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XS5CP524 Driver Manual

Siemens S5-115U/135U/150U With CP-524/525 Protocol Driver

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XS5CP524 technical specifications

General information

XS5CP524 driver allows you to connect to PLC SIMATIC series S5-115U, S5-135U and S5-150U, using the CP-524 or CP-525 communications processor with the RK-512 interpreter. This driver supports both 3964 and 3964R protocols.

<PLC Internal Error Codes> The PLC will inform the system of any error condition that has to do with the PLC itself by sending one of the following error messages in the *HMITalk1.DriverStatus* property:

PLC:Returned error code #Ah:

- Source/Dest. type not permissible
- Access to area not possible for user
- Error indication from the CPU to the CP, which the CP cannot interpret
- Monitoring time for handshake elapsed on CP

PLC:Returned error code #Ch:

- Data type does not exist or not permissible
- Area too short
- Error in 5th command byte, start address too high
- Error in 9th + 10th command byte: specifying a coordination flag is not permissible with this data type or the bit number of the coordination flags is too high
- Error in 10th command byte, CPU number too large

PLC:Returned error code #10h:

- Error in 1st command byte: is not 00h or FFh
- Error in 4th command byte: command letter wrong
- Error in 4th command byte in follow-on telegram

PLC:Returned error code #12h:

- System command "XM" not permissible

PLC:Returned error code #14h:

- DB/DX not present or illegal
- DB/DX too short
- Error in 5th command byte: DB/DX no. illegal

PLC:Returned error code #16h:

- Error in 3rd command byte: command letter is not A or E
- Error in 3rd command byte of a follow-on telegram

PLC:Returned error code #2Ah:

- CP has received command telegram, while mode selector was set to STOP/PGR
- Command telegram was received, however, the CPU of the PC has not yet run the "SYNCHRON" HDB

PLC:Returned error code #32h:

- DB/DX disabled by coordination flags

PLC:Returned error code #34h:

- Error in 7th + 8th command byte: length specified to great
- Send telegram was longer than expected
- Send telegram was too short or < 128 bytes
- Fetch telegram received with information data
- A correct telegram with a length > 128 bytes was received

PLC:Returned error code #36h:

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- Synchron error on the partner, since a new (follow-on) command telegram arrived
- A normal command telegram was received although a follow-on command telegram was expected
- A follow-on command telegram arrived, although a command telegram was expected

Command list

Read Data Block

Description of this command:

Reads data words from a selected data block.

Methods used to run this command:

Analog Input

Number of points accepted by this command:

1-128

Meaning of the DriverP0 parameter:

68

Meaning of the DriverP1 parameter:

Data block number (0-255).

Meaning of the DriverP2 parameter:

Starting data word (0-255).

Meaning of the DriverP3 parameter:

Indicates the protocol to be used:

0 = 3964R

1 = 3964

Meaning of the DriverP4 parameter:

CPU number:

0 = No CPU specified

1 = CPU number 1

2 = CPU number 2

3 = CPU number 3

4 = CPU number 4

Meaning of the DriverP5 parameter:

Indicates the duration in milliseconds of the break signal that must be sent to the PLC when a synchron error is detected. If 0, a default value of 3000 milliseconds (3 seconds) will be internally used.

Read Data Block as Bits

Description of this command:

Reads data words from a selected data block as individual bits. The number of data words read will be the required to obtain the HMITalk1.DriverNumPoints bits requested.

Methods used to run this command:

Digital Input

Number of points accepted by this command:

1-250

Meaning of the DriverP0 parameter:

68

Meaning of the DriverP1 parameter:

Data block number (0-255).

Meaning of the DriverP2 parameter:

Starting data word (0-255).

Meaning of the DriverP3 parameter:

Indicates the protocol to be used:

0 = 3964R

1 = 3964

Meaning of the DriverP4 parameter:

CPU number:

0 = No CPU specified

1 = CPU number 1

2 = CPU number 2

3 = CPU number 3

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4 = CPU number 4

Meaning of the DriverP5 parameter:

Indicates the duration in milliseconds of the break signal that must be sent to the PLC when a synchron error is detected. If 0, a default value of 3000 milliseconds (3 seconds) will be internally used.

Read Expanded Data Block

Description of this command:

Reads data words from a selected expanded data block.

