

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.

Technical Data

General information

Nominal supply voltage:	24 V DC
Supply voltage range:	19,2 V to 30 V (according to EN 61131-2)
Max. starting current:	11 A
Overvoltage category:	II
Equipment class:	III (according to EN 61131-2)
Ventilator:	CP 250/Z, CP 251/Z: No internal ventilator CP 251/U: ventilator, replaceable from the outside
Recommended fuse protection:	Line safety switch LSS 10 A – type B

	CP 250/Z	CP 251/Z	CP 251/U
Max. total power consumption:	99 W	99 W	99 W
Own power consumption:	31 W	31 W	31 W
Max. power output K-Bus 24 V:	45 W	45 W	45 W
Max. power output K-Bus 5 V:	23 W	23 W	23 W

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

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	ü	ü
OnBoard K-Bus	ü	ü	ü
Option module Ethernet	ü	ü	ü
Option module CAN	ü	ü	ü
Option module RS232 or RS485/422	ü	ü	ü

Casing, dimensions

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