

# KeControl C2 CP 250/Z, CP 251/Z, CP 251/U CPU-Module



Flexibility through modular CPU concept

- Cost reduction through operation-optimized CPU type. Industry-specific I/O-Board type
- No maintenance costs. Operated without fan. (only CP 250/Z and CP 251/Z)
- Time savings during installation, start-up operation and service. For direct clip-on to mounting rail.
  - Availability and reliability through use of tried and tested components from the PC world.

## **Brief description**

The modules CP 250/Z, CP 251/Z and CP 251/U are central processor modules from the K2-200 module system. They include a processor with a computing power bandwidth from a Celeron ULV400 to a Celeron 700 and an internal memory of 256MB RAM. VXWorks is the used operating system.

Onboard the CP-module is equipped with interfaces for communication via CAN, 2xUSB and Ethernet. The firmware- and application data are stored on a Compact Flash memory card. Slot-in option modules can be used to extend the functionality for further communication interfaces such as RS485/422, RS 232, Current Loop, Ethernet, K-Net and an additional CAN-circuit. The connection of graphic panels from the extensive range of Kemro panels is realized via a LVDS graphic interface on a CP 250/Z or on a CP 251/Z. The CP 251/U is equipped with a DVI graphic interface. The states during start-up and operation are displayed via a 7-segment display and a power LED. The corresponding operating states are accessed via a switch.

The modules of the CP 25x-series are equipped with an industry-optimized I/O-Board. This I/O-Board enables connection of a host of different digital and analog input/output signals as well as the connection of temperature sensors with or without external temperature compensation.

The laterally installed K-Bus allows up to 12 I/O field buses and technology modules to be added on to such a central processor module. Further to this, CAN or K-Net bus link modules can be used to decentralize module clusters with I/O modules from the K2-200 module system and/or transmit over distances to CANopen or K-Net specification.



CP 251/U

99 W

31 W

45 W

23 W

# **Technical Data**

### **General information**

Nominal supply voltage: Supply voltage range: Max. starting current: Overvoltage category: Equipment class: Ventilator:

Recommended fuse protection:

Max. total power consumtion: Own power consumption: Max. power output K-Bus 24 V: Max. power output K-Bus 5 V:

#### **Environmental conditions**

Operating temperature:	+5 °C to +50 °C	
Storage temperature:	-40 °C to +70 °C	
Relative humidity of air:	10 % to 95 % (non condensing)	
Vibration resistance:	according to EN 61131	
Shock resistance:	according to EN 61131	

24 V DC

11 A

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19,2 V to 30 V (according to EN 61131-2)

CP 250/Z, CP 251/Z: No internal ventilator

CP 251/U: ventilator, replaceable from the outside Line safety switch LSS 10 A – type B

CP 251/Z

99 W

31 W

45 W

23 W

III (according to EN 61131-2)

CP 250/Z

99 W

31 W

45 W

23 W

#### **Computer kernel**

	CP 250/Z	CP 251/Z	CP 251/U
Processor:	Embedded Processor Intel Celeron 400	Embedded Processor Intel Celeron 700	Embedded Processor Intel Celeron 700
Memory:	256 MB DDR SDRAM	256 MB DDR SDRAM	512 MB DDR SDRAM
Battery-buffered SRAM:	512kB	512kB	512kB
Interfaces			

	CP 250/Z	CP 251/Z	CP 251/U
OnBoard LVDS-graphic interface	ü	ü	
OnBoard DVI-graphic interface			ü
OnBoard CAN	ü	ü	ü
OnBoard USB	ü	ü	ü
OnBoard Ethernet	ü	üò	ü 👌
OnBoard K-Bus	ü	ü 🖉 🎽	ü 🔊
Option module Ethernet	ی تا را	<u></u> ü	ü
Option module CAN	<u> </u>	<u> </u>	ü
Option module RS232 or RS485/422	ü	ü	ζ°ü

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### Casing, dimensions

Dimensions in mm (H x W x D) Type of assembly: Connection plug power supply: Ingress protection rating: 120x270x100 Mounting rail 2-core male connector, grid 5.08 mm IP20

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