LAN ISOLATOR
(Compact Type)
LNX-007L
User's Manual
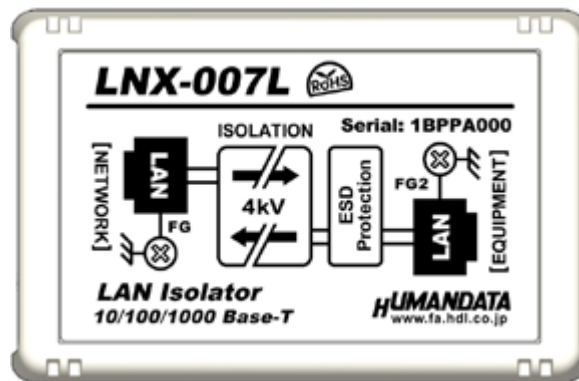## Ver. 1.0

HuMANDATA LTD.

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● Precautions

⊘ **Do Not**	1	This product uses ordinary off-the-shelf electronic components, and is therefore inappropriate for use in applications that require special quality or reliability and are expected to protect human lives or prevent accidents, such as safety mechanisms in fields including space, aeronautics, medicine, and nuclear power.
	2	Do not be used underwater or in high-humidity environments.
	3	Do not be used in the presence of corrosive gases, combustible gases, or other flammable gases.
	4	Do not turn on power when circuit board surface is in contact with other metal.
	5	Do not apply voltage higher than rated voltage.

⚠ **Attention**	6	This manual may be revised in the future without notice owing to improvements.
	7	All efforts have been made to produce the best manual possible, but if users notice an error or other problem, we ask that they notify us.
	8	Item 7 notwithstanding, HuMANDATA cannot be held liable for the consequences arising from use of this product.
	9	HuMANDATA cannot be held liable for consequences arising from using this product in a way different from the uses described herein, or from uses not shown herein.
	10	This manual, circuit diagrams, sample circuits, and other content may not be copied, reproduced, or distributed without permission.
	11	If the product emits smoke, catches fire, or becomes unusually hot, cut the power immediately.
	12	Do not install the control cables or communication cables together with the main circuit lines or power cables. In such an environment, it may result in malfunction due to noise.
	13	Be careful of static electricity.

● Revision History

Date	Revision	Description
December 3, 2018	v1.0	Initial release

● Introduction

Thank you very much for purchasing our product of LNX-007L.

LNX-007L is a compact LAN isolator which withstands high pressure and isolates between devices and network. Improvement of noise tolerance and protection of devices are expected by insulating.
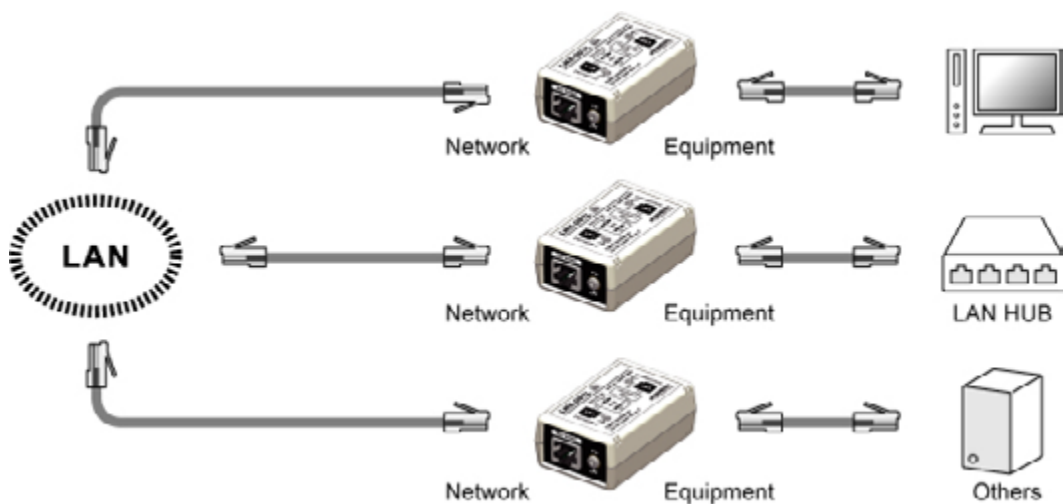
1. Specifications

