



***PROTRONICPS - Driver of
PROTRONICPS Regulator Protocol
User's Manual***

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1. PROTRONICPS - Driver of PROTRONICPS Regulator Protocol

1.1. Driver Use

The PROTRONICPS driver is used for data exchange between PROTRONIC PS regulators of Hartmann & Braun and an **asix** system computer. The communication is performed by means of serial interfaces in the RS422 standard.

1.2. Declaration of Transmission Channel

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

logical_channel_name=PROTRONICPS, *id*, *port*, *baud* [,*character*, *parity*, *stop*]

where:

PROTRONICPS - driver name,
id - device identifier (regulator no. in the network),
port - name of the serial port,
baud - transmission speed,

optional parameters:

character - number of bits in a character,
parity - parity check type,
stop - number of stop bits.

Default values:

- 8 bits in a character,
- even parity check (EVEN),
- number of stop bits 1.

The PROTRONICPS 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 PROTRONICPS driver channel is as follows:

<*type*><*index*>

where:

type - variable type; allowable types are:
 STAT - controller status,
 F - status of controller errors,
 WA - analog value,
 BV - binary value,
 Y - controller output;
index - index within the type (used only for WA, BV and Y):

WA	0 – 255
BV	0 – 255
Y	0 – 10

Variables of STAT and F type may be only read.
 Variables of Y type may be only written.
 Variables of WA and BV type may be read and written.
 Raw values of STAT, F, WA type variables are of WORD type.
 Raw values of BV type variables are of BYTE type.
 Raw values of Y type variables are of SIGNED SHORT type.

EXAMPLE

An exemplary declaration of variables:

X1, Controller status,	STAT,	CHAN1, 1, 1, NOTHING
X2, Status of errors,	F,	CHAN1, 1, 1, NOTHING
X3, Bit BV1,	BV1,	CHAN1, 1, 1, NOTHING_BYTE
X4, Analog WA3,	WA3,	CHAN1, 1, 1, NOTHING
X5, Controller output no. 0,	Y0,	CHAN1, 1, 1, NOTHING
X6, Controller output no. 1,	Y1,	CHAN1, 1, 1, NOTHING

1.4. Driver Configuration

The PROTRONICPS protocol driver may be configured by use of the [PROTRONICPS] section in the application INI file. Individual parameters are transferred in separated 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 to which all diagnostic messages of the PROTRONICPS driver and information about contents of telegrams received by the driver are 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.



LOG_OF_TELEGRAMS=YES/NO

Meaning - the item allows to write to the log file (declared by LOG_FILE) the contents of telegrams sent within the communication with the PROTRONIC PS controller. Writing the contents of telegrams to the log file should be used only while the **asix** start-up.
 Default value - by default, telegrams are not written.



NUMBER_OF_REPETITIONS=YES/NO

Meaning - the item allows to determine a number of repetitions in case of occurrence of transmission error.
 Default value - by default, telegrams are not written.

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