SYSTEMBASE

BASSO-1010D2/ISO

User Manual

Revision History

1

Revision Date	Document Ver.	Pages Revised	Revised/Added/Removed	Details of Revision
2021.03.04	1.0	All	-	New

Contents

Please be sure to read this manual before using and use the product safely and accurately.

• Pictures and photos in the manual may be different from the physical, and the document is subject to change without notice to improve performance. For the last information, please visit our website (www.sysbas.com).

• To view frequently asked questions and answers, please visit our website and find Support -Technical Support -FAQ section.

• Documents can be downloaded from the product page or Download section.

• Sellers or users should be aware of the fact that this device is intended for industrial use(Class A), not for residential use.

• This device has a potential for radio interference during use and may receive harmful interference from other devices.

• Warranty policy is included in the product packaging.

• This product is domestic (Korea) and cannot be used overseas with different power/frequency.

1. Before Using

In factories or poor sites, noise or surges generated from outside and incoming along the communication lines frequently cause communication errors, and this continuous electrical shock poses the risk of damaging expensive equipment and facilities.

BASO-1010D2/ISO on the System Base is a product that provides high performance and reliability to maintain and utilize facilities and equipment by reducing failures or breakdowns through the built in protection against noise and surge incoming along the RS232 line.

- Communication Speed up to 921.6Kbps

- Industrial Grade Operating Temperature: -40 to 85℃(-40 to 185℉)

- Supports RS232 primary(DB9 Female) DCE mode and secondary(DB9 Male) DTE mode

- Built-in ±15kV, ±30kV ESD Protection

- Built-in primary 350W, secondary 300W Surge Protection

- ±3kVrms Digital Isolation

- Supports TXD, RXD, RTS, CTS signals

- No External Power Required via the primary side RS232 signal line

- Power Supply available through the primary side DB9 pin(5~12VDC)

What is Serial?

RS-232 is most simple and common equipment communication standard, established by the Electronic Industries Association(EIA). It supports only 1:1 communication and normally used in a communication distance within 100m. Due to its simplicity and economical feature, it has been used in many industrial sites so far.

RS-422 and RS-485 is the interface complements the shortcoming of RS-232. RS-422 and RS-485 with four or two signal lines support long communication distance up to 1.2km as they have a stronger response to noise. They also support multi-drop method, which enables communication in a more complex and extensive environment.

What is isolation?

Isolation is a function which converts electrical signals into other forms such as optical and converts them back into electrical signals for communication. This electrical insulation of the input/output signals protects the equipment from strong electrical shocks coming through the line generated by surges, external motors, actuators

and so on. When communicating with such expensive equipment, isolation function is necessary to protect the equipment at a low cost.

Digital isolation provides faster and greater reliability than traditional opto-isolation which is optical, with small size, high isolation performance and low power consumption.

2. Components

Box

BASSO-ISO

Components	Ordering Information
BASSO-1010D2/ISO, Product Warranty & Download Guide	BASSO-1010D2/ISO

3. Product

LED

PWR (Red): Illuminates when power is supplied.

RXD (Red): Flashes when RS-232 data is received.

TXD (Green): Flashes when RS-232 data is transmitted.

Connector

Serial Port(DB9 Female, Primary)   Serial Port(DB9 Male, Secondary)

Front:

Serial port(primary side): A serial port which is connected to RS-232 Male equipment and can communicate.

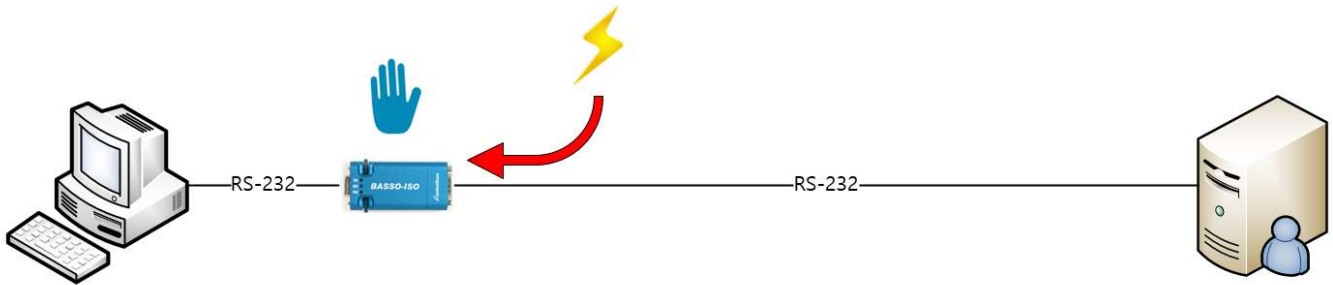(Please refer to APPENDIX for pin specifications)

Back:

Serial port(secondary side): A serial port which is connected to RS-232 Female equipment and can communicate.

