

# XGEFAN90 Driver Manual

GE Fanuc Series 90 SNP-X Protocol Driver



GE Fanuc  
Series 90-30



## CPKSoft Engineering Process Monitoring and Industrial Automation Software

Copyright 1990-2008, CPKSoft Engineering. All rights reserved.

# Index

<b>1.</b>	<b>Introduction</b>	<b>3</b>
<b>2.</b>	<b>Driver details</b>	<b>4</b>
2.1.	Driver overview.....	4
2.2.	Supported devices.....	4
<b>3.</b>	<b>Command list</b>	<b>5</b>
3.1.	Read Registers.....	5
3.2.	Read Analog Inputs.....	6
3.3.	Read Analog Outputs.....	6
3.4.	Read Discrete Inputs in Bit Mode.....	7
3.5.	Read Discrete Inputs in Byte Mode.....	8
3.6.	Read Discrete Outputs in Bit Mode.....	9
3.7.	Read Discrete Outputs in Byte Mode.....	10
3.8.	Read Discrete Temporaries in Bit Mode.....	11
3.9.	Read Discrete Temporaries in Byte Mode.....	12
3.10.	Read Discrete Internals in Bit Mode.....	13
3.11.	Read Discrete Internals in Byte Mode.....	14
3.12.	Read Discrete SA in Bit Mode.....	15
3.13.	Read Discrete SA in Byte Mode.....	16
3.14.	Read Discrete SB in Bit Mode.....	16
3.15.	Read Discrete SB in Byte Mode.....	17
3.16.	Read Discrete SC in Bit Mode.....	18
3.17.	Read Discrete SC in Byte Mode.....	19
3.18.	Read Discrete S in Bit Mode.....	20
3.19.	Read Discrete S in Byte Mode.....	21
3.20.	Read Discrete Genius Global Data in Bit Mode.....	22
3.21.	Read Discrete Genius Global Data in Byte Mode.....	23
3.22.	Write Registers.....	24
3.23.	Write Analog Inputs.....	25
3.24.	Write Analog Outputs.....	26
3.25.	Write Discrete Inputs in Bit Mode.....	26
3.26.	Write Discrete Inputs in Byte Mode.....	27
3.27.	Write Discrete Outputs in Bit Mode.....	28
3.28.	Write Discrete Outputs in Byte Mode.....	29
3.29.	Write Discrete Temporaries in Bit Mode.....	30
3.30.	Write Discrete Temporaries in Byte Mode.....	31
3.31.	Write Discrete Internals in Bit Mode.....	32
3.32.	Write Discrete Internals in Byte Mode.....	33
3.33.	Write Discrete SA in Bit Mode.....	34
3.34.	Write Discrete SA in Byte Mode.....	35
3.35.	Write Discrete SB in Bit Mode.....	36
3.36.	Write Discrete SB in Byte Mode.....	36
3.37.	Write Discrete SC in Bit Mode.....	37
3.38.	Write Discrete SC in Byte Mode.....	38
<b>4.</b>	<b>Appendices</b>	<b>40</b>
4.1.	Error messages.....	40
4.2.	Keywords list.....	41

# 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 xgefan90.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 xgefan90.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 xgefan90 driver page at CPKSoft Engineering website: <http://www.cpksoft.com/tabid/55/ProductID/42/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

---

XGEFAN90 driver allows connecting to the General Electric model GE FANUC series 90 PLC using the SNP-X communication protocol. Communication is made through an RS-232 or RS-485 port.

### 2.2. Supported devices

---

This driver can communicate with these devices, but is not necessarily limited to this list:  
GENERAL ELECTRIC Model GE FANUC Series 90 PLC

## 3. Command list

### 3.1. Read Registers

**Description of this command:**

This command allows you to read the value of the registers.

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

Analog Input

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

1-200

**Meaning of the DriverP0 parameter:**

Identifies the station address number (001-999). The SNP ID expected by the PLC is in fact a string of 8 ASCII characters. Given that P0 is a numeric parameter, the string used is always "GEFxxx\0\0" where xxx is the part specified in P0 as the station number (3 digits). For example, if the station number indicated in P0 is 1, the SNP ID will be sent as GEF001\0\0, or what is the same, "GEF001" followed by two NULL characters.

**Important note:**If DriverP0=-1, the driver will send the string given in DriverP6.

**Meaning of the DriverP1 parameter:**

8

**Meaning of the DriverP2 parameter:**

Defines the address of the element to be read (1..65535).

**Meaning of the DriverP3 parameter:**

Indicates if the ATTACH command is sent before reading.

- 0 = Send the ATTACH command.

- 1 = Do not send the ATTACH command. (Its use is necessary when the first request to the PLC is done, because up to that moment the PLC has not yet been initialized for communications.)

**Meaning of the DriverP4 parameter:**

Defines the duration in msec. of the initial break signal (standard: 400 msec.).

**Meaning of the DriverP5 parameter:**

Defines the time delay in msec., to wait before sending the attach command (standard: 50 msec. in a point to point connection, 600 msec. in a modem connection).

**Meaning of the DriverP6 parameter:**

Station name used when DriverP0=-1. Must be a 8-character string.

## 3.2. Read Analog Inputs

---

**Description of this command:**

This command allows you to read the value of the analog inputs.

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

Analog Input

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

1-200

**Meaning of the DriverP0 parameter:**

Identifies the station address number (001-999). The SNP ID expected by the PLC is in fact a string of 8 ASCII characters. Because P0 is a numeric parameter, the string used is always "GEFxxx\0\0" where xxx is the part specified in P0 as the station number (3 digits). For example, if the station number indicated in P0 is 1, the SNP ID will be sent as GEF001\0\0, or what is the same, "GEF001" followed by two NULL characters.

**Important note: If DriverP0=-1, the driver will send the string given in DriverP6.****Meaning of the DriverP1 parameter:**

10

**Meaning of the DriverP2 parameter:**

Defines the address of the element to be read (1..65535).

**Meaning of the DriverP3 parameter:**

Indicates if the ATTACH command is sent before reading.

- 0 = Send the ATTACH command.

- 1 = Do not send the ATTACH command. (Its use is necessary when the first request to the PLC is done, because up to that moment the PLC has not yet been initialized for communications.)

**Meaning of the DriverP4 parameter:**

Defines the duration in msec. of the initial break signal (standard: 400 msec.).

**Meaning of the DriverP5 parameter:**

Defines the time delay in msec., to wait before sending the attach command (standard: 50 msec. in a point to point connection, 600 msec. in a modem connection).

**Meaning of the DriverP6 parameter:**

Station name used when DriverP0=-1. Must be a 8-character string.

## 3.3. Read Analog Outputs

---

**Description of this command:**

This command allows you to read the value of the analog outputs.

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

Analog Input

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

1-200

**Meaning of the DriverP0 parameter:**

Identifies the station address number (001-999). The SNP ID expected by the PLC is in fact a string of 8 ASCII characters. Because P0 is a numeric parameter, the string used is always "GEFxxx\0\0" where xxx is the part specified in P0 as the station number (3 digits). For example, if the station number indicated in P0 is 1, the SNP ID will be sent as GEF001\0\0, or what is the same, "GEF001" followed by two NULL characters.

**Important note:**If DriverP0=-1, the driver will send the string given in DriverP6.

**Meaning of the DriverP1 parameter:**

12

**Meaning of the DriverP2 parameter:**

Defines the address of the element to be read (1..65535).

**Meaning of the DriverP3 parameter:**

Indicates if the ATTACH command is sent before reading.

- 0 = Send the ATTACH command.

- 1 = Do not send the ATTACH command. (Its use is necessary when the first request to the PLC is done, because up to that moment the PLC has not yet been initialized for communications.)

**Meaning of the DriverP4 parameter:**

Defines the duration in msec. of the initial break signal (standard: 400 msec.).

**Meaning of the DriverP5 parameter:**

Defines the time delay in msec., to wait before sending the attach command (standard: 50 msec. in a point to point connection, 600 msec. in a modem connection).

