Z-LINK1-LO

869 MHZ RADIOMODEM WITH RS232/ RS485 INTERFACE AND LoRa TECHNOLOGY

Highlights

- **Remote plants monitoring**
- **Cabling costs reduction**
- **Configuration by DIPswitches or EASY SETUP software**
- **Operating bandwidth g3, annexed1 ERC 70-03 (869.4 MHz – 869.650 MHz)**
- **DSSS modulation**
- **Operating mode: bridge, remote I/O, I/O repeater, point-to-point, point-tomultipoint**
- **Transmission power 40 mW**
- **ModBUS RTU protocol support**
- **Physical layer LoRa technology**
- **RS232 / RS485 serial interfaces**
- **High immunity to radio interference**
- **Max distance covered:1 km**

Z-LINK1-LO is a 869 MHz radio device designed for remote communication operating in a transparent way with ModBUS RTU protocol and exploiting the physical layer of LoRa (Long Range) transmission technology.

Based on a UHF radio modem, Z-LINK1-LO enables communication between SENECA Z-PC Line I/O modules and generic ModBUS devices.

Z-LINK1-LO stands for make easier cabling of power and serial bus communication mounted in IEC 60715 DIN rail.

The module is easily configured throgh DIP-switches or PC software EASY SETUP. It also includes 2 serial ports (1 RS232, 1 RS485) and an isolation stage between communication and power up to 1.500 V.

Compliant with ETSI standards and AES128 data encryption, Z-LINK1-LO can operate in bridge, remote I/O, I/O repeater, point-to-point and point-to-multipoint communication mode.

LoRa technology allows the radio modem to achieve high coverage (up to 1 km), 40 mW transmission power, highest interference immnunity and sensitivity.

RG2i Groupe 2AR
Capter - Transmettre - Analyser
Interfaces pour l'informatique industrielle

SENECA
www.seneca.it

Z-LINK1-LO

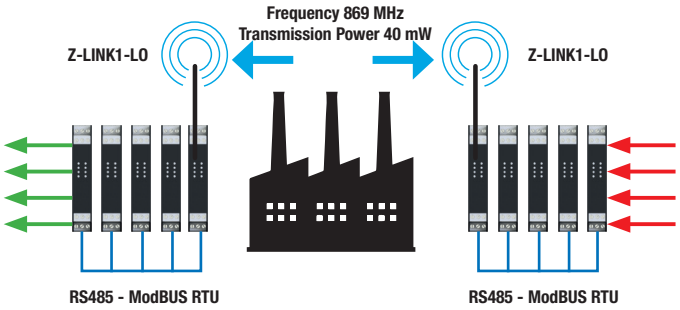
869 MHz Radiomodem with RS232/ RS485 interface and LoRa technology

TECHNICAL DATA

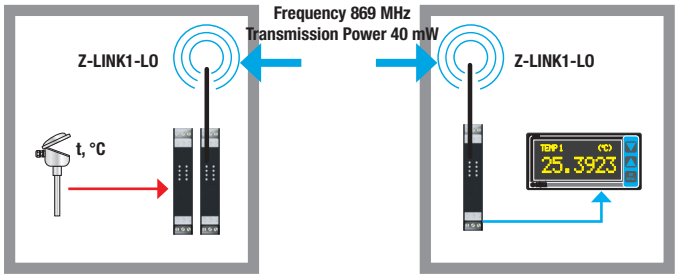
GENERAL DATA	
Power Supply	10..40 Vdc; 19..28 Vac
Consumption	1W @ 12 Vdc
Isolation	1.500 Vac
LED status indicators	Power Supply / Error / Rx/Tx Data
Operating Bandwdth	g3, annexed 1 ERC 70-03 (869.4 MHz – 869.650 MHz)
Modulation	DSSS
Coverage distance	1.000 m free field with BER<10-3 @ 9.6 kbaud (antenna in free space, 2 m height from the groundt)
Crypting	AES 128 bit
Antenna	ANT Mag (standard) SMA male , ANT-LINK1-MG (option)
Connectors	ANT Mag (standard) SMA male , ANT-LINK1-MG (option) RJ10 connector for RS232 serial port Jack stereo connector for programming Antenna connector Rear IDC10 connector for SENECA bus Removable 3-way screw terminals
Dimension	17,5 x 100 x 112 mm
Operating Tempeature	0..55°C
Weight	200 g
Case	PA6, black color
Protection Degree	IP20
Mounting	35 mm DIN rail (CEI IEN 60715)
Operating Mode	Point-to-point, Point-to-multipoint, I/O repeater, Bridge, Remote I/O
Programming	EASY SETUP, DIP-switch
COMMUNICATION	
Interface	N°1 RS232, N° 1 RS485
Protocol	ModBUS RTU
Physical Layer	LoRA
Data Rate	1.200…115.200 bps
Delay time	>250 ms
Timeout	Max value among configured timeout values
Nodes	32
Communication Mode	Half Duplex
Power Transmission	40 mW
STANDARD	
Approvals	CE, ETSI
Norms	ETSI EN 300 220-2 V2.1.2 (2007-06) ETSI EN 301 489-3 V1.4.1 (2002-08) CEI EN 61010 Radio and telecommunications terminal equipment directive 99/5/EC Electromagnetic compatibility directive 2004/108/EC Low Voltage equipment directive 2006/95/EC ERC REC 70-03

APPLICATION EXAMPLES

ANALOG SIGNAL CONVERSION AND RE-TRANSMISSION



«SHORT RANGE» SIGNAL REPETITION



ORDER CODES

Article Code	Description
Z-LINK1-LO	869 Mhz Radiomodem with RS232/RS485 interface and LoRa technology
CS-RJ10-DB9F	RS232 (RJ10 / DB9F) serial cable
Z-PC-DIN2-17.5	Power supply / data bus support for DIN rail, 2 slots, step 17.5 mm
Z-PC-DINAL2-17.5	Power supply / data bus support for DIN rail, head terminal + 2 slots, step 17.5mm
A-DIR-10-869	Directive external antenna, 10 elements, 824-960 MHz
A-DIR-6-869	Directive external antenna, 6 elements, 824-960 MHz
ANT-LINK1-MG	Dual Band external magnetic antenna
EASY SETUP	Programming software

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Interfaces pour l'informatique industrielle

14 rue Edouard Petit
F42000 Saint-Etienne
Tél: +33 (0) 477 92 03 56
Fax: +33 (0) 477 92 03 57

ATTENTION - NOUVELLE ADRESSE
14 rue Edouard Petit - 42000 Saint Etienne

Rémy GUÉDOT
Gsm: +33 (0) 662 80 65 57
guedot@rg2i.fr

Olivier BENAS
Gsm: +33 (0) 666 84 26 26
olivier.benas@rg2i.fr

www.rg2i.fr

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SENECA
Via Austria, 26 • 35127 Padova - (I) - Tel. +39 049 87.05.359
Fax +39 049 87.06.287 • www.seneca.it • info@seneca.it

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