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DELTA ELEKTRONIKA B.V.



Card for inserting in power supply



External Module

PSC-ETH - Ethernet Power Supply Controller

Interface between Ethernet IP Network and Power Supply

- Make use of existing networks
- IP-addresss configurable by user
- Build-in Card or External Module
- Successor of the IEEE488 - bus

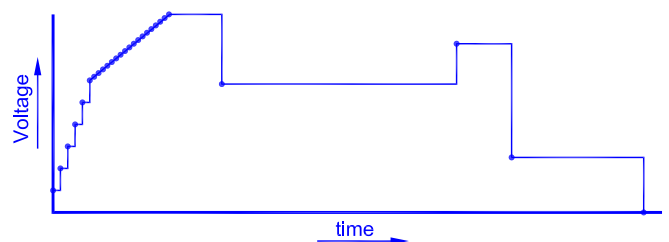
Features

- 16-bit accuracy programming and monitoring
- Digital user in and outputs (isolated)
- Change power supply modes (Remote/Local ,ect)
- Read-back of status signal
- Integrated Sequencer
- Software Calibration
- SCPI commands
- LabVIEW driver and Visual Basic example included

Integrated Sequencer:



Arbitrary Waveform generator or standalone automation. The sequencer is integrated in the Ethernet controller. User defined Waveforms can be stored in the sequencer.



- Converts a power supply into an Arbitrary Waveform Generator
- Ideal for repetitive testing and automotive
- Can work like a PLC or stand-alone automation : steps interact with the actual in and outputs
- Waveform generator independent of computer Stand-alone operating possible
- Battery voltage simulation, Surges, Function generator, ect.
- 25 free sequences having max. 2000 each
- Combination of fast and very slow sequences
- Steps from 1 ms till hours

The Sequencer

The PSC-ETH can control the power supply by a sequence without the need of an external computer.

The sequencer can even control the user outputs and read the user inputs.

A sequence is built from user programmable steps (or program lines).

A sequence step can do the following:

- Set the output Voltage and Current
- Jump to defined step number, unconditional or under condition of:
- Digital outputs, Digital inputs, Variable, output voltage or current
- Increment or Decrement output Voltage, Current or Variable
- Possibility to create loops, subroutines, ramps ect.
- Set a Digital output (6 available)
- Wait for trigger from Computer or Pause
- Set a internal Variable (8 available) or an internal Timer (2 available)

Sequences can be started / paused / stopped by : Commands via Ethernet (software) or by User Inputs (hardware).

Using digital user inputs for starting or stopping a sequence, makes it possible to choose the sequences by selecting the corresponding input, without being connected to a computer.

Analog inputs and outputs

The 2 analog in- and outputs have a 16 bits resolution. Offset and full scale can be software calibrated.

Input linearity error is +/- 1 LSB, output linearity error is +/- 2 LSB. TC typical is 10ppm / °C.

Each analog in- and output can be set or read. Analog voltages are standardized on 0 - 5 V.

Analog in- and outputs have a common zero.

Status monitoring

The PSC provides logic status inputs to monitor the status signals of the power supply such as CC mode, current or voltage limit, DC fail, AC fail, Over Temperature, SOL, etc.

Controls

Remote ShutDown: Enables / disables the output voltage of the power supply.

REMOTE: Switches from manual control to remote control (not on PSC-ETH module)

Digital User Inputs and Outputs

The PSC-ETH provides eight 1000 V opto-isolated logic inputs with common zero for custom use.

The input impedance is 1800 Ohm, Logic high = 2.5 ... 30 V, Logic low = 0 V.

The PSC-ETH provides also six 1000 V opto-isolated, logic, open drain outputs with common zero for custom use. The output impedance is 7 Ohm, maximum rating is 30 V / 200 mA.

Accessories

PSC ETH built-in: CD-ROM with example software and manual in PDF format.

PSC ETH module: CD-ROM with example software and manual in PDF format, Analog cable and Line Cord.

Specifications external module PSC-ETH module

Dimensions (h x w x d)

89 x 85.5 x 118.5 mm, 0.7 kg

Input Power

Wide range 98-264 V AC, 48-62 Hz

Power consumption 10 W

Hold-up time @ 110 V AC : 80 ms

Hold-up time @ 230 V AC : 300 ms

Ambient temperature

Operating 0 to +55 °C

Storage - 20 to +70 °C

Isolation

Analog in- and outputs to case: 1000 V DC

Logic in- and outputs to case: 1000 V DC

Ethernet to case: 1000 V DC

Line input to case: 2500 V AC

EMC

Emission : EN 61000-6-3, residential, light industrial environment
EN 55022B

Immunity : EN 61000-6-2, industrial environment

Enclosure: IP20

Models	Order Code	Description	Digital User I/O	Comments
ES 150	Option P150	ES150 Series with Build-in Card	Not available	Analog programming connector removed
ES 300	Option P179	ES300 Series with Build-in Card	Not available	Analog programming connector removed
SM 800	Option P256	ES800 Series with Build-in Card	Available	Analog programming connector still available
SM 1500	Option P177	ES1500 Series with Build-in Card	Available	Analog programming connector still available
SM 3000	Option P149	ES3000 Series with Build-in Card	Not available	Analog programming connector removed
SM 6000	Option P157	ES6000 Series with Build-in Card	Available	Analog programming connector still available**

**Note : Except on SM 600-10 and SM 300-20