

# CT 310

POX200 VIS

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## Feeder Overview And Diagnostics

- Control voltage supply OK
- Mains voltage supply OK
- Air pressure OK
- Switch OK
- Feeder unit left OK
- Feeder unit right OK
- Feeder unit turnout OK



- Main drive status
- Main drive status
- Main drive status

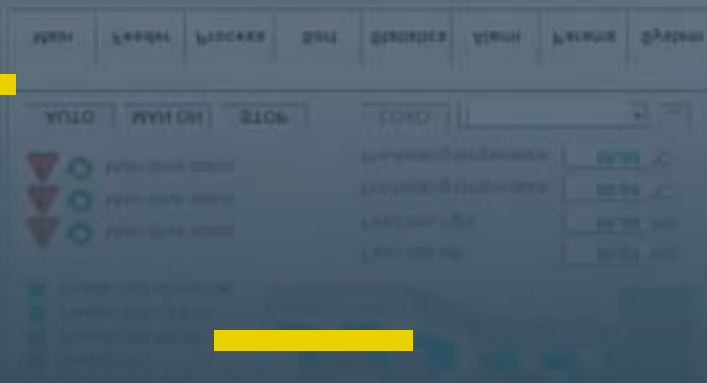
Feed rate left  m/s  
Feed rate right  m/s  
Pre-heating temperature  °C  
Pre-heating temperature  °C

**AUTO** **MAN ON** **STOP**

**LOAD**

**Main** **Feeder** **Process** **Sort** **Statistics** **Alarm** **Params** **System**

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P. 310  
P. 310



**Flexible. Compact. Customer-specific.**



## Visualization and Controller Hardware.

Tailored automation solutions with built-in expansion capability are today an important requirement for financial success in machine and system building. In terms of compactness and costs, Bachmann electronic's control terminals CT offer outstanding features. Controller and visualization rolled into one unit, a HMI-PLC device. Programming and diagnostics can be carried out on the control terminal with exactly the same tools used by the M1 Programming in IEC 61131, C, C++ and Java is also possible. The control terminal is ideal for use where remote intelligence is required in an automation solution in addition to visualization. I/O components can be integrated as easily as usual via Ethernet or CAN.

## Control Terminals

Controller and visualization rolled into one.

The control terminals of the CT200 and CT300 family enable controller and visualization to be implemented at the same time on a common, compact device platform. The CT200 series with 5.7" color TFT display offers maximum functionality in a minimum of space and is the ideal solution for the control and visualization of small machines. Its big brother, the CT300

with 6.4" or 10.4" color TFT display, is ideal for the control and operation of small machines and plants. Both series can either be operated via a touch screen or via a customized foil keyboard on the front plate. The devices of the 300 series also offer the convenience of connecting an external keyboard/mouse combination. The same languages (IEC 61131, C/C++ and



### Control terminal CT200 series

#### CT205, CT205V

##### Features

Display: 5.7" QVGA/5.7" VGA, color TFT,  
opt. touch screen

Processor: AMD Geode LX800, 500 MHz

Working memory: 256/512 MB

Compact Flash:  $\geq$  512 MB

Operating system: VxWorks<sup>®</sup>

Interfaces: Ethernet, USB, RS232/422/485, CAN

Visualization: M-JVIS Designer, Java programming

Java) and tools are available for programming and parameterization as on the M1 automation system.

The design, shape and function of the aluminium front plates can be adapted to customer requirements. Fixing elements are fitted on the rear of the device for mounting in the switch cabinet.



## Control terminal CT300 series

### CT306, CT310

#### Features

Display: 6.4" VGA/ 10.4" VGA, color TFT,  
opt. touch screen

Processor: AMD Geode LX800, 500 MHz

Working memory: 256 / 512 MB

Compact Flash:  $\geq$  512 MB

Operating system: VxWorks®

Interfaces: PS/2, Ethernet, USB, RS232/422/485, CAN

Visualization: M-JVIS Designer, Java programming

# Control Terminals



- Control and visualization device
- Ultra compact, fan-free and without hard drive
- 5.7" also with VGA resolution
- Customer-specific front keypad/LEDs
- Programming: IEC 61131, C/C++
- Visualization: Java, M-JVIS
- Operating system VxWorks®
- CANopen
- PROFINET IO RT
- Modbus TCP/RTU

## Control terminal CT200 series

The CT200 series with 5.7" color TFT display offers the inexpensive entry to the world of combined control and visualization devices. Reduced to the essential and extremely compact, it is the ideal platform for the control and visualization of small machines. In terms of performance, the implemented industrial AMD processor is equivalent to a small mid-range controller, also providing sufficient reserves for the user interface or comprehensive data transfer.