**Meaning of the DriverP6 parameter:**

Station name used when DriverP0=-1. Must be a 8-character string.

## 3.4. Read Discrete Inputs in Bit Mode

---

**Description of this command:**

This command allows you to read the value of the discrete inputs in bit mode.

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

Digital Input

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

1-200

**Meaning of the DriverP0 parameter:**

Identifies the station address number (001-999). The SNP ID expected by the PLC is in fact a string of 8 ASCII characters. Because P0 is a numeric parameter, the string used is always "GEFxxx\0\0" where xxx is the part specified in P0 as the station number (3 digits). For example, if the station number indicated in P0 is 1, the SNP ID will be sent as GEF001\0\0, or what is the same, "GEF001" followed by two NULL characters.

**Important note:**If DriverP0=-1, the driver will send the string given in DriverP6.

**Meaning of the DriverP1 parameter:**

70

**Meaning of the DriverP2 parameter:**

Defines the address of the element to be read (1..65535).

**Meaning of the DriverP3 parameter:**

Indicates if the ATTACH command is sent before reading.

- 0 = Send the ATTACH command.
- 1 = Do not send the ATTACH command. (Its use is necessary when the first request to the PLC is done, because up to that moment the PLC has not yet been initialized for communications.)

**Meaning of the DriverP4 parameter:**

Defines the duration in msec. of the initial break signal (standard: 400 msec.).

**Meaning of the DriverP5 parameter:**

Defines the time delay in msec., to wait before sending the attach command (standard: 50 msec. in a point to point connection, 600 msec. in a modem connection).

**Meaning of the DriverP6 parameter:**

Station name used when DriverP0=-1. Must be a 8-character string.

## 3.5. Read Discrete Inputs in Byte Mode

---

**Description of this command:**

This command allows you to read the value of the discrete inputs in byte mode.

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

Analog Input

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

1-200

**Meaning of the DriverP0 parameter:**

Identifies the station address number (001-999). The SNP ID expected by the PLC is in fact a string of 8 ASCII characters. Because P0 is a numeric parameter, the string used is always "GEFxxx\0\0" where xxx is the part specified in P0 as the station number (3 digits).

For example, if the station number indicated in P0 is 1, the SNP ID will be sent as GEF001\0\0, or what is the same, "GEF001" followed by two NULL characters.

**Important note:**If DriverP0=-1, the driver will send the string given in DriverP6.

**Meaning of the DriverP1 parameter:**

16

**Meaning of the DriverP2 parameter:**

Defines the address of the element to be read (1..65535).

**Meaning of the DriverP3 parameter:**

Indicates if the ATTACH command is sent before reading.

- 0 = Send the ATTACH command.

- 1 = Do not send the ATTACH command. (Its use is necessary when the first request to the PLC is done, because up to that moment the PLC has not yet been initialized for communications.)

**Meaning of the DriverP4 parameter:**

Defines the duration in msec. of the initial break signal (standard: 400 msec.).

**Meaning of the DriverP5 parameter:**

Defines the time delay in msec., to wait before sending the attach command (standard: 50 msec. in a point to point connection, 600 msec. in a modem connection).

**Meaning of the DriverP6 parameter:**

Station name used when DriverP0=-1. Must be a 8-character string.

## 3.6. Read Discrete Outputs in Bit Mode

---

**Description of this command:**

This command allows you to read the value of the discrete outputs in bit mode.

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

Digital Input

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

1-200

**Meaning of the DriverP0 parameter:**

Identifies the station address number (001-999). The SNP ID expected by the PLC is in fact a string of 8 ASCII characters. Because P0 is a numeric parameter, the string used is always "GEFxxx\0\0" where xxx is the part specified in P0 as the station number (3 digits). For example, if the station number indicated in P0 is 1, the SNP ID will be sent as GEF001\0\0, or what is the same, "GEF001" followed by two NULL characters.

**Important note:**If DriverP0=-1, the driver will send the string given in DriverP6.

**Meaning of the DriverP1 parameter:**

72

**Meaning of the DriverP2 parameter:**

Defines the address of the element to be read (1..65535).

**Meaning of the DriverP3 parameter:**

Indicates if the ATTACH command is sent before reading.

- 0 = Send the ATTACH command.

- 1 = Do not send the ATTACH command. (Its use is necessary when the first request to the PLC is done, because up to that moment the PLC has not yet been initialized for communications.)

**Meaning of the DriverP4 parameter:**

Defines the duration in msec. of the initial break signal (standard: 400 msec.).

**Meaning of the DriverP5 parameter:**

Defines the time delay in msec., to wait before sending the attach command (standard: 50 msec. in a point to point connection, 600 msec. in a modem connection).

**Meaning of the DriverP6 parameter:**

Station name used when DriverP0=-1. Must be a 8-character string.

## 3.7. Read Discrete Outputs in Byte Mode

---

**Description of this command:**

This command allows you to read the value of the discrete outputs in byte mode.

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

Analog Input

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

1-200

**Meaning of the DriverP0 parameter:**

Identifies the station address number (001-999). The SNP ID expected by the PLC is in fact a string of 8 ASCII characters. Because P0 is a numeric parameter, the string used is always "GEFxxx\0\0" where xxx is the part specified in P0 as the station number (3 digits). For example, if the station number indicated in P0 is 1, the SNP ID will be sent as GEF001\0\0, or what is the same, "GEF001" followed by two NULL characters.

**Important note:**If DriverP0=-1, the driver will send the string given in DriverP6.

**Meaning of the DriverP1 parameter:**

18

**Meaning of the DriverP2 parameter:**

Defines the address of the element to be read (1..65535).

**Meaning of the DriverP3 parameter:**

Indicates if the ATTACH command is sent before reading.

- 0 = Send the ATTACH command.

- 1 = Do not send the ATTACH command. (Its use is necessary when the first request to the PLC is done, because up to that moment the PLC has not yet been initialized for communications.)

**Meaning of the DriverP4 parameter:**

Defines the duration in msec. of the initial break signal (standard: 400 msec.).

**Meaning of the DriverP5 parameter:**

Defines the time delay in msec., to wait before sending the attach command (standard: 50 msec. in a point to point connection, 600 msec. in a modem connection).

**Meaning of the DriverP6 parameter:**

Station name used when DriverP0=-1. Must be a 8-character string.

## 3.8. Read Discrete Temporaries in Bit Mode

---

**Description of this command:**

This command allows you to read the value of the discrete temporaries in bit mode.

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

Digital Input

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

1-200

**Meaning of the DriverP0 parameter:**

Identifies the station address number (001-999). The SNP ID expected by the PLC is in fact a string of 8 ASCII characters. Because P0 is a numeric parameter, the string used is always "GEFxxx\0\0" where xxx is the part specified in P0 as the station number (3 digits). For example, if the station number indicated in P0 is 1, the SNP ID will be sent as GEF001\0\0, or what is the same, "GEF001" followed by two NULL characters.

**Important note:** If DriverP0=-1, the driver will send the string given in DriverP6.

**Meaning of the DriverP1 parameter:**

74

**Meaning of the DriverP2 parameter:**

Defines the address of the element to be read (1..65535).

**Meaning of the DriverP3 parameter:**

Indicates if the ATTACH command is sent before reading.

- 0 = Send the ATTACH command.
- 1 = Do not send the ATTACH command. (Its use is necessary when the first request to the PLC is done, because up to that moment the PLC has not yet been initialized for communications.)

**Meaning of the DriverP4 parameter:**

Defines the duration in msec. of the initial break signal (standard: 400 msec.).

**Meaning of the DriverP5 parameter:**

Defines the time delay in msec., to wait before sending the attach command (standard: 50 msec. in a point to point connection, 600 msec. in a modem connection).

**Meaning of the DriverP6 parameter:**

Station name used when DriverP0=-1. Must be a 8-character string.

## 3.9. Read Discrete Temporaries in Byte Mode

---

**Description of this command:**

This command allows you to read the value of the discrete temporaries in byte mode.

