

# XIEARING Driver Manual

## IEA Single-Loop Controllers Driver



S9800 Controller



# 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 xiearing.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 xiearing.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 xiearing driver page at CPKSoft Engineering website: <http://www.cpksoft.com/tabid/55/ProductID/51/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

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XIEARING driver allows you to connect with IEA S9800 monolink controllers and data acquisition devices which use the same protocol. Requires a free RS-232 in your PC and a 20 mA Current Loop/RS-232 IEA converter.

This driver requires that you set the "HMITalk1.CommSkipEcho" property to True in order to filter the received echo during transmission.

### 2.2. Supported devices

---

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

- IEA S9800 Single-Loop Controller
- IEA S6800 4-Digit Displays
- IEA S6800 6-Digit/1-Setpoint Displays
- IEA S6800 6-Digit/3-Setpoint Displays
- IEA MA98000 Analog Signals Multiplexor

## 3. Command list

### 3.1. S9800 Commands

#### 3.1.1. Read Current Values

**Description of this command:**

Reads current values information.

**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 destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

0

**Values that are returned:**

Value in PointValue (0) = Process variable measured (V)

Value in PointValue (1) = Controller's Setpoint (S)

Value in PointValue (2) = Controller's output (%)

Value in PointValue (3) = Controller's M/A status (0=Auto, 1=Manual)

#### 3.1.2. Read Main Parameters

**Description of this command:**

Reads main parameters information.

**Type of data handled by this command:**

Analog Input

**Number of points accepted by this command:**

1-8

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

1

**Values that are returned:**

- Value in PointValue (0) = Span's proportional band, in % (P)
- Value in PointValue (1) = Integral time, in seconds (I)
- Value in PointValue (2) = Derivative time, in seconds (D)
- Value in PointValue (3) = Service cycle, in seconds (C)
- Value in PointValue (4) = Alarm A, in engineering unit (A)
- Value in PointValue (5) = Alarm B, in engineering unit (B)
- Value in PointValue (6) = Setpoint, in engineering unit
- Value in PointValue (7) = Controller's M/A status (0=Auto, 1=Manual)

**3.1.3. Read Decimal Point****Description of this command:**

Reads decimal point information. Valid range: 0-2.

**Type of data handled by this command:**

Analog Input

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

2

**3.1.4. Write Decimal Point****Description of this command:**

Writes decimal point information. Valid range: 0-2.

**Type of data handled by this command:**

Analog Output

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

2

**3.1.5. Read Current Mode****Description of this command:**

Reads current mode information. Valid range: 0-3.

**Type of data handled by this command:**

Analog Input

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

3

**3.1.6. Write Current Mode****Description of this command:**

Writes current mode information. Valid range: 0-3.

**Type of data handled by this command:**

Analog Output

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

3

**3.1.7. Read Low****Description of this command:**

Reads low information. Valid range: (-999)-4000.

**Type of data handled by this command:**

Analog Input

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

4

### 3.1.8. Write Low

**Description of this command:**

Writes low information. Valid range: (-999)-4000.

**Type of data handled by this command:**

Analog Output

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

4

### 3.1.9. Read High

**Description of this command:**

Reads high information. Valid range: (-999)-4000.

**Type of data handled by this command:**

Analog Input

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

5

### 3.1.10. Write High

**Description of this command:**

Writes high information. Valid range: (-999)-4000.

**Type of data handled by this command:**

Analog Output

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

5

### 3.1.11. Read Station Number

**Description of this command:**

Reads station number information. Valid range: 0-99.

**Type of data handled by this command:**

Analog Input

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

6

### 3.1.12. Read Setpoint

**Description of this command:**

Reads setpoint information. Valid range: (-999)-4000.

**Type of data handled by this command:**

Analog Input

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

7

### 3.1.13. Write Setpoint

**Description of this command:**

Writes setpoint information. Valid range: (-999)-4000.

**Type of data handled by this command:**

Analog Output

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

7

**3.1.14. Read Proportional Band****Description of this command:**

Reads proportional band information. Valid range: 0-499.9%.

**Type of data handled by this command:**

Analog Input

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

8

**3.1.15. Write Proportional Band****Description of this command:**

Writes proportional band information. Valid range: 0-499.9%.

**Type of data handled by this command:**

Analog Input

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

8

**3.1.16. Read Integral Time****Description of this command:**

Reads integral time information. Valid range: 0-9999 sec.