The connection of its hardware components, real-time clock, watchdog and the ample retentive memory is also implemented in the same way. The existing Compact Flash card as program memory also provides mass storage for data and protocols.

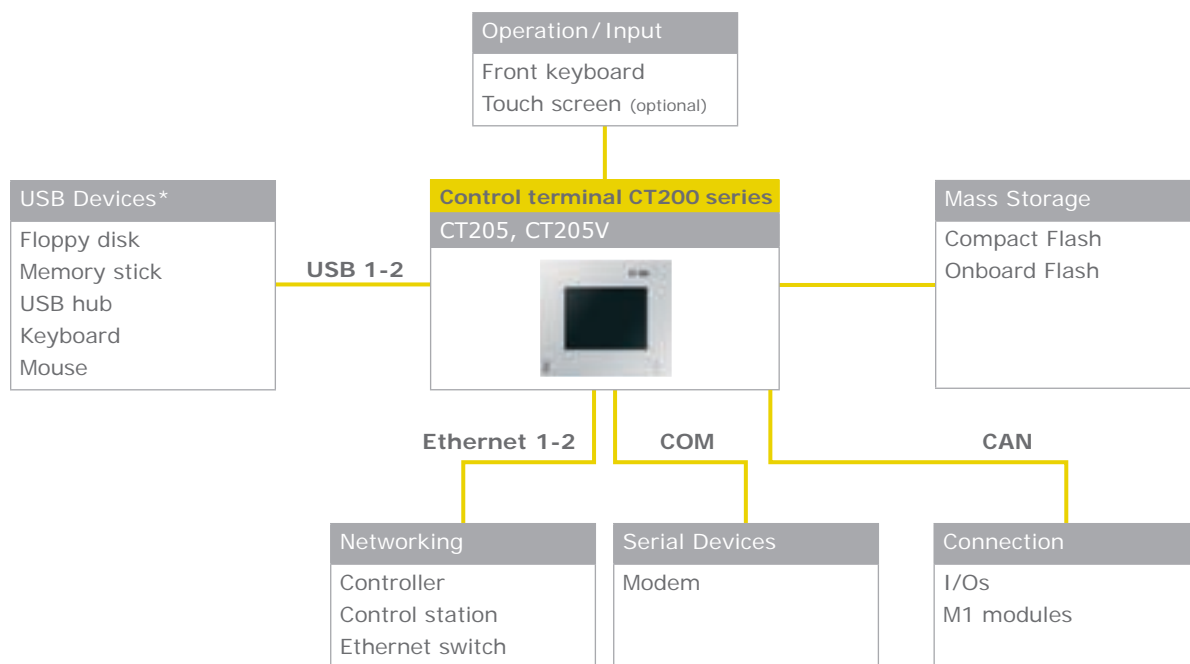
I/O units are connected as peripheral devices optionally via Ethernet, CAN or the serial interface. The SVI/SMI, PROFIBUS IO RT, CANopen and Modbus TCP/RTU protocols are available. The versatile and web-capable M-JVIS visualization offers a high level of openness and can be used exactly in the same way as with the CT300 HMIs.

The operator inputs can be made as required via touch screen or foil keypads on individually configurable front panels.