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

Analog Input

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

1-200

**Meaning of the DriverP0 parameter:**

Identifies the station address number (001-999). The SNP ID expected by the PLC is in fact a string of 8 ASCII characters. Because P0 is a numeric parameter, the string used is always "GEFxxx\0\0" where xxx is the part specified in P0 as the station number (3 digits). For example, if the station number indicated in P0 is 1, the SNP ID will be sent as GEF001\0\0, or what is the same, "GEF001" followed by two NULL characters.

**Important note:**If DriverP0=-1, the driver will send the string given in DriverP6.

**Meaning of the DriverP1 parameter:**

20

**Meaning of the DriverP2 parameter:**

Defines the address of the element to be read (1..65535).

**Meaning of the DriverP3 parameter:**

Indicates if the ATTACH command is sent before reading.

- 0 = Send the ATTACH command.
- 1 = Do not send the ATTACH command. (Its use is necessary when the first request to the PLC is done, because up to that moment the PLC has not yet been initialized for communications.)

**Meaning of the DriverP4 parameter:**

Defines the duration in msec. of the initial break signal (standard: 400 msec.).

**Meaning of the DriverP5 parameter:**

Defines the time delay in msec., to wait before sending the attach command (standard: 50 msec. in a point to point connection, 600 msec. in a modem connection).

**Meaning of the DriverP6 parameter:**

Station name used when DriverP0=-1. Must be a 8-character string.

## 3.10. Read Discrete Internals in Bit Mode

---

**Description of this command:**

This command allows you to read the value of the discrete internals in bit mode.

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

Digital Input

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

1-200

**Meaning of the DriverP0 parameter:**

Identifies the station address number (001-999). The SNP ID expected by the PLC is in fact a string of 8 ASCII characters. Because P0 is a numeric parameter, the string used is always "GEFxxx\0\0" where xxx is the part specified in P0 as the station number (3 digits). For example, if the station number indicated in P0 is 1, the SNP ID will be sent as GEF001\0\0, or what is the same, "GEF001" followed by two NULL characters.

**Important note:** If DriverP0=-1, the driver will send the string given in DriverP6.

**Meaning of the DriverP1 parameter:**

76

**Meaning of the DriverP2 parameter:**

Defines the address of the element to be read (1..65535).

**Meaning of the DriverP3 parameter:**

Indicates if the ATTACH command is sent before reading.

- 0 = Send the ATTACH command.
- 1 = Do not send the ATTACH command. (Its use is necessary when the first request to the PLC is done, because up to that moment the PLC has not yet been initialized for communications.)

**Meaning of the DriverP4 parameter:**

Defines the duration in msec. of the initial break signal (standard: 400 msec.).

**Meaning of the DriverP5 parameter:**

Defines the time delay in msec., to wait before sending the attach command (standard: 50 msec. in a point to point connection, 600 msec. in a modem connection).

**Meaning of the DriverP6 parameter:**

Station name used when DriverP0=-1. Must be a 8-character string.

## 3.11. Read Discrete Internals in Byte Mode

---

**Description of this command:**

This command allows you to read the value of the discrete internals in byte mode.

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

Analog Input

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

1-200

**Meaning of the DriverP0 parameter:**

Identifies the station address number (001-999). The SNP ID expected by the PLC is in fact a string of 8 ASCII characters. Because P0 is a numeric parameter, the string used is always "GEFxxx\0\0" where xxx is the part specified in P0 as the station number (3 digits). For example, if the station number indicated in P0 is 1, the SNP ID will be sent as GEF001\0\0, or what is the same, "GEF001" followed by two NULL characters.

**Important note:** If DriverP0=-1, the driver will send the string given in DriverP6.

**Meaning of the DriverP1 parameter:**

22

**Meaning of the DriverP2 parameter:**

Defines the address of the element to be read (1..65535).

**Meaning of the DriverP3 parameter:**

Indicates if the ATTACH command is sent before reading.

- 0 = Send the ATTACH command.

- 1 = Do not send the ATTACH command. (Its use is necessary when the first request to the PLC is done, because up to that moment the PLC has not yet been initialized for communications.)

**Meaning of the DriverP4 parameter:**

Defines the duration in msec. of the initial break signal (standard: 400 msec.).

**Meaning of the DriverP5 parameter:**

Defines the time delay in msec., to wait before sending the attach command (standard: 50 msec. in a point to point connection, 600 msec. in a modem connection).

**Meaning of the DriverP6 parameter:**

Station name used when DriverP0=-1. Must be a 8-character string.

## 3.12. Read Discrete SA in Bit Mode

---

**Description of this command:**

This command allows you to read the value of the discrete SA in bit mode.

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

Digital Input

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

1-200

**Meaning of the DriverP0 parameter:**

Identifies the station address number (001-999). The SNP ID expected by the PLC is in fact a string of 8 ASCII characters. Because P0 is a numeric parameter, the string used is always "GEFxxx\0\0" where xxx is the part specified in P0 as the station number (3 digits). For example, if the station number indicated in P0 is 1, the SNP ID will be sent as GEF001\0\0, or what is the same, "GEF001" followed by two NULL characters.

**Important note: If DriverP0=-1, the driver will send the string given in DriverP6.**

**Meaning of the DriverP1 parameter:**

78

**Meaning of the DriverP2 parameter:**

Defines the address of the element to be read (1..65535).

**Meaning of the DriverP3 parameter:**

Indicates if the ATTACH command is sent before reading.

- 0 = Send the ATTACH command.
- 1 = Do not send the ATTACH command. (Its use is necessary when the first request to the PLC is done, because up to that moment the PLC has not yet been initialized for communications.)

**Meaning of the DriverP4 parameter:**

Defines the duration in msec. of the initial break signal (standard: 400 msec.).

**Meaning of the DriverP5 parameter:**

Defines the time delay in msec., to wait before sending the attach command (standard: 50 msec. in a point to point connection, 600 msec. in a modem connection).

**Meaning of the DriverP6 parameter:**

Station name used when DriverP0=-1. Must be a 8-character string.

## 3.13. Read Discrete SA in Byte Mode

---

**Description of this command:**

This command allows you to read the value of the discrete SA in byte mode.

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

Analog Input

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

1-200

**Meaning of the DriverP0 parameter:**

Identifies the station address number (001-999). The SNP ID expected by the PLC is in fact a string of 8 ASCII characters. Because P0 is a numeric parameter, the string used is always "GEFxxx\0\0" where xxx is the part specified in P0 as the station number (3 digits). For example, if the station number indicated in P0 is 1, the SNP ID will be sent as GEF001\0\0, or what is the same, "GEF001" followed by two NULL characters.

**Important note:** If DriverP0=-1, the driver will send the string given in DriverP6.

**Meaning of the DriverP1 parameter:**

24

**Meaning of the DriverP2 parameter:**

Defines the address of the element to be read (1..65535).

**Meaning of the DriverP3 parameter:**

Indicates if the ATTACH command is sent before reading.

- 0 = Send the ATTACH command.

- 1 = Do not send the ATTACH command. (Its use is necessary when the first request to the PLC is done, because up to that moment the PLC has not yet been initialized for communications.)

**Meaning of the DriverP4 parameter:**

Defines the duration in msec. of the initial break signal (standard: 400 msec.).

**Meaning of the DriverP5 parameter:**

Defines the time delay in msec., to wait before sending the attach command (standard: 50 msec. in a point to point connection, 600 msec. in a modem connection).

**Meaning of the DriverP6 parameter:**

Station name used when DriverP0=-1. Must be a 8-character string.

## 3.14. Read Discrete SB in Bit Mode

---

**Description of this command:**

This command allows you to read the value of the discrete SB in bit mode.

