Quick Guide for Direct Current Measurement

This is a quick guide for how to measure direct current with a shunt resistor using SYL-2813 automobile gauge. This gauge SYL-2813 can read 0-10mA, 0-20mA, and 4-20mA signal directly on Channel2. However, if add a shunt resistor, users can measure current that is out of these ranges, or measure the current on Channel1.

A. Wiring and Setting

1) Wiring the gauge and shunt resistor as shown in Figure 1. The shunt used in this example has 50Amp maximum current, and rated with 75mV output voltage.

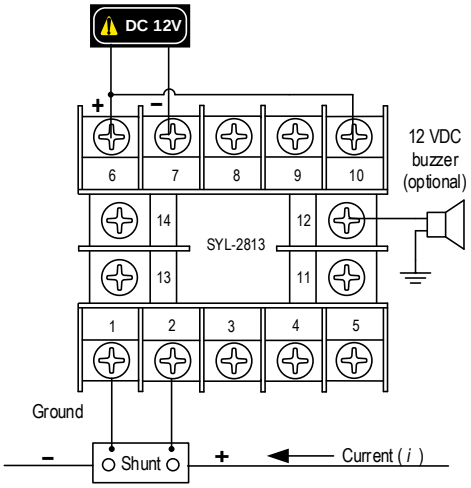

Figure 1. A wiring diagram of measuring direct current with a shunt resistor on Channel1 of a SYL-2813.

2) To set the parameters for displaying the current with 0.1A resolution., a) enter the Basic Parameter Setting Mode using code 0089; b) then set input type “Int1” to “75mV”; c) set the decimal point dot1 = 1; d) set PuL1 = 000.0 and PuH1 = 50.0. Please note that the PuH should be equal to the current rating of the shunt resistor, e.g. if a 30A shunt is used, set PuH=30.0.

3) To set the high alarm to be on at 45A and be off at 43mA, enter code 0001 and then set AH1 = 45 and AL1 = 43. The detail can be found in section D.3 of the instruction manual.