Article No.	Order No.
CT205	B-13977/00
CT205V	on request

**Interfaces**

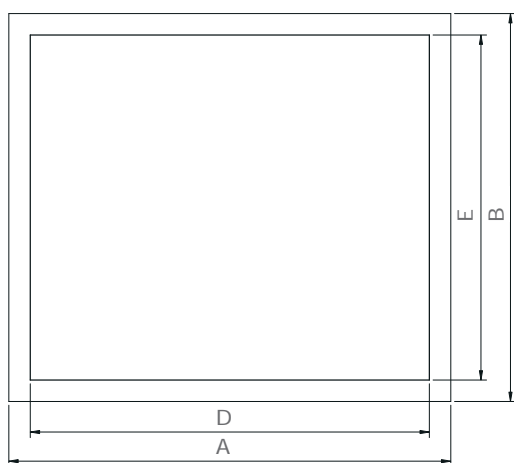


\*supported by VxWorks®

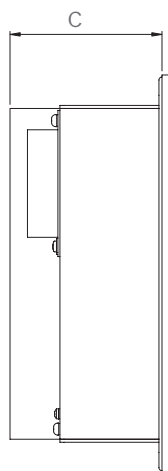
## Control Terminals

CT200 series	CT205	CT205V
Display	5.7" QVGA (320 x 240)	5.7" VGA (640 x 480)
Display type	color TFT	
Display luminance	350 cd/m <sup>2</sup>	
Half luminance	min. 50 000 h	
Touch screen	optional	
Touch screen type	5.7" analog resistive	
Processor system	AMD Geode LX800	
Working memory	256 / 512 MB	
CF memory	≥ 512 MB	
NVRAM	512 Kb (battery backed)	
I/O interfaces	CAN 1 Mbit/s with software CANSync (master and slave) PROFINET IO RT Controller / Device Modbus TCP Ethernet (Client and Server) Modbus RTU RS232 (Client and Server)	
Front keyboard	optional	
Number of front keys	max. 64	
System LEDs	Run, Init, Error	
Status LEDs	optional: 5x	
Ethernet 10 / 100	2x	
USB 2.0	2x	
RS232 / 422 / 485	1x	
CAN	1x	
Other features	Watchdog synchronizing pulse also for SERCOS and CAN, Ethernet fieldbus real-time clock with battery status indication via 3 LEDs CPU-ID selectable with rotary hexadecimal switches	
Power supply	24 VDC (18 V .. 36 V)	
Operating temperature*	0°C .. 50°C fan-free	
Standards	CE, UL, CSA, CUL, CCC	
Operating system	WindRiver VxWorks®	
Visualization	M-JVIS Designer / Java	
Dimensions (W x H x D)	219 x 196 x 49 mm	219 x 196 x 49 mm

\* other temperature ranges on request

**Dimensions****CT series**

Dimensions [mm]	CT205	CT205V
A (width)	219	219
B (height)	196	196
C (depth)	49	49
D (width)	197	197
E (height)	141	141



# Control Terminals



- Control and visualization device
- Robust, fan-free and without hard drive
- 6.4" to 10" color TFT (touch-compatible)
- Customer-specific front keypad / LEDs
- Programming: IEC 61131, C/C++
- Visualization: Java, M-JVIS
- Operating system VxWorks®
- CANopen
- PROFINET IO RT
- Modbus TCP/RTU

## Control terminal CT300 series

The control terminals of the Bachmann electronic CT300 family enable common utilization of a single device, both for open and closed loop control tasks and for visualization and operation. In terms of performance, the implemented industrial AMD processor is equivalent to a small mid-range controller, also providing sufficient reserves for the user interface or comprehensive data transfer.

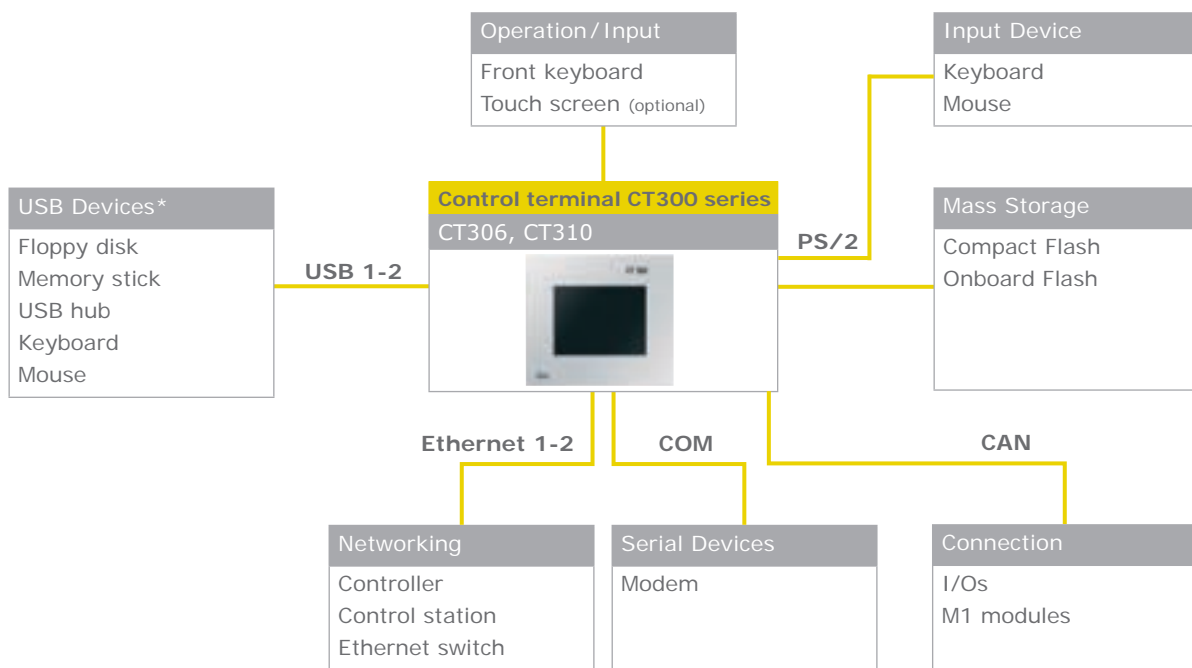
The connection of its hardware components, real-time clock, watchdog and the ample retentive memory is also implemented in the same way. The Compact Flash card provided as program memory also offers mass storage for data and protocols.