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

Digital Input

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

1-200

**Meaning of the DriverP0 parameter:**

Identifies the station address number (001-999). The SNP ID expected by the PLC is in fact a string of 8 ASCII characters. Because P0 is a numeric parameter, the string used is always "GEFxxx\0\0" where xxx is the part specified in P0 as the station number (3 digits). For example, if the station number indicated in P0 is 1, the SNP ID will be sent as GEF001\0\0, or what is the same, "GEF001" followed by two NULL characters.

**Important note:** If DriverP0=-1, the driver will send the string given in DriverP6.

**Meaning of the DriverP1 parameter:**

80

**Meaning of the DriverP2 parameter:**

Defines the address of the element to be read (1..65535).

**Meaning of the DriverP3 parameter:**

Indicates if the ATTACH command is sent before reading.

- 0 = Send the ATTACH command.

- 1 = Do not send the ATTACH command. (Its use is necessary when the first request to the PLC is done, because up to that moment the PLC has not yet been initialized for communications.)

**Meaning of the DriverP4 parameter:**

Defines the duration in msec. of the initial break signal (standard: 400 msec.).

**Meaning of the DriverP5 parameter:**

Defines the time delay in msec., to wait before sending the attach command (standard: 50 msec. in a point to point connection, 600 msec. in a modem connection).

**Meaning of the DriverP6 parameter:**

Station name used when DriverP0=-1. Must be a 8-character string.

## 3.15. Read Discrete SB in Byte Mode

---

**Description of this command:**

This command allows you to read the value of the discrete SB in byte mode.

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

Analog Input

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

1-200

**Meaning of the DriverP0 parameter:**

Identifies the station address number (001-999). The SNP ID expected by the PLC is in fact a string of 8 ASCII characters. Because P0 is a numeric parameter, the string used is always "GEFxxx\0\0" where xxx is the part specified in P0 as the station number (3 digits). For example, if the station number indicated in P0 is 1, the SNP ID will be sent as GEF001\0\0, or what is the same, "GEF001" followed by two NULL characters.

**Important note:**If DriverP0=-1, the driver will send the string given in DriverP6.

**Meaning of the DriverP1 parameter:**

26

**Meaning of the DriverP2 parameter:**

Defines the address of the element to be read (1..65535).

**Meaning of the DriverP3 parameter:**

Indicates if the ATTACH command is sent before reading.

- 0 = Send the ATTACH command.
- 1 = Do not send the ATTACH command. (Its use is necessary when the first request to the PLC is done, because up to that moment the PLC has not yet been initialized for communications.)

**Meaning of the DriverP4 parameter:**

Defines the duration in msec. of the initial break signal (standard: 400 msec.).

**Meaning of the DriverP5 parameter:**

Defines the time delay in msec., to wait before sending the attach command (standard: 50 msec. in a point to point connection, 600 msec. in a modem connection).

**Meaning of the DriverP6 parameter:**

Station name used when DriverP0=-1. Must be a 8-character string.

## 3.16. Read Discrete SC in Bit Mode

---

**Description of this command:**

This command allows you to read the value of the discrete SC in bit mode.

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

Digital Input

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

1-200

**Meaning of the DriverP0 parameter:**

Identifies the station address number (001-999). The SNP ID expected by the PLC is in fact a string of 8 ASCII characters. Because P0 is a numeric parameter, the string used is always "GEFxxx\0\0" where xxx is the part specified in P0 as the station number (3 digits).

For example, if the station number indicated in P0 is 1, the SNP ID will be sent as GEF001\0\0, or what is the same, "GEF001" followed by two NULL characters.

**Important note:**If DriverP0=-1, the driver will send the string given in DriverP6.

**Meaning of the DriverP1 parameter:**

82

**Meaning of the DriverP2 parameter:**

Defines the address of the element to be read (1..65535).

**Meaning of the DriverP3 parameter:**

Indicates if the ATTACH command is sent before reading.

- 0 = Send the ATTACH command.

- 1 = Do not send the ATTACH command. (Its use is necessary when the first request to the PLC is done, because up to that moment the PLC has not yet been initialized for communications.)

**Meaning of the DriverP4 parameter:**

Defines the duration in msec. of the initial break signal (standard: 400 msec.).

**Meaning of the DriverP5 parameter:**

Defines the time delay in msec., to wait before sending the attach command (standard: 50 msec. in a point to point connection, 600 msec. in a modem connection).

**Meaning of the DriverP6 parameter:**

Station name used when DriverP0=-1. Must be a 8-character string.

## 3.17. Read Discrete SC in Byte Mode

---

**Description of this command:**

This command allows you to read the value of the discrete SC in byte mode.

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

Analog Input

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

1-200

**Meaning of the DriverP0 parameter:**

Identifies the station address number (001-999). The SNP ID expected by the PLC is in fact a string of 8 ASCII characters. Because P0 is a numeric parameter, the string used is always "GEFxxx\0\0" where xxx is the part specified in P0 as the station number (3 digits). For example, if the station number indicated in P0 is 1, the SNP ID will be sent as GEF001\0\0, or what is the same, "GEF001" followed by two NULL characters.

**Important note:**If DriverP0=-1, the driver will send the string given in DriverP6.

**Meaning of the DriverP1 parameter:**

28

**Meaning of the DriverP2 parameter:**

Defines the address of the element to be read (1..65535).

**Meaning of the DriverP3 parameter:**

Indicates if the ATTACH command is sent before reading.

- 0 = Send the ATTACH command.

- 1 = Do not send the ATTACH command. (Its use is necessary when the first request to the PLC is done, because up to that moment the PLC has not yet been initialized for communications.)

**Meaning of the DriverP4 parameter:**

Defines the duration in msec. of the initial break signal (standard: 400 msec.).

**Meaning of the DriverP5 parameter:**

Defines the time delay in msec., to wait before sending the attach command (standard: 50 msec. in a point to point connection, 600 msec. in a modem connection).

**Meaning of the DriverP6 parameter:**

Station name used when DriverP0=-1. Must be a 8-character string.

## 3.18. Read Discrete S in Bit Mode

---

**Description of this command:**

This command allows you to read the value of the discrete S in bit mode.

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

Digital Input

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

1-200

**Meaning of the DriverP0 parameter:**

Identifies the station address number (001-999). The SNP ID expected by the PLC is in fact a string of 8 ASCII characters. Because P0 is a numeric parameter, the string used is always "GEFxxx\0\0" where xxx is the part specified in P0 as the station number (3 digits). For example, if the station number indicated in P0 is 1, the SNP ID will be sent as GEF001\0\0, or what is the same, "GEF001" followed by two NULL characters.

**Important note:**If DriverP0=-1, the driver will send the string given in DriverP6.

**Meaning of the DriverP1 parameter:**

84

**Meaning of the DriverP2 parameter:**

Defines the address of the element to be read (1..65535).

**Meaning of the DriverP3 parameter:**

Indicates if the ATTACH command is sent before reading.

- 0 = Send the ATTACH command.

- 1 = Do not send the ATTACH command. (Its use is necessary when the first request to the PLC is done, because up to that moment the PLC has not yet been initialized for communications.)

**Meaning of the DriverP4 parameter:**

Defines the duration in msec. of the initial break signal (standard: 400 msec.).

**Meaning of the DriverP5 parameter:**

Defines the time delay in msec., to wait before sending the attach command (standard: 50 msec. in a point to point connection, 600 msec. in a modem connection).

**Meaning of the DriverP6 parameter:**

Station name used when DriverP0=-1. Must be a 8-character string.

## 3.19. Read Discrete S in Byte Mode

---

**Description of this command:**

This command allows you to read the value of the discrete S in byte mode.

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

Analog Input

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

1-200

**Meaning of the DriverP0 parameter:**

Identifies the station address number (001-999). The SNP ID expected by the PLC is in fact a string of 8 ASCII characters. Because P0 is a numeric parameter, the string used is always "GEFxxx\0\0" where xxx is the part specified in P0 as the station number (3 digits). For example, if the station number indicated in P0 is 1, the SNP ID will be sent as GEF001\0\0, or what is the same, "GEF001" followed by two NULL characters.

