

# Industrial communication solutions for Windows

## XTWIDOT Driver Manual

*Schneider Electric Telemecanique Twido PLC TCP Driver*

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## XTWIDOT technical specifications

### General information

XTWIDOT driver allows you to connect to Schneider Electric TWIDO PLCs using the Modbus TCP protocol through the TWIDO TCP port.

In order to be able to communicate with your PLC through its ethernet port, you must be sure to go to the Preferences section in the PLC configuration and select the Ethernet option.

All registers must exist and be created in the PLC memory before any attempt to read or write them. If you get a [8168] CONFIG (Remote): Illegal data address error message, it will be indicating that you are trying to read or write a register that still needs to be created. Some registers might not be accessed directly, meaning that you should create M or MW registers that keep updated a copy of the same information, and then read those M or MW registers.

#### REGISTER TYPES SUPPORTED:

- %M
- %MW

#### TCP COMMUNICATION SETTINGS:

- All MODBUS/TCP ADU are sent via TCP on registered port 502.

### Command list

#### Read multiple %M status

##### **Description of this command:**

Obtains the current status (ON=1/OFF=0) in a group of consecutive %M. Use DriverNumPoints to specify the number of consecutive %M to be read. Use DriverP0 to specify the PLC station number in the RS485 network. You can only read %M registers with this command. Your PLC should first copy any other registers to %M registers in order to make them available to be read with command.

##### **Methods used to run this command:**

Digital Input

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

1-1000

##### **Meaning of the DriverP0 parameter:**

Station number (0-255)

##### **Meaning of the DriverP1 parameter:**

Must be set to 1

##### **Meaning of the DriverP2 parameter:**

Indicates the first %M address to be read (%M0=0)

##### **Values that are returned:**

Value in PointValue (0) = First %M status (0=OFF, 1=ON)  
Value in PointValue (1) = Second %M status (0=OFF, 1=ON)  
- ...  
Value in PointValue (n-1) = Last %M status (0=OFF, 1=ON)

#### Write single %M status

##### **Description of this command:**

Writes a single %M. Use DriverP0 to specify the PLC station number in the RS485 network. You can only write a single %M register with this command. Your PLC should copy the %M register status to any other register that you actually need to write.

##### **Methods used to run this command:**

Digital Output

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

1

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**Meaning of the DriverP0 parameter:**

Station Number (0-255). If the station number is 0, the command is sent as a broadcast message and no response is expected.

**Meaning of the DriverP1 parameter:**

Must be set to 5

**Meaning of the DriverP2 parameter:**

Indicates the %M address to be written (%M0=0).

**Values that are sent:**

Value in PointValue (0) = New %M status (0=OFF, 1=ON)

## Write multiple %M status

**Description of this command:**

Writes a series of consecutive %M. Use DriverNumPoints to specify the number of %M to be written. Use DriverP0 to specify the PLC station number in the RS485 network. You can only write %M registers with this command. Your PLC should copy the %M registers status to any other registers that you actually need to write.

**Methods used to run this command:**

Digital Output

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

1-1000 (It is convenient that this number is a multiple of 8)

**Meaning of the DriverP0 parameter:**

Station Number (0-255). If the station number is 0, the command is sent as a broadcast message and no response is expected.

**Meaning of the DriverP1 parameter:**

Must be set to 15

**Meaning of the DriverP2 parameter:**

Indicates the first %M address to be written (%M0=0).

**Values that are sent:**

Value in PointValue (0) = New status for first %M (0=OFF, 1=ON)

Value in PointValue (1) = New status for second %M (0=OFF, 1=ON)

- ...

Value in PointValue (n-1) = New status for last %M (0=OFF, 1=ON)

## Read multiple %MW as unsigned words

**Description of this command:**

Obtains the current values in a group of consecutive registers of type %MW, returning the values as unsigned words ranging from 0 to 65535. Use DriverNumPoints to specify the number of %MW registers to be read. Use DriverP0 to specify the PLC station number in the RS485 network. You can only read %MW registers with this command. Your PLC should first copy any other registers to %MW registers in order to make them available to be read with command.