Methods used to run this command:

Analog Input

Number of points accepted by this command:

1-128

Meaning of the DriverP0 parameter:

88

Meaning of the DriverP1 parameter:

Expanded data block number (0-255).

Meaning of the DriverP2 parameter:

Starting data word (0-255).

Meaning of the DriverP3 parameter:

Indicates the protocol to be used:

0 = 3964R

1 = 3964

Meaning of the DriverP4 parameter:

CPU number:

0 = No CPU specified

1 = CPU number 1

2 = CPU number 2

3 = CPU number 3

4 = CPU number 4

Meaning of the DriverP5 parameter:

Indicates the duration in milliseconds of the break signal that must be sent to the PLC when a synchron error is detected. If 0, a default value of 3000 milliseconds (3 seconds) will be internally used.

Read Expanded Data Block as Bits

Description of this command:

Reads data words from a selected expanded data block as individual bits. The number of data words read will be the required to obtain the HMITalk1.DriverNumPoints bits requested.

Methods used to run this command:

Digital Input

Number of points accepted by this command:

1-250

Meaning of the DriverP0 parameter:

88

Meaning of the DriverP1 parameter:

Expanded data block number (0-255).

Meaning of the DriverP2 parameter:

Starting data word (0-255).

Meaning of the DriverP3 parameter:

Indicates the protocol to be used:

0 = 3964R

1 = 3964

Meaning of the DriverP4 parameter:

CPU number:

0 = No CPU specified

1 = CPU number 1

2 = CPU number 2

3 = CPU number 3

4 = CPU number 4

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Meaning of the DriverP5 parameter:

Indicates the duration in milliseconds of the break signal that must be sent to the PLC when a synchron error is detected. If 0, a default value of 3000 milliseconds (3 seconds) will be internally used.

Read Flags

Description of this command:

Reads PLC flags as bytes.

Methods used to run this command:

Analog Input

Number of points accepted by this command:

1-128

Meaning of the DriverP0 parameter:

77

Meaning of the DriverP1 parameter:

Irrelevant.

Meaning of the DriverP2 parameter:

Starting flag address (0-254).

Meaning of the DriverP3 parameter:

Indicates the protocol to be used:

0 = 3964R

1 = 3964

Meaning of the DriverP4 parameter:

CPU number:

0 = No CPU specified

1 = CPU number 1

2 = CPU number 2

3 = CPU number 3

4 = CPU number 4

Meaning of the DriverP5 parameter:

Indicates the duration in milliseconds of the break signal that must be sent to the PLC when a synchron error is detected. If 0, a default value of 3000 milliseconds (3 seconds) will be internally used.

Read Inputs

Description of this command:

Reads PLC input bytes.

Methods used to run this command:

Analog Input

Number of points accepted by this command:

1-64

Meaning of the DriverP0 parameter:

69

Meaning of the DriverP1 parameter:

Irrelevant.

Meaning of the DriverP2 parameter:

Starting byte address (0-126).

Meaning of the DriverP3 parameter:

Indicates the protocol to be used:

0 = 3964R

1 = 3964

Meaning of the DriverP4 parameter:

CPU number:

0 = No CPU specified

1 = CPU number 1

2 = CPU number 2

3 = CPU number 3

4 = CPU number 4

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Meaning of the DriverP5 parameter:

Indicates the duration in milliseconds of the break signal that must be sent to the PLC when a synchron error is detected. If 0, a default value of 3000 milliseconds (3 seconds) will be internally used.

Read Inputs as Bits

Description of this command:

Reads PLC input bytes as individual bits. The number of bytes read will be the required to obtain the HMITalk1.DriverNumPoints bits requested.

Methods used to run this command:

Digital Input

Number of points accepted by this command:

1-64

Meaning of the DriverP0 parameter:

69

Meaning of the DriverP1 parameter:

Irrelevant.

Meaning of the DriverP2 parameter:

Starting byte address (0-126).

Meaning of the DriverP3 parameter:

Indicates the protocol to be used:

0 = 3964R

1 = 3964

Meaning of the DriverP4 parameter:

CPU number:

0 = No CPU specified

1 = CPU number 1

2 = CPU number 2

3 = CPU number 3

4 = CPU number 4

Meaning of the DriverP5 parameter:

Indicates the duration in milliseconds of the break signal that must be sent to the PLC when a synchron error is detected. If 0, a default value of 3000 milliseconds (3 seconds) will be internally used.