**Important note:** If DriverP0=-1, the driver will send the string given in DriverP6.

**Meaning of the DriverP1 parameter:**

30

**Meaning of the DriverP2 parameter:**

Defines the address of the element to be read (1..65535).

**Meaning of the DriverP3 parameter:**

Indicates if the ATTACH command is sent before reading.

- 0 = Send the ATTACH command.
- 1 = Do not send the ATTACH command. (Its use is necessary when the first request to the PLC is done, because up to that moment the PLC has not yet been initialized for communications.)

**Meaning of the DriverP4 parameter:**

Defines the duration in msec. of the initial break signal (standard: 400 msec.).

**Meaning of the DriverP5 parameter:**

Defines the time delay in msec., to wait before sending the attach command (standard: 50 msec. in a point to point connection, 600 msec. in a modem connection).

**Meaning of the DriverP6 parameter:**

Station name used when DriverP0=-1. Must be a 8-character string.

## 3.20. Read Discrete Genius Global Data in Bit Mode

---

**Description of this command:**

This command allows you to read the value of the discrete genius global data in bit mode.

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

Digital Input

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

1-200

**Meaning of the DriverP0 parameter:**

Identifies the station address number (001-999). The SNP ID expected by the PLC is in fact a string of 8 ASCII characters. Because P0 is a numeric parameter, the string used is always "GEFxxx\0\0" where xxx is the part specified in P0 as the station number (3 digits). For example, if the station number indicated in P0 is 1, the SNP ID will be sent as GEF001\0\0, or what is the same, "GEF001" followed by two NULL characters.

**Important note:** If DriverP0=-1, the driver will send the string given in DriverP6.

**Meaning of the DriverP1 parameter:**

86

**Meaning of the DriverP2 parameter:**

Defines the address of the element to be read (1..65535).

**Meaning of the DriverP3 parameter:**

Indicates if the ATTACH command is sent before reading.

- 0 = Send the ATTACH command.
- 1 = Do not send the ATTACH command. (Its use is necessary when the first request to the PLC is done, because up to that moment the PLC has not yet been initialized for communications.)

**Meaning of the DriverP4 parameter:**

Defines the duration in msec. of the initial break signal (standard: 400 msec.).

**Meaning of the DriverP5 parameter:**

Defines the time delay in msec., to wait before sending the attach command (standard: 50 msec. in a point to point connection, 600 msec. in a modem connection).

**Meaning of the DriverP6 parameter:**

Station name used when DriverP0=-1. Must be a 8-character string.

## 3.21. Read Discrete Genius Global Data in Byte Mode

---

**Description of this command:**

This command allows you to read the value of the discrete genius global data in byte mode.

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

Analog Input

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

1-200

**Meaning of the DriverP0 parameter:**

Identifies the station address number (001-999). The SNP ID expected by the PLC is in fact a string of 8 ASCII characters. Because P0 is a numeric parameter, the string used is always "GEFxxx\0\0" where xxx is the part specified in P0 as the station number (3 digits). For example, if the station number indicated in P0 is 1, the SNP ID will be sent as GEF001\0\0, or what is the same, "GEF001" followed by two NULL characters.

**Important note:** If DriverP0=-1, the driver will send the string given in DriverP6.

**Meaning of the DriverP1 parameter:**

56

**Meaning of the DriverP2 parameter:**

Defines the address of the element to be read (1..65535).

**Meaning of the DriverP3 parameter:**

Indicates if the ATTACH command is sent before reading.

- 0 = Send the ATTACH command.
- 1 = Do not send the ATTACH command. (Its use is necessary when the first request to the PLC is done, because up to that moment the PLC has not yet been initialized for communications.)

**Meaning of the DriverP4 parameter:**

Defines the duration in msec. of the initial break signal (standard: 400 msec.).

**Meaning of the DriverP5 parameter:**

Defines the time delay in msec., to wait before sending the attach command (standard: 50 msec. in a point to point connection, 600 msec. in a modem connection).

**Meaning of the DriverP6 parameter:**

Station name used when DriverP0=-1. Must be a 8-character string.

## 3.22. Write Registers

---

**Description of this command:**

This command allows you to write the value of the registers.

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

Analog Output

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

1

**Meaning of the DriverP0 parameter:**

Identifies the station address number (001-999). The SNP ID expected by the PLC is in fact a string of 8 ASCII characters. Because P0 is a numeric parameter, the string used is always "GEFxxx\0\0" where xxx is the part specified in P0 as the station number (3 digits). For example, if the station number indicated in P0 is 1, the SNP ID will be sent as GEF001\0\0, or what is the same, "GEF001" followed by two NULL characters.

**Important note: If DriverP0=-1, the driver will send the string given in DriverP6.**

**Meaning of the DriverP1 parameter:**

8

**Meaning of the DriverP2 parameter:**

Defines the address of the element to be write (1..65535).

**Meaning of the DriverP3 parameter:**

Indicates if the ATTACH command is sent before writing.

- 0 = Send the ATTACH command.

- 1 = Do not send the ATTACH command. (Its use is necessary when the first request to the PLC is done, because up to that moment the PLC has not yet been initialized for communications.)

**Meaning of the DriverP4 parameter:**

Defines the duration in msec. of the initial break signal (standard: 400 msec.).

**Meaning of the DriverP5 parameter:**

Defines the time delay in msec., to wait before sending the attach command (standard: 50 msec. in a point to point connection, 600 msec. in a modem connection).

**Meaning of the DriverP6 parameter:**

Station name used when DriverP0=-1. Must be a 8-character string.

## 3.23. Write Analog Inputs

---

**Description of this command:**

This command allows you to write the value of the analog inputs.

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

Analog Output

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

1

**Meaning of the DriverP0 parameter:**

Identifies the station address number (001-999). The SNP ID expected by the PLC is in fact a string of 8 ASCII characters. Because P0 is a numeric parameter, the string used is always "GEFxxx\0\0" where xxx is the part specified in P0 as the station number (3 digits). For example, if the station number indicated in P0 is 1, the SNP ID will be sent as GEF001\0\0, or what is the same, "GEF001" followed by two NULL characters.

**Important note:**If DriverP0=-1, the driver will send the string given in DriverP6.

**Meaning of the DriverP1 parameter:**

10

**Meaning of the DriverP2 parameter:**

Defines the address of the element to be write (1..65535).

**Meaning of the DriverP3 parameter:**

Indicates if the ATTACH command is sent before writing.

- 0 = Send the ATTACH command.
- 1 = Do not send the ATTACH command. (Its use is necessary when the first request to the PLC is done, because up to that moment the PLC has not yet been initialized for communications.)

**Meaning of the DriverP4 parameter:**

Defines the duration in msec. of the initial break signal (standard: 400 msec.).

**Meaning of the DriverP5 parameter:**

Defines the time delay in msec., to wait before sending the attach command (standard: 50 msec. in a point to point connection, 600 msec. in a modem connection).

**Meaning of the DriverP6 parameter:**

Station name used when DriverP0=-1. Must be a 8-character string.

## 3.24. Write Analog Outputs

---

**Description of this command:**

This command allows you to write the value of the analog outputs.

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

Analog Output

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

1

**Meaning of the DriverP0 parameter:**

Identifies the station address number (001-999). The SNP ID expected by the PLC is in fact a string of 8 ASCII characters. Because P0 is a numeric parameter, the string used is always "GEFxxx\0\0" where xxx is the part specified in P0 as the station number (3 digits). For example, if the station number indicated in P0 is 1, the SNP ID will be sent as GEF001\0\0, or what is the same, "GEF001" followed by two NULL characters.

**Important note: If DriverP0=-1, the driver will send the string given in DriverP6.****Meaning of the DriverP1 parameter:**

12

**Meaning of the DriverP2 parameter:**

Defines the address of the element to be write (1..65535).

**Meaning of the DriverP3 parameter:**

Indicates if the ATTACH command is sent before writing.

- 0 = Send the ATTACH command.