**Methods used to run this command:**

Analog Input

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

1-125

**Meaning of the DriverP0 parameter:**

Station number (0-255)

**Meaning of the DriverP1 parameter:**

Must be set to 3

**Meaning of the DriverP2 parameter:**

Indicates the first %MW register address to be read (%MW0=40001).

- Use 40001 for %MW0

- Use 40002 for %MW1

- ...

- Use 40256 for %MW255

**Values that are returned:**

Value in PointValue (0) = First %MW register value (0 to 65535)

Value in PointValue (1) = Second %MW register value (0 to 65535)

- ...

Value in PointValue (n-1) = Last %MW register value (0 to 65535)

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## Write multiple %MW as unsigned words

### Description of this command:

Writes values to a group of consecutive registers of type %MW, treating the values as unsigned words ranging from 0 to 65535. Use DriverNumPoints to specify the number of %MW registers to be written. Use DriverP0 to specify the PLC station number in the RS485 network. You can only write %MW registers with this command. Your PLC should copy the %MW registers values to any other registers that you actually need to write.

### Methods used to run this command:

Analog Output

### Number of points accepted by this command:

1-125

### Meaning of the DriverP0 parameter:

Station number (0-255) If the station number is 0, the command is sent as a broadcast message and no response is expected.

### Meaning of the DriverP1 parameter:

Must be set to 16

### Meaning of the DriverP2 parameter:

Indicates the first %MW register address to be written (%MW0=40001)

- Use 40001 for %MW0

- Use 40002 for %MW1

- ...

- Use 40256 for %MW255

### Values that are returned:

Value in PointValue (0) = First %MW register value (0 to 65535)

Value in PointValue (1) = Second %MW register value (0 to 65535)

- ...

Value in PointValue (n-1) = Last %MW register value (0 to 65535)

## Read multiple %MW as signed integers

### Description of this command:

Obtains the current values in a group of consecutive registers of type %MW, returning the values as unsigned words ranging from -32768 to 32767. Use DriverNumPoints to specify the number of %MW registers to be read. Use DriverP0 to specify the PLC station number in the RS485 network. You can only read %MW registers with this command. Your PLC should first copy any other registers to %MW registers in order to make them available to be read with command.

### Methods used to run this command:

Analog Input

### Number of points accepted by this command:

1-125

### Meaning of the DriverP0 parameter:

Station number (0-255)

### Meaning of the DriverP1 parameter:

Must be set to 74

### Meaning of the DriverP2 parameter:

Indicates the first %MW register address to be read (%MW0=40001)

- Use 40001 for %MW0

- Use 40002 for %MW1

- ...

- Use 40256 for %MW255

### Values that are returned:

Value in PointValue (0) = First %MW register value (-32768 to 32767)

Value in PointValue (1) = Second %MW register value (-32768 to 32767)

- ...

Value in PointValue (n-1) = Last %MW register value (-32768 to 32767)

## Write multiple %MW as signed integers

### Description of this command:

Writes values to a group of consecutive registers of type %MW, treating the values as unsigned words ranging from -32768 to 32767. Use DriverNumPoints to specify the number of %MW registers to be written. Use DriverP0 to specify the PLC station number in the RS485 network. You

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can only write %MW registers with this command. Your PLC should copy the %MW registers values to any other registers that you actually need to write.

**Methods used to run this command:**

Analog Output

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

1-125

**Meaning of the DriverP0 parameter:**

Station number (0-255) If the station number is 0, the command is sent as a broadcast message and no response is expected.

**Meaning of the DriverP1 parameter:**

Must be set to 78

**Meaning of the DriverP2 parameter:**

Indicates the first %MW register address to be written (%MW0=40001)

- Use 40001 for %MW0

- Use 40002 for %MW1

- ...

- Use 40256 for %MW255

**Values that are returned:**

Value in PointValue (0) = First %MW register value (-32768 to 32767)

Value in PointValue (1) = Second %MW register value (-32768 to 32767)

- ...

Value in PointValue (n-1) = Last %MW register value (-32768 to 32767)

## Error messages

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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

## Supported devices

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

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