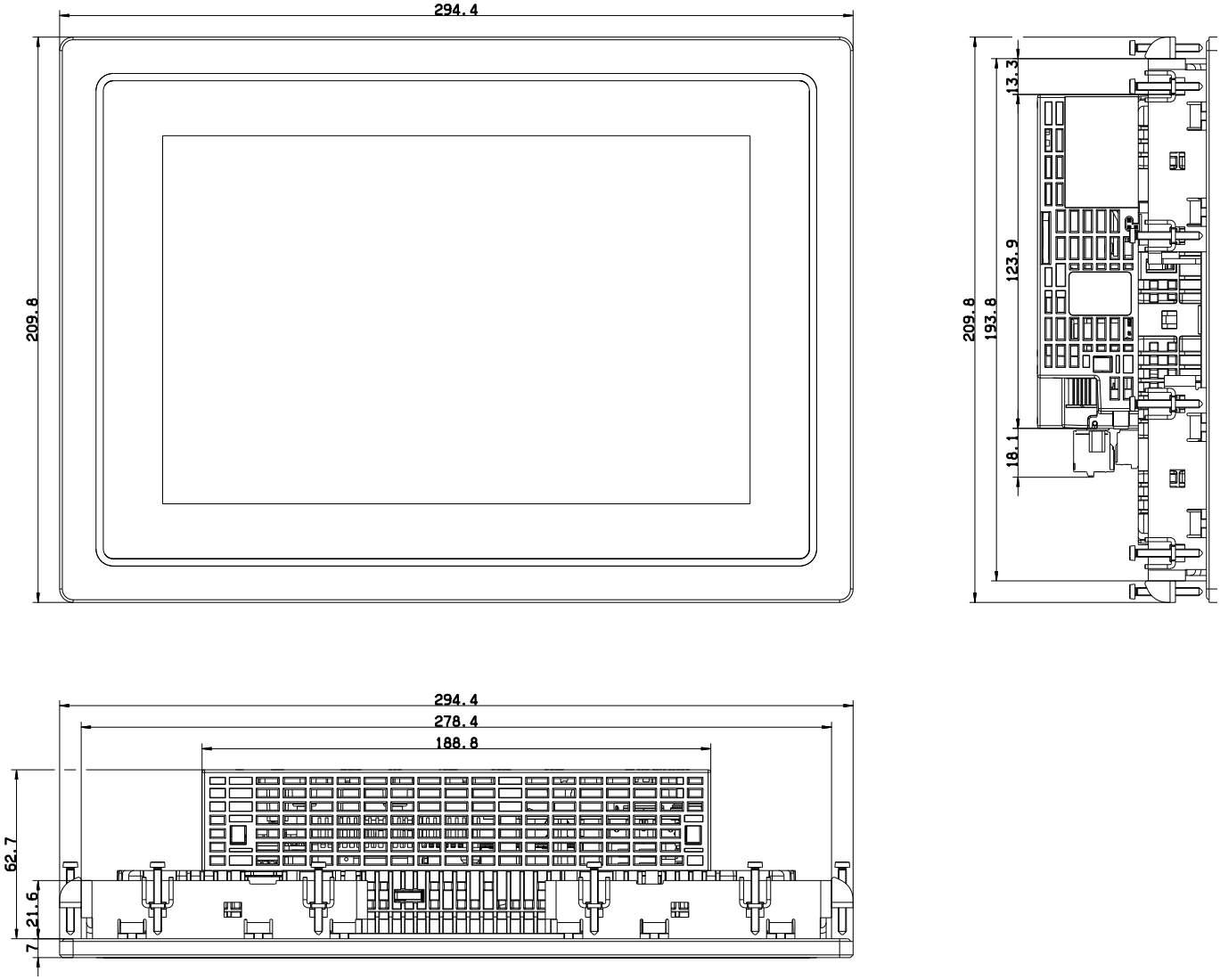


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705004/3 (deeper housing)



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Module overview

Central processing unit

- JUMO variTRON 500 touch, data sheet 705004

Input/output modules

7050xx JUMO variTRON

- 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
- Analog output module 4-channel, data sheet 705025
- Digital input/output module 12-channel, data sheet 705030
- Digital input/output module 32-channel, data sheet 705031
- Thyristor power controller type 70906x, data sheet 709061, 709062, 709063

7051xx JUMO I/O system

- Multichannel controller module, data sheet 705152
- Analog input module 4-channel, data sheet 705113
- Analog output module 4-channel, data sheet 705123
- Digital input module 16-channel, data sheet 705135
- Digital output module 4-channel, data sheet 705143
- Digital output module 16-channel, data sheet 705145

Special modules

7050xx JUMO variTRON

- Router module 2-port, data sheet 705041
- Router module 3-port, data sheet 705042
- Router module 1-port, data sheet 705043

7051xx JUMO I/O system

- Communication module 2-channel, data sheet 705162
- Communication module 3-channel, data sheet 705163
- System module, data sheet 705171

Panels

- JUMO variTRON web panels, data sheet 705070

Power supply units

- 705090/03-33, data sheet 705090
- 705090/05-33, data sheet 705090
- 705090/10-33, data sheet 705090

