Vissersdijk 4, 4301 ND
Zierikzee, the Netherlands
www.DeltaPowerSupplies.com
Tel. +31 111 413656

PSC-ETH-2

- **PSC-ETH-2 INT**
  Internal interface Card

- **PSC-ETH-2 EXT**
  External Interface Module

Firmware Update
It is strongly recommended, first to perform a firmware update before further operation. See this manual for instructions.

Driver & Example Software
For several applications and Interfaces there is Driver & Example Software available on our website. See **PRODUCTS\PSC-ETH\DOWNLOADS**.

PRODUCT MANUAL

Firmware version P0102

Contents:

7.3 Sequence control by commands

7.3.1 Read the Catalog

The catalog contains all the programmed sequences. To read the catalog send the query:
Syntax : **PROGram:CATalog?<term>**
The PSC-ETH-2 returns a list of the names of all sequences, separated by linefeeds.
The end of the catalog is indicated by an extra <term>.
In case of no sequences available, the PSC-ETH-2 only returns one <term>.
Example: *PROG:CAT?<term>* answer: *WAVE1<nl>PROCESS4<nl>RAMPUP<nl><term>*

7.3.2 How to create or select a Sequence

To select an existing sequence or to create a new one, send the command:
Syntax: **PROGram:SELected:NAMe<sp><string><term>** string may contain the characters A-Z, 0-9 and + (max. 16 characters) The first character of string has to be an A-Z.

To read which sequence is selected, send the query:
Syntax: **PROGram:SELected:NAMe?<term>**
The PSC-ETH-2 returns the name of the selected sequence, followed by a <term>. Or, in case of no selection, only <term>. Sequence names are not case-sensitive (during selection), but are stored in memory with upper case.

7.3.3 Upload a Sequence to PSC-ETH-2 (PC → PS)

First select/create a sequence, then upload the new steps by the command:
Syntax: **PROGram:SELected:STEp<sp><NR1><sp><command+operand(s)><term>**
<NR1> = 1 to 2000. Steps do not have to be programmed in order, but already existing steps will be overwritten when reselected.
For example: *PROG:SEL:STEp<sp>21<sp>CJNE<sp>#A,3,15<term>*

7.3.4 Download a Sequence from PSC-ETH-2 (PS → PC)

After a sequence is selected, the steps can be downloaded one by one, using the query:
Syntax: **PROGram:SELected:STEp<sp><NR1>?<term>**
The PSC-ETH-2 returns <step number><sp><command+operand(s)><term>.
If the queried step doesn't exist, the PSC-ETH-2 returns <term>.

The PSC-ETH-2 returns the complete sequence when it receives the query:
Syntax: **PROGram:SELected:STEp<sp>?<term>**
The answer from the PSC-ETH-2 will be:
<1><sp><command+operand(s)><nl><2><sp><command+operand(s)><nl> and so on.
After the last step the PSC-ETH-2 sends <term> as a terminator.

7.3.5 Delete a Sequence

After a sequence is selected, it can be removed from the catalog by:
Syntax: **PROGram:SELected:DELete<term>**
If the sequence is in running mode, this command will stop the sequence immediately and erases it from memory.
To clear the whole catalog and delete all the sequences, including their assignments, send:
Syntax: **PROGram:CATalog:DELete<term>**

7.3.6 Start a Sequence

If a sequence is selected, it can be started by the command:
Syntax: **PROGram:SELected:STAte<sp>RUN<term>**
The sequence will start at step 1. The RUN command will automatically initiate a sequence Build when the sequence is not yet build, or modified after an earlier build.

7.3.7 Pause a Sequence

If a sequence runs, it can be paused by the command:
Syntax: **PROGram:SELected:STAte<sp>PAUSe<term>**
If the sequence is paused, it can be continued after sending the command:
Syntax: **PROGram:SELected:STAte<sp>CONTinue<term>**

7.3.8 Step through a Sequence

If a sequence is selected, it is possible to manually step through the program (during any mode) by:
Syntax: **PROGram:SELected:STAte<sp>NEXT<term>**
This command executes the next step and turns in mode PAUSE. If the current step contains a Wait instruction and it is not finished yet, the sequencer ignores the Wait instruction.
For debugging the sequence this command can be very handy.

9 Command list Sequencer

9.1 Index Sequencer

DELTA ELEKTRONIKA B.V.
DC POWER SUPPLIES

Vissersdijk 4, 4301 ND
Zierikzee, the Netherlands

www.DeltaPowerSupplies.com
Tel. +31 111 413656

10 EU-Declaration of Conformity

We

Delta Elektronika
Vissersdijk 4
4301 ND ZIERIKZEE
The Netherlands

Declare under sole responsibility that the following Power Supplies:

PSC-ETH-2
PSC-ETH-2 EXT

Meet the intent of Directives

2014/30/EU Electromagnetic Compatibility (EMC)
2014/35/EU Low Voltage Directive (LVD)
2011/65/EU Reduction of Hazardous Substances (RoHS2)

Compliance was demonstrated to the following specification as listed in the official Journal of the European Communities:

EN 61000-6-3:2007 Generic Emissions (residential, light industrial)
+A1:2011

EN 61000-3-2:2014 Power Harmonics
EN 61000-3-3:2013 Voltage fluctuation and flicker

EN 61000-6-1:2007 Generic Immunity (residential, light industrial)

EN 61000-6-2:2005 Generic Immunity (industrial environment)

EN 60950-1:2006 Safety of IT equipment
+A1:2010 + A11:2009 + A12:2011 + A2:2013

EN 61010:2010 Safety of electrical equipment for measurement, control and laboratory use

EN 50581:2012 Assessment of electrical and electronic products with respect to RoHS

J. Koopman
Managing director,
Zierikzee, December 2019