

XIZUMFA3 Driver Manual

Izumi FA-3S/FA2-5M Communication Protocol Driver



IZUMI
FA-3S/CP-12
FA-3S/CP-13
FA2/5M



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 xizumfa3.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 xizumfa3.tlk driver is available in plain-C language for additional USD 299 if you own a license of TAS-HMITalk 8.04 or higher.

Refer to the following link to visit the xizumfa3 driver page at CPKSoft Engineering website: <http://www.cpksoft.com/tabid/55/ProductID/56/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

XIZUMFA3 driver allows you to connect to the IDEC IZUMI Corp. FA-3S/FA2-5M Series equipment, on a network or point to point connection.

2.2. Supported devices

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

IDEC IZUMI PLC FA-3S/CP-12 Series
IDEC IZUMI PLC FA-3S/CP-13 Series
IDEC IZUMI PLC FA2-5M Series

3. Command list

3.1. Read Inputs

Description of this command:

Reads the inputs (X) in byte mode (Analog Input) or bit mode (Digital Input).

Type of data handled by this command:

Analog Input / Digital Input

Number of points accepted by this command:

1-250

Meaning of the DriverP0 parameter:

Controller number (1-255). Use controller number 0 If the connection is point to point.

Meaning of the DriverP1 parameter:

1

Meaning of the DriverP2 parameter:

Indicates the memory address of the selected element (0-637).

3.2. Read Outputs

Description of this command:

Reads the outputs (Y) in byte mode (Analog Input) or bit mode (Digital Input).

Type of data handled by this command:

Analog Input / Digital Input

Number of points accepted by this command:

1-250

Meaning of the DriverP0 parameter:

Controller number (1-255). Use controller number 0 If the connection is point to point.

Meaning of the DriverP1 parameter:

2

Meaning of the DriverP2 parameter:

Indicates the memory address of the selected element (0-637).

3.3. Read Internal Relays

Description of this command:

Reads the internal relays (M) in byte mode (Analog Input) or bit mode (Digital Input).

Type of data handled by this command:

Analog Input / Digital Input

Number of points accepted by this command:

1-250

Meaning of the DriverP0 parameter:

Controller number (1-255). Use controller number 0 If the connection is point to point.

Meaning of the DriverP1 parameter:

3

Meaning of the DriverP2 parameter:

Indicates the memory address of the selected element (0-2557).

3.4. Read Timer Preset Values

Description of this command:

Reads the timer preset values (T) in byte mode.

Type of data handled by this command:

Analog Input

Number of points accepted by this command:

1-250

Meaning of the DriverP0 parameter:

Controller number (1-255). Use controller number 0 If the connection is point to point.

Meaning of the DriverP1 parameter:

4

Meaning of the DriverP2 parameter:

Indicates the memory address of the selected element (0-255).

3.5. Read Counter Preset Values

Description of this command:

Reads the counter preset values (C) in byte mode.

Type of data handled by this command:

Analog Input

Number of points accepted by this command:

1-250

Meaning of the DriverP0 parameter:

Controller number (1-255). Use controller number 0 If the connection is point to point.

Meaning of the DriverP1 parameter:

5

Meaning of the DriverP2 parameter:

Indicates the memory address of the selected element (0-255).

3.6. Read Shift Registers

Description of this command:

Reads the shift registers (R) in byte mode (Analog Input) or bit mode (Digital Input).

Type of data handled by this command:

Analog Input / Digital Input

Number of points accepted by this command:

1-243

Meaning of the DriverP0 parameter:

Controller number (1-255). Use controller number 0 If the connection is point to point.

Meaning of the DriverP1 parameter:

6

Meaning of the DriverP2 parameter:

Indicates the memory address of the selected element (0-243).

3.7. Read Data Registers

Description of this command:

Reads the data registers (D) in byte mode (Analog Input).

Type of data handled by this command:

Analog Input

Number of points accepted by this command:

1-250

Meaning of the DriverP0 parameter:

Controller number (1-255). Use controller number 0 If the connection is point to point.