Read Outputs

Description of this command:

Reads PLC output bytes.

Methods used to run this command:

Analog Input

Number of points accepted by this command:

1-64

Meaning of the DriverP0 parameter:

65

Meaning of the DriverP1 parameter:

Irrelevant.

Meaning of the DriverP2 parameter:

Starting byte address (0-126).

Meaning of the DriverP3 parameter:

Indicates the protocol to be used:

0 = 3964R

1 = 3964

Meaning of the DriverP4 parameter:

CPU number:

0 = No CPU specified

1 = CPU number 1

2 = CPU number 2

3 = CPU number 3

4 = CPU number 4

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Meaning of the DriverP5 parameter:

Indicates the duration in milliseconds of the break signal that must be sent to the PLC when a synchron error is detected. If 0, a default value of 3000 milliseconds (3 seconds) will be internally used.

Read Outputs as Bits

Description of this command:

Reads PLC output bytes as individual bits. The number of bytes read will be the required to obtain the HMITalk1.DriverNumPoints bits requested.

Methods used to run this command:

Digital Input

Number of points accepted by this command:

1-64

Meaning of the DriverP0 parameter:

65

Meaning of the DriverP1 parameter:

Irrelevant.

Meaning of the DriverP2 parameter:

Starting byte address (0-126).

Meaning of the DriverP3 parameter:

Indicates the protocol to be used:

0 = 3964R

1 = 3964

Meaning of the DriverP4 parameter:

CPU number:

0 = No CPU specified

1 = CPU number 1

2 = CPU number 2

3 = CPU number 3

4 = CPU number 4

Meaning of the DriverP5 parameter:

Indicates the duration in milliseconds of the break signal that must be sent to the PLC when a synchron error is detected. If 0, a default value of 3000 milliseconds (3 seconds) will be internally used.

Read Counters

Description of this command:

Reads PLC counters.

Methods used to run this command:

Analog Input

Number of points accepted by this command:

1-128

Meaning of the DriverP0 parameter:

90

Meaning of the DriverP1 parameter:

Irrelevant.

Meaning of the DriverP2 parameter:

Starting counter number (0-127 for 115U/135U, 0-255 for 150U).

Meaning of the DriverP3 parameter:

Indicates the protocol to be used:

0 = 3964R

1 = 3964

Meaning of the DriverP4 parameter:

CPU number:

0 = No CPU specified

1 = CPU number 1

2 = CPU number 2

3 = CPU number 3

4 = CPU number 4

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Meaning of the DriverP5 parameter:

Indicates the duration in milliseconds of the break signal that must be sent to the PLC when a synchron error is detected. If 0, a default value of 3000 milliseconds (3 seconds) will be internally used.

Read Timers

Description of this command:

Reads PLC timers.

Methods used to run this command:

Analog Input

Number of points accepted by this command:

1-128

Meaning of the DriverP0 parameter:

84

Meaning of the DriverP1 parameter:

Irrelevant.

Meaning of the DriverP2 parameter:

Starting timer number (0-127 for 115U/135U, 0-255 for 150U).

Meaning of the DriverP3 parameter:

Indicates the protocol to be used:

0 = 3964R

1 = 3964

Meaning of the DriverP4 parameter:

CPU number:

0 = No CPU specified

1 = CPU number 1

2 = CPU number 2

3 = CPU number 3

4 = CPU number 4

Meaning of the DriverP5 parameter:

Indicates the duration in milliseconds of the break signal that must be sent to the PLC when a synchron error is detected. If 0, a default value of 3000 milliseconds (3 seconds) will be internally used.

Read I/O's

Description of this command:

Reads PLC I/O's as bytes.

Methods used to run this command:

Analog Input

Number of points accepted by this command:

1-128

Meaning of the DriverP0 parameter:

80

Meaning of the DriverP1 parameter:

Irrelevant.

Meaning of the DriverP2 parameter:

Starting I/O address (0-254).

