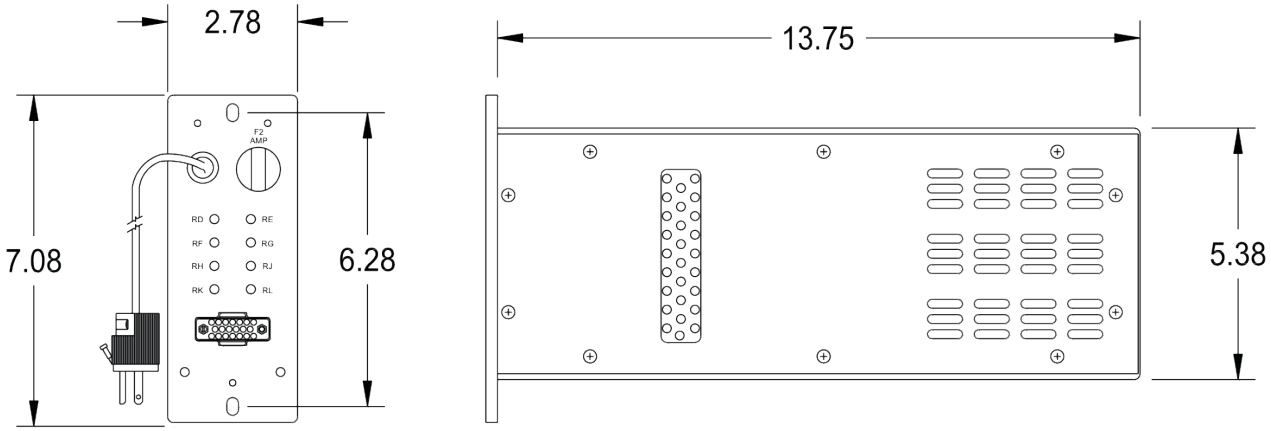
SGU501 Static Gain Unit

The SGU501 Static Gain Unit and Function Generator replaces various versions of the obsolete Foxboro static gain unit, and can perform user-selectable gull wing functions in response to changes in input signals.

The SGU501 is a rack-mounted, solid-state instrument with linear integrated circuits.It can generate two types of curves; a normal gull wing, and an inverted gull wing. The curves generated by this function generator are optimized for negative and positive bias applications.

SGU501



SPECIFICATIONS

Accuracy:	±0.5% of Output full scale, repeatable to 0.1%
Linearity:	Better that 0.1% of full scale
Dielectric Withstand:	3000 Vdc and 1000 Vac (RMS) from input to output
	1000 Vac and 1000 Vdc (RMS) from input to case
Credible Live Fault:	480 Vac, 140 Vdc at 20 A
Surge Withstand:	No damage when the waveform of IEEE-472-1974 is applied to any port.
Electrical Qualification:	Plant protection, qualified to IEEE 323-174/1983 and IEEE 344-1975/1987
Ambient Temperature:	35 °F to 122 °F (2 °C to 50 °C) (normal operations)
	35 °F to 135 °F (2 °C to 57 °C) (abnormal operation for 170 hours)
	–40 °F to 185 °F (–40 °C to 85 °C) (storage)
Relative Humidity:	0% RH to 95% RH, non-condensing
Pressure:	Atmospheric
Radiation Limits:	10^4 rad TID gamma

NUSI 500 Series

Static Gain Unit & Function Generator

HOW TO ORDER

The model number and configuration typically should be specified as follows:
SGU500 = unit with 1 input and 8 front pots
SGU501 = unit with 2 inputs and 8 front pots
Example: SGU501-01/00/00-01-08

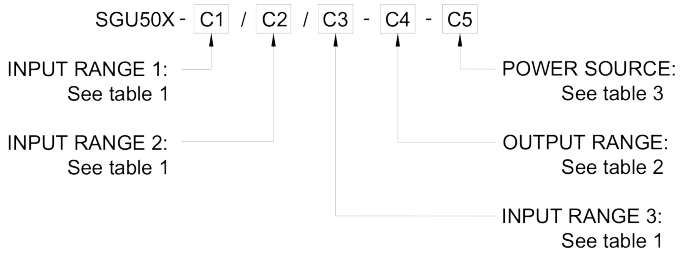


Table 1 — Input Range

Code	Input Range	Impedance Ω
00	Not Loaded	
01	0 to 100 mVdc	100 M
02	0 to 51 mVdc	100 M
03	0 to 1 Vdc	100 M
04	0 to 5 Vdc	100 M
05	1 to 5 Vdc	5.2 M
06	0 to 10 Vdc	400 k
07	4 to 20 mA dc	249
08	10 to 50 mA dc	100
09	0 to 1 mA dc	50
10	0 to 132 Vac	3.4 M
11	0 to 20 mA dc	249
12	0 to 50 mA dc	100
13	50 to 10 mA dc	100
14	Variable	1 M
15	0 to 8 Vdc	428 k
16	–10 to 10 Vdc	3.7 M
17	–2 to 15 Vdc	2.4 M
18	5 to 1 Vdc	100 M
19	3.6 to 11.6 Vdc	477 k
20	2 to 10 Vdc	427 k
21	–2 to 2 Vdc	3.5 M
22	–20 to 20 mA dc	249
23	N/A	
24	1 to 2 Vdc	3.2 M
25	0 to 4 Vdc	100 M
26	10 to 32.4 mA dc	200
27	4 to 10 mA dc	475
28	0 to 10 V (Hi-Z)	1013
29	0 to 120 Vdc	2.5 M
30	Group 1 Selectable	Varies
31	2, 4 or 10 Vdc	Varies
32	0 to 2 Vdc	100 M
33	0 to 3.45 Vdc	100 M
34	1.08 to 5.4 Vdc	5.2 M

Table 2 — Output Range

Code	Output Range	Impedance Ω
00	Not Loaded	
01	0 to 100 mVdc	32.9
02	0 to 51 mVdc	17.3
03	0 to 1 Vdc	299
04	0 to 5 Vdc	825
05	1 to 5 Vdc	825
06	0 to 10 Vdc	1000
07	4 to 20 mA dc	1050 *
08	10 to 50 mA dc	600 *
09	0 to 180 mA dc	59.3
10	0 to 3.5 Vac	825
11	0 to 20 mA dc	1050 *
12	0 to 50 mA dc	600 *
13	1 to 5 Vdc	249
14	10 to 44.29 mA dc	660 *
15	N/A	
16	0 to 1 mA dc	30 k *
17	4 to 22.49 mA dc	1050 *
18	10 to 56.22 mA dc	550 *

Table 3 — Power Source

Code	Power
00	Not Loaded
01	±15 ±1 Vdc
02	28 ±2 Vdc
03	5 ±0.25 Vdc
04	12 ±1 Vdc
05	15 ±1 Vdc
06	24 ±2 Vdc
07	48 ±2 Vdc
08	85 to 132 Vac, 125 Vdc

CONTACT INFORMATION: Curtiss-Wright Nuclear Division / I&C Products
1350 Whitewater Drive, Idaho Falls, ID, 83402 T: (208) 497.3333