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FIONet ™

Starbox LX2

Starbox LX2 is an innovative smart Linux based RTU, specifically designed for remote gas station control in harsh environmental conditions.

Starbox LX2 embodies the typical characteristics of a data logger with advanced multimedia features. In fact, it is a system where process control, multimedia capabilities, remote management and the internet are available and usable with identical operating standards and can be activated in a simple and intuitive way.

Remote multimedia and multi-access communication with operational centres

Remote connectivity can be supported by means of different technologies, such as GPRS, 3G, 4G, ADSL, Wireless Network and Radio Modem.
It can be easily connected to station PLC, local instrumentation and supervisors, as well as SCADA operational centres by means of a wide range of communication protocols.
Local connection possible through ETHERNET, RS232, RS485 and USB.

Embedded PLC

The integrated programmable controller allows the development of local control logics, for maximum flexibility and versatility of use.

Integrated multifunctional web server

It allows connection to the device through use of WEB browser for consultation of station live data and device configuration.

City gates

District stations

Features	Values
Analogue inputs (AI)	8 inputs, 16-bit resolution, configurable: 4-20 mA / 0-10 Vdc (with 2500 V galvanic isolation on request)
Digital inputs (DI)	16 inputs, 10-30 Vdc, configurable as status inputs or meter inputs, opto-isolated with 2500 V galvanic isolation
Analogue outputs (AO)	1 output, 16-bit resolution, 0-10 Vdc
Digital outputs (DO)	8 outputs, 10-30 Vdc, opto-isolated with 2500 V galvanic isolation
Expandability	Up to 320 DI, 128 DO, 64 AI, 32 AO via modular I/O systems
Communication vector	External Modem/Router, typical channels GSM/GPRS-LAN 4G/5G/wired (other communication technologies available upon request)
Registration No.	Modbus RTU/TCP Master/Slave, IEC 62056-2, IEC 60870-5-101, IEC 60870-5-104, Siemens S7
Local communication	1 Ethernet port, 1 Ethernet port (optional), 2 serial ports RS485/422, 1 configurable serial port RS232, 1 configurable serial port RS232/RS485, 1 USB port
Case	IP 20

Features	Values
HMI	LCD display touch screen (optional)
Power supply	10 – 30 Vdc
Typical absorption	1 - 4 W
Expandable memory	USB, SD CARD (on request)
Environmental conditions	from -20°C to + 80°C
Dimensions	165x150x55 (mm)

Table 1 Features

Features and Approvals

Features	Values
Automation	PLC EMBEDDED compliant with standard IEC 61131-3
User messages	SMS / email
Alarms	Warning and management of alarms and events generated by exceeding thresholds and/or reaching physical/logical states
Datalogging	Data acquisition and logging with the following features: Basic acquisition time: 1" Basic storage time: 5' - 1h Maximum number of variables that can be acquired: 10,000 Maximum number of samples stored: 6,000,000 Sample processing: instantaneous, min, max, average
Discovery Mode	Data acquisition with a frequency of 50 Hz for the detection of water hammer phenomena, with a time depth of 5 min
OPC connectivity	Supported via OPC SERVER
Configuration	Through the integrated WEB server or through the Rainbow Configurator SW
User Application	Using languages in a LINUX environment
Operating system	LINUX embedded

Table 2 Features and values

Starbox LX2 competitive advantages

Multimedia and multi-access connectivity

Modular and scalable I/O configuration

Extended programmability through Embedded PLC

Integrated functions for pressure regulation and energy efficiency

Low energy consumption

VPN-based encrypted communication