(Please refer to APPENDIX for pin specifications)
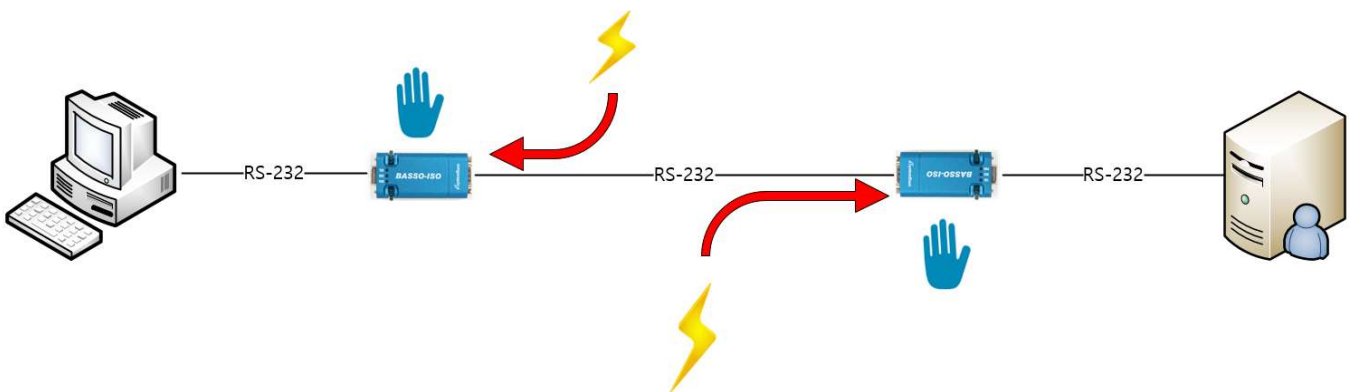
4. How to Use

1) RS-232 – BASSO-1010D2/ISO ------------- RS-232

By connecting BASSO-1010D2/ISO between RS-232 ports on a PC or equipment and serial equipment with RS-232 port, the connection between RS-232 ports is completely separated electrically, and protects against electrical shocks delivered through the RS-232 signal line.

2) RS-232 – BASSO-1010D2/ISO ----------BASSO-1010D2/ISO – RS-232

By connecting each BASSO-1010D2/ISO to RS-232 ports on PC or equipment and to serial equipment with RS-232 port, the connection between RS-232 ports is completely separated electrically twice, and protects each equipment against electrical shocks delivered through the RS-232 signal line.
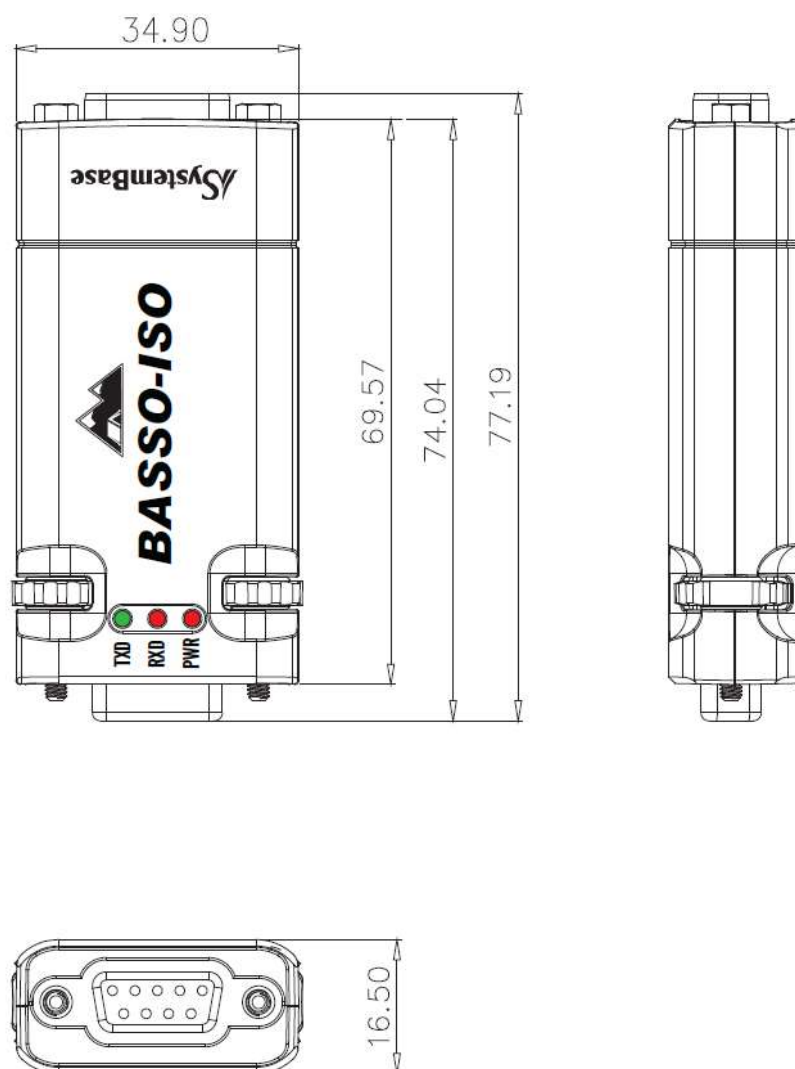

