



***OMRON - Driver of HOSTLINK Protocol
User's Manual***

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1. OMRON - Driver of HOSTLINK Protocol

1.1. Driver Use

The OMRON driver protocol is used for data exchange with OMRON PLCs. The transmission is executed by means of serial interfaces HOSTLINK by using standard serial ports of an **asix** system computer.

The cooperation of **asix** with the controller by using the OMRON protocol does not require any controller's program adaptation. Before executing controls the driver switches the controller in MOTOROLA mode (if the controller is in the run mode). After control is ended, the controller is switched to mode, in which was operating before executing the control.

1.2. Declaration of Transmission Channel

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

logical_name=OMRON,*type*[,*id*],*port*,[*baud*,*character*,*parity*,*stop*]

where:

<i>type</i>	- connection type - SLINK (single link), MLINK (multi link);
<i>id</i>	- controller identifier (unit number), it is used when the connection type was marked as MLINK (multi link);
<i>port</i>	- name of the serial port (COM1 or COM2);
<i>baud</i>	- transmission speed in baud;
<i>character</i>	- number of bits in a transmitted character;
<i>parity</i>	- parity check type (even,odd,none0);
<i>stop</i>	- number of stop bits.

The parameters *baud*, *character*, *parity*, *stop* are optional. In case of omitting them the following default values are assumed:

- transmission speed - 9600 Bd,
- number of bits in a character - 7,
- parity check type - parity check (even),
- number of stop bits - 2.

EXAMPLE

An exemplary declaration of transmission channel working according to the OMRON protocol:

CHAN1=OMRON,MLINK,0,COM1,9600,7,even,2

The transmission channel with the logical name CHAN1 has the following parameters defined:

- OMRON protocol using a serial interface working in MLINK (multi-link);
- identifier of the controller (unit number) 0;
- port COM1;

- transmission channel of 9600 Bd;
- transmitted character length - 7 bits;
- parity check;
- two stop bits.

1.3. Addressing the Process Variables

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

variable_type variable_index

where:

variable_type - string identifying the variable type in the OMRON protocol,
variable_index - variable index within a given type.

The following symbols of process variables types are allowed (in paranthesis the ranges of variable types are given):

IR - Internal Relay, (0 - 235, 300 - 511)
 HR - Holding Relay, (0 - 99)
 AR - Auxiliary Relay, (0 - 27)
 LR - Link Relay, (0 - 63)
 DM - Data Memory, (0 - 6143)

1.4. Driver Configuration

The HOSTLINK protocol driver may be configured by means of the [OMRON] section in the application INI file.



LOG_FILE = file_name

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

Default value - log file is not created.

Defining - manual



LOG_FILE_SIZE = number

Meaning - it allows to determine a log file size in MB.

Default value - 1MB

Defining - manual



LOG_OF_TELEGRAMS=[YES/NO]

Meaning - the item allows to write to the log file (declared by using an item LOG_FILE) the content of telegrams received by the driver. The writing of content of telegrams should be used only while the **asix** start-up.

Default value - NO
Defining - manual



MAX_BUFFER_LEN = number

Meaning - maximal length of answer telegrams (counted in bytes). Maximal value is equal to 118.
Default value - 118 bytes
Defining - manual

EXAMPLES

IR22 - Internal Relay numer 22
HR97 - Holding Relay numer 97
DM6001 - Data Memory 6001

All process variable are treated as 16-bit numbers.

The OMRON driver is loaded as a DLL automatically.

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