

PortBloque E

Ethernet Firewall with DPI on Modbus TCP/UDP

PortBloque E ("port block") is a specialized firewall designed to protect Modbus serial slaves from Internet threats and unauthorized activity. It combines firewall functions and Modbus TCP/UDP deep packet inspection (DPI) to filter and block harmful and unwanted Modbus traffic. The intuitive interface makes setup easy and provides detailed control over Modbus permissions. Operators can control Modbus traffic by slave IDs and function codes, and block a command that repeats too soon.

Additionally, operators can define a permissible range of slave registers and values to prevent malicious memory access. The inbuilt Modbus IP-serial converter enables a direct Internet connection for serial devices.



- DPI on Modbus TCP/UDP
- Access control list
- Stealth mode to hide network
- Highly customizable
- Modbus IP-serial conversion
- 1 RJ-45 Ethernet
- 1 DB9 serial slave (RS-232)
- 1 DB9 serial console (RS-232)
- Small size approx: 4 x 3 x 1 in

Technical Specifications

Firewall	Deep packet inspection on Modbus TCP/UDP: <ul style="list-style-type: none"> - Device IDs: single or group; including broadcast ID - Function codes: 1-8, 11, 12, 15-17, 20-24, 43 user-defined codes (4 total) - Registers - Values Bidirectional filtering Safeguard time between repeated commands Access control list Automatic stealth mode (hides Modbus ports) Source IP Protocol: TCP, UDP Port: standard, user-defined
Modbus IP-Serial Conversion	Ethernet: Modbus TCP/UDP Ethernet: Modbus RTU over TCP/UDP Ethernet: Modbus ASCII over TCP/UDP Serial: Modbus RTU/ASCII
Interfaces	Ethernet: RJ45 (10/100BaseT) Slave: DB9 male (RS-232) Console: DB9 female (RS-232)
Serial Signals	RS-232: Tx, Rx, RTS, CTS
Serial Topologies	Multi-drop (up to 31 slaves) Point-to-point
Data Rate	300 to 115.2 Kbps (async)
Web	Firewall-protected Login-protected: superuser and user levels Dashboard firewall metrics
Logging	Traffic and system (Syslog)
LED Indicators	Power, Link, Secure
Power	External 5VDC (2A) power supply
Physical	Enclosure: 18 gauge steel Weight: 1 lb Size: 4.17 x 3.12 x 1.1 inches (10.59 x 7.92 x 2.79 cm)
Operating Temperature	-40 to 75°C (-40 to 167°F)
Warranty	2 Years

Modbus Security Features

- Blocks function codes, registers, and values that you have not permitted to specific slave devices.
- Blocks a command that repeats too soon to protect slave devices.
- Blocks IP packets that are not expected (per origin, destination, protocol, and port).
- Ignores scans/probes from intruders to make the Modbus network virtually invisible to hackers.