Class A equipment
Sellers or users should be aware of the fact that this device is intended for industrial use(Class A), not for residential use.
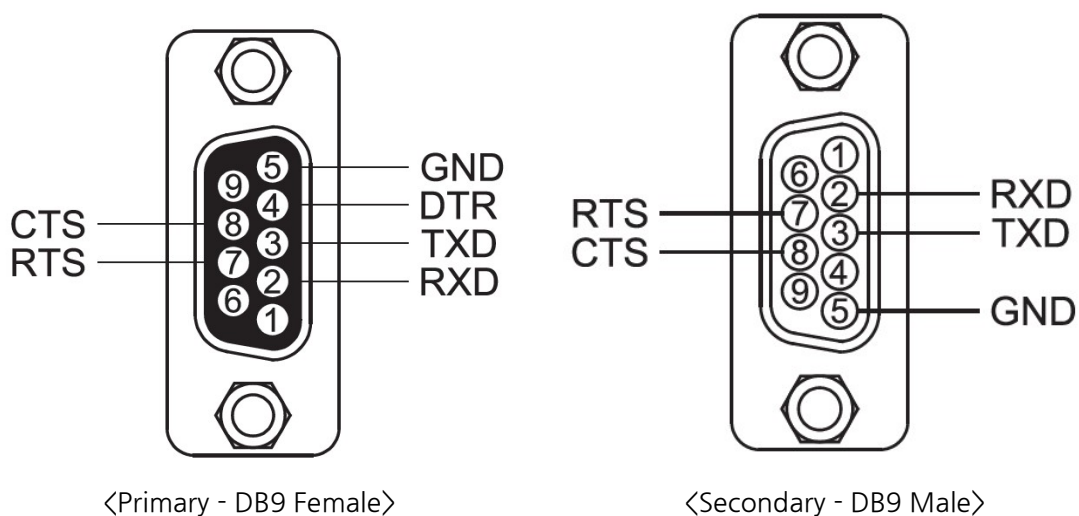
-----------------------------Appendix----------------------------

1. Dimension

34.90

69.57

74.04

77.19

16.50

(unit: mm)

2. Serial Port Pin Assignment

〈Primary - DB9 Female〉　　　　　　　〈Secondary - DB9 Male〉

Pin No.	RS-232 Primary DB9 Female	RS-232 Secondary DB9 Male
1	-	
2	RXD	RXD
3	TXD	TXD
4	DTR	-
5	GND	
6	-	-
7	RTS	RTS
8	CTS	CTS
9	PWR (Option: External Power 5~12V)	-

3. Specification

Serial	Standard	RS-232
	Serial Port	Primary: DCE(DB9 Female) Secondary: DTE(DB9 Male)
	Signals	TXD, RXD, RTS, CTS (DTR for Power source)
	Baud Rate	Max. 921.6kbps
Protection	ESD	Contact-Min: ±8kV Contact-Max: ±15kV Air-Min: ±15kV Air-Max: ±30kV
	Peak Pulse Current (tp = 8/20 μs)	Max. 12A
	Peak Pulse Power (tp = 8/20 μs)	Max. 350W
	Standards	IEC 61000-4-2 IEC 61000-4-4 IEC 61000-4-5
Hardware	Power Requirement	Default: No Power, Option: Pin no.9 (5~12V)
	LED	PWR(Red), RXD(Red), TXD(Green)
	Dimension (W x L x H)	34.9 x 77.4 x 16.5mm (1.37 x 3.05 x 0.65in)
	Weight	32.5g (1.15oz)
	Operating Temperature	-40 ~ 85℃ (-40 to 185℉)
	Storage Temperature	-40 ~ 85℃ (-40 to 185℉)
	Humidity	5~90% Non-condensing
Ordering information		Ordering Information

4. Certification

- **KC**

  Number: R-R-STB-BASSO1010D2

5. Copyright

www.sysbas.com

SYSTEMBASE

If you have any inconvenience while using the product, please contact us.

Email:

- Purchase/Quotation: overseas@sysbas.com

- Technical Support/RMA: tech@sysbas.com

www.sysbas.com

Tel: +82-2-855-0501

Fax: +82-2-855-0580

Working Hour

MON ~ FRI   9:00 ~ 18:00