



***FESTO - Driver of Diagnostic Interface for  
FESTO PLCs  
User's Manual***

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# 1. FESTO - Driver of Diagnostic Interface for FESTO PLCs

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## 1.1. Driver Use

The FESTO driver is used for data exchange with FESTO FST-103, FST-405, FST IPC PLCs by means of a diagnostic interface. Required version of firmware: 2.20 or later. The transmission is executed by means of serial interfaces in the V24 (RS232C) standard by using the standard serial ports of an **asix** system computer.

The operation of the **asix** system with FESTO PLCs by using a diagnostic interface does not require any controller's program adaptation.

## 1.2. Declaration of Transmission Channel

The full syntax of declaration of transmission channel operating according to the FESTO PLC protocol is as follows:

```
logical_name=FESTO,port,[baud,character,parity,stop,cpu_no]
```

where:

<i>FESTO</i>	- driver name of the FESTO PLC diagnostic interface;
<i>port</i>	- name of the serial port;
<i>baud</i>	- transmission speed in baud;
<i>character</i>	- number of bits in a transmitted character;
<i>parity</i>	- parity check type;
<i>stop</i>	- number of stop bits,
<i>cpu_no</i>	- CPU number in the controller.

Parameters *baud*, *character*, *parity*, *stop*, *cpu\_no* are optional. In case of omitting them the following default values are assumed:

transmission speed	- 9600 Bd,
number of bits in a character	- 8,
parity check type	- no parity check,
number of stop bits	- 1,
CPU number	- 0.

### EXAMPLE

Example items declaring the use of two transmission channel working according to the protocol of FESTO controller diagnostic interface are given below. In both channels the communication is performed by means of the same physical interface but the data are exchanged with other CPUs:

```
CHAN2=FESTO,COM1,9600,8,none,1,2,8
CHAN3=FESTO,COM1,9600,8,none,1,3,8
```

In the example above the declaration of channels differs only with the number of CPU. The CHAN2 channel allows for data exchange with the CPU numbered 2 whereas the CHAN3 channel with the CPU no. 3. The other parameters in the channel declarations are identical:

- port COM1,

- transmission speed of 9600 Bd,
- transmitted character length - 8 bits,
- no parity check,
- one stop bit.

### 1.3. Addressing the Process Variables

The syntax of symbolic address used for process variables supported by the FESTO driver:

*VARIABLE\_TYPE* *variable\_index*

where:

*VARIABLE\_TYPE* - string identifying the variable type,  
*variable\_index* - variable index within the given type.

The following symbols of process variable types are allowable (range of variable indexes is specific for different types of controllers):

EW	- input words,
AW	- output words,
ESW	- words of input statuses,
ASW	- words of output statuses,
MW	- words of buffers,
TW	- current readings of timers,
TV	- set values of timers,
TA	- attributes of timers,
T	- readings of timers,
ZW	- current readings of counters ,
ZV	- set values of counters,
Z	- counter readings,
R	- registers.

#### EXAMPLES

R15	- register no. 15
EW0	- input word 0
AW8	- input output 8

All process variables are treated as 16-bit unsigned numbers.

The FESTO driver is loaded as DDL automatically.

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