

MODEL : ST-AM120 _____
DYNAMIC STRAIN AMPLIFIER

취급 설명서

SENSTECH CO.,LTD.

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1. 개요

본 제품은 방수형 Strain Amplifier로서 아래의 사양 및 특성을 갖습니다.

- 다단 Filter 내장 및 Filter-Enable, Disable 기능
- 영점 조정은 Volume 조절 방식
- Dip Switch로 기능 조절

2. 사양

- ① 측정 점수
: 1CH / EA
- ② 사용 Gauge
: 350 Ω (Bridge voltage 10V), 120 Ω (Bridge voltage 5V)
- ③ Bridge전압
: 정전압 DC 5V, 10V(Dip switch 선택)
- ④ 측정범위 :
5V -> 0 ~ 2000 μ strain
10V -> 0 ~ 4000 μ strain
- ⑤ 0점 조정 범위
: ± 10 % F.S
- ⑥ 감도 조정 범위
: ± 10 %
- ⑦ 감도
: 10 μ strain
- ⑧ 출력
: DC 0 ~ 10V or 4~20mA
- ⑨ 비직선성
: 0.02% F.S
- ⑩ 응답주파수 특성
: DC~20kHz(-3dB)
- ⑪ Low Pass Filter
: 10Hz, 100Hz, 1kHz, PASS
- ⑫ 사용온도 범위
: -10 ~ +60 $^{\circ}$ C

⑬ 온도 Drift

: 영점이동 $\rightarrow \pm 1 \mu\text{strain}/^\circ\text{C}$ 이내

감도변화 $\rightarrow \pm 0.05\% \text{ F.S.}/^\circ\text{C}$ 이내

⑭ 전원

: DC 24V

⑮ CABLE GRAND

: CABLE $\Phi 7$ 이하

3. 사용법

① Filter 조절 (ON = 1, OFF = 0)

DIP SWITCH	10Hz	100Hz	1kHz	PASS
SW8	1	0	0	0
SW7	0	1	0	0
SW6	0	0	1	0

② Bridge Voltage 조절 (ON = 1, OFF = 0)

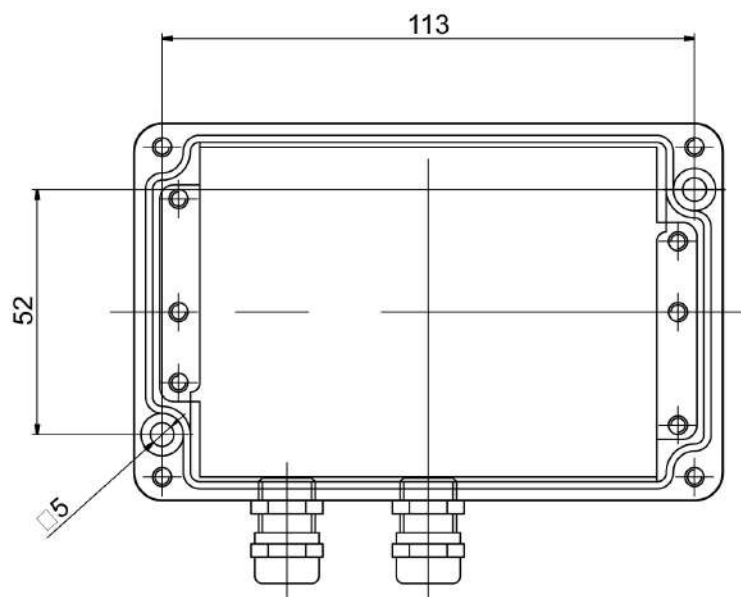
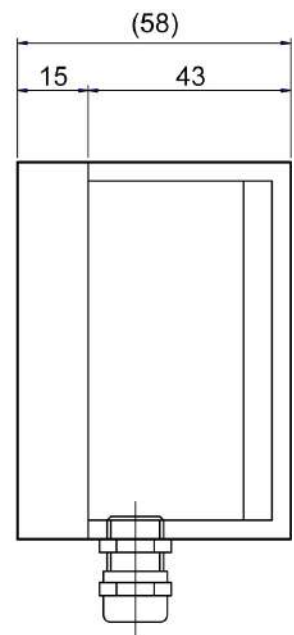
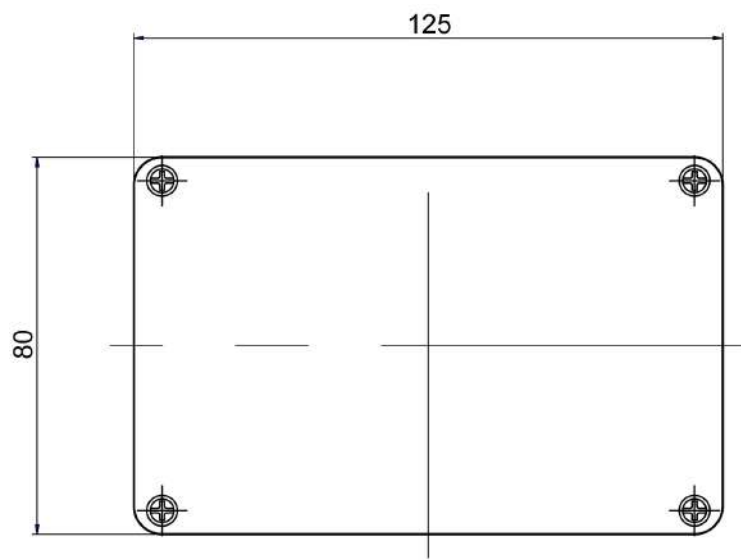
DIP SWITCH	10V	5V
SW6	1	0