Meaning of the DriverP3 parameter:

Indicates the protocol to be used:

0 = 3964R

1 = 3964

Meaning of the DriverP4 parameter:

CPU number:

0 = No CPU specified

1 = CPU number 1

2 = CPU number 2

3 = CPU number 3

4 = CPU number 4

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Meaning of the DriverP5 parameter:

Indicates the duration in milliseconds of the break signal that must be sent to the PLC when a synchron error is detected. If 0, a default value of 3000 milliseconds (3 seconds) will be internally used.

Read I/O's as Bits

Description of this command:

Reads PLC I/O's as individual bits. The number of bytes read will be the required to obtain the HMITalk1.DriverNumPoints bits requested.

Methods used to run this command:

Digital Input

Number of points accepted by this command:

1-128

Meaning of the DriverP0 parameter:

80

Meaning of the DriverP1 parameter:

Irrelevant.

Meaning of the DriverP2 parameter:

Starting I/O address (0-254).

Meaning of the DriverP3 parameter:

Indicates the protocol to be used:

0 = 3964R

1 = 3964

Meaning of the DriverP4 parameter:

CPU number:

0 = No CPU specified

1 = CPU number 1

2 = CPU number 2

3 = CPU number 3

4 = CPU number 4

Meaning of the DriverP5 parameter:

Indicates the duration in milliseconds of the break signal that must be sent to the PLC when a synchron error is detected. If 0, a default value of 3000 milliseconds (3 seconds) will be internally used.

Read Extended I/O's

Description of this command:

Reads PLC extended I/O's as bytes.

Methods used to run this command:

Analog Input

Number of points accepted by this command:

1-128

Meaning of the DriverP0 parameter:

81

Meaning of the DriverP1 parameter:

Irrelevant.

Meaning of the DriverP2 parameter:

Starting extended I/O address (0-254).

Meaning of the DriverP3 parameter:

Indicates the protocol to be used:

0 = 3964R

1 = 3964

Meaning of the DriverP4 parameter:

CPU number:

0 = No CPU specified

1 = CPU number 1

2 = CPU number 2

3 = CPU number 3

4 = CPU number 4

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Meaning of the DriverP5 parameter:

Indicates the duration in milliseconds of the break signal that must be sent to the PLC when a synchron error is detected. If 0, a default value of 3000 milliseconds (3 seconds) will be internally used.

Read Extended I/O's as Bits

Description of this command:

Reads extended PLC extended I/O's as individual bits. The number of bytes read will be the required to obtain the NumPoints bits requested.

Methods used to run this command:

Digital Input

Number of points accepted by this command:

1-128

Meaning of the DriverP0 parameter:

81

Meaning of the DriverP1 parameter:

Irrelevant.

Meaning of the DriverP2 parameter:

Starting extended I/O address (0-254).

Meaning of the DriverP3 parameter:

Indicates the protocol to be used:

0 = 3964R

1 = 3964

Meaning of the DriverP4 parameter:

CPU number:

0 = No CPU specified

1 = CPU number 1

2 = CPU number 2

3 = CPU number 3

4 = CPU number 4

Meaning of the DriverP5 parameter:

Indicates the duration in milliseconds of the break signal that must be sent to the PLC when a synchron error is detected. If 0, a default value of 3000 milliseconds (3 seconds) will be internally used.

Read System Addresses

Description of this command:

Reads PLC system addresses as words.

Methods used to run this command:

Analog Input

Number of points accepted by this command:

1-128

Meaning of the DriverP0 parameter:

66

Meaning of the DriverP1 parameter:

Irrelevant.

Meaning of the DriverP2 parameter:

Starting system address (0-511).

Meaning of the DriverP3 parameter:

Indicates the protocol to be used:

0 = 3964R

1 = 3964

Meaning of the DriverP4 parameter:

CPU number:

0 = No CPU specified

1 = CPU number 1

2 = CPU number 2

3 = CPU number 3

4 = CPU number 4

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Meaning of the DriverP5 parameter:

Indicates the duration in milliseconds of the break signal that must be sent to the PLC when a synchron error is detected. If 0, a default value of 3000 milliseconds (3 seconds) will be internally used.

Read Absolute Addresses

Description of this command:

Reads PLC absolute addresses as words.

