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DXF351 - Driver of Compart XF351 Device Protocol
User's Manual

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1. DXF351 - Driver of Compart XF351 Device Protocol

1.1. Driver Use

The DXF351 driver is used for data exchange between Compart DXF351 devices of Endress+Hauser and an **asix** system computer. The communication is performed by using serial interfaces in the RS232C standard.

Compart DXF351 must be set to the following mode:

RS 2323 USAGE	- PRINTER
DEVICE ID	- any
BAUD RATE	- 9600
PARITY	- NONE
HANDSHAKE	- NONE

Settings in PRINT LIST:

ERRORS	- NO
ALARMS	- NO

The other items - freely chosen:

PRINT INTERVAL - 00:01 (data transfer every 1 minute)

1.2. Declaration of Transmission Channel

The full syntax of declaration of transmission channel operating according to the DXF351 protocol is given below:

logical_channel_name=DXF351, port

where:

DXF351	- protocol name,
port	- port name: COM1, COM2 etc.

EXAMPLE

The logical channel `CHAN1` declaration working according to the DXF351 protocol on the COM2 port is as follows:

CHAN1=DXF351, COM2

The DXF351 driver is loaded as a DLL automatically.

1.3. Addressing the Process Variables

The syntax of symbolic address which is used for variables belonging to the DXF351 driver channel is as follows:

P<index>

where:

index - number of measurement on the list PRINT LIST (see the table below).

Table 1. PRINT LIST.

P1	HEAT FLOW
P2	HEAT TOTAL
P3	HEAT GRAND TOTAL
P4	MASS FLOW
P5	MASS TOTAL
P6	MASS GRAND TOTAL
P7	COR. VOLUME FLOW
P8	COR. VOLUME TOTAL
P9	COR. VOL. GRAND TOTAL
P10	VOLUME FLOW
P11	VOLUME TOTAL
P12	VOL. GRAND TOTAL
P13	TEMPERATURE 1
P14	TEMPERATURE 2
P15	DELTA TEMPERATURE
P16	PROCESS PRESSURE
P17	DENSITY
P18	SPEC. ENTHALPY
P19	VISCOSITY
P20	REYNOLDS NUMBER

DXF351 transmits only these parameters, which are enclosed to the list **PRINT LIST** during configuring the Compart DXF351 device (group COMMUNICATION).

Raw values of all process variables are of FLOAT type.

An example of variable declarations:

```
X1,  Mass Flow ,        P4,   CHAN1,  1,  1,  NOTHING_FP
X2,  Volume Flow,       P10,  CHAN1,  1,  1,  NOTHING_FP
X3,  Temperature 1,     P13,  CHAN1,  1,  1,  NOTHING_FP
```

1.4. Driver Configuration

The DXF351 driver may be configured by using the **[DXF351]** section placed in the application INI file. Particular parameters are included in separate items of the section. Each item has the following syntax:

item_name=[number [,number]] [YES|NO]

LOG_FILE=file_name

Meaning - the item allows to define a file where all diagnostic messages of the DXF351 driver and information about the content of telegrams received by the SPA driver will be written. If the item does not define the full path, then the log file is created in the current directory. The log file should be used only while the **asix** start-up.

Default value - by default, the log file is not created.

EXAMPLE

LOG_FILE=D:\ASIX\DXF.LOG

CHAR_TIMEOUT=number

Meaning - the item allows to determine the maximal time, which may pass between successive characters of a data block from DXF351. After having exceeded this time the DXF351 driver assumes that message as finished and begins analysing the message content.

Default value - by default, the item is set to 600 (millisecond).

Parameter:

number - number in milliseconds.

LIMIT_OF_ERRORS = number

Meaning - the item allows to define a number of successive transmission errors, after which an error status of measurement is set.

Default value - by default, the item has a value of 3.

Parameter:

number - number of successive transmission errors, after which an error status is set.

2. List of Tables