Voltage amplifier

Specification

Model	VA 10
Output voltage	DC 12V
Min. amplified voltage	DC 3.3V
Max. resistance	60 Ω
Operating temperature	-20~70℃
Connect type	Serial connecting terminal type
Access line	1 : +Volt 2 : Ground 3~6 : Jumper line
Case material	Aluminum diecasting case
Waterproof	IP 68
Dimension	125×80×60㎜

Description

Model **VA10** voltage amplifier is designed for recovering DC voltage drop by increased resistances that are increased by thickness and length.

The output voltage of the voltage amplifier is usually used DC 12V. In case of increasing in the resistance of DC voltage sensor cable, it will be occurred the voltage drop and then, it lead to a reduced voltage. For long distance transmission without voltage drop, it is required to install the voltage amplifier at every each 500m.

It is useful at dams or slopes which are used extended cable, and it can be solved for the voltage drop in the analog-based sensor output value in accordance with the problem of the supply voltage drop.

Features

- Supplement of voltage drop according to the cable length and resistance
- Amplification of DC 12V power input voltage
- Included ground protection circuit
- Applied sealed case. (It can be used as an external installation)

Applications

- Input power amplification according to cable extension of analog sensor that is installed on the dam, bridge, and pier.
- Input power amplification according to cable extension of analog sensor that is installed on the other sites.

[Max. length of the cable specifications]

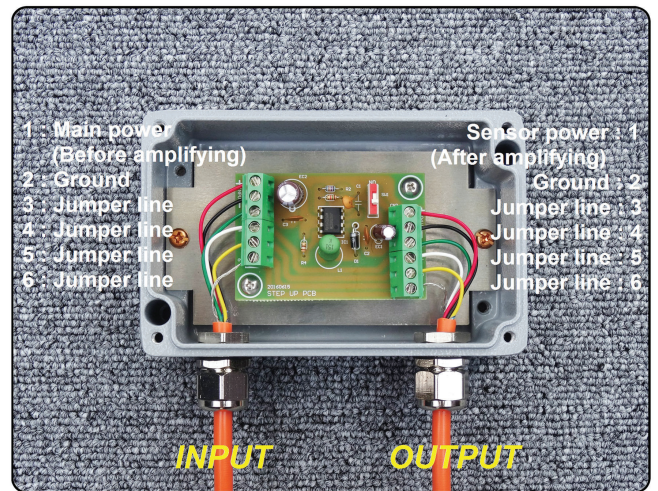| AWG	The cross-sectional area (㎟)	Max. length	Cable resistance
25	1.00	3500m	16 Ω/㎞
23	0.80	2800m	21 Ω/㎞
22	0.50	1800m	33 Ω/㎞
20	0.32	1100m	53 Ω/㎞
18	0.26	880m	67 Ω/㎞
17	0.16	550m	106 Ω/㎞

- This resistance can be different depending on the cable manufacturer. Therefore, it should be consider the different resistance when defined the length of cable.

1 : Main power (Before amplifying)
2 : Ground
3 : Jumper line
4 : Jumper line
5 : Jumper line
6 : Jumper line

Sensor power : 1 (After amplifying)
Ground : 2
Jumper line : 3
Jumper line : 4
Jumper line : 5
Jumper line : 6

INPUT   OUTPUT

[Sensor connection of Model VA10]

• Tel : 82-31-459-8753/7   • Fax : 82-31-459-8758
• Website : www.aceinstrument.com / www.aceco.kr   • E-mail : acens@naver.com

ACE INSTRUMENT CO., LTD.
The first value in the Geotechnical & Structural Instrumentation