Methods used to run this command:

Analog Input

Number of points accepted by this command:

1-128

Meaning of the DriverP0 parameter:

83

Meaning of the DriverP1 parameter:

Irrelevant.

Meaning of the DriverP2 parameter:

Starting absolute address (0-65535).

Meaning of the DriverP3 parameter:

Indicates the protocol to be used:

0 = 3964R

1 = 3964

Meaning of the DriverP4 parameter:

CPU number:

0 = No CPU specified

1 = CPU number 1

2 = CPU number 2

3 = CPU number 3

4 = CPU number 4

Meaning of the DriverP5 parameter:

Indicates the duration in milliseconds of the break signal that must be sent to the PLC when a synchron error is detected. If 0, a default value of 3000 milliseconds (3 seconds) will be internally used.

Write Data Block

Description of this command:

Writes data words from a selected data block.

Methods used to run this command:

Analog Output

Number of points accepted by this command:

1-125

Meaning of the DriverP0 parameter:

68

Meaning of the DriverP1 parameter:

Data block number (0-255).

Meaning of the DriverP2 parameter:

Starting data word (0-255).

Meaning of the DriverP3 parameter:

Indicates the protocol to be used:

0 = 3964R

1 = 3964

Meaning of the DriverP4 parameter:

CPU number:

0 = No CPU specified

1 = CPU number 1

2 = CPU number 2

3 = CPU number 3

4 = CPU number 4

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Meaning of the DriverP5 parameter:

Indicates the duration in milliseconds of the break signal that must be sent to the PLC when a synchron error is detected. If 0, a default value of 3000 milliseconds (3 seconds) will be internally used.

Write Data Block as Bits

Description of this command:

Writes data words from a selected data block as individual bits. The number of data words written will be the required to send the HMITalk1.DriverNumPoints bits requested.

Methods used to run this command:

Digital Output

Number of points accepted by this command:

1-125

Meaning of the DriverP0 parameter:

68

Meaning of the DriverP1 parameter:

Data block number (0-255).

Meaning of the DriverP2 parameter:

Starting data word (0-255).

Meaning of the DriverP3 parameter:

Indicates the protocol to be used:

0 = 3964R

1 = 3964

Meaning of the DriverP4 parameter:

CPU number:

0 = No CPU specified

1 = CPU number 1

2 = CPU number 2

3 = CPU number 3

4 = CPU number 4

Meaning of the DriverP5 parameter:

Indicates the duration in milliseconds of the break signal that must be sent to the PLC when a synchron error is detected. If 0, a default value of 3000 milliseconds (3 seconds) will be internally used.

Write Expanded Data Block

Description of this command:

Writes data words from a selected expanded data block.

Methods used to run this command:

Analog Output

Number of points accepted by this command:

1-125

Meaning of the DriverP0 parameter:

88

Meaning of the DriverP1 parameter:

Expanded data block number (0-255).

Meaning of the DriverP2 parameter:

Starting data word (0-255).

Meaning of the DriverP3 parameter:

Indicates the protocol to be used:

0 = 3964R

1 = 3964

Meaning of the DriverP4 parameter:

CPU number:

0 = No CPU specified

1 = CPU number 1

2 = CPU number 2

3 = CPU number 3

4 = CPU number 4

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Meaning of the DriverP5 parameter:

Indicates the duration in milliseconds of the break signal that must be sent to the PLC when a synchron error is detected. If 0, a default value of 3000 milliseconds (3 seconds) will be internally used.

Write Expanded Data Block as Bits

Description of this command:

Writes data words from a selected expanded data block as individual bits. The number of data words written will be the required to send the HMITalk1.DriverNumPoints bits requested.

Methods used to run this command:

Digital Output

Number of points accepted by this command:

1-125

Meaning of the DriverP0 parameter:

88

Meaning of the DriverP1 parameter:

Expanded data block number (0-255).

Meaning of the DriverP2 parameter:

Starting data word (0-255).

Meaning of the DriverP3 parameter:

Indicates the protocol to be used:

0 = 3964R

1 = 3964

Meaning of the DriverP4 parameter:

CPU number:

0 = No CPU specified

1 = CPU number 1

2 = CPU number 2

3 = CPU number 3

4 = CPU number 4

Meaning of the DriverP5 parameter:

Indicates the duration in milliseconds of the break signal that must be sent to the PLC when a synchron error is detected. If 0, a default value of 3000 milliseconds (3 seconds) will be internally used.

