

ADDENDUM

Section 4.4.4 – Pulse to Analogue

This section states that the pulses are averaged over a 15-minute period. They are in fact averaged over the period of the Transmit Interval set during configuration of the Node (section 4.4.3)

Reading Pulses Using Modbus

There is no provision in the Modbus protocol to directly read pulse counts. This may be achieved however using the following procedure.

At the transmitting end, programme the Node to send its pulse input to a virtual output at the receiving Node.

e.g. P0.1 to 2P3.1 (address P3.1 at node 2 where no physical output card exists)

The pulse count will be sent to this virtual location at Node 2 and can be read by Modbus.

To read the pulse count treat it as an analogue read (Function Code 3), but add 10,000 to the register value.

e.g. Register value for A3.1 = 17 (see table section 9.5)

Add 10,000 = 10,017 dec = 2721 hex

Interrogate : 02 03 2721 0001 B2

Where:-

02 = Destination Node

03 = Function 3

2721 = Register value (10,017 dec)

0001 = The number of registers to be read

B2 = Check sum

Reply : 02 03 02 XXXX KK

Where:-

02 = Node address

03 = Function code

02 = Byte count (the number of bytes to follow, 02 for a single register read)

XXXX = pulse count value (hex)

KK = Check sum

I/O Expansion Modules

The I/O expansion modules have been updated to the 300 series adding galvanic isolation to the inputs, arc suppression on relays and improved general immunity to spikes and surges. They have also been modified to allow mounting in a 4U sub-rack.

The software has been upgraded and some new features added specifically for low power operation with dialup modems.

Page/Section	Description
Page iii and iv	New contents page adding section 4.5, low power dialup, and a new Section 7
Section 2.2.1	New page updating input and output types and descriptions
Section 3.4	New page showing I/O modules and power consumption
Section 4.5	New Section 4.5 Low Power Dialup Operation
Section 7	Complete new section giving details and specifications for 300 series modules and the 200 series modules that are still current. It also has details of the new 4U sub-rack.