

UDP Packet Description

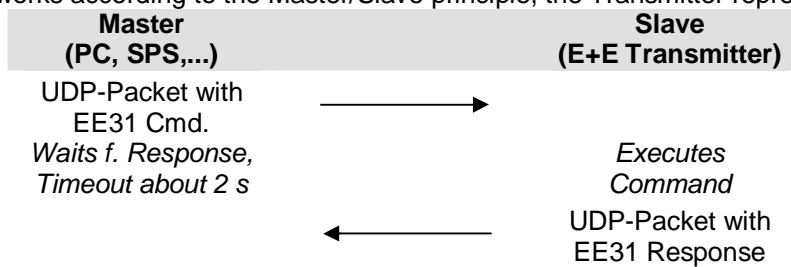
for Ethernet communication with E+E Transmitters

UDP port number: 5234

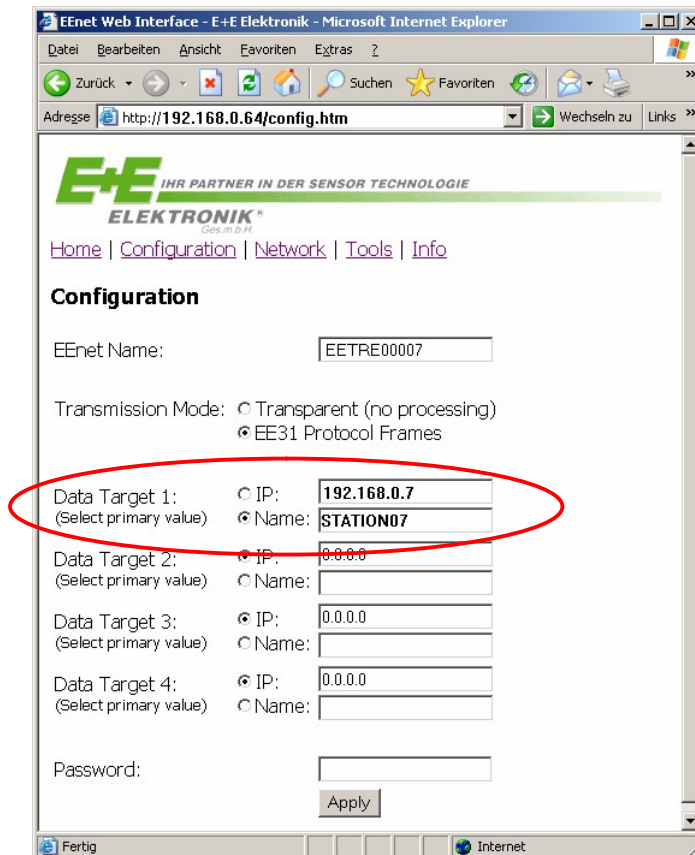
Communication over Ethernet is implemented using UDP packets, which carry a command or a command response (encoded in EE31 protocol format) as payload.

Note: The EE31 protocol format is described in detail in another document.

Communication works according to the Master/Slave principle, the Transmitter represents the Slave:



Note: In order to receive responses from the Transmitter, you have to configure the IP-Address (or DNS Name) of the Master in one of the four Data Target sections of the Transmitter. This can be done using the Web-Interface on page „Configuration“, input area „Data Target n“:



Structure of UDP Packets

Master (PC, SPS,...) → Slave (E+E Transmitter):

Length Bytes	Data Type	Meaning
4	char [4]	Constant value „eEnT“ (ASCII representation, case sensitive!)
1	unsig. char	Constant value, decimal 99
1	unsig. char	Constant value, decimal 0
2	unsig. short	Your software version, Major part, e.g. decimal 1
2	unsig. short	Your software version, Minor part, e.g. decimal 0
2	unsig. short	Your software version, Patch part, e.g. decimal 0
2	unsig. short	Your software version, Build part, e.g. decimal 1
1	unsig. char	Constant value, decimal 0
1	unsig. char	Constant value, decimal 0
1	unsig. char	Constant value, decimal 50
1	unsig. char	Constant value, decimal 0
1	unsig. char	Constant value, decimal 0
1	unsig. char	Constant value, decimal 0
2	unsig. short	Total count of payload data bytes (EE31 protocol format)
4	char [4]	Constant value „EeNt“ (ASCII representation, case sensitive!)
???	unsig. char	Payload data bytes in EE31 protocol format

Slave (E+E Transmitter) → Master (PC, SPS,...):

Length Bytes	Data Types	Meaning
4	char [4]	Constant value, must be „eEnT“ (ASCII representation)
1	unsig. char	Constant value, must be between 1 and 98 (decimal)
1	unsig. char	Constant value, decimal 0
2	unsig. short	Ethernet module Firmware version, Major part, e.g. decimal 1
2	unsig. short	Ethernet module Firmware version, Minor part, e.g. decimal 0
2	unsig. short	Ethernet module Firmware version, Patch part, e.g. decimal 0
2	unsig. short	Ethernet module Firmware version, Build part, e.g. decimal 1
1	unsig. char	reserved, any value
1	unsig. char	reserved, any value
1	unsig. char	Constant value, must be 30 (decimal)
1	unsig. char	reserved, any value
1	unsig. char	reserved, any value
1	unsig. char	reserved, any value
2	unsig. short	Total count of payload data bytes (EE31 protocol format)
4	char [4]	Constant value, must be „EeNt“ (ASCII representation)
???	unsig. char	Payload data bytes in EE31 protocol format

Description of Data Types

Data Type	Also known as	Value range
char	signed char	-128 to 127 (decimal, used for ASCII representation)
unsigned char	BYTE	0 to 255 (decimal)
unsigned short	WORD	0 to 65535 (decimal)

Data types, which consist of two or more bytes (int, float), are arranged in **Little Endian Byte Order** (Intel x86, least significant byte first, then upwards until most significant byte, e.g. 16-bit Integer value decimal: **16 0** hex: 0x**0010 0** sending order: 0x**10 00**).

	Datum	Unterschrift
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