





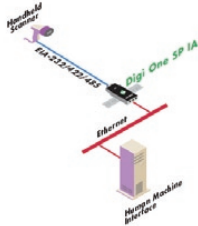



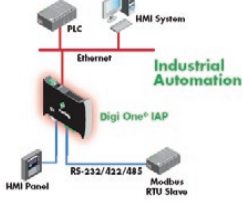


<p>Industrial Ethernet Real-Time Device Servers SIXNET</p>		<p>For applikationer som har brug for serial til ethernet forbindelse</p>
<p>EtherTRAK Ethernet to Modbus Gateway SIXNET</p>		<p>For applikationer hvor man skal forbinde en ModBus eller SIXNET RS232 til et Ethernet netværk eller en eller flere Modbus eller SIXNET RS485</p>
<p>Seriell fiber konverter GreenMatic</p>		<p>Seriell fiber konverter – Markedets eneste konverter der passer til alle snitflader.</p>
<p>Digi One SP</p>		
<p>Digi One SP1A</p>		
<p>Digi One IA</p>		
<p>Digi One IAP</p>		

For Applications Requiring Serial to Ethernet Connectivity

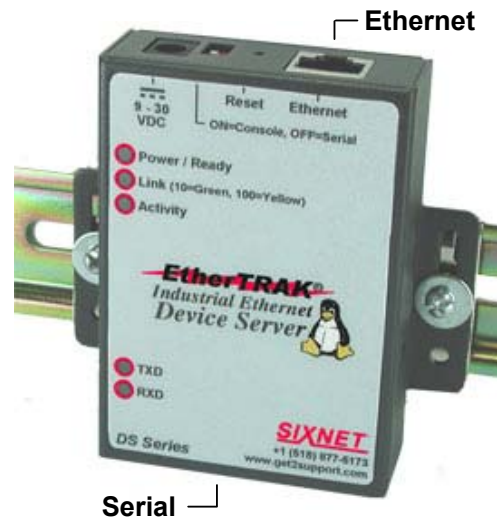
The SIXNET serial to Ethernet device servers are ideal for connecting your serial-based software applications over Ethernet to your remote serial devices. These high performance devices deliver a truly rugged solution in a very compact size. The DS device servers are easy to use and at the same time extremely flexible, offering the latest in advanced IP technology. Use the supplied Quick Configurator for fast setup or the powerful Device Manager for more advanced configurations.

SIXNET Device Server Benefits:

- **Secure your data transfers!**
- **Make your job easier!**
- **Save you time and money!**

Real-time Secure Performance:

- Auto-detecting 10/100 RJ45 Ethernet port
- Universal EIA-RS232/422/485 interface is software selectable which prevents field tampering
- Serial data tunneling across an IP network with full support for back to back (paired mode) operation
- Advanced security through AES / 3DES encryption over SSH or SSL sessions (SDS model)
- Next Generation IP support (IPV6) for investment protection and network compatibility
- Port buffering for data capture and analysis
- For console management applications, powerful authentication schemes prevent unauthorized access
- Device Manager software for centralized management and control
- COM or TTY port control and management for serial-based applications



Rugged and Reliable Hardware:

- Space saving compact package
- Rugged and protective metal enclosure
- Wide temperature range meets NEMA TS-2
- 15Kv ESD protection for continuous and reliable long-term operation
- Indicators for network and serial interfaces for easy troubleshooting
- Direct 9-30 VDC power range – No adapter needed in systems with 12 or 24 VDC available
- Power over serial cable eliminates cost of a separate power wiring – Supports both power from serial or power to serial device
- DIN Rail mounting standard for Industrial Automation applications
- Direct panel mountable for convenient installation on any flat surface



Linux
Inside



Advanced
Security



ISO9001
Quality



USA/Canada
Safety



European Emissions,
Immunity & Safty




Lead & Hazardous
Substance Free



Hazardous
Locations



USA/Canada
Emissions

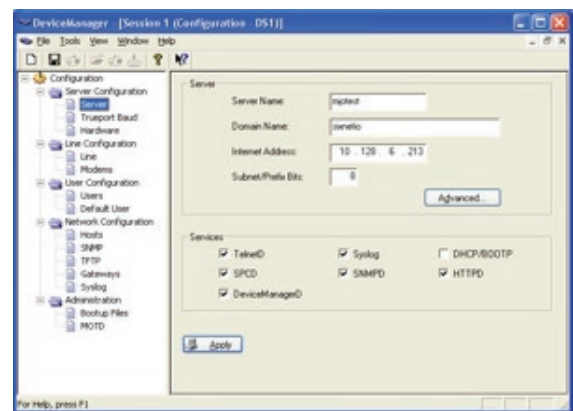
Performance Specifications	
Serial Port	Universal
Modes	Serial or console (management)
EIA-RS232/422/485	Software selectable
Modem support	Full hardware flow control
EIA-RS232 speeds	50 bps to 230 Kbps
EIA-RS422/485 speeds	Up to 230 Kbps
Indicators	TX and RX LEDs
Interface modes	2 & 4 wire, half & full duplex
Ethernet Port	10 Mbps or 100 Mbps
10/100BaseTx	Auto-detecting speed & duplex
Isolation	1500 VRMS 1 minute
Protocols (all models): IPv6, IPv4, TCP/IP, UDP, CIDR, Multicast, ARP, RARP, ICMP, BootP, DHCP, TFTP, Telnet, Raw, Reverse Telnet, RCP, HTTP	
Additional protocols (SDS model): SSH & Reverse, SSL, RIPv2/MD5, SNMP, LPD, DNS, WINS, HTTPS, SMTP, SNMPv3, PPP, PAP/CHAP, SLIP, CSLIP	
Security & Authentication	SDS model only unless otherwise noted
Local database	Both SDS and DS models
Secure Shell	SSHv1 and SSHv2
Secure Socket Layer	SSL v2.0 and v3.0; server and client
Transport Layer Security	TLS v1.0
Encryption protocols: AES, 3DES, DES, Blowfish, CAT128, ARCFOUR (RC4), ARCTWO (RC2)	
Hashing algorithms: MD5, SHA-1, RIPEMD160, SHA1-96, MD5-96	
Key exchange	RSA, EDH-RSA, EDH-DSS, ADH
X.509 certificate verification	RSA, DSA
Authentication and accounting	RADIUS
SecureID-agent	RSA or via RADIUS
Other: Certificate authority (CA) list; TACACS+, LDAP, NIS, Kerberos; IP address filtering; Disable unused daemons	
Management	Powerful and Easy to Use
Web browser	HTTP or secure HTTPS (SSL/TSL)
Device Manager software	Microsoft Windows utility
Quick Configurator	For fast and easy setup
CLI (Command Line Interface)	Telnet, SSH, console port
Other: SNMP, MIB II; read & write; SYSLOG; Port Buffering	
TTY / COM emulation	TruePorts
OS support: Microsoft Windows (Server 2003, XP, 2000 and NT), Linux, Solaris, AIX, SCO UnixWare/OpenServer, NCR, HP UX	
Environmental	Rugged and Reliable
Input voltage	9-30 VDC thru power jack or RJ45
Input power (typical)	4.8 Watts
ESD protection on all signals	15Kv
Ethernet isolation	1500 VRMS 1 minute
Operating temperature range	-34* to +74 °C (meets NEMA TS-2)
Storage temperature range	-40 to +85 °C
Humidity (non-condensing)	5 to 95% RH
Vibration, shock, freefall	IEC68-2-6, -27, -32
Hazardous Locations	UL1604 (CSA C222/213) Class 1, Div 2 (Zone 2)
Electrical safety	 UL/CSA60950 & 508, EN60950
EMI emissions	
EMC immunity	
Mounting	DIN rail or direct to panel
Packaging (powder-coated steel)	IP30 protection
Dimensions (L x W x H)	See mechanical on next page
Weight	0.35 kg (0.8 lb)

