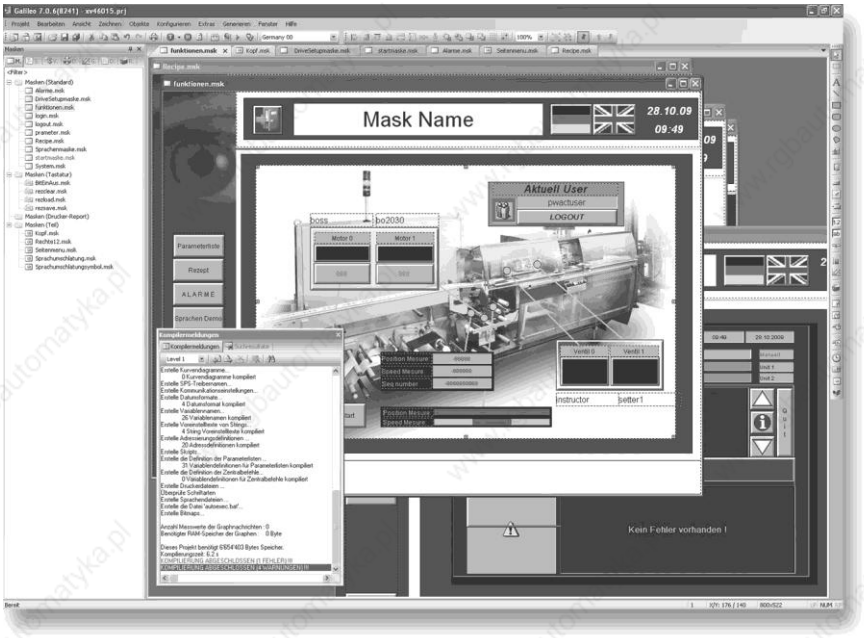
User manual

Communication
Jetter



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Original instructions
The German version of this document is the original instructions

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Imprint

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1 General

1.1 Aim and purpose of this document

This user manual provides the information required for connecting Eaton Automation automation components to Jetter controllers.

This user manual describes the installation and configuration. The operating system and application software are not described.

1.2 Comments about this user manual

Please send any comments, recommendations or suggestions relating to this user manual to automation@eaton.com.

1.3 Additional documentation

Further documents may be helpful in addition to this user manual.

The following documentation can be obtained from our website (www.eaton-automation.com):

[1] MN05010007Z
System Description Windows CE

2 Communication overview

2.1 Operating principle

The communication uses the PCOM5- or PCOM3-Protocol via the RS232 interface. Communication is implemented from a panel or a PC with exactly one **«Controller»** via the interfaces LCD or PC.

