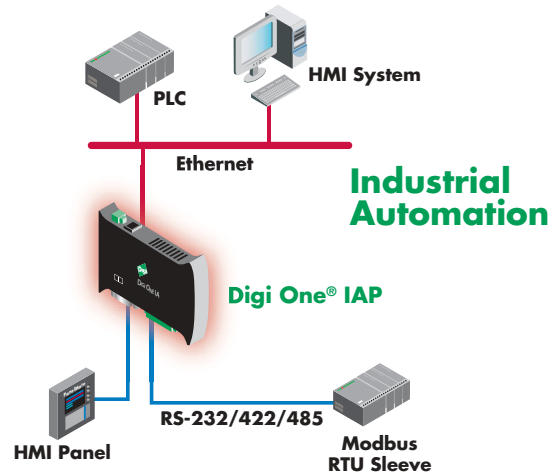




Digi One IAP is designed for industrial serial-to-Ethernet connectivity, protocol conversion and protocol interoperability. It is ideal for industrial applications requiring specific industry protocol support and where device management and monitoring is critical.



## 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
- > Integrated 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 serial server and a protocol bridge rolled into one. The serial 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<sup>®</sup> 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.

# 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 (end- and mid-span) 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

## 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

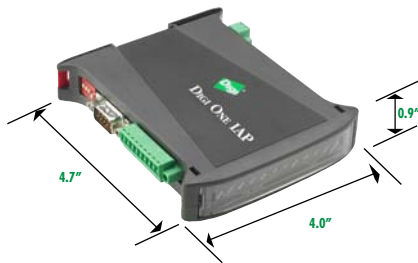
### RealPort drivers for COM/TTY support

- 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)

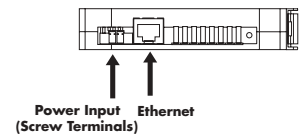


## DIMENSIONS

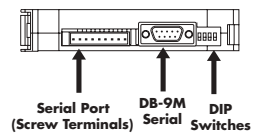
- Length: 4.7 in. (12.0 cm)
- Depth: 4.0 in (10.1 cm)
- Width: 0.9 in. (2.3 cm)
- Weight: 2.5 oz (64.0 g)



### Digi One IAP - Top



### Digi One IAP - Bottom



## MODEL.....PART NUMBERS

Model	North America	International
Digi One IAP	70001777	70001777
12VDC/100-240VAC Extended Temperature Power Supply, No Plug	76000736	76000736

\*48VDC power options available

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

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**Digi International**, the leader in device networking for business, develops reliable products and technologies to connect and securely manage local or remote electronic devices over the network or via the web. With over 20 million ports shipped worldwide since 1985, Digi offers the highest levels of performance, flexibility and quality.

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