- 1 = Do not send the ATTACH command. (Its use is necessary when the first request to the PLC is done, because up to that moment the PLC has not yet been initialized for communications.)

**Meaning of the DriverP4 parameter:**

Defines the duration in msec. of the initial break signal (standard: 400 msec.).

**Meaning of the DriverP5 parameter:**

Defines the time delay in msec., to wait before sending the attach command (standard: 50 msec. in a point to point connection, 600 msec. in a modem connection).

**Meaning of the DriverP6 parameter:**

Station name used when DriverP0=-1. Must be a 8-character string.

## 3.25. Write Discrete Inputs in Bit Mode

---

**Description of this command:**

This command allows you to write the value of the discrete inputs in bit mode.

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

Digital Output

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

1

**Meaning of the DriverP0 parameter:**

Identifies the station address number (001-999). The SNP ID expected by the PLC is in fact a string of 8 ASCII characters. Because P0 is a numeric parameter, the string used is always "GEFxxx\0\0" where xxx is the part specified in P0 as the station number (3 digits). For example, if the station number indicated in P0 is 1, the SNP ID will be sent as GEF001\0\0, or what is the same, "GEF001" followed by two NULL characters.

**Important note: If DriverP0=-1, the driver will send the string given in DriverP6.****Meaning of the DriverP1 parameter:**

70

**Meaning of the DriverP2 parameter:**

Defines the address of the element to be write (1..65535).

**Meaning of the DriverP3 parameter:**

Indicates if the ATTACH command is sent before writing.

- 0 = Send the ATTACH command.

- 1 = Do not send the ATTACH command. (Its use is necessary when the first request to the PLC is done, because up to that moment the PLC has not yet been initialized for communications.)

**Meaning of the DriverP4 parameter:**

Defines the duration in msec. of the initial break signal (standard: 400 msec.).

**Meaning of the DriverP5 parameter:**

Defines the time delay in msec., to wait before sending the attach command (standard: 50 msec. in a point to point connection, 600 msec. in a modem connection).

**Meaning of the DriverP6 parameter:**

Station name used when DriverP0=-1. Must be a 8-character string.

## 3.26. Write Discrete Inputs in Byte Mode

---

**Description of this command:**

This command allows you to write the value of the discrete inputs in byte mode.

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

Analog Output

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

1-8

**Meaning of the DriverP0 parameter:**

Identifies the station address number (001-999). The SNP ID expected by the PLC is in fact a string of 8 ASCII characters. Because P0 is a numeric parameter, the string used is always "GEFxxx\0\0" where xxx is the part specified in P0 as the station number (3 digits). For example, if the station number indicated in P0 is 1, the SNP ID will be sent as GEF001\0\0, or what is the same, "GEF001" followed by two NULL characters.

**Important note:**If DriverP0=-1, the driver will send the string given in DriverP6.

**Meaning of the DriverP1 parameter:**

16

**Meaning of the DriverP2 parameter:**

Defines the address of the element to be write (1..65535).

**Meaning of the DriverP3 parameter:**

Indicates if the ATTACH command is sent before writing.

- 0 = Send the ATTACH command.
- 1 = Do not send the ATTACH command. (Its use is necessary when the first request to the PLC is done, because up to that moment the PLC has not yet been initialized for communications.)

**Meaning of the DriverP4 parameter:**

Defines the duration in msec. of the initial break signal (standard: 400 msec.).

**Meaning of the DriverP5 parameter:**

Defines the time delay in msec., to wait before sending the attach command (standard: 50 msec. in a point to point connection, 600 msec. in a modem connection).

**Meaning of the DriverP6 parameter:**

Station name used when DriverP0=-1. Must be a 8-character string.

## 3.27. Write Discrete Outputs in Bit Mode

---

**Description of this command:**

This command allows you to write the value of the discrete outputs in bit mode.

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

Digital Output

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

1

**Meaning of the DriverP0 parameter:**

Identifies the station address number (001-999). The SNP ID expected by the PLC is in fact a string of 8 ASCII characters. Because P0 is a numeric parameter, the string used is always "GEFxxx\0\0" where xxx is the part specified in P0 as the station number (3 digits).

For example, if the station number indicated in P0 is 1, the SNP ID will be sent as GEF001\0\0, or what is the same, "GEF001" followed by two NULL characters.

**Important note:**If DriverP0=-1, the driver will send the string given in DriverP6.

**Meaning of the DriverP1 parameter:**

72

**Meaning of the DriverP2 parameter:**

Defines the address of the element to be write (1..65535).

**Meaning of the DriverP3 parameter:**

Indicates if the ATTACH command is sent before writing.

- 0 = Send the ATTACH command.
- 1 = Do not send the ATTACH command. (Its use is necessary when the first request to the PLC is done, because up to that moment the PLC has not yet been initialized for communications.)

**Meaning of the DriverP4 parameter:**

Defines the duration in msec. of the initial break signal (standard: 400 msec.).

**Meaning of the DriverP5 parameter:**

Defines the time delay in msec., to wait before sending the attach command (standard: 50 msec. in a point to point connection, 600 msec. in a modem connection).

**Meaning of the DriverP6 parameter:**

Station name used when DriverP0=-1. Must be a 8-character string.

## 3.28. Write Discrete Outputs in Byte Mode

---

**Description of this command:**

This command allows you to write the value of the discrete outputs in byte mode.

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

Analog Output

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

1-8

**Meaning of the DriverP0 parameter:**

Identifies the station address number (001-999). The SNP ID expected by the PLC is in fact a string of 8 ASCII characters. Because P0 is a numeric parameter, the string used is always "GEFxxx\0\0" where xxx is the part specified in P0 as the station number (3 digits). For example, if the station number indicated in P0 is 1, the SNP ID will be sent as GEF001\0\0, or what is the same, "GEF001" followed by two NULL characters.

**Important note:**If DriverP0=-1, the driver will send the string given in DriverP6.

**Meaning of the DriverP1 parameter:**

18

**Meaning of the DriverP2 parameter:**

Defines the address of the element to be write (1..65535).

**Meaning of the DriverP3 parameter:**

Indicates if the ATTACH command is sent before writing.

- 0 = Send the ATTACH command.

- 1 = Do not send the ATTACH command. (Its use is necessary when the first request to the PLC is done, because up to that moment the PLC has not yet been initialized for communications.)

**Meaning of the DriverP4 parameter:**

Defines the duration in msec. of the initial break signal (standard: 400 msec.).

**Meaning of the DriverP5 parameter:**

Defines the time delay in msec., to wait before sending the attach command (standard: 50 msec. in a point to point connection, 600 msec. in a modem connection).

**Meaning of the DriverP6 parameter:**

Station name used when DriverP0=-1. Must be a 8-character string.

## 3.29. Write Discrete Temporaries in Bit Mode

---

**Description of this command:**

This command allows you to write the value of the discrete temporaries in bit mode.

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

Digital Output

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

1

**Meaning of the DriverP0 parameter:**

Identifies the station address number (001-999). The SNP ID expected by the PLC is in fact a string of 8 ASCII characters. Becasue P0 is a numeric parameter, the string used is always "GEFxxx\0\0" where xxx is the part specified in P0 as the station number (3 digits). For example, if the station number indicated in P0 is 1, the SNP ID will be sent as GEF001\0\0, or what is the same, "GEF001" followed by two NULL characters.

**Important note:**If DriverP0=-1, the driver will send the string given in DriverP6.

**Meaning of the DriverP1 parameter:**

74

**Meaning of the DriverP2 parameter:**

Defines the address of the element to be write (1..65535).

**Meaning of the DriverP3 parameter:**

Indicates if the ATTACH command is sent before writing.

- 0 = Send the ATTACH command.

- 1 = Do not send the ATTACH command. (Its use is necessary when the first request to the PLC is done, because up to that moment the PLC has not yet been initialized for communications.)

**Meaning of the DriverP4 parameter:**

Defines the duration in msec. of the initial break signal (standard: 400 msec.).

