



Card for inserting in power supply



External Module

PSC-ETH Ethernet Power Supply Controller

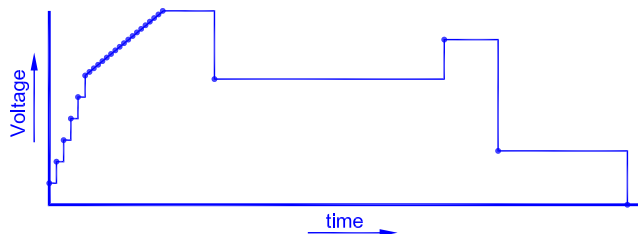
Interface between Ethernet IP Network and Power Supply

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

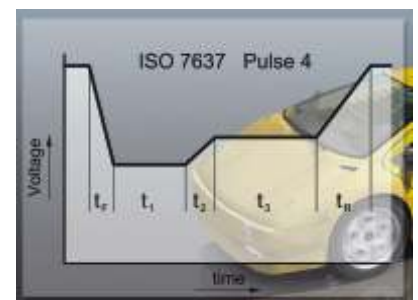
Features

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

Integrated Sequencer:



User defined Waveforms can be stored in the Sequencer



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

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

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 10 ppm / °C.

Each analog in- and output can be set or read. Analog voltages are standardised 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, PSOL, 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 EXT)

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

Specifications external module PSC-ETH EXT	
Dimensions (h x w x d) 89 x 85.5 x 118.5 mm, 0.7 kg	Isolation Analog in- and outputs to case: 1000 VDC Logic in- and outputs to case: 1000 VDC Ethernet to case: 1000 VDC Line input to case: 2500 VAC
Input Power Wide range 98-264 VAC, 48-62 Hz Power consumption 10 W Hold-up time @ 110VAC : 80ms Hold-up time @ 230VAC : 300ms	EMC Emission: EN61000-6-3, residential, light industrial environment EN55022B Immunity: EN61000-6-2, industrial environment Enclosure: IP20
Ambient temperature Operating 0 to +55 °C Storage -20 to +70 °C	

Ordercodes	Description	Digital User I/O	Notes
ES150 option P150	ES150 - series with Built-in Card	not available	Analog programming connector removed
ES300 option P179	ES300 - series with Built-in Card	not available	Analog programming connector removed
SM800 option P256	SM800 - series with Built-in Card	yes	Analog programming connector still available
SM1500 option P177	SM1500 - series with Built-in Card	yes	Analog programming connector still available
SM3000 option P149	SM3000 - series with Built-in Card	not available	Analog programming connector removed
SM6000 option P157	SM6000 - series with Built-in Card	yes	Analog programming connector still available