

# MODBUS COMMUNICATIONS

## FUNCTIONS SUPPORTED

The following MODBUS functions are supported, (JBUS names - where such an equivalence exists - in italics):

- Read Coil Status (*Read n Bits*) - 01/02
- Read Holding Registers (*Read n Words*) - 03/04
- Force Single Coil (*Write 1 Bit*) - 05
- Preset Single Register (*Write 1 Word*) - 06
- Loopback Diagnostic Test - 08
- Preset Multiple Registers (*Write n Words*) - 16

The instrument will identify itself in reply to a Read Holding Registers message which enquires the values of parameter numbers 121 and 122.

## PARAMETER NUMBERS

Bit Parameters are summarised in Table A-1 and Word Parameters are summarised in Table A-2.

Table A-1 Bit Parameter Numbers

Parameter	Number	Notes
Reserved	1 - 3	
Pre-Tune*	4	To enable Pre-Tune, write a non-zero value; to disable Pre-Tune, write zero. Enable Pre-Tune will fail if the process variable is within 5% of input span from the setpoint. This failure will not be signalled by communications.
Alarm 1 Status	5	Read Only
Alarm 2 Status	6	Read Only
Reserved	7 - 16	

**Table A-2 Word Parameter Numbers**

<b>Parameter</b>	<b>Number</b>	<b>Notes</b>
Process Variable value	1	Read Only
Current Setpoint value	2	Read Only
Output Power	3	Read Only
Deviation	4	Read Only
Proportional Band	5	
Reset	6	
Rate	7	
Bias	8	
ON/OFF Differential	9	
Output Cycle Time	10	
Input Filter Time Constant	11	
Alarm 1 value	12	
Alarm 2 value	13	
Selected Setpoint (1 or 2)	14	
Setpoint 1 value	15	
Setpoint 2 value	16	
Process Variable Offset	17	
Range Decimal Point Position	18	
Manufacturer ID	121	Read Only - 231 (representing "W1")
Equipment ID	122	Read Only - number 2300