Meaning of the DriverP1 parameter:

7

Meaning of the DriverP2 parameter:

Indicates the memory address of the selected element (0-2989).

3.8. Read 10mSec Timer

Description of this command:

Reads the 10mSec timers (H) in byte mode (Analog Input).

Type of data handled by this command:

Analog Input

Number of points accepted by this command:

1-79

Meaning of the DriverP0 parameter:

Controller number (1-255). Use controller number 0 If the connection is point to point.

Meaning of the DriverP1 parameter:

8

Meaning of the DriverP2 parameter:

Indicates the memory address of the selected element (0-79).

3.9. Read Timer Current Value

Description of this command:

Reads the timer current values (A) in byte mode (Analog Input).

Type of data handled by this command:

Analog Input

Number of points accepted by this command:

1-250

Meaning of the DriverP0 parameter:

Controller number (1-255). Use controller number 0 If the connection is point to point.

Meaning of the DriverP1 parameter:

9

Meaning of the DriverP2 parameter:

Indicates the memory address of the selected element (0-255).

3.10. Read Counter Current Value

Description of this command:

Reads the counter current values (B) in byte mode (Analog Input).

Type of data handled by this command:

Analog Input

Number of points accepted by this command:

1-250

Meaning of the DriverP0 parameter:

Controller number (1-255). Use controller number 0 If the connection is point to point.

Meaning of the DriverP1 parameter:

10

Meaning of the DriverP2 parameter:

Indicates the memory address of the selected element (0-255).

3.11. Write Inputs

Description of this command:

Writes the inputs (X) in byte mode (Analog Output) or bit mode (Digital Output).

Type of data handled by this command:

Analog Output / Digital Output

Number of points accepted by this command:

1-250

Meaning of the DriverP0 parameter:

Controller number (1-255). Use controller number 0 If the connection is point to point.

Meaning of the DriverP1 parameter:

11

Meaning of the DriverP2 parameter:

Indicates the memory address of the selected element (0-637).

3.12. Write Outputs

Description of this command:

Writes the outputs (Y) in byte mode (Analog Output) or bit mode (Digital Output).

Type of data handled by this command:

Analog Output / Digital Output

Number of points accepted by this command:

1-250

Meaning of the DriverP0 parameter:

Controller number (1-255). Use controller number 0 If the connection is point to point.

Meaning of the DriverP1 parameter:

12

Meaning of the DriverP2 parameter:

Indicates the memory address of the selected element (0-637).

3.13. Write Internal Relays

Description of this command:

Writes the internal relays (M) in byte mode (Analog Output) or bit mode (Digital Output).

Type of data handled by this command:

Analog Output / Digital Output

Number of points accepted by this command:

1-250

Meaning of the DriverP0 parameter:

Controller number (1-255). Use controller number 0 If the connection is point to point.

Meaning of the DriverP1 parameter:

13

Meaning of the DriverP2 parameter:

Indicates the memory address of the selected element (0-2557).

3.14. Write Timer Preset Values

Description of this command:

Writes the timer preset values (T) in byte mode.

Type of data handled by this command:

Analog Output

Number of points accepted by this command:

1-250

Meaning of the DriverP0 parameter:

Controller number (1-255). Use controller number 0 If the connection is point to point.

Meaning of the DriverP1 parameter:

14

Meaning of the DriverP2 parameter:

Indicates the memory address of the selected element (0-255).

3.15. Write Counter Preset Values

Description of this command:

Writes the counter preset values (C) in byte mode.

Type of data handled by this command:

Analog Output

Number of points accepted by this command:

1-250

Meaning of the DriverP0 parameter:

Controller number (1-255). Use controller number 0 If the connection is point to point.

Meaning of the DriverP1 parameter:

15

Meaning of the DriverP2 parameter:

Indicates the memory address of the selected element (0-255).

3.16. Write Shift Registers

Description of this command:

Writes the shift registers (R) in byte mode (Analog Output) or bit mode (Digital Output).