Write Flags

Description of this command:

Writes PLC flags as bytes.

Methods used to run this command:

Analog Output

Number of points accepted by this command:

1-125

Meaning of the DriverP0 parameter:

77

Meaning of the DriverP1 parameter:

Irrelevant.

Meaning of the DriverP2 parameter:

Starting flag address (0-254).

Meaning of the DriverP3 parameter:

Indicates the protocol to be used:

0 = 3964R

1 = 3964

Meaning of the DriverP4 parameter:

CPU number:

0 = No CPU specified

1 = CPU number 1

2 = CPU number 2

3 = CPU number 3

4 = CPU number 4

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Meaning of the DriverP5 parameter:

Indicates the duration in milliseconds of the break signal that must be sent to the PLC when a synchron error is detected. If 0, a default value of 3000 milliseconds (3 seconds) will be internally used.

Write Inputs

Description of this command:

Writes PLC input bytes.

Methods used to run this command:

Analog Output

Number of points accepted by this command:

1-64

Meaning of the DriverP0 parameter:

69

Meaning of the DriverP1 parameter:

Irrelevant.

Meaning of the DriverP2 parameter:

Starting byte address (0-126).

Meaning of the DriverP3 parameter:

Indicates the protocol to be used:

0 = 3964R

1 = 3964

Meaning of the DriverP4 parameter:

CPU number:

0 = No CPU specified

1 = CPU number 1

2 = CPU number 2

3 = CPU number 3

4 = CPU number 4

Meaning of the DriverP5 parameter:

Indicates the duration in milliseconds of the break signal that must be sent to the PLC when a synchron error is detected. If 0, a default value of 3000 milliseconds (3 seconds) will be internally used.

Write Inputs as Bits

Description of this command:

Writes PLC input bytes as individual bits. The number of bytes written will be the required to send the HMITalk1.DriverNumPoints bits requested.

Methods used to run this command:

Digital Output

Number of points accepted by this command:

1-64

Meaning of the DriverP0 parameter:

69

Meaning of the DriverP1 parameter:

Irrelevant.

Meaning of the DriverP2 parameter:

Starting byte address (0-126).

Meaning of the DriverP3 parameter:

Indicates the protocol to be used:

0 = 3964R

1 = 3964

Meaning of the DriverP4 parameter:

CPU number:

0 = No CPU specified

1 = CPU number 1

2 = CPU number 2

3 = CPU number 3

4 = CPU number 4

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Meaning of the DriverP5 parameter:

Indicates the duration in milliseconds of the break signal that must be sent to the PLC when a synchron error is detected. If 0, a default value of 3000 milliseconds (3 seconds) will be internally used.

Write Outputs

Description of this command:

Writes PLC output bytes.

Methods used to run this command:

Analog Output

Number of points accepted by this command:

1-64

Meaning of the DriverP0 parameter:

65

Meaning of the DriverP1 parameter:

Irrelevant.

Meaning of the DriverP2 parameter:

Starting byte address (0-126).

Meaning of the DriverP3 parameter:

Indicates the protocol to be used:

0 = 3964R

1 = 3964

Meaning of the DriverP4 parameter:

CPU number:

0 = No CPU specified

1 = CPU number 1

2 = CPU number 2

3 = CPU number 3

4 = CPU number 4

Meaning of the DriverP5 parameter:

Indicates the duration in milliseconds of the break signal that must be sent to the PLC when a synchron error is detected. If 0, a default value of 3000 milliseconds (3 seconds) will be internally used.

Write Outputs as Bits

Description of this command:

Writes PLC output bytes as individual bits. The number of bytes written will be the required to send the HMITalk1.DriverNumPoints bits requested.

Methods used to run this command:

Digital Output

Number of points accepted by this command:

1-64

Meaning of the DriverP0 parameter:

65

Meaning of the DriverP1 parameter:

Irrelevant.

Meaning of the DriverP2 parameter:

Starting byte address (0-126).

