

XAND4325 Driver Manual

AND AD-4325V Weight Indicator Protocol Driver



AD 4325
Digital Indicator



CPKSoft Engineering Process Monitoring and Industrial Automation Software

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1. Introduction

CPKSoft Engineering assumes no responsibility for any errors that may appear in this document. If you have any suggestions for improvements or amendments or have found errors in this publication, please notify us.

This driver is included with all unlimited licenses of TAS-HMITalk. It is not sold separately. It requires the TAS-HMITalk ActiveX to work, therefore it cannot be used as a stand-alone driver.

If you use this driver in your applications, you need to include the xand4325.tlk in the set of files that you distribute. This file must be located in the same folder where the hmitalk.ocx file is registered in order to be found by the activex when the applications are executed.

The source-code for the xand4325.tlk driver is available in plain-C language for additional USD 199 if you own a license of TAS-HMITalk 8.04 or higher.

Refer to the following link to visit the xand4325 driver page at CPKSoft Engineering website: <http://www.cpksoft.com/tabid/55/ProductID/13/PageIndex/1/Default.aspx>.

Visit this link if you want to see a complete list of drivers that are currently available for TAS-HMITak: <http://www.cpksoft.com/Drivers/tabid/55/Default.aspx>.

Also, refer to this link if you are interested in purchasing a license of the most recent version of TAS-HMITalk: <http://www.cpksoft.com/Products/tabid/54/Default.aspx>.

We welcome your comments about this document. You can reach us by e-mail at [contact @ cpksoft.com](mailto:contact@cpksoft.com).

2. Driver details

2.1. Driver overview

XAND4325 allows you to connect to the A&D COMPANY Ltd., AD-4325V weighing indicator scales.

<About Configuration> In order to configure parameters related to the scale communication,

the following steps must be followed:

1 - Press STND\OPR. The display must be turned on. 2 - Open the front panel cover where the Dip-Switch are. 3 - Turn the Dip-Switch S3 ON. "Func" should be displayed and a "01" should blink on the setpoint display. 4 - Using the keys "<", ">", "+" and "-" select the number of the function to be changed and hit "ENTER". A 0 should blink on the final weight display. 5 - Use keys "+" and "-" to enter the desired value. Then hit "ENTER" to set the value. 6 - Once the configuration is ready, change the Dip-Switch S3 to OFF. "END" should be displayed.

The following are the functions to configure:

F41 - WXYZ combined parameter, where: W = Baud Rate (2-1200 Bauds, 3-2400 Bauds, 4-4800 Bauds or 5-9600 Bauds) X = 0 - 7 Data bits and 1 Stop bit 1 - 7 Data bits and 2 Stop bit 2 - 8 Data bits and 1 Stop bit 3 - 8 Data bits and 2 Stop bit Y = Parity (0-Even, 1-Odd or 2-No Parity) Z = End of message (zero must be set, i.e. CR+LF)

F42 - Output Data = 1 - Sends the same displayed information = 2 - GROSS Data = 3 - NET Data = 4 - TARE Data

F43 - Output Mode Must be set on option 5 (Command Mode #2)

F44 - Output Availability Must be set on option 1 (Always available)

F45 - Output Format Must be set on option 1 (Sending with SP Code Number)

F46 - Communication Mode Must be set on option 2 (Sending with Address)

F47 - Address Number A number from 0 to 9 may be set.

2.2. Supported devices

This driver can communicate with these devices, but is not necessarily limited to this list:

AND COMPANY Ltd. AD-4325V Weighing Indicator Scales

WEIGHTECK AC-9200 Weighing Indicator

3. Command list

3.1. Read Configured Value

Description of this command:

This command allows you to read the gross weight, net weight or tare according to the way the scale is configured in the function 'F42'

Type of data handled by this command:

Analog Input

Number of points accepted by this command:

1-4

Meaning of the DriverP0 parameter:

Indicates the station address (0-9).

Meaning of the DriverP1 parameter:

0

Values that are returned:

Value in PointValue (0) = Actual weight.

Value in PointValue (1) = Overload state.

- 0 = Overload.

- 1 = Stable overload.

- 2 = Unstable overload.

Value in PointValue (2) = Weight type.

- 0 = Net.

- 1 = Gross.

- 2 = Tare.

Value in PointValue (1) = Unit Indicator.

- 0 = Kilogram.

- 1 = Pound.

- 2 = Tonne.

3.2. Read Final Net

Description of this command:

This command allows you to read the final net weight.

Type of data handled by this command:

Analog Input

Number of points accepted by this command:

1-4

Meaning of the DriverP0 parameter:

Indicates the station address (0-9).

Meaning of the DriverP1 parameter:

13

Values that are returned:

Value in PointValue (0) = Actual weight.

Value in PointValue (1) = Overload state.

- 0 = Overload.

- 1 = Stable overload.

- 2 = Unstable overload.

Value in PointValue (2) = Weight type.

- 0 = Net.

- 1 = Gross.

- 2 = Tare.

Value in PointValue (1) = Unit Indicator.

- 0 = Kilogram.

- 1 = Pound.

- 2 = Tonne.

3.3. Read Setpoint

Description of this command:

Allows you to read the Final Weight, Free Fall, Preliminary Output, Over and Under Weight parameters.

Type of data handled by this command:

Analog Input

Number of points accepted by this command:

1-5

Meaning of the DriverP0 parameter:

Indicates the station address (0-9).

Meaning of the DriverP1 parameter:

1

Meaning of the DriverP2 parameter:

Indicates the Code Number (0-99).

Values that are returned:

Value in PointValue (0) = Final Weight.

Value in PointValue (1) = Free Fall.

Value in PointValue (2) = Preliminary Output.
Value in PointValue (3) = Over Weight.
Value in PointValue (4) = Under Weight.

