

Industrial communication solutions for Windows

XELVIPD3 Driver Manual

EIControl Energy VIPD3-485 Protocol Driver

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cpksoftengineering@hotmail.com

phone: 54-911-45788354

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XELVIPD3 technical specifications

General information

XELVIPD3 driver allows you to connect with ELCONTROL ENERGY devices model VIPD3-485.

The most common serial setup is:

9600 | 1200 Bauds, 7 Db, No parity, 1 Sb.

It is strongly recommended that you use The PC-485 Box RS-232/485 converter supplied by ELCONTROL. The device could behave erratically if you use a different RS-232/485 converter.

Command list

Read All Data Measured

Description of this command:

Obtains all data measured.

Methods used to run this command:

Analog Input

Number of points accepted by this command:

1-37

Meaning of the DriverP0 parameter:

Station Number (1-247).

Meaning of the DriverP1 parameter:

1

Values that are returned:

Value in PointValue (0) = Voltage 3-Phase

Value in PointValue (1) = Current 3-Phase

Value in PointValue (2) = Active Power 3-Phase

Value in PointValue (3) = Power Factor 3-Phase

Value in PointValue (4) = Voltage Phase L1

Value in PointValue (5) = Voltage Phase L2

Value in PointValue (6) = Voltage Phase L3

Value in PointValue (7) = Current Phase L1

Value in PointValue (8) = Current Phase L2

Value in PointValue (9) = Current Phase L3

Value in PointValue (10) = Active Power Phase L1

Value in PointValue (11) = Active Power Phase L2

Value in PointValue (12) = Active Power Phase L3

Value in PointValue (13) = Apparent Power 3-Phase

Value in PointValue (14) = Reactive Power 3-Phase

Value in PointValue (15) = Frequency

Value in PointValue (16) = Real Energy 3-Phase

Value in PointValue (17) = Reactive Energy 3-Phase

Value in PointValue (18) = Apparent Power Peaks

Value in PointValue (19) = Active Power Peaks

Value in PointValue (20) = Apparent Power Average

Value in PointValue (21) = Active Power Average

Value in PointValue (22) = TDHTF of Phase L1

Value in PointValue (23) = TDHTF of Phase L2

Value in PointValue (24) = TDHTF of Phase L3

Value in PointValue (25) = Connection Type (0 = Single Phase, 1 = 3-Phase)

Value in PointValue (26) = Analog Output Full Scale (0 = 750 V, 1 = 250 V) or PQS Output Pulse Value Select (0 = 1 Pulse = 3 W/h, 1 = 20 Pulses = 3 W/h)

Value in PointValue (27) = Select Baudrate (0 = 9600, 1 = 1200)

Value in PointValue (28) = Select Instrument Type:

1 = VIP D

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2 = VIP 96
3 = VIP D3
4 = VIP DC
5 = OEM1 Module
6 = OEM3 Module
7 = VIP D144
8 = VIP D30 A
9 = VIP DBatt
10 = NanoVip
11 = PFRM
12 = Micro VIP 3
15 = VIPD3-HV
Value in PointValue (29) = RS485: Present MODBUS Protocol
Value in PointValue (30) = Present Q Analog Output
Value in PointValue (31) = Present S Analog Output
Value in PointValue (32) = Present P Analog Output
Value in PointValue (33) = Present Q Pulse Output
Value in PointValue (34) = Present S Pulse Output
Value in PointValue (35) = Present P Pulse Output
Value in PointValue (36) = RS232: Present ELCONTROL Protocol

Write Keyboard Status

Description of this command:

Enable/Disable keyboard.

Methods used to run this command:

Digital Output

Number of points accepted by this command:

1

Meaning of the DriverP0 parameter:

Station Number (1-247).

Meaning of the DriverP1 parameter:

2

Average and Picks Reset with Date & Time Information

Description of this command:

Average and picks reset and returns the date & time information corresponding to the moment the reset was done.

Methods used to run this command:

Analog Input

Number of points accepted by this command:

1-6

Meaning of the DriverP0 parameter:

Station Number (1-247).

Meaning of the DriverP1 parameter:

3

Values that are returned:

Value in PointValue (0) = Month

Value in PointValue (1) = Day

Value in PointValue (2) = Year

Value in PointValue (3) = Hour

Value in PointValue (4) = Minutes

Value in PointValue (5) = Seconds

Counter Reset with Date & Time Information

Description of this command:

Counter reset and returns the date & time information, corresponding to the moment the reset was done.

Methods used to run this command:

Analog Input

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Number of points accepted by this command:

1-6

Meaning of the DriverP0 parameter:

Station Number (1-247).