**Type of data handled by this command:**

Analog Input

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

9

**3.1.17. Write Integral Time****Description of this command:**

Writes integral time information. Valid range: 0-9999 sec.

**Type of data handled by this command:**

Analog Output

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

9

**3.1.18. Read Derivative Time****Description of this command:**

Reads derivative time information. Valid range: 0-499 sec.

**Type of data handled by this command:**

Analog Input

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

10

**3.1.19. Write Derivative Time****Description of this command:**

Writes derivative time information. Valid range: 0-499 sec.

**Type of data handled by this command:**

Analog Output

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

10

### 3.1.20. Read Service Cycle

**Description of this command:**

Reads service cycle information. Valid range: 0-200 sec.

**Type of data handled by this command:**

Analog Input

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

11

### 3.1.21. Write Service Cycle

**Description of this command:**

Writes service cycle information. Valid range: 0-200 sec.

**Type of data handled by this command:**

Analog Output

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

11

### 3.1.22. Read Alarm Due to Maximum

**Description of this command:**

Reads alarm due to maximum information. Valid range: (-999)-4000.

**Type of data handled by this command:**

Analog Input

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

12

### 3.1.23. Write Alarm Due to Maximum

**Description of this command:**

Writes alarm due to maximum information. Valid range: (-999)-4000.

**Type of data handled by this command:**

Analog Output

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

12

### 3.1.24. Read Alarm Due to Minimum

**Description of this command:**

Reads alarm due to minimum information. Valid range: (-999)-4000.

**Type of data handled by this command:**

Analog Input

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

13

**3.1.25. Write Alarm Due to Minimum****Description of this command:**

Writes alarm due to minimum information. Valid range: (-999)-4000.

**Type of data handled by this command:**

Analog Output

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

13

**3.1.26. Read Input Signal Selector****Description of this command:**

Reads input signal selector information. Valid range: 0-7.

**Type of data handled by this command:**

Analog Input

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

14

**3.1.27. Write Input Signal Selector****Description of this command:**

Writes input signal selector information. Valid range: 0-7.

**Type of data handled by this command:**

Analog Output

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

14

**3.1.28. Read Remote Set Gain****Description of this command:**

Reads remote set gain information. Valid range: (-9.99)-9.99.

**Type of data handled by this command:**

Analog Input

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

15

**3.1.29. Write Remote Set Gain****Description of this command:**

Writes remote set gain information. Valid range: (-9.99)-9.99.

**Type of data handled by this command:**

Analog Output

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

15

**3.1.30. Read Remote Set Bias****Description of this command:**

Reads remote set bias information. Valid range: (-9.99)-4000.

**Type of data handled by this command:**

Analog Input

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

16

**3.1.31. Write Remote Set Bias****Description of this command:**

Writes remote set bias information. Valid range: (-9.99)-4000.

**Type of data handled by this command:**

Analog Output

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

16

**3.1.32. Read Feedforward Gain****Description of this command:**

Reads feedforward gain information.

**Type of data handled by this command:**

Analog Input

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

17

**3.1.33. Write Feedforward Gain****Description of this command:**

Writes feedforward gain information.

**Type of data handled by this command:**

Analog Output

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

17

### 3.1.34. Read Cooking Programmer's Link

**Description of this command:**

Reads cooking programmer's link information. Valid range: 1-9.

**Type of data handled by this command:**

Analog Input

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

18

### 3.1.35. Write Cooking Programmer's Link

**Description of this command:**

Writes cooking programmer's link information. Valid range: 1-9.

**Type of data handled by this command:**

Analog Output

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

18

### 3.1.36. Read Sequence Repetitions

**Description of this command:**

Reads sequence repetitions information. Valid range: 1-99.

**Type of data handled by this command:**

Analog Input

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

19

### 3.1.37. Write Sequence Repetitions

**Description of this command:**

Writes sequence repetitions information. Valid range: 1-99.

**Type of data handled by this command:**

Analog Output

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

19

### 3.1.38. Read Setpoint of Segment 1 Cooking Prog.

**Description of this command:**

Reads setpoint of segment 1 cooking prog. information.

**Type of data handled by this command:**

Analog Input

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

20

**3.1.39. Write Setpoint of Segment 1 Cooking Prog.**

**Description of this command:**

Writes setpoint of segment 1 cooking prog. information.