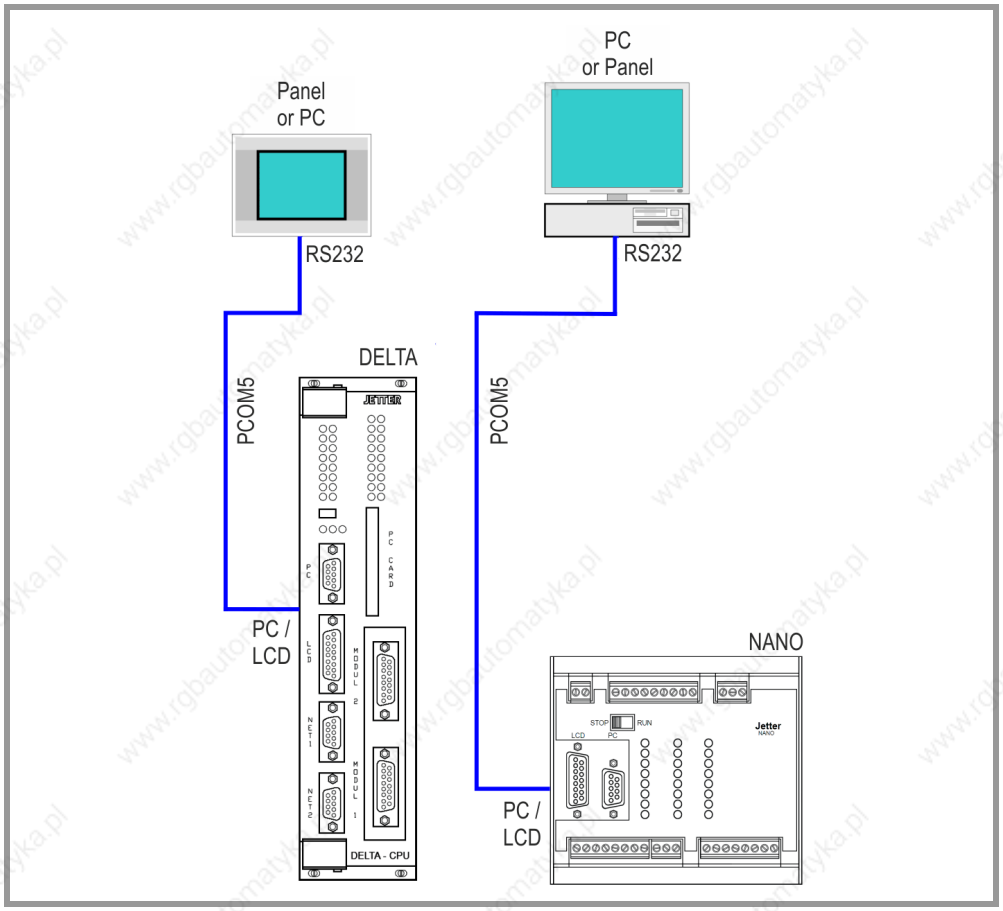


Fig. 1 Operating principle DELTA / NANO

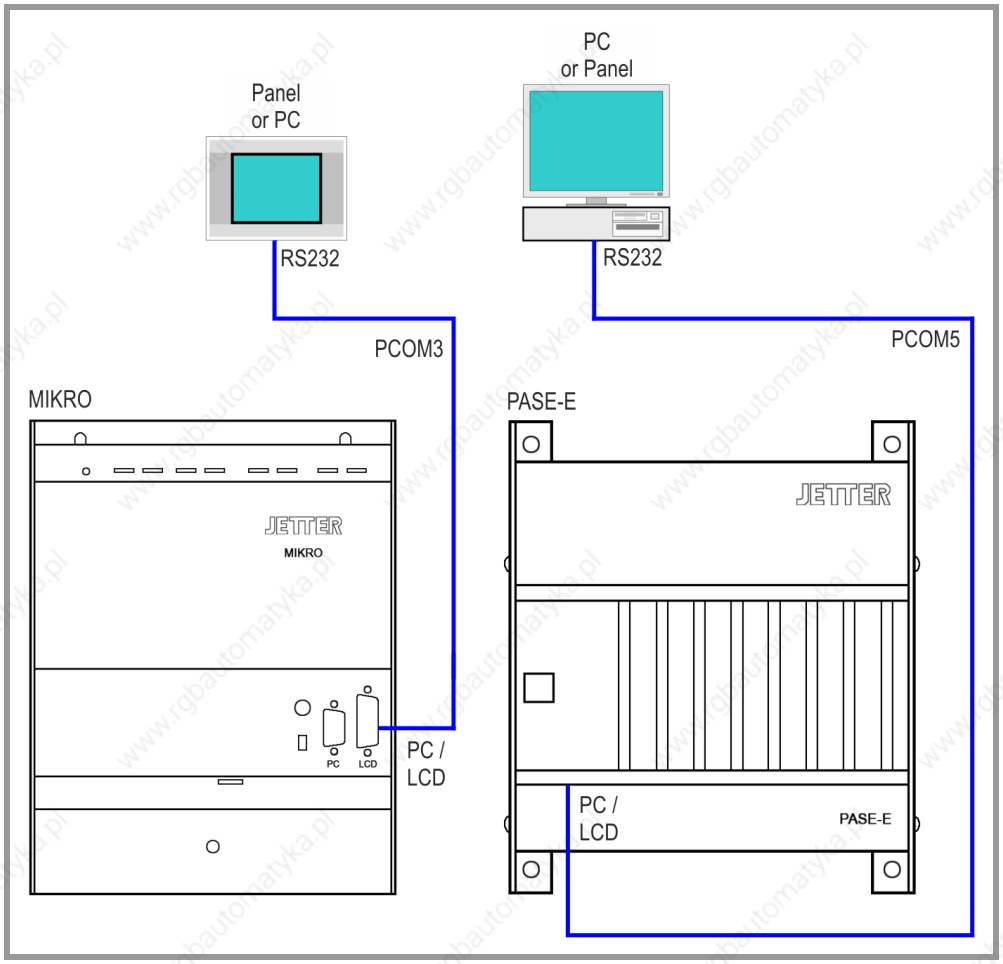


Fig. 2 Operating principle MIKRO / PASE-E

2.2 Supported systems

2.2.1 Client

The following devices control the communication to Jetter controllers:

- PC with GALILEO Open and RS232 interface
- MICRO PANEL XV Series with RS232 interface
- MICRO PANEL M Series with RS232 interface

The term **«Client»** in the following documentation stands for these devices and the software running on them.

2.2.2 Server

The following controllers are supported:

- DELTA
- NANO
- MIKRO
- PASE-E

The term **«Controller»** in the following documentation stands for these devices.

2.3 Communication parameters

The baud rate settings for **«Client»** and **«Controller»** must be identical.

The baud rate for the Jetter MIKRO is 9600 Baud.

2.4 Supported data

2.4.1 Addresses

Controller	Address range	Description
all	R0 … R65534	Register
NANO	R65024 … R65279	Floating-point register
DELTA	R62208 … R62463	Floating-point register
PASE-E	R8960 … R9215	Floating-point register
NANO	M0 … M65534	Flag
DELTA	M0 … M65534	Flag
PASE-E	M0 … M65534	Flag
MIKRO	M0 … M4095	Flag

Tab. 1 Supported addresses

2.4.2 Alignement

Flags on certain addresses can be addressed as an array with maximally 32 bits. Flags on all other addresses can be addressed as single bit only.

Controller	Address range for communication as array
DELTA	M256 … M2047
NANO	M256 … M2047
PASE-E	M256 … M2047
MIKRO	M256 … M2655

Tab. 2 Address range flag arrays

2.4.3 Data type

Data type	Description
register	Register 24 bit
float	Floating-point register 32 bit
flag	Flag
text	Register interpreted as text

Tab. 3 Supported data types

The following data types are currently not supported:
- **input**
- **output**
- **task**

3 Hardware

Both **«Client»** and also **«Controller»** are provided with an RS232 interface which can be used to connect them. Information on installation, wiring and commissioning is provided in the operating instructions of the devices.