**Meaning of the DriverP5 parameter:**

Defines the time delay in msec., to wait before sending the attach command (standard: 50 msec. in a point to point connection, 600 msec. in a modem connection).

**Meaning of the DriverP6 parameter:**

Station name used when DriverP0=-1. Must be a 8-character string.

## 3.30. Write Discrete Temporaries in Byte Mode

---

**Description of this command:**

This command allows you to write the value of the discrete temporaries in byte mode.

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

Analog Output

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

1-8

**Meaning of the DriverP0 parameter:**

Identifies the station address number (001-999). The SNP ID expected by the PLC is in fact a string of 8 ASCII characters. Becasue P0 is a numeric parameter, the string used is always "GEFxxx\0\0" where xxx is the part specified in P0 as the station number (3 digits). For example, if the station number indicated in P0 is 1, the SNP ID will be sent as GEF001\0\0, or what is the same, "GEF001" followed by two NULL characters.

**Important note:**If DriverP0=-1, the driver will send the string given in DriverP6.

**Meaning of the DriverP1 parameter:**

20

**Meaning of the DriverP2 parameter:**

Defines the address of the element to be write (1..65535).

**Meaning of the DriverP3 parameter:**

Indicates if the ATTACH command is sent before writing.

- 0 = Send the ATTACH command.
- 1 = Do not send the ATTACH command. (Its use is necessary when the first request to the PLC is done, because up to that moment the PLC has not yet been initialized for communications.)

**Meaning of the DriverP4 parameter:**

Defines the duration in msec. of the initial break signal (standard: 400 msec.).

**Meaning of the DriverP5 parameter:**

Defines the time delay in msec., to wait before sending the attach command (standard: 50 msec. in a point to point connection, 600 msec. in a modem connection).

**Meaning of the DriverP6 parameter:**

Station name used when DriverP0=-1. Must be a 8-character string.

## 3.31. Write Discrete Internals in Bit Mode

---

**Description of this command:**

This command allows you to write the value of the discrete internals in bit mode.

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

Digital Output

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

1

**Meaning of the DriverP0 parameter:**

Identifies the station address number (001-999). The SNP ID expected by the PLC is in fact a string of 8 ASCII characters. Because P0 is a numeric parameter, the string used is always "GEFxxx\0\0" where xxx is the part specified in P0 as the station number (3 digits). For example, if the station number indicated in P0 is 1, the SNP ID will be sent as GEF001\0\0, or what is the same, "GEF001" followed by two NULL characters.

**Important note:** If DriverP0=-1, the driver will send the string given in DriverP6.

**Meaning of the DriverP1 parameter:**

76

**Meaning of the DriverP2 parameter:**

Defines the address of the element to be write (1..65535).

**Meaning of the DriverP3 parameter:**

Indicates if the ATTACH command is sent before writing.

- 0 = Send the ATTACH command.
- 1 = Do not send the ATTACH command. (Its use is necessary when the first request to the PLC is done, because up to that moment the PLC has not yet been initialized for communications.)

**Meaning of the DriverP4 parameter:**

Defines the duration in msec. of the initial break signal (standard: 400 msec.).

**Meaning of the DriverP5 parameter:**

Defines the time delay in msec., to wait before sending the attach command (standard: 50 msec. in a point to point connection, 600 msec. in a modem connection).

**Meaning of the DriverP6 parameter:**

Station name used when DriverP0=-1. Must be a 8-character string.

## 3.32. Write Discrete Internals in Byte Mode

---

**Description of this command:**

This command allows you to write the value of the discrete internals in byte mode.

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

Analog Output

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

1-8

**Meaning of the DriverP0 parameter:**

Identifies the station address number (001-999). The SNP ID expected by the PLC is in fact a string of 8 ASCII characters. Because P0 is a numeric parameter, the string used is always "GEFxxx\0\0" where xxx is the part specified in P0 as the station number (3 digits). For example, if the station number indicated in P0 is 1, the SNP ID will be sent as GEF001\0\0, or what is the same, "GEF001" followed by two NULL characters.

**Important note:**If DriverP0=-1, the driver will send the string given in DriverP6.

**Meaning of the DriverP1 parameter:**

22

**Meaning of the DriverP2 parameter:**

Defines the address of the element to be write (1..65535).

**Meaning of the DriverP3 parameter:**

Indicates if the ATTACH command is sent before writing.

- 0 = Send the ATTACH command.
- 1 = Do not send the ATTACH command. (Its use is necessary when the first request to the PLC is done, because up to that moment the PLC has not yet been initialized for communications.)

**Meaning of the DriverP4 parameter:**

Defines the duration in msec. of the initial break signal (standard: 400 msec.).

**Meaning of the DriverP5 parameter:**

Defines the time delay in msec., to wait before sending the attach command (standard: 50 msec. in a point to point connection, 600 msec. in a modem connection).

**Meaning of the DriverP6 parameter:**

Station name used when DriverP0=-1. Must be a 8-character string.

### 3.33. Write Discrete SA in Bit Mode

---

**Description of this command:**

This command allows you to write the value of the discrete SA in bit mode.

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

Digital Output

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

1

**Meaning of the DriverP0 parameter:**

Identifies the station address number (001-999). The SNP ID expected by the PLC is in fact a string of 8 ASCII characters. Because P0 is a numeric parameter, the string used is always "GEFxxx\0\0" where xxx is the part specified in P0 as the station number (3 digits). For example, if the station number indicated in P0 is 1, the SNP ID will be sent as GEF001\0\0, or what is the same, "GEF001" followed by two NULL characters.

**Important note: If DriverP0=-1, the driver will send the string given in DriverP6.**

**Meaning of the DriverP1 parameter:**

78

**Meaning of the DriverP2 parameter:**

Defines the address of the element to be write (1..65535).

**Meaning of the DriverP3 parameter:**

Indicates if the ATTACH command is sent before writing.

- 0 = Send the ATTACH command.

- 1 = Do not send the ATTACH command. (Its use is necessary when the first request to the PLC is done, because up to that moment the PLC has not yet been initialized for communications.)

**Meaning of the DriverP4 parameter:**

Defines the duration in msec. of the initial break signal (standard: 400 msec.).

**Meaning of the DriverP5 parameter:**

Defines the time delay in msec., to wait before sending the attach command (standard: 50 msec. in a point to point connection, 600 msec. in a modem connection).

**Meaning of the DriverP6 parameter:**

Station name used when DriverP0=-1. Must be a 8-character string.

### 3.34. Write Discrete SA in Byte Mode

---

**Description of this command:**

This command allows you to write the value of the discrete SA in byte mode.

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

Analog Output

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

1-8

**Meaning of the DriverP0 parameter:**

Identifies the station address number (001-999). The SNP ID expected by the PLC is in fact a string of 8 ASCII characters. Because P0 is a numeric parameter, the string used is always "GEFxxx\0\0" where xxx is the part specified in P0 as the station number (3 digits). For example, if the station number indicated in P0 is 1, the SNP ID will be sent as GEF001\0\0, or what is the same, "GEF001" followed by two NULL characters.

**Important note: If DriverP0=-1, the driver will send the string given in DriverP6.**

**Meaning of the DriverP1 parameter:**

24

**Meaning of the DriverP2 parameter:**

Defines the address of the element to be write (1..65535).

**Meaning of the DriverP3 parameter:**

Indicates if the ATTACH command is sent before writing.

- 0 = Send the ATTACH command.
- 1 = Do not send the ATTACH command. (Its use is necessary when the first request to the PLC is done, because up to that moment the PLC has not yet been initialized for communications.)

**Meaning of the DriverP4 parameter:**

Defines the duration in msec. of the initial break signal (standard: 400 msec.).

**Meaning of the DriverP5 parameter:**

Defines the time delay in msec., to wait before sending the attach command (standard: 50 msec. in a point to point connection, 600 msec. in a modem connection).

**Meaning of the DriverP6 parameter:**

Station name used when DriverP0=-1. Must be a 8-character string.