Type of data handled by this command:

Analog Output / Digital Output

Number of points accepted by this command:

1-243

Meaning of the DriverP0 parameter:

Controller number (1-255). Use controller number 0 If the connection is point to point.

Meaning of the DriverP1 parameter:

16

Meaning of the DriverP2 parameter:

Indicates the memory address of the selected element (0-243).

3.17. Write Data Registers

Description of this command:

Writes the data registers (D) in byte mode (Analog Output).

Type of data handled by this command:

Analog Output

Number of points accepted by this command:

1-250

Meaning of the DriverP0 parameter:

Controller number (1-255). Use controller number 0 If the connection is point to point.

Meaning of the DriverP1 parameter:

17

Meaning of the DriverP2 parameter:

Indicates the memory address of the selected element (0-2989).

3.18. Write 10mSec Timer

Description of this command:

Writes the 10mSec timers (H) in byte mode (Analog Output).

Type of data handled by this command:

Analog Output

Number of points accepted by this command:

1-79

Meaning of the DriverP0 parameter:

Controller number (1-255). Use controller number 0 If the connection is point to point.

Meaning of the DriverP1 parameter:

18

Meaning of the DriverP2 parameter:

Indicates the memory address of the selected element (0-79).

3.19. Write Timer Current Value

Description of this command:

Writes the timer current values (A) in byte mode (Analog Output).

Type of data handled by this command:

Analog Output

Number of points accepted by this command:

1-250

Meaning of the DriverP0 parameter:

Controller number (1-255). Use controller number 0 If the connection is point to point.

Meaning of the DriverP1 parameter:

19

Meaning of the DriverP2 parameter:

Indicates the memory address of the selected element (0-255).

3.20. Write Counter Current Value

Description of this command:

Writes the counter current values (B) in byte mode (Analog Output).

Type of data handled by this command:

Analog Output

Number of points accepted by this command:

1-250

Meaning of the DriverP0 parameter:

Controller number (1-255). Use controller number 0 If the connection is point to point.

Meaning of the DriverP1 parameter:

20

Meaning of the DriverP2 parameter:

Indicates the memory address of the selected element (0-255).

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
- [1429] PROTOCOL (Format): Unknown response
- [1433] PROTOCOL (Format): Validation error in device response
- [2201] CONFIG (NumValues): Too many values (max=243)
- [2203] CONFIG (NumValues): Too many values (max=250)
- [2234] CONFIG (NumValues): Too many values (max=79)
- [3008] CONFIG (P0): Invalid device address (0=1:1, 1-255=1:N)
- [3508] CONFIG (P1): Invalid command
- [4001] CONFIG (P2): Invalid address
- [4002] CONFIG (P2): Invalid address (0-243)
- [4003] CONFIG (P2): Invalid address (0-255)
- [4004] CONFIG (P2): Invalid address (0-2557)
- [4005] CONFIG (P2): Invalid address (0-2989)
- [4006] CONFIG (P2): Invalid address (0-637)
- [4008] CONFIG (P2): Invalid address (0-79)
- [8142] CONFIG (Remote): Force buffer full
- [8180] CONFIG (Remote): Incorrect address
- [8182] CONFIG (Remote): Incorrect operand
- [8275] CONFIG (Remote): Program transfer writing-Overtime/frame error
- [8276] CONFIG (Remote): Program transfer writing-Read/Write error
- [8277] CONFIG (Remote): Program transfer writing-ROM pack
- [8278] CONFIG (Remote): Program transfer writing-Total CRC error
- [8283] CONFIG (Remote): Protected
- [8288] CONFIG (Remote): Receive command error
- [8289] CONFIG (Remote): Receive data over
- [8294] CONFIG (Remote): Received prohibited
- [8316] CONFIG (Remote): Search not found
- [8347] CONFIG (Remote): Unknown error

4.2. Keywords list

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

"Communication, CP12, CP13, FA2-5M, FA3S, IDEC, IZUMI, PLC, Series".