3.4. Read Accessories

Description of this command:

Allows you to read the Optional Preliminary and Zero Band parameters.

Type of data handled by this command:

Analog Input

Number of points accepted by this command:

1-2

Meaning of the DriverP0 parameter:

Indicates the station address (0-9).

Meaning of the DriverP1 parameter:

2

Values that are returned:

Value in PointValue (0) = Optional Preliminary.
Value in PointValue (1) = Zero Band.

3.5. Set Zero

Description of this command:

This command sets the scale display to zero.

Type of data handled by this command:

Digital Output

Number of points accepted by this command:

1

Meaning of the DriverP0 parameter:

Indicates the station address (0-9).

Meaning of the DriverP1 parameter:

3

3.6. Set Tare

Description of this command:

This command displays the tare value on the scale and turns it to the NET mode.

Type of data handled by this command:

Digital Output

Number of points accepted by this command:

1

Meaning of the DriverP0 parameter:

Indicates the station address (0-9).

Meaning of the DriverP1 parameter:

4

3.7. Toggle Display From Gross to Net Mode

Description of this command:

Changes display from GROSS to NET mode.

Type of data handled by this command:

Digital Output

Number of points accepted by this command:

1

Meaning of the DriverP0 parameter:

Indicates the station address (0-9).

Meaning of the DriverP1 parameter:

5

3.8. Toggle Display From Net to Gross Mode

Description of this command:

Changes display from NET to GROSS mode.

Type of data handled by this command:

Digital Output

Number of points accepted by this command:

1

Meaning of the DriverP0 parameter:

Indicates the station address (0-9).

Meaning of the DriverP1 parameter:

6

3.9. Write All Setpoint Parameters

Description of this command:

Allows you to set the Final Weight, Free Fall, Preliminary Output, Over, Under, Optional Preliminary and Zero Band parameters.

Type of data handled by this command:

Analog Output

Number of points accepted by this command:

7

Meaning of the DriverP0 parameter:

Indicates the station address (0-9).

Meaning of the DriverP1 parameter:

7

Values that are sent:

- Value in PointValue (0) = Final Weight.
- Value in PointValue (1) = Free Fall.
- Value in PointValue (2) = Preliminary Output.
- Value in PointValue (3) = Over Weight.
- Value in PointValue (4) = Under Weight.
- Value in PointValue (5) = Optional Preliminary.
- Value in PointValue (6) = Zero Band.

3.10. Write Setpoint Parameters

Description of this command:

Allows you to set the Final Weight, Free Fall, Preliminary Output, Over and Under Weight parameters.

Type of data handled by this command:

Analog Output

Number of points accepted by this command:

5

Meaning of the DriverP0 parameter:

Indicates the station address (0-9).

Meaning of the DriverP1 parameter:

8

Meaning of the DriverP2 parameter:

Indicates the Code Number (0-99).

Values that are sent:

- Value in PointValue (0) = Final Weight.
- Value in PointValue (1) = Free Fall.
- Value in PointValue (2) = Preliminary Output.
- Value in PointValue (3) = Over Weight.
- Value in PointValue (4) = Under Weight.

3.11. Set Accessories

Description of this command:

Allows you to set the Optional Preliminary and Zero Band parameters.

Type of data handled by this command:

Analog Output

Number of points accepted by this command:

2

Meaning of the DriverP0 parameter:

Indicates the station address (0-9).

Meaning of the DriverP1 parameter:

9

Values that are sent:

- Value in PointValue (0) = Optional Preliminary.
- Value in PointValue (1) = Zero Band.

3.12. Change Code

Description of this command:

Allows you to set the Code Number.

Type of data handled by this command:

Digital Output

Number of points accepted by this command:

1

Meaning of the DriverP0 parameter:

Indicates the station address (0-9).

Meaning of the DriverP1 parameter:

10

Meaning of the DriverP2 parameter:

Indicates the Code Number (0-99).

3.13. Begin Batching

Description of this command:

Allows you to begin batching.

Type of data handled by this command:

Digital Output

Number of points accepted by this command:

1

Meaning of the DriverP0 parameter:

Indicates the station address (0-9).

Meaning of the DriverP1 parameter:

11

3.14. Halt Batching

Description of this command:

Allows you to halt batching.

Type of data handled by this command:

Digital Output

Number of points accepted by this command:

1

Meaning of the DriverP0 parameter:

Indicates the station address (0-9).

Meaning of the DriverP1 parameter:

12

4. Appendices

4.1. Error messages

The following list shows all the possible error messages that can be returned by the protocol driver during a failed communication in the 'DriverStatus' property.

This list does not include some error messages that can be returned by the activex component while attempting to establish a connection.

- [1005] DRIVER (Internal): Invalid driver stage
- [1300] PROTOCOL (Timeout): No answer
- [1410] PROTOCOL (Format): Invalid device id in response
- [1426] PROTOCOL (Format): Returned code is other than sent
- [2117] CONFIG (NumValues): Invalid number of values (must be 2)
- [2127] CONFIG (NumValues): Invalid number of values (must be 5)
- [2130] CONFIG (NumValues): Invalid number of values (must be 7)
- [2194] CONFIG (NumValues): Too many values (max=2)
- [2216] CONFIG (NumValues): Too many values (max=4)
- [2223] CONFIG (NumValues): Too many values (max=5)
- [3017] CONFIG (P0): Invalid device address (0-9)
- [3508] CONFIG (P1): Invalid command
- [4028] CONFIG (P2): Invalid code number (0-99)
- [8190] CONFIG (Remote): Invalid command

4.2. Keywords list

The following list shows a set of words directly related to this driver.

"AC9200, AD4325V, COMPANY, Indicator, Ltd., Scales, Weighing, Weight, WEIGHTECK".