Item	Description	Remarks
Model	LNX-007L	
Power	Not needed	
Network Interface	1000BASE-T, 100BASE-TX, 10BASE-T	PoE is not supported
LAN Connector	RJ45 x 2	ESD protection ±11KV (Equipment Side)
Isolation Protection	4000V	Designed value
Supports OS	OS-Independent (Not drivers required)	
Operating Ambient Temp.	-20 to 60 °C (-4 to 140 °F)	No condensation permitted
Operating Ambient Humi.	30 to 85 %RH	
Storage Ambient Temp.	-20 to 60 [°C] (-4 to 140 [°F])	
Storage Ambient Humi.	30 to 85 % RH	
Noise Tolerance	IEC61000-4-5 Serge Immunity	Internal isolation transmitter is based on IEC60950-1, IEC60601-1;2006
Weight	Approx. 50 [g]	Only main body
Dimensions	67 x 43.5 x 27 [mm] (2.638" x 1.713" x 1.063")	Without projections

1.1. Optional Accessories

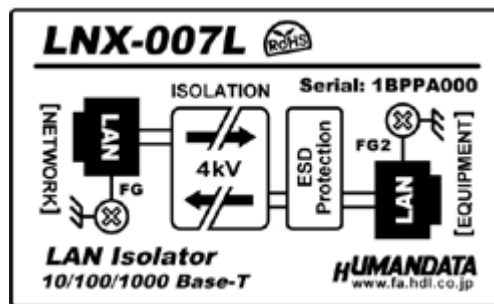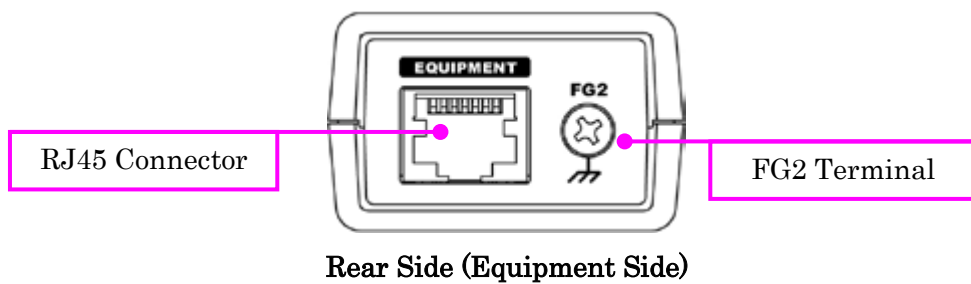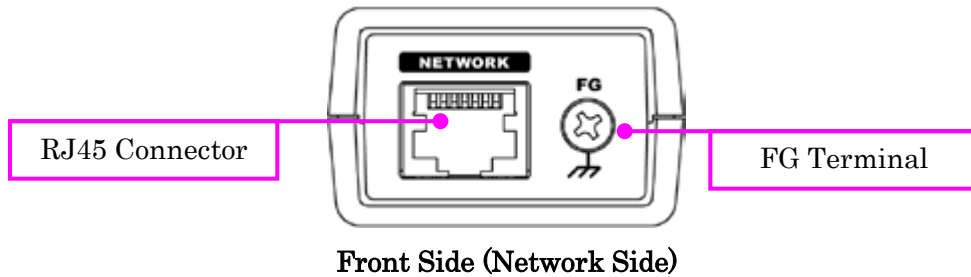| Model Name	Image	Description
PEN-003		USB series Attachment with clamping screw JAN : 4937920800709
PEN-003-DIN		USB series Attachment for 35mm DIN rail JAN : 4937920800716
PEN-003-MG		USB series Attachment with neodymium magnet JAN : 4937920801201

2. Product Summary

LNX-007L is a compact LAN isolator which withstands high pressure and isolates between devices and network. High-voltage insulating transmitter (4000V), ESD protection element and common mode filter for radiation noises are mounted. By insulating, it is expected that improvement of noise tolerance and protection of devices. And also, there are FG terminal at each side. That make it possible to ground both ends easily when using STP cable.

* PoE power supply is not supported.
* Please use a LAN cable having the performance of over category 5e which supports 1000BASE-T, 100BASE-TX, 10BASE-T.

3. Overview

Front Side (Network Side)

RJ45 Connector   FG Terminal

Rear Side (Equipment Side)

RJ45 Connector   FG2 Terminal

Block Diagram

3.1. FG Terminal

Please connect FG terminal with earth ground as necessary.

Connect with case body of host computer or earth terminal of table tap by using over 1.25mm^2 wire.

Adapted Crimp Terminal: R1.25-3.5(1.25-M3)

USB-007L (Ver.1.0)

4. Additional Documentation and User Support

The following documents and other supports are available at

https://www.hdl.co.jp/en/faspc/LNX/lnx-007L

- Manual
- Outline Drawing
  … and more.

5. Warranty and Compensation

Please refer to the following URL for the warranty.

https://www.fa.hdl.co.jp/en/fa-warranty.html

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