**Type of data handled by this command:**

Analog Output

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

20

**3.1.40. Read Setpoint of Segment 2 Cooking Prog.**

**Description of this command:**

Reads setpoint of segment 2 cooking prog. information.

**Type of data handled by this command:**

Analog Input

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

21

**3.1.41. Write Setpoint of Segment 2 Cooking Prog.**

**Description of this command:**

Writes setpoint of segment 2 cooking prog. information.

**Type of data handled by this command:**

Analog Output

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

21

**3.1.42. Read Setpoint of Segment 3 Cooking Prog.****Description of this command:**

Reads setpoint of segment 3 cooking prog. information.

**Type of data handled by this command:**

Analog Input

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

22

**3.1.43. Write Setpoint of Segment 3 Cooking Prog.****Description of this command:**

Writes setpoint of segment 3 cooking prog. information.

**Type of data handled by this command:**

Analog Output

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

22

**3.1.44. Read Setpoint of Segment 4 Cooking Prog.****Description of this command:**

Reads setpoint of segment 4 cooking prog. information.

**Type of data handled by this command:**

Analog Input

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

23

**3.1.45. Write Setpoint of Segment 4 Cooking Prog.****Description of this command:**

Writes setpoint of segment 4 cooking prog. information.

**Type of data handled by this command:**

Analog Output

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

23

**3.1.46. Read Setpoint of Segment 5 Cooking Prog.****Description of this command:**

Reads setpoint of segment 5 cooking prog. information.

**Type of data handled by this command:**

Analog Input

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

24

**3.1.47. Write Setpoint of Segment 5 Cooking Prog.****Description of this command:**

Writes setpoint of segment 5 cooking prog. information.

**Type of data handled by this command:**

Analog Output

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

24

**3.1.48. Read Setpoint of Segment 6 Cooking Prog.****Description of this command:**

Reads setpoint of segment 6 cooking prog. information.

**Type of data handled by this command:**

Analog Input

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

25

**3.1.49. Write Setpoint of Segment 6 Cooking Prog.****Description of this command:**

Writes setpoint of segment 6 cooking prog. information.

**Type of data handled by this command:**

Analog Output

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

25

### 3.1.50. Read Setpoint of Segment 7 Cooking Prog.

**Description of this command:**

Reads setpoint of segment 7 cooking prog. information.

**Type of data handled by this command:**

Analog Input

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

26

### 3.1.51. Write Setpoint of Segment 7 Cooking Prog.

**Description of this command:**

Writes setpoint of segment 7 cooking prog. information.

**Type of data handled by this command:**

Analog Output

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

26

### 3.1.52. Read Setpoint of Segment 8 Cooking Prog.

**Description of this command:**

Reads setpoint of segment 8 cooking prog. information.

**Type of data handled by this command:**

Analog Input

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

27

**3.1.53. Write Setpoint of Segment 8 Cooking Prog.****Description of this command:**

Writes setpoint of segment 8 cooking prog. information.

**Type of data handled by this command:**

Analog Output

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

27

**3.1.54. Read Setpoint of Segment 9 Cooking Prog.****Description of this command:**

Reads setpoint of segment 9 cooking prog. information.

**Type of data handled by this command:**

Analog Input

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

28

**3.1.55. Write Setpoint of Segment 9 Cooking Prog.****Description of this command:**

Writes setpoint of segment 9 cooking prog. information.

**Type of data handled by this command:**

Analog Output

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

28

**3.1.56. Read Segment 1 Cooking Prog. Time****Description of this command:**

Reads segment 1 cooking prog time information.

**Type of data handled by this command:**

Analog Input

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

29

**3.1.57. Write Segment 1 Cooking Prog. Time****Description of this command:**

Writes segment 1 cooking prog time information.

**Type of data handled by this command:**

Analog Output

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

29

**3.1.58. Read Segment 2 Cooking Prog. Time****Description of this command:**

Reads segment 2 cooking prog. time information.

**Type of data handled by this command:**

Analog Input

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

30

**3.1.59. Write Segment 2 Cooking Prog. Time****Description of this command:**

Writes segment 2 cooking prog. time information.

**Type of data handled by this command:**

Analog Output

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

30

**3.1.60. Read Segment 3 Cooking Prog. Time****Description of this command:**

Reads segment 3 cooking prog. time information.

