

ES-511 ETHERNET TO SERIAL DEVICE SERVER

Ethernet Industrial 1xRS232/422/485

CONNECT, CONFIGURE, CONTROL YOUR SERIAL DEVICES

Features

- 1 port Software Selectable as RS232, RS422/485 Full Duplex, or RS485 Half Duplex
- Max baud rate 1,000,000 (1 MegaBaud)
- 10/100Base TX Ethernet port
- User friendly interface, simple to use, powerful in operation
- Web configuration and RFC2217 compliant interface for non-Windows users
- IP-30 rated enclosure
- LED status indication
- Optional DIN rail mounting kit
- Serial Port Tunneling (individually configurable) allows serial cable replacement over any distance, no software required
- Simple operation for each and every operating system!



Description

Ethernet to Serial Device with 1 Port software selectable as RS232, RS422/485 Full duplex or RS422 Half duplex. ES-511 has removable Screw Terminals Blocks for easy wiring, a slim 'end on' case and integral DIN rail mount. Our Industrial Ethernet to Serial has an operating temperature range of -30 to +80 degrees Celsius and with +5VDC to +30VDC Dual input reverse polarity protected power supply making it perfect for industrial applications. Data transfer rates up to 1,000,000 baud, coupled with 1Mbit/s line drivers deliver uncompromising performance. Our Industrial ES range provides simple instant networked serial ports in demanding environments. Serial Port Tunneling allows serial cable replacement over any distance, no software required. Suitable to be wired into existing power and network infrastructure or can be used with our PW-600 power supply.

Windows Users - Our software drivers gives you local COM ports, allowing you to retain your existing software applications and connect to your devices over the network. COM Port can be assigned from COM1 to COM255 and the Brainboxes Ethernet to serial device remembers your COM Port assignment on reboots.

Web Interface Users (Linux/Apple OS/Android) - Alternatively access the device via TCP/IP socket from any networked device. Configure options via web interface.

Extend your reach! Remote serial devices with local control. With Brainboxes industry renowned Lifetime Warranty and Lifetime Support!

Example Application



Industrial PC



WWW

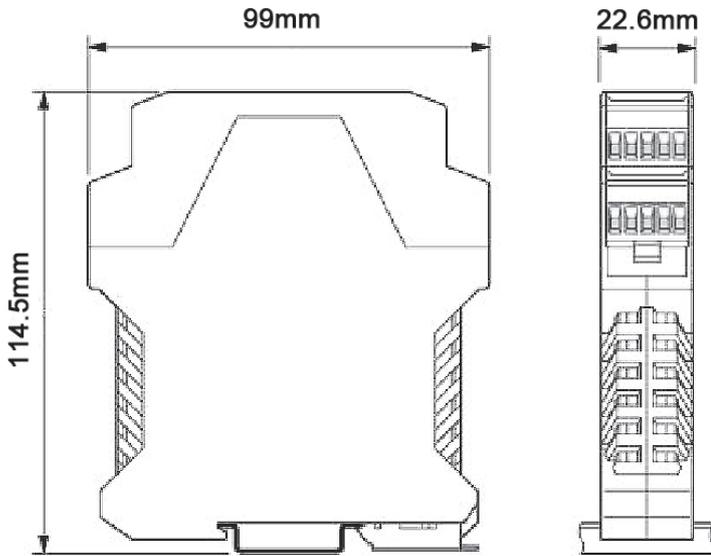


ES-511



CNC Machine(s)

Box Information



RS232	RS485 Half Duplex
Pin 1 TxD	Pin 1 Data-
Pin 2 RTS	Pin 2 Data+
Pin 3 RxD	Pin 3
Pin 4 CTS	Pin 4
Pin 5 Sig Gnd	Pin 5 Sig Gnd
RS422/RS485 Full Duplex	Power Input
Pin 1 TxD-	Pin 1 Power Gnd
Pin 2 TxD+	Pin 2 +Vin A
Pin 3 RxD+	Pin 3 +Vin B
Pin 4 RxD-	Pin 4 Power Gnd
Pin 5 Sig Gnd	Pin 5 Chassis Gnd

LED Information

Status LED	Green	Device Ready
	Flashing Yellow	Changing Settings
	Flashing between Red & Green	Querying IP
	Flashing Green/Red	User performing Hard Reset
	Flashing between Green & Red/Yellow	IP address diagnostic
	Flashing between Green & Yellow	Initialization diagnostic
Serial Port LEDs	Green light on	Port Open
	Flashing Green	Data RX / TX
Network LED	Green light on	Link Established
	Flashing Green	Data RX / TX

