

*PC interface PC-02-XX*

# PC interface

## Type: PC-02-XX



**Vertrieb:**  
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*Version: 10.06.2014*

## **1. Basic features of the device**

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*The PC-02-XX PC interface is intended for connection of incremental sensors providing standard TTL or RS-422 signals to a PC (or PLC).*

### **Standard accessories:**

- PC interface for 1 / 2 / 3 / 4 axes, special option for up to 256 axes
- power supply (220V / 50Hz)
- data cable (2m length)
- software
- user manual

### **Special accessories:**

- USB convertor from RS232 to USB connector

## **2. Technical specifications**

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Power voltage:	5V (power adapter 220V / 50Hz)
Power current:	30mA / axis (without encoder)
Operating temperature:	+10°C to +40°C
Baud rate:	19,200 bps
Measurement frequency:	500kHz
Stop bit:	1
Data bits:	8
Parity:	none
Data output:	RS-232 / USB
Inputs:	A, B,Z

## **3. Functions of the PC interface**

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**RS232 parameters:** baud rate 19200 bps / 8 bit / parity none / 1 start bit / 1 stop bit / data mode HEX

After power on and 5 second delay (power on time of the unit) the unit is waiting for a signal from the PC / PLC. Format of the 2-byte signal is **XXYY**, where

**XX** = axis number. Allowable range of values: 00h to FFh (set in the factory).

Standard numbers of the axes:

- 11h - axis No. 1
- 12h - axis No. 2
- 13h - axis No. 3
- 14h - axis No. 4

If the number does not exist, the unit does not respond.

### **Notice:**

*Read carefully this manual before using the device. Complaints caused by tampering from the side of the user will not be recognized as legitimate.*

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**YY** = command.

Commands:

- **00h** - question: current position of the axis. 3-byte answer of the unit: LLMMHH.
- **80h** - command: moving to reference point (negative edge). The unit does not answer, it is waiting for reference point. When moving over the reference point, the unit sends 3 bytes. Attention! Between the command and the answer of the unit it is not allowed to send any commands to the unit.
- **40h** - command: moving to reference point (positive edge). The unit does not answer, it is waiting for reference point. When moving over the reference point, the unit sends 3 bytes. Attention! Between the command and the answer of the unit it is not allowed to send any commands to the unit.
- **C0h** - this command sets the axis to zero. The unit does not answer, counters are reset. After that the unit is ready to accept commands again.

Other commands are not accepted.

*Note* : during switch off, current state of all the axes is stored into the memory.

**Attention!** If the unit accepts a command to move to the reference point and the point does not exist, it is necessary to switch the unit off.

**Examples of communication with the unit (parameters – number of the axis 1 is 11h, reference 40h, increment of the encoder 0.005):**

### **1. Question: position of the axis 1**

Application: sends the command 0011h

Unit: accepts the command 1100h

Unit: sends the answer, eg. ED4D00h

Application: accepts 004DEDh = 19949 (in decimal)

Application: processes data; result value in mm =  $(19949 * 0.005)$  mm = 99.745 mm

### **2. Reset axis 1**

Application: sends the command C011h

Unit: accepts the command 11C0h

Unit: resets the counter and is ready to accept commands again

### **3. Moving to reference point in axis 1**

Application: sends the command 4011h

Unit: accepts the command 1140h

Unit: is waiting for a reference point

Unit: after moving over the reference point the unit sends 3 bytes and is ready to accept commands again

Application: accepts 3 bytes indicating it can send further commands to the unit.

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