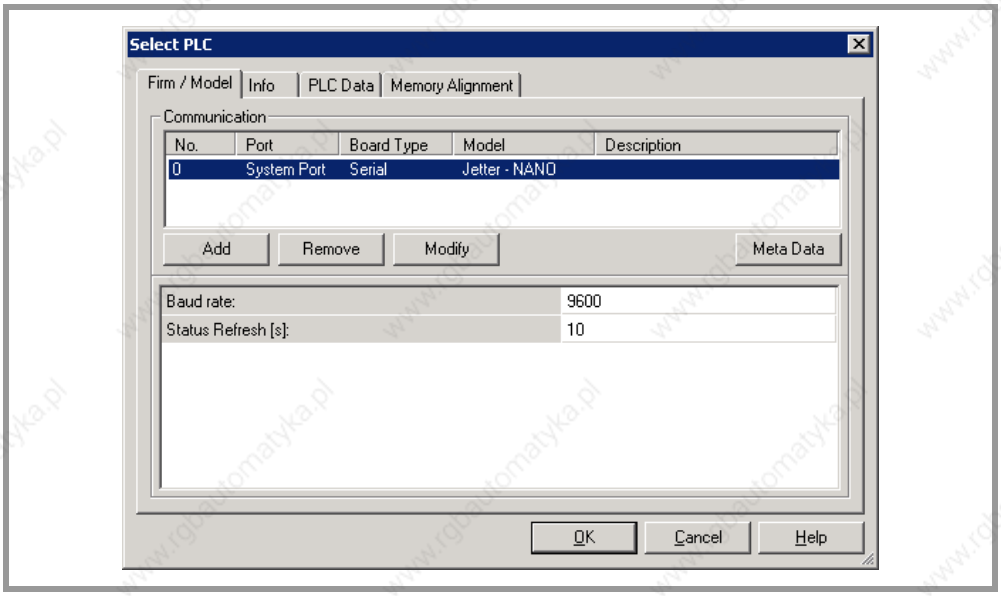
4 Software

4.1 GALILEO

The GALILEO visualization software supports several parallel communication channels. A **«Controller»** is assigned one serial interface exclusively. It is not possible to configure several communication channels to the same **«Controller»**.

4.1.1 Configuring communication in GALILEO

Choose **«Jetter – DELTA», «Jetter – MIKRO», «Jetter – NANO»** or **«Jetter – PASE-E»** and set the communication parameters.



1) Configuring communication in GALILEO

Communication parameter	Comment
Baud rate	The baud rate settings for **«Client»** and **«Controller»** must be identical.
Status Refresh	Read the Online Help of your GALILEO version.

Tab. 4 Communication parameter DELTA, NANO and PASE-E

Communication parameter	Comment
Status Refresh	Read the Online Help of your GALILEO version.

Tab. 5 Communication parameter MIKRO

4.1.2 Addressing variables in GALILEO

The Chapter 2.4 describes which variables of the **«Controller»** you can access. GALILEO supports the following address forms and data types:

GALILEO	Controller
R%d.%d R%d M%d	Variables on the controller.

Tab. 6 Address forms in GALILEO

GALILEO	Controller
Bit / Error bit	R, M
Byte	R
Word [1) 4)]	R
DWord [2) 4)]	R
Float	R (not on MIKRO)
String, 1 byte per character, zero terminated	R
String, 1 byte per character, Pascal	R (according to Jetter convention[3)])
String, 1 byte per character, not terminated	R
String, 1 word per character, zero terminated	R
String, 1 word per character, Pascal	R
String, 1 word per character, not terminated	R
Structure [2) 5) 6)]	R
System [1)]	R

Tab. 7 Data types in GALILEO

1) A 24 bit register is mapped to 16 bits.
2) A 24 bit register is mapped to 32 bits
3) String with 1 byte per character, using the Pascal convention. Therefore prefer to use this data type in GALILEO.
4) As of GALILEO 7.2.9: Sign extension corresponding to data type.
5) Sign extension
6) GALILEO does not show the correct addresses.

4.2 THC

A THC component (THC = Tag Handle Container) is used on the **«Client»** for the communication to the server. As a GALILEO user, you do not have anything to do directly with the THC component. However, you need the following information when using, for example, the ThcSymbolicClient library in XSoft-CoDeSys or MXpro.

4.2.1 Configuration

Configuration parameter	Value
Component	MicroPanel.Jetter.dll
ProgId	MicroInnovation. DELTA.TagServer MicroInnovation. NANO.TagServer MicroInnovation. PASE-E.TagServer MicroInnovation. MIKRO.TagServer

Tab. 8 THC Configuration parameter

Communication parameter	Data type	Comment
LocalSerialPort	String	Serial interface used by the client e.g. COM1
BaudRate	Unsigned32	Baud rate of the serial interface e.g. 9600

Tab. 9 THC Communication parameters DELTA, NANO und PASE-E

Communication parameter	Data type	Comment
LocalSerialPort	String	Serial interface used by the client e.g. COM1

Tab. 10 THC Communication parameter MIKRO