

## SEM1750 Diagnostic Tools

### Fixed outputs.

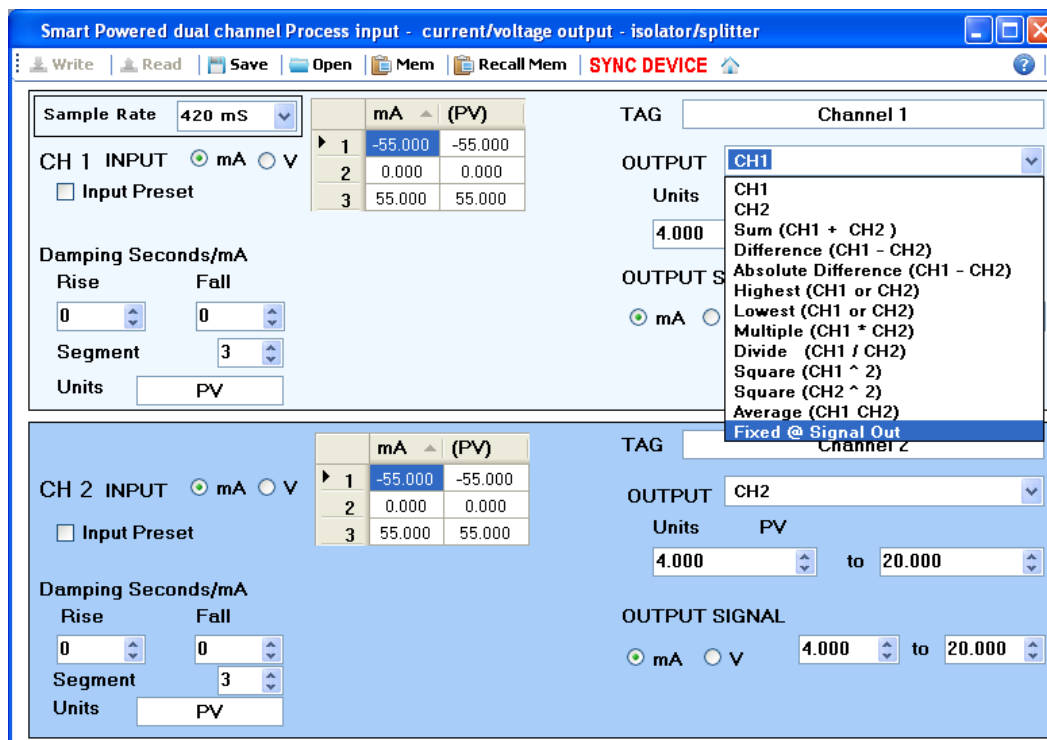
It can be desirable with any process control system to test the system to prove correct response and the behaviour of equipment. This may involve the use of expensive calibration or signal simulation equipment.

The SEM1750 can be used to provide two outputs of between (0 to 20) mA or (0 to 10) V for test purposes.

The two output channels of the SEM1750 can be selected independently and can be set to any value within the output range specification.

Using the USB SpeedLink software the values can be changed as many times as needed to complete the tests required. The output signal levels will be within the quoted accuracy levels as given in the data sheet.

Using the channel 1 or channel 2 output selection dropdown box select “Fixed @ Signal Out”



**Z1463-01-01 SEM1750 Fixed Output diagnostic tool**

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The example configuration below is showing a 12 mA signal being output from channel 1 and 7.5 V signal being output from channel 2

The screenshot shows the 'Smart Powered dual channel Process input - current/voltage output - isolator/splitter' software interface. It is divided into two main sections for Channel 1 and Channel 2.

**Channel 1 Configuration:**

- Sample Rate: 420 mS
- CH 1 INPUT: mA (selected), V
- Input Preset:
- Table:
 

	mA	(PV)
1	-55.000	-55.000
2	0.000	0.000
3	55.000	55.000
- OUTPUT: Fixed @ Signal Out
- OUTPUT SIGNAL: mA (selected), V, 12.000
- Units: PV

**Channel 2 Configuration:**

- CH 2 INPUT: mA, V (selected)
- Input Preset:
- Table:
 

	mA	(PV)
1	-55.000	-55.000
2	0.000	0.000
3	55.000	55.000
- OUTPUT: Fixed @ Signal Out
- OUTPUT SIGNAL: mA, V (selected), 7.500
- Enter Voltage O/p Load in K $\Omega$ : 1000
- Units: PV

On the right side, there are two vertical panels for signal monitoring: 'Input Signal' and 'Output Signal'. The 'Output Signal' panel for Channel 2 shows 'Process Out' and '% Output' as active.

Connecting to the relevant output pins, see the user guide, the SEM1750 will now give the set output levels until the configuration is changed even if the unit is switched off then re powered.

*Note: It is possible to feed the fixed output from one channel into the input of the other channel to confirm the input to output response of a channels configuration, see the instruction on using the "Input preset" tool as well.*

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