Meaning of the DriverP1 parameter:

4

Write K Factor of Current Transformer in VIPD3-485

Description of this command:

Writes the K factor of current transformer in VIPD3-485.

Methods used to run this command:

Analog Output

Number of points accepted by this command:

1

Meaning of the DriverP0 parameter:

Station Number (1-247).

Meaning of the DriverP1 parameter:

5

Values that are sent:

- 00 - Reserved
- 01 - Transformer = 10/1 K = 10
- 02 - Transformer = 100/1 K = 100
- 03 - Transformer = 200/1 K = 200
- 04 - Transformer = 500/1 K = 500
- 05 - Transformer = 1000/1 K = 1000
- 06 - Transformer = 3000/1 K = 3000
- 07 - Transformer = 5/5 K = 1
- 08 - Transformer = 20/5 K = 4
- 09 - Transformer = 30/5 K = 6
- 10 - Transformer = 50/5 K = 10
- 11 - Transformer = 60/5 K = 12
- 12 - Transformer = 75/5 K = 15
- 13 - Transformer = 80/5 K = 16
- 14 - Transformer = 100/5 K = 20
- 15 - Transformer = 150/5 K = 30
- 16 - Transformer = 200/5 K = 40
- 17 - Transformer = 250/5 K = 50
- 18 - Transformer = 300/5 K = 60
- 19 - Transformer = 400/5 K = 80
- 20 - Transformer = 500/5 K = 100
- 21 - Transformer = 600/5 K = 120
- 22 - Transformer = 800/5 K = 160
- 23 - Transformer = 1000/5 K = 200
- 24 - Transformer = 1200/5 K = 240
- 25 - Transformer = 1500/5 K = 300
- 26 - Transformer = 2000/5 K = 400
- 27 - Transformer = 2500/5 K = 500
- 28 - Transformer = 3000/5 K = 600

Write K Factor of Current Transformer in VIPD3-485 HV

Description of this command:

Writes the K factor of current transformer in VIPD3-485 HV.

Methods used to run this command:

Analog Output

Number of points accepted by this command:

1

Meaning of the DriverP0 parameter:

Station Number (1-247).

Meaning of the DriverP1 parameter:

6

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Values that are sent:

- 00 - Reserved
- 01 - Transformer = 10/1 K = 10
- 02 - Transformer = 50/1 K = 50
- 03 - Transformer = 100/1 K = 100
- 04 - Transformer = 200/1 K = 200
- 05 - Transformer = 250/1 K = 250
- 06 - Transformer = 300/1 K = 300
- 07 - Transformer = 400/1 K = 400
- 08 - Transformer = 500/1 K = 500
- 09 - Transformer = 600/1 K = 600
- 10 - Transformer = 700/1 K = 700
- 11 - Transformer = 750/1 K = 750
- 12 - Transformer = 800/1 K = 800
- 13 - Transformer = 1000/1 K = 1000
- 14 - Transformer = 1200/1 K = 1200
- 15 - Transformer = 1600/1 K = 1600
- 16 - Transformer = 2000/1 K = 2000
- 17 - Transformer = 2400/1 K = 2400
- 18 - Transformer = 3000/1 K = 3000
- 19 - Transformer = 4000/1 K = 4000
- 20 - Transformer = 5/5 K = 1
- 21 - Transformer = 10/5 K = 2
- 22 - Transformer = 15/5 K = 3
- 23 - Transformer = 20/5 K = 4
- 24 - Transformer = 30/5 K = 6
- 25 - Transformer = 40/5 K = 8
- 26 - Transformer = 50/5 K = 10
- 27 - Transformer = 60/5 K = 12
- 28 - Transformer = 75/5 K = 15
- 29 - Transformer = 80/5 K = 16
- 30 - Transformer = 100/5 K = 20
- 31 - Transformer = 150/5 K = 30
- 32 - Transformer = 200/5 K = 40
- 33 - Transformer = 250/5 K = 50
- 34 - Transformer = 300/5 K = 60
- 35 - Transformer = 400/5 K = 80
- 36 - Transformer = 500/5 K = 100
- 37 - Transformer = 600/5 K = 120
- 38 - Transformer = 800/5 K = 160
- 39 - Transformer = 900/5 K = 180
- 40 - Transformer = 1000/5 K = 200
- 41 - Transformer = 1200/5 K = 240
- 42 - Transformer = 1500/5 K = 300
- 43 - Transformer = 1600/5 K = 320
- 44 - Transformer = 2000/5 K = 400
- 45 - Transformer = 2500/5 K = 500
- 46 - Transformer = 3000/5 K = 600
- 47 - Transformer = 3500/5 K = 700
- 48 - Transformer = 4000/5 K = 800
- 49 - Transformer = 5000/5 K = 1000
- 50 - Transformer = 6000/5 K = 1200

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Write K Factor of Voltage Transformer in VIPD3-485 HV

Description of this command:

Writes the K factor of voltage transformer in VIPD3-485 HV.