Specifications are subject to change. Consult factory for latest information.

* Note: Real-time clock power back-up in SDS model is limited when unit is shut down at very low temperatures.



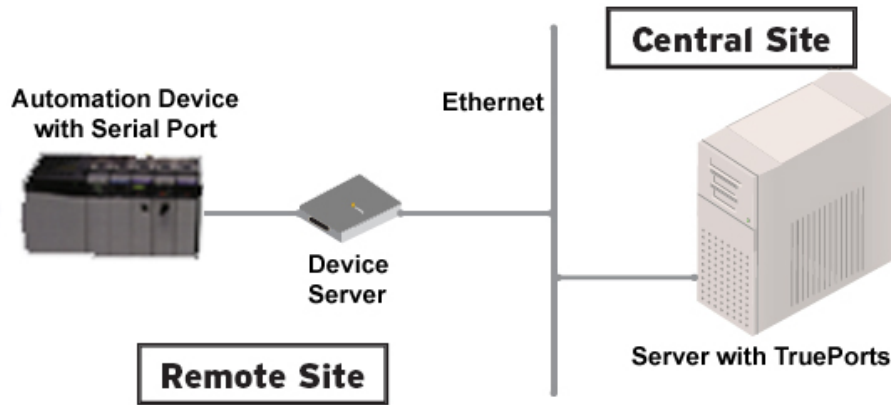
Compact Size with DIN Rail Mounting Standard



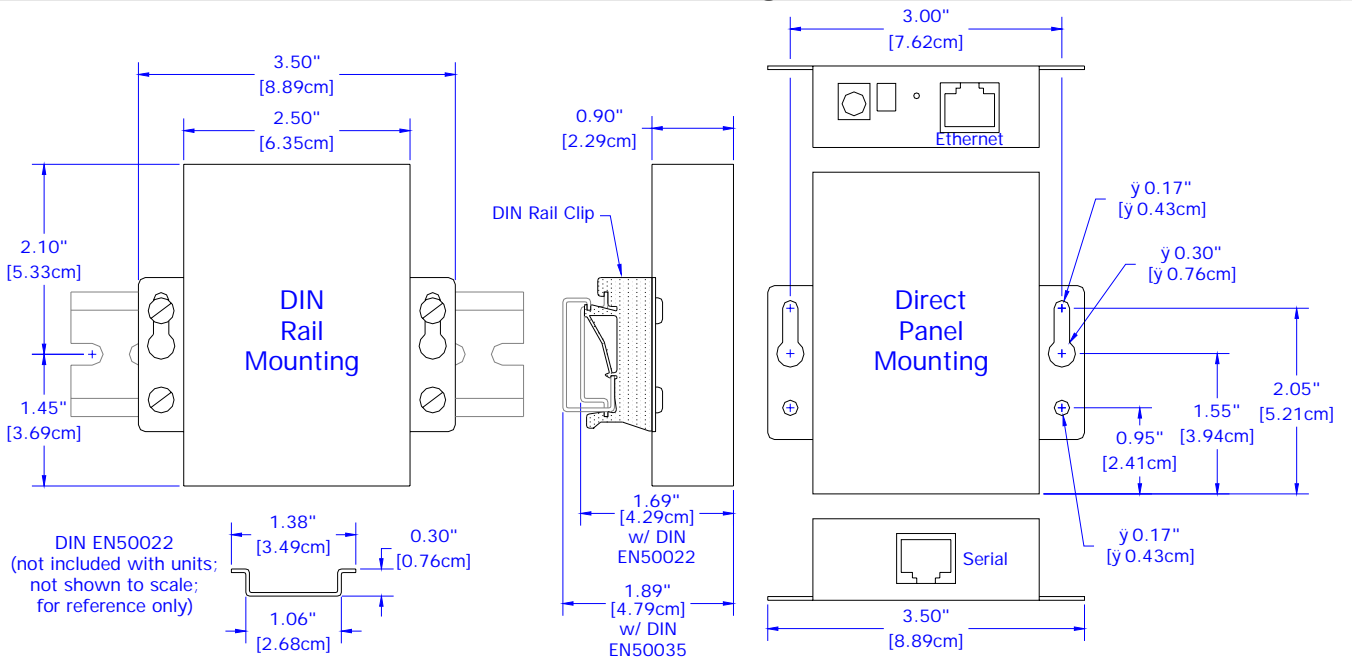
Powerful and Easy to Use Configuration Software