Port

Ports	1 port Software Selectable as RS232, RS422/485 Full Duplex, or RS485 Half Duplex
Connector	Removable Screw terminal block connector - 3.5 mm pitch
Power Input	Redundant DC Dual Power Inputs, reverse polarity protected +5 VDC to +30VDC
Power Consumption	1.4 Watt 60mA@24V typical - 2.9 Watt Max

Port Settings - Software Selectable as RS232, RS422/485 Full Duplex, or RS485 Half Duplex

Baud Rate	From 110 - 1,000,000 (1 MegaBaud)
Data Bits	5,6,7 or 8
Parity	Odd, Even, None, Mark or Space
Stop Bits	1, 1.5 or 2
Flow Control	XON/XOFF Software handshake or RTS/CTS hardware handshake
Tx/Rx Modes	<p>RS232 Standard: RS232 allows point to point communication between 2 devices.</p> <p>RS422 Standard: RS422 allows one transmitter and up to 10 receivers with data transmitter rates up to 10 megabits per second for distances up to 40 feet and up to 100 Kilobits per second for distances up to 4,000 feet (1219 metres).</p> <p>To achieve good long distance noise immunity, 2 wires are used to carry each signal, configured as a twisted pair of cables. The TXD pair and RXD pair are used to carry the data whilst the RTS pair and CTS pair lines are used for handshaking. Thus 2 twisted pairs are used without handshaking and 4 twisted pair cable is used with handshaking both these schemes allow full duplex data communications.</p> <p>RS485 Standard: RS485, based on the RS422 standard allows up to 32 driver/receivers pairs on a standard load or 128 low load devices per port can be connected. Whilst only one of these should be transmitting data at any time, the rest can all simultaneously listen to the data. Handshaking is performed by software protocol. Two twisted pairs form a full duplex system.</p> <p>Often only one twisted pair cable is used as the TXD and RXD lines are tied together; this is known as half duplex mode. Brainboxes RS422/485 products implement a state of the art hardware autogating circuit ensuring error free communications in half duplex configurations.</p>

Port Settings - Ethernet

Data Rate	10/100 Mega bits/second
Cabling	Normal / Crossover auto-sensing (Auto-MDIX)

Environmental

Operating Temperature	0 to 55°C
Storage Temperature	-20 to 85°C
Ambient Relative Humidity	5 to 95% (non-condensing)
Housing	IP-30 rated case

Software

Network Protocols	ICMP, IP, TCP, UDP, DHCP, BOOTP, Telnet, HTTP, RFC2217
Configuration Options	Windows Utility, Web Interface
OS Compatibility	Microsoft Windows 7 32 bit & 64 bit Editions / Windows Server 2008 32 bit & 64 bit Editions / Windows Server 2008 & Windows 2000 / Windows Vista 32 bit & 64 bit Editions / Windows Server 2003 32 bit & 64 bit Editions / Windows XP 32 bit & 64 bit Editions / Fully RFC2217 compliant / Interface for other OS's & Linux

Approvals

Industry Approvals	AEO (C-TPAT) Microsoft Certified Gold Partner WEEE RoHS METL EMC: CE FCC Compliant
Microsoft Approvals	Microsoft Certified Gold Partner
Microsoft Signed Drivers	Windows Server 2003 32 bit & 64 bit Editions Windows XP 32 bit & 64 bit editions



GB AEOF 00031/11



Packing Information

Packaging	Installation CD including manual, Microsoft signed drivers & utilities
Device	Ethernet Industrial 1xRS232/422/485
Accessory Items	Global Power Supply - PW-600 Integrated DIN rail clip
Packaged Weight	0.0202 kg, 0.04 pounds
Packaged Dims	14(l) x 15(w) x 4(h) mm, 0.55(l) x 0.59(w) x 0.16(h) inches

Product Support

Warranty	Lifetime - online registration required
Support	Lifetime Web, Email and Phone Support from fully qualified, friendly staff who work in and alongside the Product Development Team



Additional Information

OEM option	Available for bulk buy OEM
Made In	Manufactured in the UK by Brainboxes Winner 2005 European Electronics Industry Awards 'Manufacturer of the Year'
Customisable	Brainboxes operate a 'Perfect Fit Custom Design' policy for volume users. More info: sales@brainboxes.com

Accessory Items

ORDER CODE - Integrated DIN rail clip

ORDER CODE - Global Power Supply - PW-600



Brainboxes Ethernet to Serial Range