

MODBUS Damatic RTU

Valmet Damatic MODBUS RTU communication protocol

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Supported device types and versions

MODBUS protocol, version RTU, supports data reading from a control system Valmet Damatic by means of gateway RTU GTW:LIS.

Communication line configuration

- Communication line category: [Serial](#).
- Parameters of asynchronous line depending on the design and type of device connection – literature "Overview of the Damatic XD System – VALMET Automation V.5.4 rev.7".

Communication station configuration

- Communication protocol: **Valmet MODBUS RTU GTW:LIS**.
- Station address is a decimal number in the range of 0 to 255.

Station protocol parameters

There can be defined the following parameters:

Table 1

Key word	Full name	Meaning	Unit	Default value
RC	Retry Count	Number of retry calls when an error in communication occurs.	-	2
RT	Retry Timeout	Delay between retry calls if an error in communication occurs.	ms	300 millise.
WFT	Wait First Timeout	First waiting on the response after sending a call.	ms	200 millise.
WT	Wait Timeout	Delay between the readings of a response until it is completed.	ms	100 millise.
MWR	Max Wait Retry	Number of retry response reading until it is completed.	-	10

String with protocol parameters is written according to this rule:

Key_word=value;Key_word=value; ...

Example:

RC=1;RT=500;

If a key word with valid value has not been found in the initial string, default value is used according to Table 1.

I/O tag configuration

I/O tags: **Ai, Di**

Address – a decimal number in the range of 0 to 65535 – number of MODBUS register.

In general, 2 bytes are read (sign integer) from a particular register. For Ai points, **IEE 754** standard can be used, which is a reading of 4 bytes in FLOAT, i. e. the registers on Address and Address+1.

For Di points, number of bit must be from the range of 0 to 15 – one bit from 16 bits from MODBUS register which was read.

Literature

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Changes and modifications

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Document revisions

- Ver. 1.0 – February 9, 2000



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