Ordering Guide	
ET-DS-1	1 – One serial port DS – Device Server SDS – Secure Device Server ET – EtherTRAK Family
Included with each server:	
1. DIN rail mounting kit 2. Un-terminated power wire 3. CD with software utilities	
Accessories:	
RM-PS-024-01F	Power supply – Universal AC to 24 VDC, 1A
SP-ETH-2	Dual Ethernet port surge & lightning protector

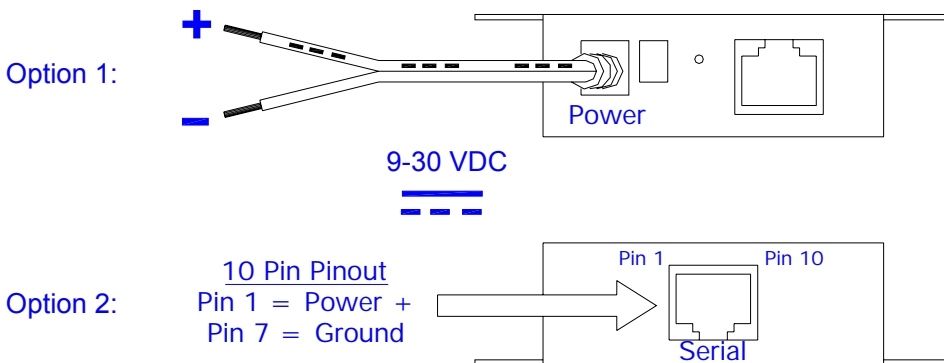
Typical Usage



Mechanical and Mounting Dimensions



Power Connections



Select an ET-GT-232-1 when...

...you need to connect a Modbus or SIXNET RS232 device to an Ethernet network.

Select an ET-GT-485-1 when...

...you need to connect one or more Modbus or SIXNET RS485 devices to an Ethernet network.

- Connect serial devices to an Ethernet network
- Supports the Modbus TCP/IP open standard
- Connects to Modbus RTU and ASCII serial devices
- Compatible with all SIXNET serial ports
- The ideal bridge for your legacy systems

These gateways provide Ethernet access to your existing Modbus or SIXNET serial devices. You can gain all the advantages of Ethernet without replacing any hardware. Use these gateways in conjunction with the SIXNET Control Room software or Modbus OPC server to interface to any Windows software via OPC, DDE, or DLL links. Also, most major HMI and SCADA software provide a Modbus/TCP I/O driver that works seamlessly with these gateways.

Performance Specifications	
Ethernet port	10BaseT at 10Mbps
Ethernet protocols	Modbus/TCP (Open Modbus) and SIXNET (I/O for Windows)
Serial protocols	SIXNET, Modbus ASCII and Modbus RTU
RS232 port	TD, RD, RTS, CTS, DTR, GND
RS485 port	2 wire (TD, RD, GND)
Max. serial baud rate	57,600
Max. # of RS-485 devices	32
Max. RS485 cable distance	1 km w/ 24 AWG wire & 57,600 2 km w/ 20 AWG wire & 38,400 3.5 km w/ 18 AWG wire & 19,200
RS485 isolation	1200 VRMS 1 minute
Ethernet isolation	1200 VRMS 1 minute
Required supply voltage	10-30 VDC (0.5 watt typical)
Operating temperature range	-30 to 70° C
Storage temperature range	-40 to 85° C
Humidity (non-condensing)	5 to 95 %



ET-GT-232-1

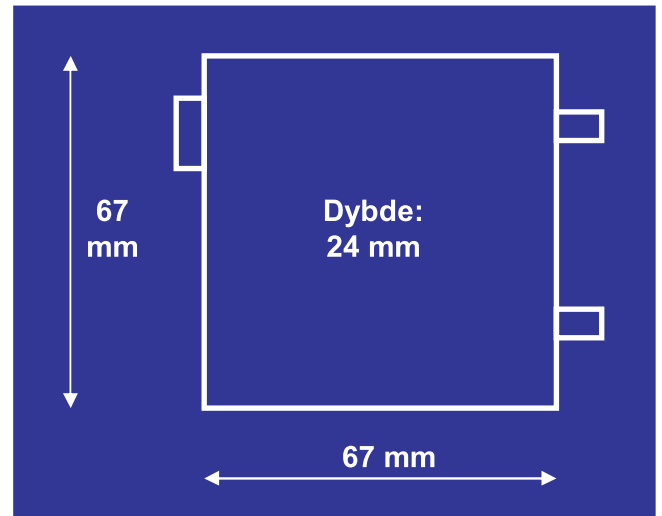


ET-GT-485-1

Ordering Information

Description	Part Number
Ethernet to RS232 gateway	ET-GT-232-1
Ethernet to RS485 gateway	ET-GT-485-1

Markedets eneste konverter der passer til alle snitflader



Anvendelse

GreenMatic's fiber konverter er en kompakt enhed med høj ydeevne, og er som den eneste på markedet tilpasset alle typer serielle snitflader.

Den anvendes til fjernprogrammering og support mellem PC/PC og PC/PLC i enhver form for industrimiljø. For eksempel er konverteren ideel i såvel el-støjfyldt miljø som Ex-miljø i forbindelse med programmering, faste installationer og support.

Konverteren er også ideel når PC/PC og PC/PLC er placeret længere fra hinanden end de normale afstande. Den kan uden problemer fungere på afstande op til 1,7 km.

Med GreenMatic konverteren kan man kombinere alle typer snitflader individuelt uden begrænsninger, det vil sige USB, RS 232, RS 422, RS 485, TTY og MPI.

Ved brug af konverteren opnås galvanisk adskillelse og mulighed for brug af DOS-baseret software på nye PC'er. Installations-cd for USB medfølger.

Best.nr.

Beskrivelse

GM 1150040	USB/RS232 til fiber konverter
GM 1150041	RS422/485 til fiber konverter
GM 1150042	TTY/MPI til fiber konverter
GM 1150043	USB kabel, 1,8 m
GM 1150044	RS232 kabel, 1,8 m
GM 1150045	RS422/485 kabel, 1,8 m
GM 1150046	Power Supply til fiber konverter
GM 1150047	DIN-skinne montageplade

Data

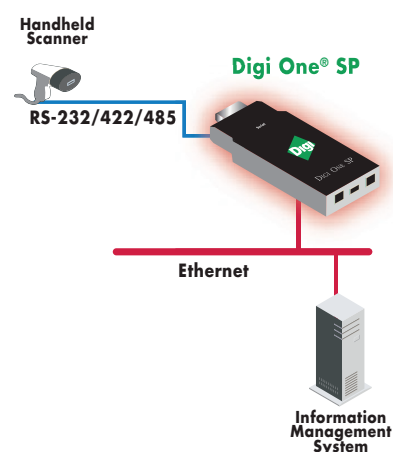
Fiberkabel type ST	62,5/125 um
Fiberstik type	ST
Fiber max. længde	1,7 km
RS232 til fiber	115,2 Baud
USB til fiber	5 Mbaud
RS422 til fiber	5 Mbaud
RS485 til fiber	5 Mbaud
Spændingsforsyning	4,75 til 5,25 DC
Strømforbrug	100 mA

Product Datasheet

Digi One[®] SP

Device Server

The Digi One SP device server is designed for standard serial-to-Ethernet connectivity. It is ideal for applications requiring simple and easy-to-use data communications.



Features/Benefits

- > Easy configuration using installation CD
- > Patented Digi RealPort[®] technology for COM or TTY port control and management
- > TCP/UDP Socket Services for broad device connectivity and application use
- > Auto-connect the serial device to networked server using raw, Telnet, Rlogin
- > Reverse Telnet for easy access of serial devices from network
- > Easy configuration through web interface (HTTP)
- > Switch selectable RS-232/422/485 for simple interfacing to any type of serial device
- > Modem emulation allows support for devices designed only for modem communications

Overview

The Digi One SP device server allows any device with a serial port to easily connect to the Ethernet. Its compact design delivers cost-effective performance and capability in one of the smallest form factors available.

Part of Digi's broad device server offering, the Digi One SP delivers standard serial-to-Ethernet connectivity and is ideal for serial tunneling or applications where COM ports, TCP Socket, UDP Socket, or UDP Multicast functionality is needed. Serial tunneling allows two previously non-networked and isolated devices to easily communicate information and operate with existing installed software applications on an Ethernet network, eliminating the long serial cable. The Digi One SP also works with software applications using TCP/UDP Sockets, allowing a serial device to interoperate with the software applications without the need to install a driver.

The Digi One SP is easy to install locally or remotely through a variety of IP addressing methods, including DHCP, RARP, and ARP-Ping. Included on the installation CD is an application that will automatically detect all Digi One SP devices on your network. A quick-start guide is also provided to make network configuration easy and hassle-free.

Digi International makes device networking easy by developing products and technologies that are cost-effective and easy to use. With over 20 million ports shipped worldwide, Digi has been offering the highest levels of performance, flexibility, and quality since 1985.

Features/Specifications

FEATURES

- RS-232/422/485 switch selectable
- DB-9M serial connector
- Baud rates up to 230 Kbps
- Full modem and hardware flow control
- Modem emulation
- 10/100Base-T Ethernet support
- TCP/UDP Socket Services
- UDP Multicast
- Telnet and Reverse Telnet
- DHCP/RARP/ARP-Ping for IP address assignment
- HTTP configuration
- Patented RealPort technology for COM and TTY ports
- LED status for link and power

POWER REQUIREMENTS

- Ships with a 110/240VAC power supply that provides 12VDC @ 0.4 Amps max
- Input power supports 9-30VDC @ 0.5 Amps max

ENVIRONMENTAL

- Operating temperature: 10° C to 45° C (50° F to 113° F)
- Relative humidity: 5% to 90% (non-condensing)

REGULATORY APPROVALS

- FCC Part 15 Subpart B, Class A
- EN55022, Class A
- EN55024
- EN61000-3-2,3
- UL60950
- CAN/CSA C22.2 No.60950
- EN60950

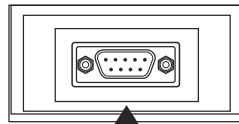
DIMENSIONS

- Length: 3.70 in (9.04 cm)
- Width: 1.72 in (4.30 cm)
- Depth: 0.93 in (2.30 cm)
- Weight: 2.29 oz (65.00 g)

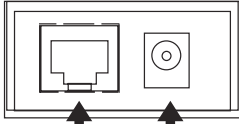
OPERATING SYSTEMS

RealPort drivers for COM/TTY support

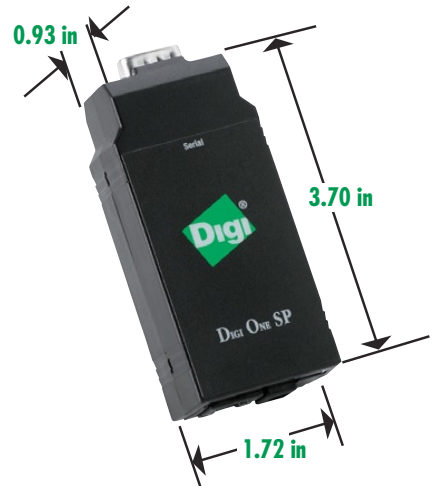
- AIX
- HP-UX
- Linux
- Windows® 98/98SE
- Windows ME
- Windows XP
- Windows 2000
- Windows Server™ 2003
- Windows NT®
- SCO® OpenServer™
- SCO UnixWare™
- Solaris™ (Intel)
- Solaris (SPARC)



DB-9M Serial



Ethernet Power



Wall Bracket

MODEL PART NUMBERS

Model	PART NUMBERS
Digi One SP	GM 1190001
Accessories	
Wall Mount Bracket	GM 1190001 W
DB-9F to DB-9F Crossover Cable (4-ft.)	ask for part No.

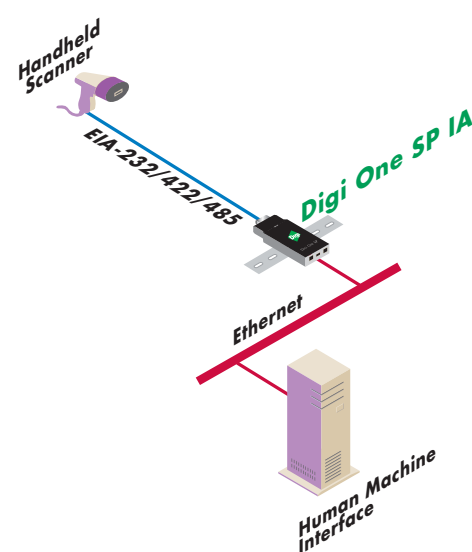
Product Data Sheet



Digi One™ SP IA

Device Server

The Digi One SP IA device server is designed for entry level EIA-232/422/485 serial-to-Ethernet connectivity for industrial automation applications.



Features/Benefits

- > Patented Digi RealPort® technology for COM or TTY port control and management
- > Switch selectable EIA-232/422/485 for simple interfacing to any type of serial device
- > TCP/UDP Socket Services for broad device connectivity and application use
- > Easy configuration through Web interface (HTTP)
- > Modem emulation allows support for devices designed only for modem communications
- > DIN Rail and wall mount kits for flexible mounting options
- > 9-30 VDC power with bare-wire "pigtail" for direct connection included
- > RFC 2217 support

Overview

The Digi One SP IA device server allows virtually any industrial device with a serial port to easily connect to the Ethernet. The compact device server features one EIA-232/422/485 DB-9 serial port, 9-30 VDC input and DIN Rail kit, making it an optimum solution for many industrial automation applications. The Digi One SP IA provides a reliable interface to OPC servers or to other IA equipment such as bar-code readers, scales or temperature sensors.

The Digi One SP IA supports most industrial automation protocols through serial tunnelling, TCP/UDP connections, or Digi's patented RealPort software. RealPort makes it possible to establish a connection between the host and networked serial device by creating a local COM or TTY port on the host computer, allowing existing software applications to work without modification.

The Digi One SP IA is easy to install locally or remotely through a variety of IP addressing methods, including DHCP, RARP, and ARP-Ping. Included on the installation CD is an application that will automatically detect all Digi One SP IA devices on your network. A quick-start guide is also provided to make network configuration easy and hassle-free.

Digi International, the leader in Connectware, makes device networking easy by developing products and technologies that are cost-effective and easy to use. With over 20 million ports shipped worldwide, Digi has been offering the highest levels of performance, flexibility, and quality since 1985.

Features/Specifications

FEATURES

- EIA-232/422/485 switch selectable
- DB-9M serial connector
- Baud rates up to 230 Kbps
- DIN Rail and wall mount kit
- 9-30 VDC input
- Bare-wire "pigtail" power connector
- Full modem and hardware flow control
- Modem emulation
- 10/100Base-T Ethernet support
- TCP/UDP Socket Services
- UDP Multicast
- Telnet and Reverse Telnet
- DHCP/RARP/ARP-Ping for IP address assignment
- HTTP configuration
- Patented RealPort technology for COM and TTY ports
- LED status for link and power

POWER REQUIREMENTS

- Ships with a 110/240 VAC power supply that provides 12VDC @ 0.4 Amps max
- Input power supports 9-30VDC @ 0.5Amps max
- Additional bare-wire "pigtail" power connector included

ENVIRONMENTAL

- Ambient temperature: 10° C to 45° C (50° F to 131° F)
- Relative humidity: 5% to 90% (non-condensing)

REGULATORY APPROVALS

- FCC Part 15 Subpart B, Class A
- EN55022, Class A
- EN55024
- EN61000-3-2,3
- UL60950
- CAN/CSA C22.2 No.60950
- EN60950

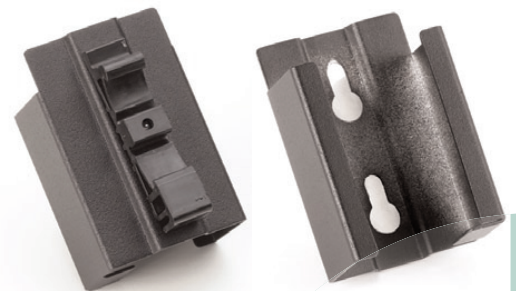
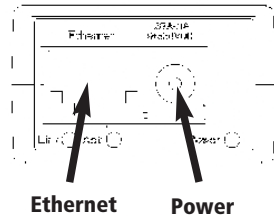
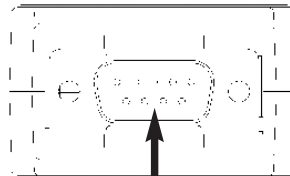
DIMENSIONS

- Length: 3.7 in (9.4 cm)
- Width: 1.72 in (4.3 cm)
- Depth: 0.93 in (2.3 cm)
- Weight: 2.29 oz (65 g)

OPERATING SYSTEMS

RealPort drivers for COM/TTY support

- AIX
- HP-UX
- Linux
- Windows® 98/98SE
- Windows ME
- Windows XP
- Windows 2000
- Windows Server™ 2003
- Windows NT®
- SCO® OpenServer™
- SCO UnixWare™
- Solaris™ (Intel)
- Solaris (SPARC)



MODEL.....PART NUMBERS

Model

Digi One SP IA

Ask for part No.

Accessories

DB-9F to DB-9F cross-over cable (4 ft.)

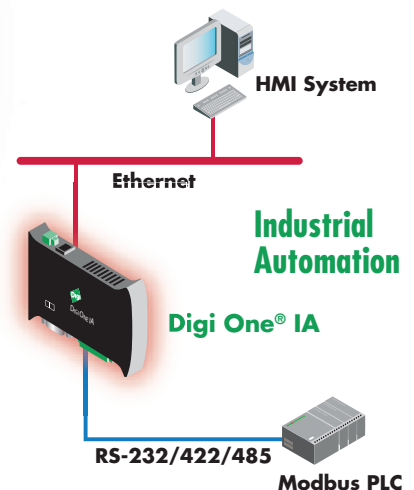
Ask for part No.

Product Datasheet

Digi One[®] IA

Device Server

The Digi One IA device server delivers easy and reliable serial-to-Ethernet and Modbus-to-Modbus/TCP connectivity solutions for industrial automation applications.



Features/Benefits

- > Ethernet enable industrial serial devices
- > Modbus serial to Modbus/TCP protocol conversion
- > Industrial DIN rail mounting
- > RS-232/422/485 switch selectable including DB-9 and screw terminal connectors
- > Patented Digi RealPort[®] technology for COM or TTY port control and management
- > TCP/UDP Socket Services for broad device connectivity and application use
- > Galvanic isolation (from earth ground)
- > Class 1, Div 2 certification
- > Tunable for low latency or optimized throughput
- > Easy configuration through web interface (HTTP)

Overview

The Digi One IA device server allows virtually any industrial device with a serial port to be connected to Ethernet in minutes. Designed to meet the specific requirements of the industrial automation market, the Digi One IA offers an easy way to network-enable previously isolated RS-232/422/485 serial devices such as Programmable Logic Controllers (PLCs), Remote Terminal Units (RTUs), process and quality equipment, motors, drives, bar-code readers and operator displays. The Digi One IA delivers cost-effective performance in a compact and rugged DIN rail-mountable enclosure.

The Digi One IA supports most industrial automation protocols through TCP or UDP encapsulation, or Digi's patented RealPort software. RealPort makes it possible to establish a connection between the host and networked serial device by creating a local COM or TTY port on the host computer, allowing existing software applications to work without modification. Customers using Modbus can enable a Modbus bridge function allowing multiple Modbus/TCP masters to share Modbus serial slaves, or Modbus serial Masters to access Modbus/TCP slaves.

The Digi One IA is easy to install locally or remotely through a variety of interfaces. The installation CD includes a setup wizard that detects all Digi One IA devices on your network. The product can also be IP addressed using DHCP, RARP or ARP-Ping, and once an IP address is set up, additional configuration can be done with the user-friendly web browser interface.

Digi International makes device networking easy by developing products and technologies that are cost-effective and easy to use. With over 20 million ports shipped worldwide, Digi has been offering the highest levels of performance, flexibility, and quality since 1985.

Features/Specifications

FEATURES

- 10/100Base-T Ethernet support
- DB-9M and screw terminal block serial port
- RS-232/422/485 switch selectable serial port, including DB-9M and screw terminal connectors
- Modbus ASCII/RTU to Modbus TCP conversion
- Modbus Ethernet-to-Serial Bridge Function supporting Modbus/TCP, Modbus/UDP, Modbus/RTU, Modbus/ASCII
- Modbus bridge supports TCP and UDP Encapsulation of Modbus/RTU, Modbus/ASCII
- Supports serial master and serial slave modes
- Supports up to 10 Modbus masters
- Support for 10 concurrent socket connections
- TCP/UDP Socket Services
- UDP
- Telnet, Reverse Telnet and extended Telnet RFC 2217
- Web browser configurable
- DHCP/RARP, ARP-Ping for IP addressing assignment
- Flash upgradeable firmware
- Baud rates up to 230 Kbps
- Full modem and hardware flow control
- 35 mm DIN rail mounting
- Screw terminal block power jack
- LED status for serial signals, power, Ethernet and diagnostics
- Patented RealPort technology for COM and TTY ports
- SNMP (read/write)
- PPP
- Digi Port Authority-Remote management diagnostics and auto-discovery tool
- Removable screw terminal for power
- <6 ms serial over Ethernet latency

ENVIRONMENTAL

- Operating temperature: 0° C to 60° C (32° F to 140° F)
- Relative humidity: 5% to 90% (non-condensing)
- Ethernet isolation: 1500VAC min per IEEE 802.3/ANSI X3.263
- Serial port protection (ESD): +15 kV air GAP and +8 kV contact discharge per IEC 1000-4-2

POWER REQUIREMENTS

- 9-30VDC @ 0.5 Amps max
- IEEE 802.3af compliant
- 2 kV isolation between power supply and serial ground

No power supply ships with this product.

REGULATORY APPROVALS

- FCC Part 15, Class A
- CE
- Class 1, Div 2 – UL 1604
- ICES-003, A
- EN55022, A
- EN 6100-6-2 + EN55024
- UL 1950
- CSA 22.2 No. 950
- EN 60950
- AS3548

OPERATING SYSTEMS

RealPort drivers for COM/TTY support

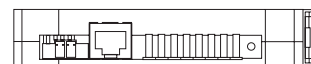
- AIX
- Compaq Tru64
- HP-UX
- Linux
- Windows® XP
- Windows 2000
- Windows NT®
- Windows 98/ME
- Windows Server™ 2003
- SCO® OpenServer™
- SCO UnixWare™
- Solaris™ (Intel)
- Solaris (SPARC)

DIMENSIONS

- Length: 4.70 in (12.00 cm)
- Depth: 4.00 in (10.10 cm)
- Width: 0.90 in (2.30 cm)
- Weight: 2.25 oz (64.00 g)

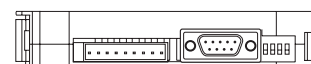


Digi One IA - Top



Power Input (Screw Terminals) Ethernet Reset Button

Digi One IA - Bottom



Serial Port (Screw Terminals) DB-9M Serial DIP Switches

MODEL.....PART NUMBER

Digi One IA

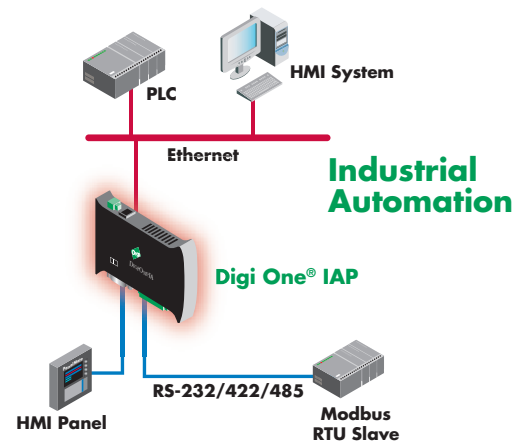
GM 1190002

Product Datasheet

Digi One[®] IAP

Device Server

Digi One IAP is designed for industrial serial-to-Ethernet connectivity, protocol conversion and protocol interoperability. It is ideal for industrial applications requiring specific industry protocol support and where device management and monitoring is critical.



Features/Benefits

- > Industrial serial-to-Ethernet converter and protocol bridge
- > TCP/UDP and RealPort COM/TTY remote COM port access
- > Multi-master/multi-protocol concurrent support for Allen-Bradley and Modbus protocols
- > Serial and Ethernet protocol bridging support for Allen-Bradley and Modbus protocols promotes interoperability
- > ASCII to protocol translation for Allen-Bradley and Modbus
- > Industrial DIN rail mounting
- > DB-9M and screw terminal block serial ports
- > RS-232/422/485 switch selectable in field
- > Second serial port can be used as a pass-through port
- > Class 1, Div 2 rated
- > Tunable for low latency or optimized throughput

Overview

Digi One IAP provides a means of connectivity and interoperability of serial and Industrial Ethernet devices such as Programmable Logic Controllers (PLCs), process and quality equipment, motors, drives, bar-code readers, operator displays and other types of manufacturing equipment.

Digi One IAP is a device server and a protocol bridge rolled into one. The device server functionality allows virtually any device with a serial port to be connected to a TCP/IP network. Applications may communicate with the serial device using TCP/UDP or Digi's patented RealPort[®] COM port redirection for remote native COM port access.

The protocol conversion portion enables Digi One IAP to actually bridge together two industrial devices, whether serial, Ethernet or both, as long as they speak any of the supported serial (DF1, Modbus, ASCII) or Ethernet (Modbus/TCP, A-B/Ethernet, EtherNet/IP) protocols. It also allows for multi-master access, which means that many masters can simultaneously communicate with a single slave, even if they are using different protocols. In addition, Digi One IAP is able to convert ASCII data from scales, bar-code readers, RFID devices, cameras and other devices to Industrial Ethernet protocols.

Digi One IAP provides another unique feature – a second serial port which can act as a pass-through port. This means that a local serial device like an HMI panel can communicate through Digi One IAP to a PLC slave, without disrupting the serial-to-Ethernet connection to its master application across the network.

Digi International makes device networking easy by developing products and technologies that are cost-effective and easy to use. With over 20 million ports shipped worldwide, Digi has been offering the highest levels of performance, flexibility, and quality since 1985.

Features/Specifications

FEATURES

- 10/100Base-T Ethernet support
- DB-9M and screw terminal block serial ports
- DB-9M can be enabled as second direct RS-232 port connection to device on screw terminal
- RS-232/422/485 switch-selectable serial port with DB-9M and screw terminal connectors
- TCP/UDP Socket Services
- Support for 64 concurrent socket connections
- Web browser configurable
- Patented RealPort technology for COM and TTY ports
- SNMP (read/write)
- PPP
- DHCP/RARP, ARP-Ping, Static IP for IP address assignment
- Digi Port Authority – Remote management diagnostics and auto-discovery tool
- Flash upgradeable firmware
- Baud rates up to 230 Kbps
- Protocol bridge support
 - Ethernet protocols: Modbus/TCP, EtherNet/IP, Allen-Bradley Ethernet
 - Serial protocols: ASCII, DF1, Modbus RTU/ASCII
- Multi-master support for above plus Omron and user-defined serial protocols
- 35 mm DIN rail mounting
- Removable screw terminal for power
- Powered Ethernet 802.3af (midspan) support and fail-over capability when used with 9-30VDC input
- LED status for serial signals, power, Ethernet and diagnostics
- Full modem and hardware flow control
- <6 ms serial over Ethernet latency

ENVIRONMENTAL

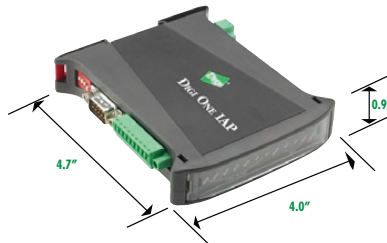
- Operating temperature: 0° C to 60° C (32° F to 140° F)
- Relative humidity: 5% to 90% (non-condensing)
- Ethernet isolation: 1500VAC min per IEEE 802.3/ANSI X3.263
- Serial port protection (ESD): +15 kV air GAP and +8 kV contact discharge per IEC 1000-4-2

REGULATORY APPROVALS

- FCC Part 15, Class A
- CE
- Class 1, Div 2 – UL 1604
- ICES-003, A
- EN55022, A
- EN 6100-6-2 + EN55024
- UL 1950
- CSA 22.2 No. 950
- EN 60950
- AS3548

DIMENSIONS

- Length: 4.7 in. (12.0 cm)
- Depth: 4.0 in (10.1 cm)
- Width: 0.9 in. (2.3 cm)
- Weight: 2.5 oz (64.0 g)



POWER REQUIREMENTS

- 9-30VDC @ 0.5 Amps max
- IEEE 802.3af compliant
- 2 kV isolation between power supply and serial ground

No power supply ships with this product.

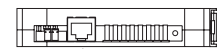
OPERATING SYSTEMS

RealPort drivers for COM/TTY support

- AIX
- Compaq Tru64
- HP-UX
- Linux
- Windows® XP
- Windows 2000
- Windows NT®
- Windows 98/ME
- Windows Server™ 2003
- SCO® OpenServer™
- SCO UnixWare™
- Solaris™ (Intel)
- Solaris (SPARC)

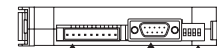


Digi One IAP - Top



Power Input Ethernet (Screw Terminals)

Digi One IAP - Bottom



Serial Port (Screw Terminals) DB-9M Serial DIP Switches

MODEL.....PART NUMBER

Digi One IAP

GM 1190000

Slave	MB /RTU	MB Serial	MB/TCP	DF1	A-B Eth	ENet/IP *	ASCII
Master	—	Yes	Yes	Yes	Yes	Yes	Yes
MB Serial	—	Yes	Yes	Yes	Yes	Yes	Yes
MB/TCP	Yes	Yes	—	Yes	Yes	Yes	Yes
DF1	Yes	Yes	Yes	—	Yes	Yes	Yes
A-B Eth	Yes	Yes	Yes	Yes	—	Yes	Yes
ENet/IP	Yes	Yes	Yes	Yes	Yes	—	Yes
ASCII	No	No	No	No	No	No	—

* PCCC encapsulated under CIP only for EtherNet/IP

De industrielle og intelligente enheder, der har et serielt stik (RS-232,422,485) kan forbindes til netværket via Digi's device servere. Dermed kan de serielle enheder sende og modtage data over netværket, og udnytter ethernetets fleksibilitet.

Digi's RealPort driver (Præsenteres som serielle data).

De serielle data sendes over netværket (TCP/IP) og præsenteres som serielle data på en ny COM port på den eller de PC'ere, som skal anvende de serielle data. RealPort driveren vil primært anvendes når applicationen kommunikerer med en COM port. COM porten bliver dermed en port ude på nettet og ikke begrænset af de fysiske COM porte på PC'en.



En TCP tunnel eller bro mellem 2 device servere (Serielle data sendes over netværket transparent og præsenteres som serielle data i den anden ende).

En tunnel mellem 2 enheder bruges primært i den forbindelse, hvor et panel eller anden PC har et prioriteret styresystem, der ikke supporteres af RealPort driveren. En tunnel kan også etablere mere dynamisk via AT kommandoer, således at IP adressen er indeholdt i AT kommandoen og rettes mod den pågældende device server på nettet. Yderligere kan protollen PPP anvendes ved etablering af en tunnel mellem 2 enheder.

En TCP Socket forbindelse (Præsenteres som IP data pakker).

Det er enkelt at etablere en socket forbindelse mellem en PC'er og den enkelte device server. Kravet er, at applicationen kan kommunikere direkte med IP data pakker og ikke kun med en COM port og serielle data.

En UDP multicast forbindelse (IP data pakker sendes til flere definerede enheder).

UDP multicast bruges som et supplement til RS-485, i det tilfælde hvor data pakker sendes over netværket - til et fast antal defineret enheder – max. 64 enheder.

Ved levering af Digi One IA medfølger Device Server modulet, programmeringskabel, Loop Back connector, installations software og manual.

Enkel montage: Tilslut hardware til Ethernet og DC power, sæt dip switch for kommunikation til PLC mm. Installer medfølgende software på PC. Log på net og PC'en finder selv de installerede Digi One IA moduler. Indtast IP adresse, Subnet mask, default gateway for de installerede enheder. Indkøring og test kan begynde. Digi One IA fremstår for netværket som fuld funktionsdygtig seriel port. Yderligere informationer på www.greenmatic.dk.

Konvertering mellem industrielle protokoller – fra seriel til Ethernet. (Industrielle serielle protokoller konverteres til beslægtede Ethernet protokoller)

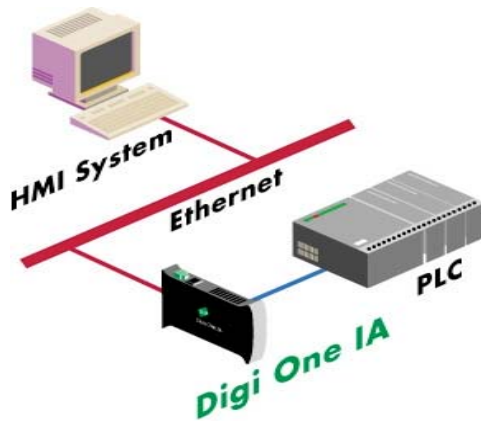
Når egenskaberne ved de serielle data kendes er det muligt at understøtte flere master enheder på nettet, således at en master kan spørge enheden samtidig med at en anden master ligeledes kommunikerer. Denne trafik styres af device serveren, der åbner og lukker forbindelsen til den enkelte master, afhængig af hvor forespørgslen kommer fra.

Tidsskriftet Control Engineering har tildelt Digi's industrielle udgave af device serveren – Digi One IA RealPort - en international pris for bedste produkt på grund af dets fleksibilitet.

Digi Receives
Prestigious Award



GreenMatic er valgt som industriel partner for **Digi International** på det danske marked. Vi kan dermed levere en komplet løsning til datakommunikation, idet **Digi's** produkt-program inden for industriel Ethernet går godt i spænd med **GreenMatic's** øvrige produkter fra Sixnet, Citect og PLC typer som TI og Siemens S5.



Med **Digi's** gateways og protokol konverterere er det muligt at netværksopkoble eksisterende serielt udstyr, baseret på RS-232, RS-422 og RS-485. På den måde bliver det muligt at transmittere alarmsignaler eller produktionsdata til en hvilken som helst PC på nettet. Forskellige PLC typer kan programmeres og overvåges fra en fjern PC på nettet – se principskiten.

