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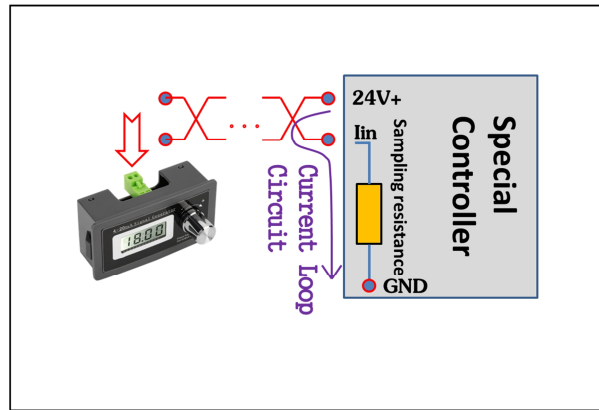
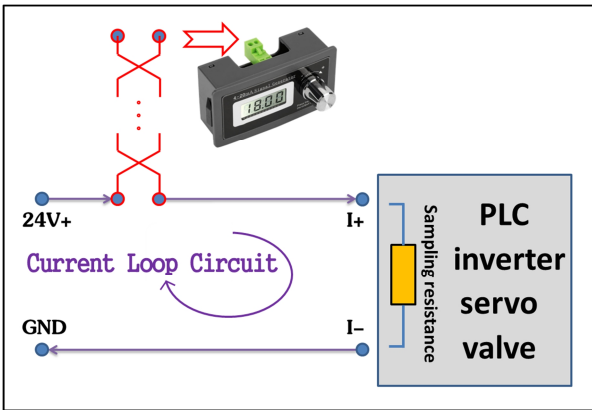
4-20mA Current Loop Signal Generator Manual

(Model :JS-420ISG-V2) First edition 2018.12

1 Specifications:

- 1.1 Power supply voltage: 15V-30V;
- 1.2 Output range: 4-20mA/3-21mA;
- 1.3 Display mode: Real Current / 0-100.0%/ 0-50.0Hz;
- 1.4 Sampling resistance: Less than 500 ohms;
- 1.5 Output accuracy: $\pm 0.5\%$; Display accuracy: 0.01;

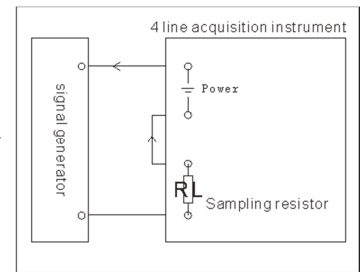
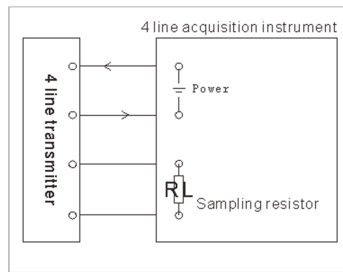
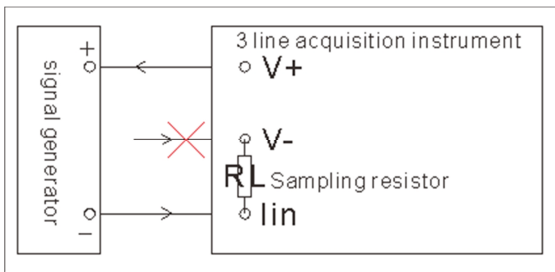
2 Wiring diagram: (Working Principle of Current Loop):



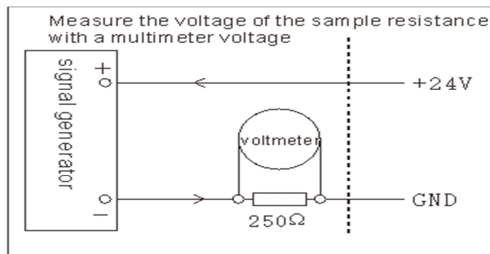
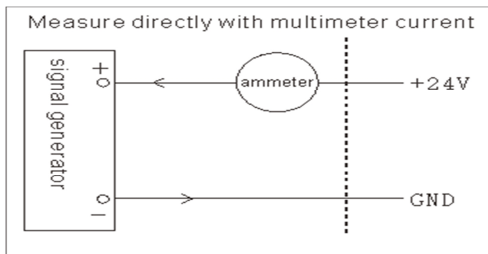
Input terminals are non-polarized;

The principle is to generate a current loop.

This signal generator uses 4-20mA to generate voltage and control the current in the circuit.



3 Simple Test Setup:



4 Dimension Diagram:

Dimension diagram

Cabinet Installation Needs Attention :

The instrument was stuffed in and stuck in both ears.

Panel thickness must be greater than 1.4mm.

Recommended opening size :77X40mm.

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5 System Operation:

5.1 **Parameter Settings:** (Rotate clockwise is “+” Rotate counter-clockwise is “-”, Press the knob to “Confirm”

5.1.1 Press and hold the knob for 2 seconds to enter the parameter setting, Display parameter number “F001”, Then press “ Confirm ”,

to Set the value of "F001", =0 is coarse tuning; =1 Fine tuning; Then press " Confirm " to save its value ;

5.1.2 When the parameter number "FXXX" is displayed, “#” Rotate to modify parameter number;

Enter the password first “+ - - +” To enter the F002 parameter; Enter the password first “+ - + -” To enter the F100 parameter; Enter the password first “- + - +” To enter the F200 parameter;

Parameter table 1: Entering F002-F007 (System Settings) requires a password “+ - - +” first

Index	Designation	Comments	Default
F001	Output mode	0: Coarse tuning mode, "F004" How many turns to rotate 1: Fine tuning mode, "F005" How many turns to rotate 2: Quick Output (Many products only need to validate a few values and test quickly in production.) 3: Automatic Curve Output (Be used for aging products) (Mode2, 3 need to set parameters" F100" "F200" >0 first)	0
F002	Output range	0:4-20mA 1:3-21mA	0
F003	Display mode	0: Real Current 1: 0-100.0% 2: 0-50.0Hz	0
F004	Add and sub value for coarse tuning mode	1-50 Addition and subtraction for each pulse, No decimal point concept (1-50)×10	1
F005	Add and sub value for fine tuning mode	1-50 Addition and subtraction for each pulse, No decimal point concept (1-50)	1
F006	Automatic save of Adjustment value	0: Not automatically saved (Need to press " Confirm " to save) 1: Automatic save	0
F007	Calibration	-100 -- +100 (be cautious in revising, about 20mA±4mA)	

Parameter table 2: Entering F100... (Quick Output Settings) requires a password “+ - + -” first

Index	Designation	Comments	Default
F100	Number of Quick	0: Not Used 2-9: Point number	0
F101 ...109	Output value of 9 points	Range:3.00-21.00mA Must be“F100”>0	

Parameter table 3: Entering F200... (Curve Output Settings) requires a password “- + - +” first

(Each curve has 3 parameters, “FtXX” Run time “FAXX” Start current “FbXX” End current)

Index	Designation	Comments	Default
F200	Number of curves	0: Not Used 1-9: Segment number	0
Ft01	Section 1 Run time	0-999 sec. Must be“F200”>0	
FA01	Section 1 Start current	3.00-21.00mA	
Fb01	Section 1 End current	3.00-21.00mA	
Ft02	Section 2 Run time	0-999 sec.	
...	
Fb09	Section 9 End current	3.00-21.00mA	

5.1.3 Examples of Automatic Curve Output Setting:

