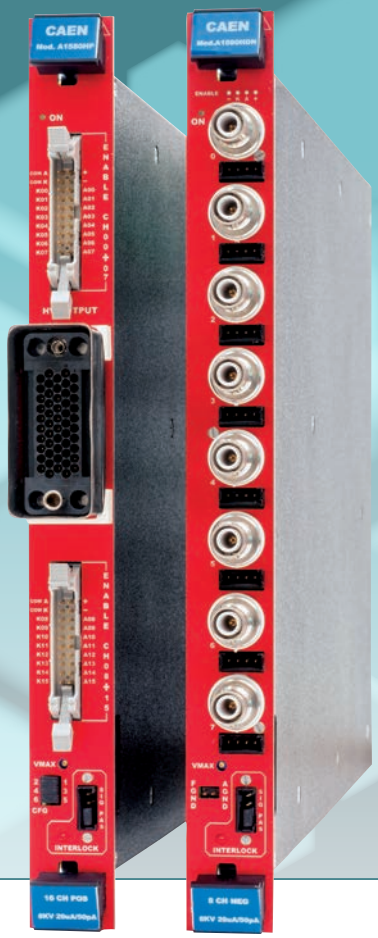
CAEN Electronic Instrumentation
Tools for Discovery

A1560H / A1580H

8/16 Channel 6/8 kV
20 µA High Voltage Power Supply Family with Independent Enable



High Precision Solution for Germanium Detector

Your precious germanium detector deserves extra safety and performance: introducing the new High Voltage with hardware individual enable and extremely high resolution

Features

- 8/16 independently controllable High Voltage channels
- 2 models available:
  - A1560H: 0 ÷ 6kV
  - A1580H: 0 ÷ 8kV
- 20 µA maximum output current
- Common floating return shared by all channels
- Channels with individual hardware enable
- Radiall 52 pin or SHV coaxial connectors
- Available with positive, negative or mixed polarity
- 10 mV voltage monitor resolution
- 50 pA current monitor resolution
- Low Ripple
- Independently programmable for each channel:
  - Output voltage (100/200 mV resolution)
  - Current limit (500 pA resolution)
  - Ramp up/down (1÷500 Volt /sec)
  - TRIP parameter
- Current generator operation in Overcurrent condition

The A15x0H is a new CAEN family of HV Power Supply boards, available with either positive, negative or mixed polarity, compatible with the CAEN Universal Multichannel Power Supply System (SY1527, SY2527, SY3527, SY4527, SY5527).

8 and 16 channel versions are available; all models feature individual channel enable. The HV channels share a common floating return, which allows on-detector grounding reducing the noise level; the floating return is

insulated from the crate earth up to ±50 V (with 65 V hardware limit).

The output voltage range is 0 ÷ 6 kV (A1560H) or 0 ÷ 8 kV (A1580H), with 10 mV monitor resolution. The maximum output current is 20 µA, with 50 pA monitor resolution.

Independently programmable for each channel:

- Output voltage: 0 ÷ 6/8 kV step: 100/200 mV
- Current limit: 0 ÷ 20 µA step: 500 pA
- HV Ramp up/down: 1 ÷ 500 V/sec step: 1 V/sec
- TRIP parameter

Safety features include:

- **Channels can be enabled or disabled** through the Global Interlock logic.
- **Remote Enable/Disable:** front panel independent contacts available for all channels.
- **Overvoltage and Undervoltage warning** when the output voltage differs from the programmed value.
- **Overcurrent detection**: when a channel attempts to exceed the programmed current limit, it signaled to be in "overcurrent" and enter in a TRIP status. The output voltage is varied to keep the current below the programmed limit for a programmable TRIP time, then the channel is switched off. If TRIP is set to "constant current mode", the channel behaves like a current generator.
- **Hardware VMAX:** maximum output voltage can be set via front panel potentiometer, at the same common value for all the board channels. VMAX value can be read out via software. .
- **Safety Board Interlock:** this protection disables the HV generation when the HV outputs are not connected to their loads (only for Multipin Connector versions).

Model Compare

Model	Maximum Voltage	Maximum Current	Imon Resolution	Vset Resolution	N. of Channels
A1560H	6 kV	20 µA	50 pA	100 mV	8/16
A1580H	8 kV	20 µA	50 pA	200 mV	8/16

News from Catalog web page
www.caen.it/news

Universal Multichannel System - Mainframes

Modularity, Compatibility, Connectivity, Usability and Solidity are the keywords of the system design. The Mainframes have been specifically designed to power all detector technologies found in modern Physics Experiments, such as photomultipliers, wire chambers, streamers tubes, silicon detectors and others.

The systems are modular, flexible and match not only the requirements of major experiments with large number of channels but also the practical needs of test laboratories, where simple manual operations on a limited number of channels are often desired.

FREE DOWNLOAD

All CAEN Control Software are available for ***free download*** on the web site.

Control Software available: GECO2020 with user friendly GUI, CAEN HV Wrapper library for custom SW development and HiVoCS Web Interface. EPICS and OPC Server also supported.

EPICS | CAEN OPC Server | CAEN HV Wrapper | CAEN HiVoCS | GECO 2020

Ordering Option

Code	Description
WA1560HNEAAA	A1560HNE - SYx527 H.V. -6 KV 20 µA (50pA res) Individual Enable - Multipin Conn. comm float (16 ch)
WA1560HPEAAA	A1560HPE - SYx527 H.V. +6 KV 20 µA (50pA res) Individual Enable - Multipin Conn. comm float (16 ch)
WA1560HDNEAA	A1560HDNE - SYx527 H.V. -6 KV 20 µA (50pA res) Individual Enable - SHV Conn. common floating (8 ch)
WA1560HDPEAA	A1560HDPE - SYx527 H.V. +6 KV 20 µA (50pA res) Individual Enable - SHV Conn. common floating (8 ch)
WA1560HDMEAA	A1560HDME - SYx527 H.V. (4ch +6KV 20µA, 4ch -6KV 20µA) (50pA res) Ind EN - SHV Conn. comm float
WA1580HNEAAA	A1580HNE - SYx527 H.V. -8 KV 20 µA (50pA res) Individual Enable - Multipin Conn. comm float (16 ch)
WA1580HPEAAA	A1580HPE - SYx527 H.V. +8 KV 20 µA (50pA res) Individual Enable - Multipin Conn. comm float (16 ch)
WA1580HDNEAA	A1580HDNE - SYx527 H.V. -8 KV 20 µA (50pA res) Individual Enable - SHV Conn. common floating (8 ch)
WA1580HDPEAA	A1580HDPE - SYx527 H.V. +8 KV 20 µA (50pA res) Individual Enable - SHV Conn. common floating (8 ch)
WA1580HDMEAA	A1580HDME - SYx527 H.V. (4ch +8KV 20µA, 4ch -8KV 20µA) (50pA res) Ind EN - SHV Conn. comm float

Small details
Great differences

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Printed in March 2016 - ADOCUME00110 - BF3261- rev06

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