Methods used to run this command:

Analog Output

Number of points accepted by this command:

1

Meaning of the DriverP0 parameter:

Station Number (1-247).

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Meaning of the DriverP1 parameter:

7

Values that are sent:

- 00 - Reserved
- 01 - Transformer = 380/100 K = 3.8
- 02 - Transformer = 400/100 K = 4
- 03 - Transformer = 600/100 K = 6
- 04 - Transformer = 1000/100 K = 10
- 05 - Transformer = 2000/100 K = 20
- 06 - Transformer = 3000/100 K = 30
- 07 - Transformer = 6000/100 K = 60
- 08 - Transformer = 10000/100 K = 100
- 09 - Transformer = 12000/100 K = 120
- 10 - Transformer = 15000/100 K = 150
- 11 - Transformer = 20000/100 K = 200
- 12 - Transformer = 30000/100 K = 300
- 13 - Transformer = 150000/100 K = 1500
- 14 - Transformer = 500000/100 K = 5000
- 15 - Transformer = 3300/110 K = 30
- 16 - Transformer = 6600/110 K = 60
- 17 - Transformer = 11000/110 K = 100
- 18 - Transformer = 22000/110 K = 200
- 19 - Transformer = 33000/110 K = 300
- 20 - Transformer = 44000/110 K = 400
- 21 - Transformer = 66000/110 K = 600
- 22 - Transformer = 88000/110 K = 800
- 23 - Transformer = 110000/110 K = 1000
- 24 - Transformer = 132000/110 K = 1200
- 25 - Transformer = 220000/110 K = 2000
- 26 - Transformer = 275000/110 K = 2500
- 27 - Transformer = 330000/110 K = 3000
- 28 - Transformer = 550000/110 K = 5000
- 29 - Transformer = 20125/115 K = 175
- 30 - Transformer = 34500/115 K = 300
- 31 - Transformer = 840/120 K = 7
- 32 - Transformer = 1200/120 K = 10
- 33 - Transformer = 2400/120 K = 20
- 34 - Transformer = 4200/120 K = 35
- 35 - Transformer = 4800/120 K = 40
- 36 - Transformer = 7200/120 K = 60
- 37 - Transformer = 8400/120 K = 70
- 38 - Transformer = 12000/120 K = 100
- 39 - Transformer = 14400/120 K = 120
- 40 - Transformer = 24000/120 K = 200

Write Integration Period

Description of this command:

Writes integration period.

Methods used to run this command:

Analog Output

Number of points accepted by this command:

1

Meaning of the DriverP0 parameter:

Station Number (1-247).

Meaning of the DriverP1 parameter:

8

Meaning of the DriverP2 parameter:

Indicates the equipment to be used.

- 0 = VIPD3-485
- 1 = VIPD3-485-HV

Values that are sent:

- 0 = 10 Minutes

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- 1 = 15 Minutes
- 2 = 20 Minutes
- 3 = 30 Minutes

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
[1408] PROTOCOL (Format): Invalid amount of data bytes received
[1410] PROTOCOL (Format): Invalid device id in response
[1433] PROTOCOL (Format): Validation error in device response
[2002] CONFIG (DataType): Digital inputs are not supported by this driver
[2147] CONFIG (NumValues): Only one value can be read or written
[2214] CONFIG (NumValues): Too many values (max=37)
[2226] CONFIG (NumValues): Too many values (max=6)
[3007] CONFIG (P0): Invalid device address
[3508] CONFIG (P1): Invalid command
[8013] CONFIG (Remote): Acknowledge
[8036] CONFIG (Remote): Busy, rejected message
[8138] CONFIG (Remote): Failure in associated device
[8168] CONFIG (Remote): Illegal data address
[8170] CONFIG (Remote): Illegal data value
[8172] CONFIG (Remote): Illegal function
[8217] CONFIG (Remote): NAK-negative acknowledgment
[8347] CONFIG (Remote): Unknown error

Supported devices

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

ELCONTROL ENERGY VIPD3-485 Energy Monitor
ELCONTROL ENERGY VIPD3-485 HV Energy Monitor

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