

# Controller @PLC-C202-EN

CPU



- IEC-61131-3 PLC
- 10/100Mbit Ethernet Interface
- TCP/IP, RS232 for programming and diagnostic
- Ethernet IO
- Serial RS232 Modbus Interface
- Fieldbus also available
- Program download by ftp

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## Pinout, Display

LED: *) see notes	
RUN	CPU: ok
DIAG	CPU: diagnostic LED
ERR	CPU: Error LED
SDX	CPU: system data transmsion @BUS
ACT	Ethernet: Transmit
LINK	Ethernet: link ok
SP	Ethernet: Off: 10Mbit; on:100Mbit
COLL	Ethernet: Collision
<b>Rotary switch:</b>	
Hi:	Reserved
Lo:	Reserved
<b>Connectors</b>	
Ethernet:	RJ45 10/100Mbit
Serial:	Mini USB RS232 Pin 1: TX Pin 2: RX Pin 3: GND
Power:	Phoenix Minicombicon Pin 1: 24 V Pin 2: 0 V

## Attributes

**10/100Mbit Ethernet Interface:**  
Additional Fieldbus-interface available.  
Serial interfaces: RS232, optional RS485\*.  
The @C202-EN contains a ARM7 core controller.

**IP-Address:**  
IP-Adress would be given by @ctiveIO-Toolkit.  
Rotary switch for fieldbus-address.

**CPU specifications:**  
Flash memory : ..... 4 MByte (16 Bit)  
SDRAM : ..... 8 MByte (32 Bit)  
Buffered SRAM : ..... 2 MByte (16 Bit)  
..... (Buffered for 24h)  
NVRAM : ..... 32 kByte (8 Bit)  
CPU clock : .....44 MHz  
RTC:.....Real Time Calendar Clock

**Functionality:**  
PLC function : IEC 61131-3 CoDeSys CSP32E V 2.3

**System specifications:**  
Hardware supervisor system :  

- temperature control
- power control
- hardware watchdog
- power fail system
- supports UPS\*

\*) on request

## Electrical Data

Power supply external.....	+24V= ± 20%, see notes
Operating Current .....	135mA at +24V
Protection.....	30V overvoltage, surge
Interfaces .....	RS232, 10/100Mbit Ethernet

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## System Information

System ID .....	0x5273
System Dataformat PLC.....	Motorola, big endian

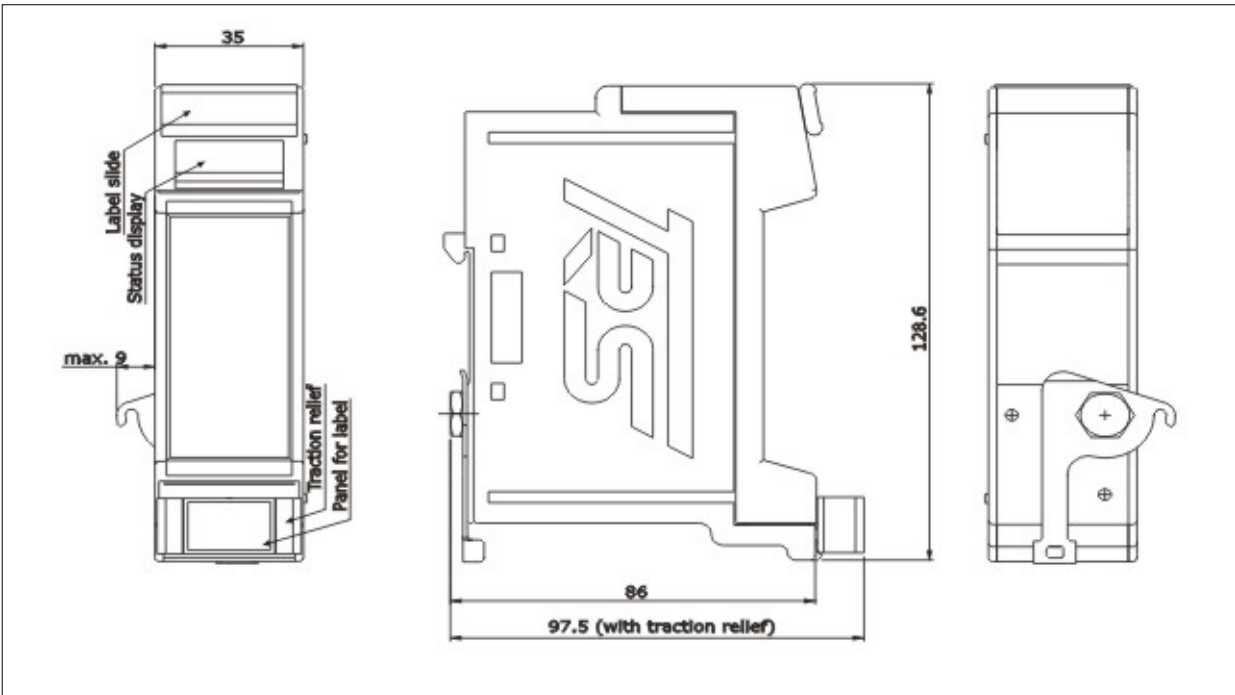
## Environmental Conditions

EMC .....	EN 61000-4-2 (IEC-801-2) / EN 61000-4-4 (IEC-801-4)
Operating temperature [°C] .....	0 .. +55
Storage temperature [°C] .....	-20 .. +70
Humidity (rel) .....	98 % (non condensing)
* Protection class.....	IP 20 (DIN 40 050)
* The protection class is valid only with housing and connector installed	

