

Digi One[®] IAP

Industrial Serial Server

Serial-to-Ethernet connectivity, protocol conversion and protocol interoperability for industrial applications.



Overview

Digi One IAP combines reliable serial-to-Ethernet connectivity with protocol conversion and interoperability. Users can IP enable a broad range of serial devices, as well as link two industrial devices. It is ideal for device management applications requiring specific industry protocol support.

Serial server functionality built into Digi One IAP allows any serial device 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 redirector for remote native COM port access.

Digi One IAP supports a variety of serial and Ethernet protocols, allowing users to bridge serial and Ethernet devices, or both. Multi-master access allows multiple masters to communicate with a single slave across protocols. Digi One IAP converts ASCII data from serial devices to Ethernet protocols. An additional serial port can act as a pass-through port, allowing local devices to communicate with a slave unit without disrupting the serial-to-Ethernet connection.

Related Products



Digi One[®] IA



Digi One[®] IAP Haz



Digi One[®] SP IA

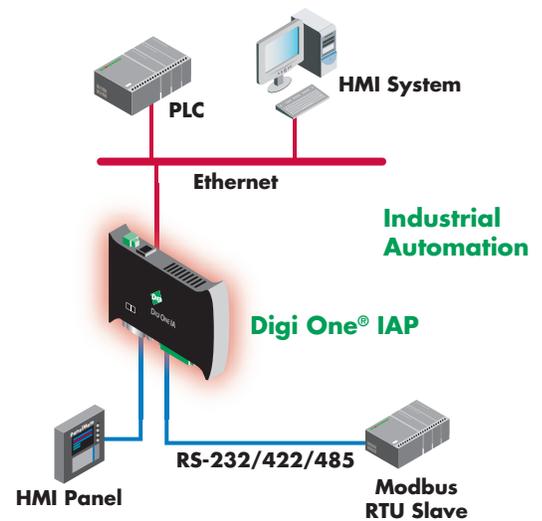


PortServer[®] TS MEI



Power Supply
76000736

Application Highlight



Features/Benefits

- 1 DB-9 serial port and additional pass-through port
- TCP/UDP and RealPort[®] for COM/TTY port control and management
- 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
- Switch selectable RS-232/422/485 for simple interfacing to any type of serial device
- Tunable for low latency or optimized throughput



Features	
Management	HTTP configuration, Digi Port Authority – Remote management diagnostics and auto-discovery tool, SNMP (read/write)
Protocols	Telnet, Reverse Telnet, RFC 2217, TCP/UDP Socket Services, PPP, DHCP/RARP, ARP-Ping, Static IP for IP address assignment, Support for 64 concurrent socket connections, ASCII, DF1, Modbus RTU/ASCII, Modbus/TCP, EtherNet/IP, Allen-Bradley Ethernet
Software	Patented RealPort for COM/TTY ports
Security	SSHv2, SSL, TLS, HTTPS
Operating Systems	AIX, HP-UX, Linux®, SCO® OpenServer™ 5, SCO® OpenServer™ 6, Solaris™ Intel, Solaris™ SPARC, Windows XP®, Windows Server® 2003, Windows Server® 2008, Windows Vista®
Status LEDs	Serial signals, Power, Ethernet, Diagnostics
Dimensions (L x W x D)	4.70 in x 0.90 in x 4.0 in (12.00 cm x 2.30 cm x 10.10 cm)
Weight	2.5 oz (64.0 g)
Other	Full modem and hardware flow control, Flash upgradeable firmware, 6 ms serial over Ethernet latency, 35 mm DIN rail mounting
Interfaces	
Serial Ports	1 RS-232/422/485 (switch selectable)
Serial Connector	Screw terminal connectors or DB-9M; DB-9M can act as a second direct RS-232 port connection when used as the second port
Serial Throughput	Up to 230 Kbps
Ethernet Physical Layer	10/100Base-T
Power Requirements	
Power Input	9-30VDC @ 0.5Amps max
Power Supply	Removable screw terminal for power (power supply not included)
Powered Ethernet	802.3af (midspan and endspan) support and fail-over capability when used with 9-30VDC input
Surge Protection	2 kV isolation between power supply and serial ground product
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	
Safety	UL 1950, UL 1604 (Class 1, Div. 2), CSA 22.2 No 950, EN60950
Emissions/Immunity	FCC Part 15 (Class A), ICES-003 (Class A), CE, AS3548, EN6100-6-2 + EN55024, EN55022 (Class A)

Slave \ Master	MB /RTU	MB Serial	MB/TCP	DF1	A-B Eth	ENet/IP *	ASCII
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