**Type of data handled by this command:**

Analog Input

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

31

**3.1.61. Write Segment 3 Cooking Prog. Time****Description of this command:**

Writes segment 3 cooking prog. time information.

**Type of data handled by this command:**

Analog Output

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

31

**3.1.62. Read Segment 4 Cooking Prog. Time****Description of this command:**

Reads segment 4 cooking prog. time information.

**Type of data handled by this command:**

Analog Input

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

32

**3.1.63. Write Segment 4 Cooking Prog. Time****Description of this command:**

Writes segment 4 cooking prog. time information.

**Type of data handled by this command:**

Analog Output

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

32

### 3.1.64. Read Segment 5 Cooking Prog. Time

**Description of this command:**

Reads segment 5 cooking prog. time information.

**Type of data handled by this command:**

Analog Input

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

33

### 3.1.65. Write Segment 5 Cooking Prog. Time

**Description of this command:**

Writes segment 5 cooking prog. time information.

**Type of data handled by this command:**

Analog Output

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

33

### 3.1.66. Read Segment 6 Cooking Prog. Time

**Description of this command:**

Reads segment 6 cooking prog. time information.

**Type of data handled by this command:**

Analog Input

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

34

**3.1.67. Write Segment 6 Cooking Prog. Time****Description of this command:**

Writes segment 6 cooking prog. time information.

**Type of data handled by this command:**

Analog Output

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

34

**3.1.68. Read Segment 7 Cooking Prog. Time****Description of this command:**

Reads segment 7 cooking prog. time information.

**Type of data handled by this command:**

Analog Input

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

35

**3.1.69. Write Segment 7 Cooking Prog. Time****Description of this command:**

Writes segment 7 cooking prog. time information.

**Type of data handled by this command:**

Analog Output

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

35

**3.1.70. Read Segment 8 Cooking Prog. Time****Description of this command:**

Reads segment 8 cooking prog. time information.

**Type of data handled by this command:**

Analog Input

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

36

**3.1.71. Write Segment 8 Cooking Prog. Time****Description of this command:**

Writes segment 8 cooking prog. time information.

**Type of data handled by this command:**

Analog Output

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

36

**3.1.72. Read Segment 9 Cooking Prog. Time****Description of this command:**

Reads segment 9 cooking prog. time information.

**Type of data handled by this command:**

Analog Input

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

37

**3.1.73. Write Segment 9 Cooking Prog. Time****Description of this command:**

Writes segment 9 cooking prog. time information.

**Type of data handled by this command:**

Analog Output

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

37

**3.1.74. Write Programmer Start, Stop or Reset****Description of this command:**

Writes Programmer Start (1), Stop (2) or Reset (0) information. Valid range: 0-2.

**Type of data handled by this command:**

Analog Output

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

38

**3.1.75. Set Controller's Output in Auto****Description of this command:**

Writes controller's output in auto.

**Type of data handled by this command:**

Analog Output

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

39

### 3.1.76. Turn Controller to Manual Mode and Write the Output %

**Description of this command:**

Turns controller to Manual mode and write the output %

**Type of data handled by this command:**

Analog Output

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

40

[S6800 Commands]

## 3.2. S6800 Commands

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### 3.2.1. Read 4-Digit Current Values

**Description of this command:**

Reads S6800 4-Digit current values information.

**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 destination station number of the counter with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

300

**Values that are returned:**

Value in PointValue (0) = SetPoint  
Value in PointValue (1) = Counter Value  
Value in PointValue (2) = Reset  
Value in PointValue (3) = Counting  
Value in PointValue (4) = On-line

**3.2.2. Read 6-Digit/1-Setpoint Current Values****Description of this command:**

Reads S6800 6-Digit/1-Setpoint current values information.

**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 destination station number of the counter with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

400

**Values that are returned:**

Value in PointValue (0) = Counter Value  
Value in PointValue (1) = SetPoint  
Value in PointValue (2) = Reset  
Value in PointValue (3) = Counting

**3.2.3. Read 6-Digit/3-Setpoint Current Values****Description of this command:**

Reads S6800 6-Digit/3-Setpoint current values information.

