

## UDP ASCII

### Short description

User Datagram Protocol is a simple transfer protocol. Data is sent every second to a specified IP address. There is no check whether the data has been received by the destination computer.

### Activation of UDP ASCII data transfer

Do as follows to activate the data transfer:

1. Menu path: Settings > Advanced (required password is given to you on request)
2. Select "UDP ASCII (port 56790)" in the "IO protocol" dropdown menu
3. Enter the IP address of the destination computer in the "IP" text field. You need a USB keyboard or Windows' on-screen keyboard (Application list/Windows Ease of Access/On-screen Keyboard). Initially the on-screen keyboard may fill the whole screen; there is a „size“ command in it's menu which creates a small floating keyboard.

--> Fidas Frog sends data every second to the destination computer. Data will be received at the destination through port 56790.

The screenshot shows the 'Settings' screen of the Fidas Frog device. The 'Advanced' tab is selected in the left sidebar. In the main area, the 'IO protocol' dropdown menu is set to 'UDP ASCII (port 56790)'. Below it, the 'IO protocol port' is set to '0', the 'Baud Rate' is set to '0', and the 'IP' field is empty. A black box with white text 'IP Adresse des Zielrechners eintragen' points to the 'IP' field. The 'Serial Number' is set to '07648'. A black box with white text 'UDP ASCII auswählen' points to the 'IO protocol' dropdown menu.

### Content of the data packets

The example below shows the content of the data packets transmitted:

Serial number<sendVal 0= $X_0$ ; 1= $X_1$ ; ... 204= $X_{204}$ >Checksum  
( $X_i$ : measurement value of data channel i)

Checksum is calculated by adding the results of the byte-to-byte XOR checks along the whole string.

### Data channels Fidas® Frog

60	Cn [P/cm <sup>3</sup> ]
61	PM1 [µg/m <sup>3</sup> ]
62	PM2.5 [µg/m <sup>3</sup> ]
63	PM4 [µg/m <sup>3</sup> ]
64	PM10 [µg/m <sup>3</sup> ]
65	PMtotal [µg/m <sup>3</sup> ]
110 - 204	Particle size distribution (size intervals see section Particle size distribution)

