

LINEEYE

Current loop adapter

MODEL OP-1B

INSTRUCTION MANUAL

General Information

OP-1B is an adapter for monitoring and simulating current loop communication by LE-1100/LE-2100/LE-3100/LE-7000 (previous version of LINEEYE Protocol Analyzer) or LE-1200/LE-2200/LE-3200/LE-7200 (latest version of LINEEYE Protocol Analyzer).

Since the mark/space logic (polarity) based on the current ON/OFF of current loop communication can be by using a switch, it is possible to monitor or simulate various types of current communication. The type OP-1B is also capable of handling 60mA current loop.

Accessories

After unpacking, check the accessories listed below.

If there is any accessory missing, contact your dealer or our company.

- ◆ Adapter unit (OP-1B) -----1
- ◆ Interconnecting cable (LE26-OP) ----- 1
- ◆ Instruction manual (this manual) -----1
- ◆ User registration card -----1

Operating instructions

Preparation

Notes

Make sure to turn off the power of your analyzer before connecting.

- (1) Remove the interface attached to your analyzer and set SB- 20L instead. (unnecessary for the previous analyzers)
- (2) Connect 26-pin connector of OP-1B and an interconnecting cable.
- (3) Connect the interconnecting cable and the analyzer.
Connect with the port displayed TTL/COMS (for previous analyzers OPTION (TTL)) in the analyzer.
- (4) Set the communication conditions on the configuration screen in the analyzer. (Read the instruction manual for the analyzer also.)
- (5) Select a measuring port on the analyzer
Set the PORT to be "OPTION" on the interface screen in the analyzer. (for previous analyzer set the OPTION (TTL) PORT SELECT to be "OPT.")
- (6) Connect OP-1B with measuring circuit. Refer to the following "Connection for monitoring/simulation".

Connection for monitoring/simulation

Notes

Check the hardware specification of the terminal to be connected before connecting.

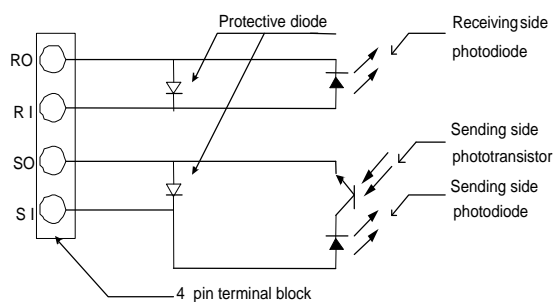


Fig.1 Circuit block diagram of the current loop side I/O block of the OP-1B.

(1)Monitoring operation (Fig.2)

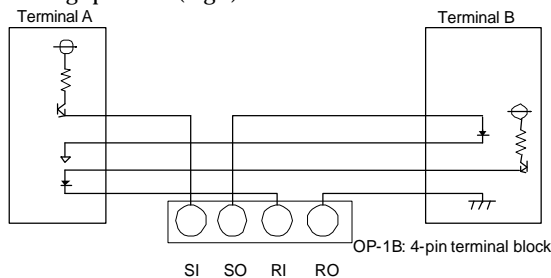


Fig.2 Connection for monitoring

Current loop communication between terminals A and B is monitored.

- ◆Two lines can be monitored.
- ◆Phototransistors on SI and SO sides are always ON.

(2)Simulation operation of simulation (Fig.3)

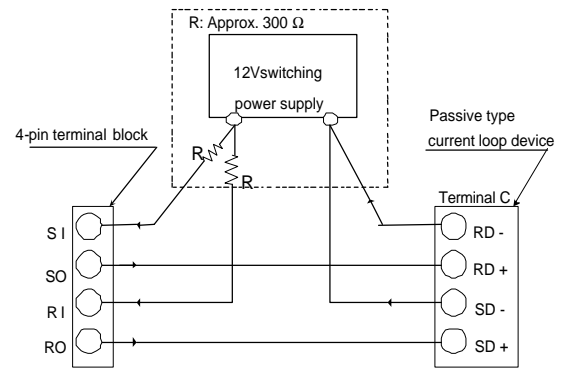


Fig.3 Connection for simulation

Signals (current) are supplied by ON/OFF operations of the phototransistors on the SI and SO sides of the OP-1B.

Notes

- ◆The OP-1B cannot supply current for the current loop circuit. Because the OP-1B is a passive type device. If the circuit dose not contain a current source a suitable DC current must be supplied from an external circuit (shown by dotted Fig.3).
- ◆If the terminal C is an active type current loop device, check the hardware carefully connecting.

Logical switching of the Input Signal (CURRENT SW)

It is possible to change over the logic of the signal by adjusting the slide switch at the side of the 26-pin connector.

	NOR.(factory setting)	INV.
Current ON	Mark	Space
Current OFF	Space	Mark

*When power is turned on to the analyzer, the LED lights as disconnecting on the current loop (4-pin terminal block) if CURRENT SW of OP-1B is INV.

Specifications

Speed	MAX.38,400bps (level of current loop must be 10mA or more)
Interface	Current loop (passive type)
Level of Current Loop	10 to 60mA
Communication Method	Half-duplex communication/ Full-duplex communication
Functions	Monitor/Simulation
Display	LED for SD, LED for RD
Switch	Polarity Switch Slide, Normal/Reverse
Connector	Current loop: 4pin terminal block. TTL: 26-pin connector
Power Supply	Supplies from the analyzer
Dimensions and Weight	60(W)x100(D)x20(H)mm, Approx. 180g
Applicable Analyzer	LE-1100/LE-2100/LE-3100/LE-7000 or LE-1200/LE-2200/LE-3200/LE-7200

Repair service

- ◆If the product fails to operate, please contact your dealer. For repair, the product must be returned to us.
- ◆We are not responsible for any damage, resulting from the use of our product.

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