**Type of data handled by this command:**

Analog Input

**Number of points accepted by this command:**

1-6

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the counter with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

500

**Values that are returned:**

Value in PointValue (0) = Counter Value

Value in PointValue (1) = SetPoint 1

Value in PointValue (2) = SetPoint 2

Value in PointValue (3) = SetPoint 3

Value in PointValue (4) = Reset

Value in PointValue (5) = Counting

**3.2.4. Write ??xxx part of Setpoint 1****Description of this command:**

Writes ??xxx part of setpoint 1 value.

**Type of data handled by this command:**

Analog Output

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

307

**3.2.5. Write xx??? part of Setpoint 1****Description of this command:**

Writes xx??? part of setpoint 1 value.

**Type of data handled by this command:**

Analog Output

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

308

### 3.2.6. Write ??xxx part of Setpoint 2

**Description of this command:**

Writes ??xxx part of setpoint 1 value.

**Type of data handled by this command:**

Analog Output

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99). ot used.

### 3.2.7. Write xx??? part of Setpoint 2

**Description of this command:**

Writes xx??? part of setpoint 1 value.

**Type of data handled by this command:**

Analog Output

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

310

### 3.2.8. Write ??xxx part of Setpoint 3

**Description of this command:**

Writes ??xxx part of setpoint 1 value.

**Type of data handled by this command:**

Analog Output

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

311

### 3.2.9. Write xx??? part of Setpoint 3

**Description of this command:**

Writes xx??? part of setpoint 1 value.

**Type of data handled by this command:**

Analog Output

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

312

### 3.2.10. Write Multiplication Factor

**Description of this command:**

Writes multiplication factor.

**Type of data handled by this command:**

Analog Output

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

316

### 3.2.11. Write Division Factor

**Description of this command:**

Writes division factor (must be 0, 1, 2, 3, 4 or 5).

**Type of data handled by this command:**

Analog Output

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

314

**3.2.12. Set Decimal Point****Description of this command:**

Sets the decimal point (0, 1 or 2).

**Type of data handled by this command:**

Analog Output

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

302

**3.2.13. Write Filter Value****Description of this command:**

Writes filter value (0-1000).

**Type of data handled by this command:**

Analog Output

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

315

**3.2.14. Write Mode****Description of this command:**

Writes current mode (0, 1, 2 or 3).

**Type of data handled by this command:**

Analog Output

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

303

**3.2.15. Write Relay Time****Description of this command:**

Writes relay time (0-0100).

**Type of data handled by this command:**

Analog Output

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

306

**3.2.16. Write Station Number****Description of this command:**

Writes device's station number (1-99).

**Type of data handled by this command:**

Analog Output

**Number of points accepted by this command:**

1

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the controller with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

306

[MA98000 Commands]

## 3.3. MA98000 Commands

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### 3.3.1. Read Measured Analog Channels

**Description of this command:**

Reads the measured channel values.

**Type of data handled by this command:**

Analog Input

**Number of points accepted by this command:**

1-200

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the unit with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

200

**Meaning of the DriverP2 parameter:**

First channel to be read

### 3.3.2. Read Optional Analog Channels

**Description of this command:**

Reads the optional channel values.

**Type of data handled by this command:**

Analog Input

**Number of points accepted by this command:**

1-200

**Meaning of the DriverP0 parameter:**

Indicates the destination station number of the unit with which communication will be made (0-99).

**Meaning of the DriverP1 parameter:**

201

**Meaning of the DriverP2 parameter:**

First channel to be read

## 4. Appendices

### 4.1. Error messages

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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
- [1401] PROTOCOL (Format): Acknowledge was not received from device
- [1433] PROTOCOL (Format): Validation error in device response
- [2147] CONFIG (NumValues): Only one value can be read or written
- [2196] CONFIG (NumValues): Too many values (max=200)
- [2216] CONFIG (NumValues): Too many values (max=4)
- [2235] CONFIG (NumValues): Too many values (max=8)
- [3018] CONFIG (P0): Invalid device address (0-99)
- [3503] CONFIG (P1): Digital inputs are not supported for this device
- [3504] CONFIG (P1): Digital outputs are not supported for this device
- [3518] CONFIG (P1): Invalid command (0-600)
- [3527] CONFIG (P1): Invalid command (2-40)
- [4122] CONFIG (P2): Invalid value (1-200)

### 4.2. Keywords list

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

"1Setpoint, 3Setpoint, 4Digit, 6Digit, Analog, Controller, Controllers, Displays, IEA, MA98000, Multiplexor, S6800, S9800, Signals, Single-Loop".