Meaning of the DriverP3 parameter:

Indicates the protocol to be used:

0 = 3964R

1 = 3964

Meaning of the DriverP4 parameter:

CPU number:

0 = No CPU specified

1 = CPU number 1

2 = CPU number 2

3 = CPU number 3

4 = CPU number 4

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Meaning of the DriverP5 parameter:

Indicates the duration in milliseconds of the break signal that must be sent to the PLC when a synchron error is detected. If 0, a default value of 3000 milliseconds (3 seconds) will be internally used.

Write Counters

Description of this command:

Writes PLC counters.

Methods used to run this command:

Analog Output

Number of points accepted by this command:

1-125

Meaning of the DriverP0 parameter:

90

Meaning of the DriverP1 parameter:

Irrelevant.

Meaning of the DriverP2 parameter:

Starting counter number (0-127 for 115U/135U, 0-255 for 150U).

Meaning of the DriverP3 parameter:

Indicates the protocol to be used:

0 = 3964R

1 = 3964

Meaning of the DriverP4 parameter:

CPU number:

0 = No CPU specified

1 = CPU number 1

2 = CPU number 2

3 = CPU number 3

4 = CPU number 4

Meaning of the DriverP5 parameter:

Indicates the duration in milliseconds of the break signal that must be sent to the PLC when a synchron error is detected. If 0, a default value of 3000 milliseconds (3 seconds) will be internally used.

Write Timers

Description of this command:

Writes PLC timers.

Methods used to run this command:

Analog Output

Number of points accepted by this command:

1-125

Meaning of the DriverP0 parameter:

84

Meaning of the DriverP1 parameter:

Irrelevant.

Meaning of the DriverP2 parameter:

Starting timer number (0-127 for 115U/135U, 0-255 for 150U).

Meaning of the DriverP3 parameter:

Indicates the protocol to be used:

0 = 3964R

1 = 3964

Meaning of the DriverP4 parameter:

CPU number:

0 = No CPU specified

1 = CPU number 1

2 = CPU number 2

3 = CPU number 3

4 = CPU number 4

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Meaning of the DriverP5 parameter:

Indicates the duration in milliseconds of the break signal that must be sent to the PLC when a synchron error is detected. If 0, a default value of 3000 milliseconds (3 seconds) will be internally used.

Write I/O's

Description of this command:

Writes PLC I/O's as bytes.

Methods used to run this command:

Analog Output

Number of points accepted by this command:

1-125

Meaning of the DriverP0 parameter:

80

Meaning of the DriverP1 parameter:

Irrelevant.

Meaning of the DriverP2 parameter:

Starting I/O address (0-254).

Meaning of the DriverP3 parameter:

Indicates the protocol to be used:

0 = 3964R

1 = 3964

Meaning of the DriverP4 parameter:

CPU number:

0 = No CPU specified

1 = CPU number 1

2 = CPU number 2

3 = CPU number 3

4 = CPU number 4

Meaning of the DriverP5 parameter:

Indicates the duration in milliseconds of the break signal that must be sent to the PLC when a synchron error is detected. If 0, a default value of 3000 milliseconds (3 seconds) will be internally used.

Write I/O's as Bits

Description of this command:

Writes PLC I/O's as individual bits. The number of bytes written will be the required to send the HMITalk1.DriverNumPoints bits requested.

Methods used to run this command:

Digital Output

Number of points accepted by this command:

1-125

Meaning of the DriverP0 parameter:

80

Meaning of the DriverP1 parameter:

Irrelevant.

Meaning of the DriverP2 parameter:

Starting I/O address (0-254).

Meaning of the DriverP3 parameter:

Indicates the protocol to be used:

0 = 3964R

1 = 3964

Meaning of the DriverP4 parameter:

CPU number:

0 = No CPU specified

1 = CPU number 1

2 = CPU number 2

3 = CPU number 3

4 = CPU number 4

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Meaning of the DriverP5 parameter:

Indicates the duration in milliseconds of the break signal that must be sent to the PLC when a synchron error is detected. If 0, a default value of 3000 milliseconds (3 seconds) will be internally used.

Write Extended I/O's

Description of this command:

Writes PLC extended I/O's as bytes.

Methods used to run this command:

Analog Output

Number of points accepted by this command:

1-125

Meaning of the DriverP0 parameter:

81

Meaning of the DriverP1 parameter:

Irrelevant.

