This series of application notes explains the key features and benefits of GENESYS+™ programmable power supplies.

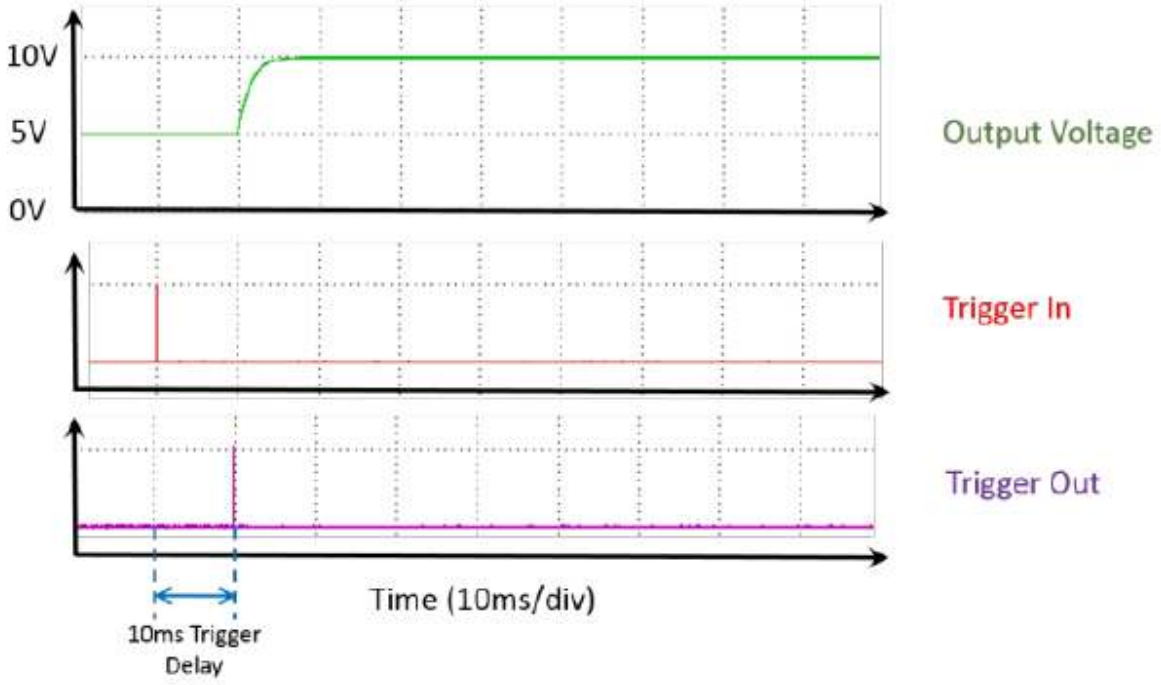
How does the trigger function work on the GENESYS+?

The GENESYS+ series of programmable power supplies features new trigger functions to allow the user to initiate either single or multiple actions or send a signal to indicate that an action has been completed.

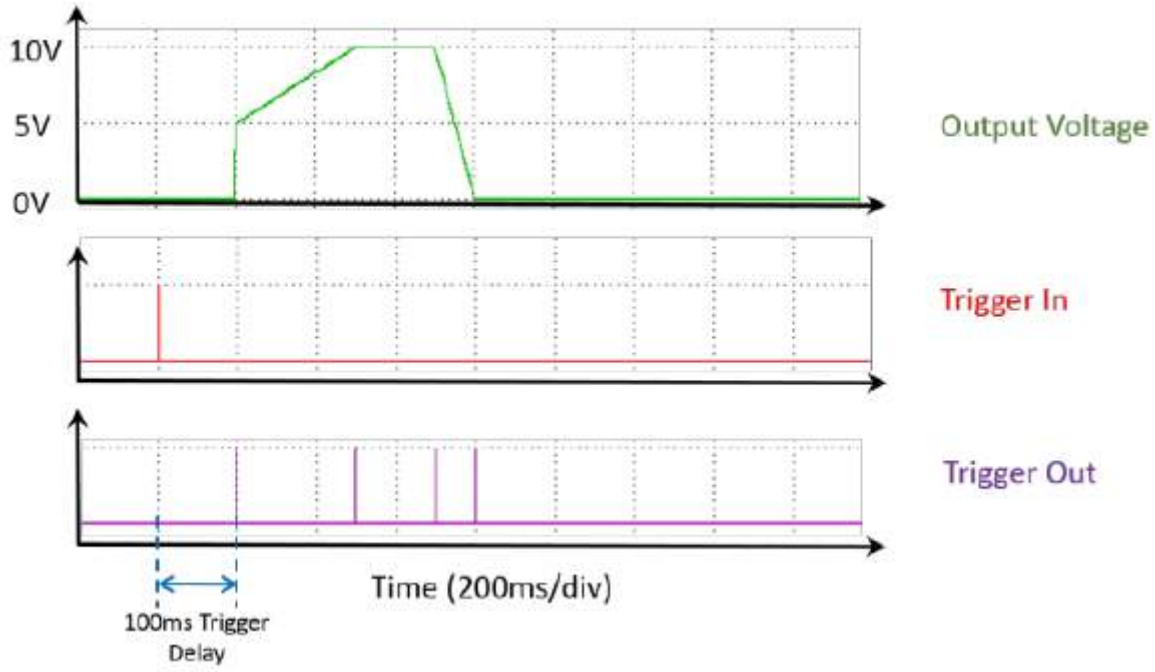
Two trigger signals are available; Trigger In and Trigger Out. These signals can be used to synchronise the GENESYS+ with other equipment in the system or with another programmable power supply. This function can be used in Constant Voltage or Constant Current mode.

Upon receipt of a Trigger In signal, the output will turn on and start any pre-programmed sequence. A delayed start parameter can be programmed from 0 to 10 seconds. A trigger can be generated from the communication interface by pressing the output current adjustment encoder or by an analogue signal. A Trigger Out signal can be generated when the output status changes, when the programmed output voltage or current changes, or when a pre-set program sequence is completed. In “Function Strobe” mode, a trigger pulse is generated at every step in the program.

Example 1, Fixed Mode: The GENESYS+ output voltage is initially set to 5 V, and is programmed to rise to 10 V, 10 ms after receipt of a Trigger In signal. The Trigger Out signal is sent when the output voltage programming instruction occurs.



Example 2, Wave Mode (Strobe): The GENESYS+ output voltage is initially set to 0 V, and is programmed to rise to 5 V, 100 ms after receipt of a Trigger In signal, then rising gradually to 10 V over 300 ms. After 100 ms, the output is programmed to decrease linearly to 0 V over 100 ms. The Trigger Out signal is programmed to be sent when any output programming voltage instruction occurs and when the sequence has finished.



GENESYS™

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