I/O units are connected as remote peripheral devices optionally via Ethernet, CAN or the serial interface. SVI/SMI, PROFIBUS IO RT, CANopen and Modbus TCP/RTU protocols are available for this. The versatile and web-capable M-JVIS visualization offers a high level of openness and can be used exactly in the same way as with the WT300 HMIs. The operator inputs can be made as required via mouse/keyboard, touch screen or foil keypads on individually configurable front panels.



Article No.	Order No.
CT306	B-13476/00
CT310	B-13477/00

**Interfaces**



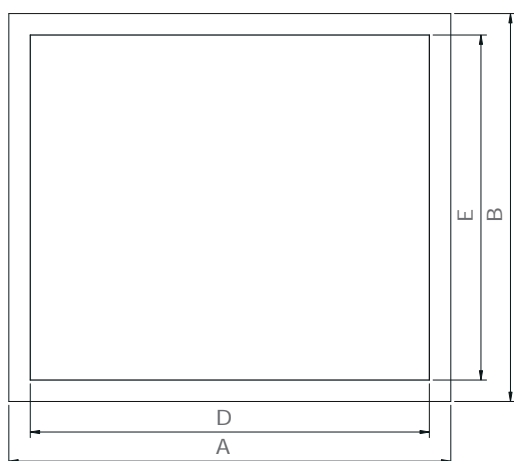
\* supported by VxWorks®

## Control Terminals

CT300 series	CT306	CT310
Display	6.4" VGA (640 x 480)	10.4" VGA (640 x 480)
Display type	color TFT	color TFT
Display luminance	300 cd/m <sup>2</sup>	450 cd/m <sup>2</sup>
Half luminance	min. 50 000 h	min. 50 000 h
Touch screen	optional	optional
Touch screen type	6.4" analog resistive	10.4" analog resistive
Processor system	AMD Geode LX800	
Working memory	256 / 512 MB	
CF memory	≥ 512 MB	
NVRAM	512 Kb (battery backed)	
I/O interfaces	CAN 1 Mbit/s with software CANSync (master and slave) PROFINET IO RT Controller / Device Modbus TCP Ethernet (Client and Server) Modbus RTU RS232 (Client and Server)	
Front keyboard	optional	
Number of front keys	max. 64	
System LEDs	Run, Init, Error	
Status LEDs	optional: 11x	
PS/2 connection	1x	
Ethernet 10 / 100	2x	
USB 1.1	2x	
RS232 / 422 / 485	1x	
CAN	1x	
Other features	Watchdog synchronizing pulse also for SERCOS and CAN, Ethernet fieldbus real-time clock with battery status indication via 3 LEDs CPU-ID selectable with rotary hexadecimal switches	
Power supply	24 VDC (18 V .. 36 V)	
Operating temperature*	0°C .. 50°C fan-free	
Standards	CE, UL, CSA, CUL, CCC	
Operating system	WindRiver VxWorks®	
Visualization	M-JVIS Designer / Java	
Dimensions (W x H x D)	237 x 208 x 89 mm	314 x 237 x 94 mm

\* other temperature ranges on request

## Dimensions



### CT series

Dimensions [mm]	CT306	CT310
A (width)	237	314
B (height)	208	237
C (depth)	89	94
D (width)	214	290
E (height)	185	214