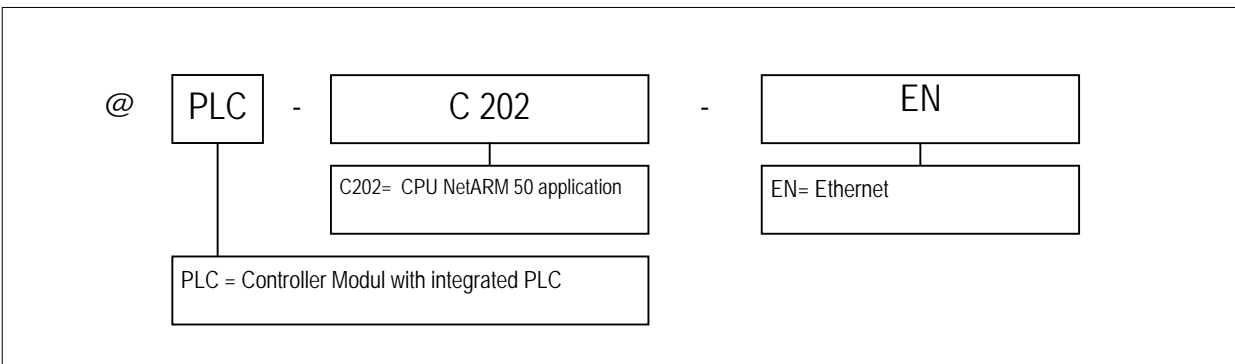
## Mechanical Data

Weight .....	approx. 0.28 kg including connector
Dimension .....	105 x 80 mm

## Drawing (effective if mounted in @M housing)



## Ordering Key



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Technical data

CPU

The product @PLC-C201-EN is a IEC-61131-3 based programmable logic controller unit. It offers the following options.

<b>@PLC-C202-EN</b>	
<b>Controller</b>	<b>basic</b>
CPU	NetARM 50
CPU clock	44,2 MHz
FLASH memory	4MB x 16
SDRAM	8 MB x 32
Buffered SRAM	2 MB x 16
NVRAM	32 KB x 8
Serial	RS232 / RS485 (opt.)
diag. LED; fieldbus	X
@ctiveIO-Bus support	X
second fieldbus support	N
Buffered Real time calendar clock	X
<b>processing time</b>	
Bit	0,8 µs
Word	1,1 µs
DWord	1,2 µs
Fixed-Point arithmetik	1,6 µs
Floating Point arithmetik	7,9 µs
<b>Basic firmware functions</b>	
Firmware download	ftp-Server
@ctiveIO-Toolkit diagnostic	X
<b>PLC functions</b>	
runtime system	IEC-61131-3 CSP32E V 2.3
Memory for IEC program	768 kByte
IEC data	3 Mbyte
IEC retain data	32 kByte
<b>Programming</b>	
Serial	X
TCP/IP	X
monitoring	X
breakpoints	X
online change	X
source code save	X
<b>Libraries</b>	
standard library / timer	X
serial communication	X
boot project	X
retain data (NVRAM)	X
PLC browser	X
object dictionary	X
network variables	X
SyslibRTC	X
<b>Configuration</b>	
watchdog	X
multitasking	N
exception handling	N
<b>Modbus(RS232)</b>	
Interface connection	Slave
Transmission protocols	RTU/ ASCII (adjustable)
<b>Memory size</b>	
digital Output(coil)	max 131072 Bit
digital Input(input)	max 131072 Bit
Holding Register	max 8192 Word
Input Register	max 8192 Word
<b>Function code</b>	1,2,3,4,5,6,8,15, 16 ,23

X : standard  
 O : option  
 N : not supported by @PLC-C202-EN

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**notes:**

**Description of the LEDs:**

LED	Status	Description
RUN	ON	CPU is running
DIAG	ON	Diagnostic information available: Warning / Error
ERR	ON Flashing	Error on fieldbus, no diagnostic information available Error (see diagnostic information)
SDX	ON	Data on @Bus
ACT		Datatransfer on network
LINK	ON	Network connected
SP	ON	Netspeed 100Mbit

**Special operating modes (DIAG and ERR LED):**

ftp server active: ..... DIAG and ERR in alternating blink mode  
 System init in progress:.....DIAG and ERR in concurrent blink mode

**Dataformat PLC I/O function: Big Endian (Motorola)**

var dataformat	variable as Byte	variable as Word	variable as Dword
PLC configuration			
module as Byte		X	X
module as Word			X
module as Dword			

**Caution:**

If using interface moduls of type @5xxx power 0V of the controller has to be directly connected with power 0V of the @5xxx-modul and power 0V of the interface partner of the @5xxx-modul.

**Revision change**

Version	Description	Date (m/y)
00	serie 0	08/04

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