Meaning of the DriverP2 parameter:

Starting extended I/O address (0-254).

Meaning of the DriverP3 parameter:

Indicates the protocol to be used:

0 = 3964R

1 = 3964

Meaning of the DriverP4 parameter:

CPU number:

0 = No CPU specified

1 = CPU number 1

2 = CPU number 2

3 = CPU number 3

4 = CPU number 4

Meaning of the DriverP5 parameter:

Indicates the duration in milliseconds of the break signal that must be sent to the PLC when a synchron error is detected. If 0, a default value of 3000 milliseconds (3 seconds) will be internally used.

Write Extended I/O's as Bits

Description of this command:

Writes extended PLC extended I/O's as individual bits. The number of bytes written will be the required to send the NumPoints bits requested.

Methods used to run this command:

Digital Output

Number of points accepted by this command:

1-125

Meaning of the DriverP0 parameter:

81

Meaning of the DriverP1 parameter:

Irrelevant.

Meaning of the DriverP2 parameter:

Starting extended I/O address (0-254).

Meaning of the DriverP3 parameter:

Indicates the protocol to be used:

0 = 3964R

1 = 3964

Meaning of the DriverP4 parameter:

CPU number:

0 = No CPU specified

1 = CPU number 1

2 = CPU number 2

3 = CPU number 3

4 = CPU number 4

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Meaning of the DriverP5 parameter:

Indicates the duration in milliseconds of the break signal that must be sent to the PLC when a synchron error is detected. If 0, a default value of 3000 milliseconds (3 seconds) will be internally used.

Write System Addresses

Description of this command:

Writes PLC system addresses as words.

Methods used to run this command:

Analog Output

Number of points accepted by this command:

1-125

Meaning of the DriverP0 parameter:

66

Meaning of the DriverP1 parameter:

Irrelevant.

Meaning of the DriverP2 parameter:

Starting system address (0-511).

Meaning of the DriverP3 parameter:

Indicates the protocol to be used:

0 = 3964R

1 = 3964

Meaning of the DriverP4 parameter:

CPU number:

0 = No CPU specified

1 = CPU number 1

2 = CPU number 2

3 = CPU number 3

4 = CPU number 4

Meaning of the DriverP5 parameter:

Indicates the duration in milliseconds of the break signal that must be sent to the PLC when a synchron error is detected. If 0, a default value of 3000 milliseconds (3 seconds) will be internally used.

Write Absolute Addresses

Description of this command:

Writes PLC absolute addresses as words.

Methods used to run this command:

Analog Output

Number of points accepted by this command:

1-125

Meaning of the DriverP0 parameter:

83

Meaning of the DriverP1 parameter:

Irrelevant.

Meaning of the DriverP2 parameter:

Starting absolute address (0-65535).

Meaning of the DriverP3 parameter:

Indicates the protocol to be used:

0 = 3964R

1 = 3964

Meaning of the DriverP4 parameter:

CPU number:

0 = No CPU specified

1 = CPU number 1

2 = CPU number 2

3 = CPU number 3

4 = CPU number 4

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Meaning of the DriverP5 parameter:

Indicates the duration in milliseconds of the break signal that must be sent to the PLC when a synchron error is detected. If 0, a default value of 3000 milliseconds (3 seconds) will be internally used.

Error messages

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

[1005] DRIVER (Internal): Invalid driver stage
[1300] PROTOCOL (Timeout): No answer
[1421] PROTOCOL (Format): Negative acknowledge received from device
[1433] PROTOCOL (Format): Validation error in device response
[3001] CONFIG (P0): Invalid command
[3582] CONFIG (P1): Negative number not allowed
[4127] CONFIG (P2): Negative number not allowed
[4557] CONFIG (P3): Invalid protocol (0=3964R/1=3964)
[5005] CONFIG (P4): Invalid CPU number (0-4)
[8125] CONFIG (Remote): Error in third byte of header (should be 00h and returned %Xh)
[8311] CONFIG (Remote): Returned error code %Xh

Supported devices

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

SIEMENS SIMATIC S5-115U PLC With CP524/CP525
SIEMENS SIMATIC S5-135U PLC With CP524/CP525
SIEMENS SIMATIC S5-150U PLC With CP524/CP525
DEUTZ MWM PLC Using 3964R

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