## 3.35. Write Discrete SB in Bit Mode

---

**Description of this command:**

This command allows you to write the value of the discrete SB in bit mode.

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

Digital Output

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

1

**Meaning of the DriverP0 parameter:**

Identifies the station address number (001-999). The SNP ID expected by the PLC is in fact a string of 8 ASCII characters. Because P0 is a numeric parameter, the string used is always "GEFxxx\0\0" where xxx is the part specified in P0 as the station number (3 digits). For example, if the station number indicated in P0 is 1, the SNP ID will be sent as GEF001\0\0, or what is the same, "GEF001" followed by two NULL characters.

**Important note: If DriverP0=-1, the driver will send the string given in DriverP6.**

**Meaning of the DriverP1 parameter:**

80

**Meaning of the DriverP2 parameter:**

Defines the address of the element to be write (1..65535).

**Meaning of the DriverP3 parameter:**

Indicates if the ATTACH command is sent before writing.

- 0 = Send the ATTACH command.

- 1 = Do not send the ATTACH command. (Its use is necessary when the first request to the PLC is done, because up to that moment the PLC has not yet been initialized for communications.)

**Meaning of the DriverP4 parameter:**

Defines the duration in msec. of the initial break signal (standard: 400 msec.).

**Meaning of the DriverP5 parameter:**

Defines the time delay in msec., to wait before sending the attach command (standard: 50 msec. in a point to point connection, 600 msec. in a modem connection).

**Meaning of the DriverP6 parameter:**

Station name used when DriverP0=-1. Must be a 8-character string.

## 3.36. Write Discrete SB in Byte Mode

---

**Description of this command:**

This command allows you to write the value of the discrete SB in byte mode.

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

Analog Output

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

1-8

**Meaning of the DriverP0 parameter:**

Identifies the station address number (001-999). The SNP ID expected by the PLC is in fact a string of 8 ASCII characters. Because P0 is a numeric parameter, the string used is always "GEFxxx\0\0" where xxx is the part specified in P0 as the station number (3 digits). For example, if the station number indicated in P0 is 1, the SNP ID will be sent as GEF001\0\0, or what is the same, "GEF001" followed by two NULL characters.

**Important note: If DriverP0=-1, the driver will send the string given in DriverP6.****Meaning of the DriverP1 parameter:**

26

**Meaning of the DriverP2 parameter:**

Defines the address of the element to be write (1..65535).

**Meaning of the DriverP3 parameter:**

Indicates if the ATTACH command is sent before writing.

- 0 = Send the ATTACH command.

- 1 = Do not send the ATTACH command. (Its use is necessary when the first request to the PLC is done, because up to that moment the PLC has not yet been initialized for communications.)

**Meaning of the DriverP4 parameter:**

Defines the duration in msec. of the initial break signal (standard: 400 msec.).

**Meaning of the DriverP5 parameter:**

Defines the time delay in msec., to wait before sending the attach command (standard: 50 msec. in a point to point connection, 600 msec. in a modem connection).

**Meaning of the DriverP6 parameter:**

Station name used when DriverP0=-1. Must be a 8-character string.

## 3.37. Write Discrete SC in Bit Mode

---

**Description of this command:**

This command allows you to write the value of the discrete SC in bit mode.

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

Digital Output

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

1

**Meaning of the DriverP0 parameter:**

Identifies the station address number (001-999). The SNP ID expected by the PLC is in fact a string of 8 ASCII characters. Because P0 is a numeric parameter, the string used is always "GEFxxx\0\0" where xxx is the part specified in P0 as the station number (3 digits). For example, if the station number indicated in P0 is 1, the SNP ID will be sent as GEF001\0\0, or what is the same, "GEF001" followed by two NULL characters.

**Important note:**If DriverP0=-1, the driver will send the string given in DriverP6.

**Meaning of the DriverP1 parameter:**

82

**Meaning of the DriverP2 parameter:**

Defines the address of the element to be write (1..65535).

**Meaning of the DriverP3 parameter:**

Indicates if the ATTACH command is sent before writing.

- 0 = Send the ATTACH command.
- 1 = Do not send the ATTACH command. (Its use is necessary when the first request to the PLC is done, because up to that moment the PLC has not yet been initialized for communications.)

**Meaning of the DriverP4 parameter:**

Defines the duration in msec. of the initial break signal (standard: 400 msec.).

**Meaning of the DriverP5 parameter:**

Defines the time delay in msec., to wait before sending the attach command (standard: 50 msec. in a point to point connection, 600 msec. in a modem connection).

**Meaning of the DriverP6 parameter:**

Station name used when DriverP0=-1. Must be a 8-character string.

## 3.38. Write Discrete SC in Byte Mode

---

**Description of this command:**

This command allows you to write the value of the discrete SC in byte mode.

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

Analog Output

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

1-8

**Meaning of the DriverP0 parameter:**

Identifies the station address number (001-999). The SNP ID expected by the PLC is in fact a string of 8 ASCII characters. Because P0 is a numeric parameter, the string used is always "GEFxxx\0\0" where xxx is the part specified in P0 as the station number (3 digits).

For example, if the station number indicated in P0 is 1, the SNP ID will be sent as GEF001\0\0, or what is the same, "GEF001" followed by two NULL characters.

**Important note: If DriverP0=-1, the driver will send the string given in DriverP6.**

**Meaning of the DriverP1 parameter:**

28

**Meaning of the DriverP2 parameter:**

Defines the address of the element to be write (1..65535).

**Meaning of the DriverP3 parameter:**

Indicates if the ATTACH command is sent before writing.

- 0 = Send the ATTACH command.

- 1 = Do not send the ATTACH command. (Its use is necessary when the first request to the PLC is done, because up to that moment the PLC has not yet been initialized for communications.)

**Meaning of the DriverP4 parameter:**

Defines the duration in msec. of the initial break signal (standard: 400 msec.).

**Meaning of the DriverP5 parameter:**

Defines the time delay in msec., to wait before sending the attach command (standard: 50 msec. in a point to point connection, 600 msec. in a modem connection).

**Meaning of the DriverP6 parameter:**

Station name used when DriverP0=-1. Must be a 8-character string.

## 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
- [1415] PROTOCOL (Format): Invalid response format
- [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)
- [3019] CONFIG (P0): Invalid device address (0-999)
- [3030] CONFIG (P0): Invalid device address (1-999)
- [3508] CONFIG (P1): Invalid command
- [4007] CONFIG (P2): Invalid address (0-65535)
- [4508] CONFIG (P3): Invalid attach mode (0-1)
- [6036] CONFIG (P6): Station number must have 1 to 8 characters
- [8029] CONFIG (Remote): Autodial Error
- [8173] CONFIG (Remote): Illegal mailbox type
- [8175] CONFIG (Remote): Illegal service request
- [8187] CONFIG (Remote): Insufficient privilege
- [8193] CONFIG (Remote): Invalid command returned
- [8209] CONFIG (Remote): Local SNP/SNP-X error
- [8271] CONFIG (Remote): Problem with getting mail to slave service request task
- [8272] CONFIG (Remote): Problem with sending mail to slave service request task
- [8285] CONFIG (Remote): Protocol sequence error
- [8300] CONFIG (Remote): Remote SNP error
- [8317] CONFIG (Remote): Service request error
- [8318] CONFIG (Remote): Slave SNP task could not find the requested datagram connection
- [8319] CONFIG (Remote): Slave SNP task encountered an error in trying to update the datagram
- [8320] CONFIG (Remote): Slave SNP task encountered an error in trying to write the datagram
- [8321] CONFIG (Remote): Slave SNP task time out before receiving an response
- [8322] CONFIG (Remote): SNP DOS driver error
- [8323] CONFIG (Remote): SNP-X slave error
- [8332] CONFIG (Remote): The PLC CPU's service request queue is full
- [8347] CONFIG (Remote): Unknown error

## 4.2. Keywords list

---

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

"ELECTRIC, FANUC, GE, GENERAL, Model, PLC, Series, SNP-X".