



INDUSTRIAL CONTROL COMMUNICATIONS, INC.

A.O. Smith AIN Slave Driver Manual



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1 A.O. Smith AIN Slave

1.1 Overview

This driver supports the A.O. Smith Advanced Internal Network (AIN) slave protocol. Some notes of interest are:

- Supports both commercial and residential A.O. Smith gas and electric products.
- A range of master parameters in one block may be read or written by configuring a single service object.
- May be connected along with other modules on the network including local and remote displays and other interface devices.

1.2 Slave Settings

Baud Rate

Select the desired network baud rate.

Parity

Fixed at No Parity (1 Stop Bit).

1.3 Node Settings

Address

Fixed at 16.

1.4 Service Object Settings

The AIN slave driver uses service objects to define the parameter values to capture from the master (“reading”) and to modify (“writing”). Each service object can access a range of parameters located in one block on the master device. When reading is enabled, the driver will compare the parameters in the data block broadcast by the master, and store any matching parameter values into the database. When writing is enabled, the driver will generate a write command to the master when data value changes occur in database locations encompassed by a service object.

Description

This 32-character (max) field is strictly for user reference: it is not used at any time by the driver.

Block Number

Indicates the block number (0...29) in which the desired parameters are located.



Start Parameter

Defines the starting parameter number (0...255) for a range of parameters associated with this service object.

Number of Parameters

Defines the number of parameters (1...255) associated with this service object.

Database Address

Defines the database address where the first parameter of this service object will be mapped. The configuration studio will not allow entry of a starting database address that will cause the service object to run past the end of the database. The highest valid database address, therefore, depends on the number of parameters to be accessed.

Data Type

Fixed at 16-Bit Unsigned.

Multiplier

The amount that associated network values are scaled by prior to being stored into the database or after being retrieved from the database. Upon retrieval from the database, raw data is multiplied by the multiplier to produce a network value (to be sent to the device). Similarly, network values (read from the device) are divided by the multiplier before being stored into the database.

Read Parameter

Check to enable reading (capturing the values of parameters from a broadcast). All read-enabled service objects are used to compare block and parameter numbers for each master broadcast.

Write Parameter

Check to enable writing: when values encompassed by this service object change in the internal database, these changes will be written to the master on the next poll request.



INDUSTRIAL CONTROL COMMUNICATIONS, INC.

1600 Aspen Commons, Suite 210
Middleton, WI USA 53562-4720
Tel: [608] 831-1255 Fax: [608] 831-2045

<http://www.iccdesigns.com>

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