③ Gain 조절 (ON = 1, OFF = 0)

DIP SWITCH	X1	X100	X200	X300	X400	X500	X600	X700
SW1(X100)	0	1	0	1	0	1	0	1
SW2(X200)	0	0	1	1	0	0	1	1
SW3(X400)	0	0	0	0	1	1	1	1
SW4(X800)	0	0	0	0	0	0	0	0

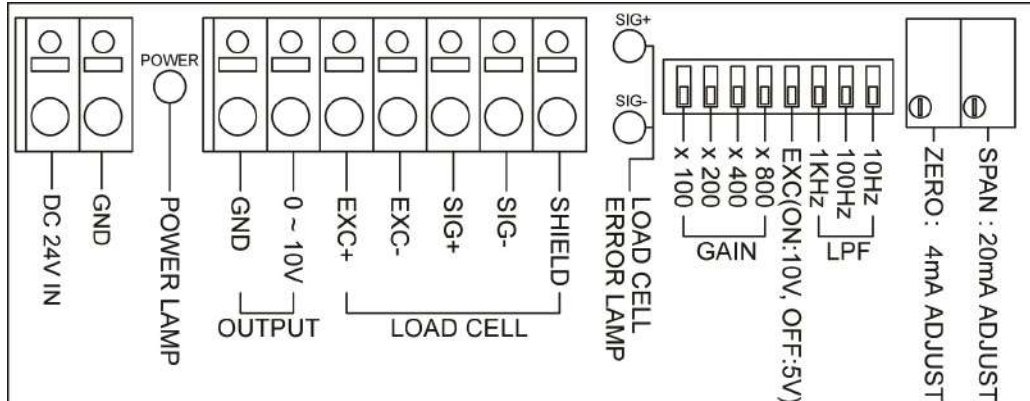
DIP SWITCH	X800	X900	X1000	X1100	X1200	X1300	X1400	X1500
SW1(X100)	0	1	0	1	0	1	0	1
SW2(X200)	0	0	1	1	0	0	1	1
SW3(X400)	0	0	0	0	1	1	1	1
SW4(X800)	1	1	1	1	1	1	1	1

4. 외형 및 치수



5. 단자대 및 GAIN 설정표

① 전압 출력 (DC 0 ~ 10V)

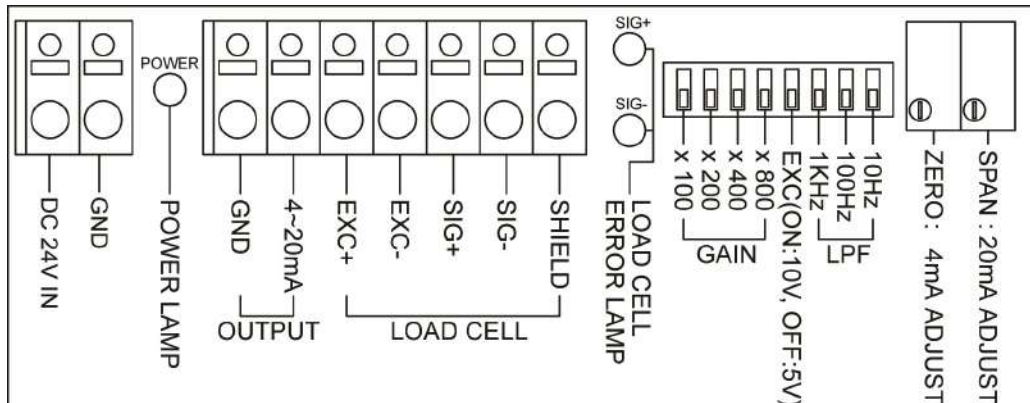


GAIN = 8V / (R.O x EXC)			
EXC	R.O	RESULT	GAIN
5V	1.0mV/V	1600	X
	1.5mV/V	1067	1100
	2.0mV/V	800	800
	3.0mV/V	533	600
10V	1.0mV/V	800	800
	1.5mV/V	533	600
	2.0mV/V	400	400
	3.0mV/V	267	300

DIP SWITCH				GAIN
x100	x200	x400	x800	
X	X	X	X	1
O	X	X	X	100
X	O	X	X	200
O	O	X	X	300
X	X	O	X	400
O	X	O	X	500
X	O	O	X	600
O	O	O	X	700

DIP SWITCH				GAIN
x100	x200	x400	x800	
X	X	X	O	800
O	X	X	O	900
X	O	X	O	1000
O	O	X	O	1100
X	X	O	O	1200
O	X	O	O	1300
X	O	O	O	1400
O	O	O	O	1500

② 전류 출력 (DC 4 ~ 20mA)



GAIN = 8V / (R.O x EXC)			
EXC	R.O	RESULT	GAIN
5V	1.0mV/V	1600	X
	1.5mV/V	1067	1100
	2.0mV/V	800	800
	3.0mV/V	533	600
10V	1.0mV/V	800	800
	1.5mV/V	533	600
	2.0mV/V	400	400
	3.0mV/V	267	300

DIP SWITCH				GAIN
x100	x200	x400	x800	
X	X	X	X	1
O	X	X	X	100
X	O	X	X	200
O	O	X	X	300
X	X	O	X	400
O	X	O	X	500
X	O	O	X	600
O	O	O	X	700

DIP SWITCH				GAIN
x100	x200	x400	x800	
X	X	X	O	800
O	X	X	O	900
X	O	X	O	1000
O	O	X	O	1100
X	X	O	O	1200
O	X	O	O	1300
X	O	O	O	1400
O	O	O	O	1500