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Order details

	(1)	Basic type
705004		Central processing unit, type 705004, integrated in the operating panel (capacitive touchscreen, 2 × Ethernet, 2 × USB host, RS485), program generator, Node-RED, math and logic module[a], ST code for controller module[b], communication protocols (1-port PROFINET IO-Controller/Device, Modbus RTU / TCP Master/ Slave, OPC UA Server, EtherCAT Master, BACnet/IP)[d]
	(2)	**Basic type extension 1**
0		7" variant
1		7" variant with stainless steel front
2		10.1" variant
3		10.1" variant with stainless steel front
	(3)	**Basic type extension 2**
2		Quad core CPU
	(4)	**Basic type extension 3**
2		RAM 1024 MB
	(5)	**Basic type extension 4**
1		eMMC 8 GB[c]
	(6)	**Basic type extension 5**
0		Without UPS (upon request)
1		With UPS
	(7)	**Version**
0		Standard with default settings
	(8)	**LAN3 interface**
00		Not used
08		Ethernet (RJ45)
	(9)	**Wireless interface**
00		Not used
10		Wtrans 868.4 MHz (Europe)
20		Wtrans 915 MHz (USA, Australia, Canada, New Zealand, etc.)
	(10)	**Voltage supply**
36		DC 24 V +25/-20 %, SELV
	(11)	**Extra codes**
001		JUMO variTRON Program App (incl. Template, as of system version 8.2)[d, e]
224		PLC according to IEC 61131-3 (CODESYS V3.5; necessary to operate the device as a PLC)[f]
276		Recorder app (as of system version 9)
280		CODESYS Remote TargetVisu[d, f]
281		CODESYS WebVisu[d, f]
290		CODESYS Remote TargetVisu (required for CODESYS visualization with the integrated touch panel)[d, f]

[a] Activation for all connected controller modules (705010).

[b] Available for all controller modules of the type 705152.

[c] Flexible allocation between system data and application data.

[d] Only in conjunction with extra code 224.

[e] Only in conjunction with extra code 281 or 290.

[f] This function can be used free of charge for 30 minutes in demo mode.

Order code:

(1)		(2)	(3)	(4)	(5)	(6)		(7)		(8)		(9)		(10)		(11)		(11)		
705004	/		2	2	1		-	0	-		-		-	36	/	224	,	290	,	[a]

[a] List further extra codes in sequence, separated by commas.

Order example:

705004 / 2 2 2 1 1 - 0 - 00 - 00 - 36 / 224 , 290

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Scope of delivery

1 central processing unit, type 705004, in the ordered version
1 lambda/4-antenna (only for device with wireless interface)
1 installation instructions
Mounting elements Type 705004/0: 8 pieces (only 6 are needed) Type 705004/1: 8 pieces Type 705004/2: 8 pieces Type 705004/3: 16 pieces

Stock versions

Order code	Part no.
705004/0221-0-00-00-36/224,290	30052961
705004/0221-0-00-00-36/224,283,290	30053032
705004/2221-0-00-00-36/224,283,290	30053033
705004/2221-0-08-00-36/224,290	30049514

Accessories

Designation	Part no.
Extra codes (activations):	
Recorder app (as of system version 9)	30071661
JUMO variTRON Program App (incl. Template, as of system version 8.2)	00771090
PLC according to IEC 61131-3 (CODESYS V3.5; necessary to operate the device as a PLC)	00724988
Remote TargetVisu	00724990
CODESYS WebVisu	00724991
CODESYS Remote TargetVisu (required for visualization with the integrated touch panel)	30049496
USB to Ethernet converter[a]:	
TP-Link UE300 USB to Gigabit LAN Converter[b]	30047695
Network cable[a]:	
RJ45 patch cable SF/UTP, length 0.3 m	00747472
RJ45 patch cable S/FTP, Cat. 6A, length 1.5 m	00666324
RJ45 patch cable S/FTP, Cat. 6A, length 3 m	00666326
RJ45 patch cable S/FTP, Cat. 6A, length 5 m	00665966
RJ45 patch cable S/FTP, Cat. 6A, length 10 m	00666327
Accessories for wireless interface[a]:	
Antenna cable, length 1 m, impedance 50 ohm with preconfigured screw-type connection, $T_{max.}$ 85 °C	00710813
Antenna cable, length 3 m, impedance 50 ohm with preconfigured screw-type connection, $T_{max.}$ 85 °C	00482646
Antenna cable, length 5 m, impedance 50 ohm with preconfigured screw-type connection, Tmax. 85 °C	00490066
Antenna cable, length 5 m, impedance 50 ohm with preconfigured screw-type connection, Tmax. 125 °C	00660378
Antenna cable, length 10 m, impedance 50 ohm with preconfigured screw-type connection, Tmax. 85 °C	00490068
Antenna cable, length 10 m, impedance 50 ohm with preconfigured screw-type connection, Tmax. 125 °C	00511870
Antenna holder for wall mounting with antipole for lambda/4 antenna	00482648
Lambda/4 antenna with waterproof, permanently connected cable, length 10 m, $T_{max.}$ 125 °C	00757047
Lambda/4-antenna, impedance 50 ohm, $T_{max.}$ 125 °C	00757039
Amplifier ZX60-0916LN, packaged (ambient temperature -25 to +125 °C)	00715285

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Designation	Part no.
Accessories for module mounting on the back cover of the central processing unit[a]:	
DIN rail incl. fastening material and terminal block for functional ground	30047694
Cover for system bus	30049495
Screw-on end clamp for DIN rail (2 pieces are required)	00528648
Starter kits[c]:	
JUMO variTRON 500 touch starter kit, 7" variant	
JUMO variTRON 500 touch starter kit, 10.1" variant	

[a] The accessories are not part of the device approvals.

[b] This USB to Ethernet converter with RTL8153 chipset has been tested by the manufacturer. Other USB to Ethernet converters with the same chipset should also be usable, as well as converters with the following chipsets: Realtek RTL8150, RTL8152, RTL8153ASIX AX88xxx based, AX88179, AX88178ASMSC LAN95XX based.

[c] Ordering is only possible via the contact person at the manufacturer.

Further information and downloads

jmo.to/705004-en