



INDUSTRIAL  
SERIAL SERVER



# DIGI ONE® IAP

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

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.

## 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

## RELATED PRODUCTS



DigiOne® IA



DigiOne® IAP HAZ



DigiOne® SP IA

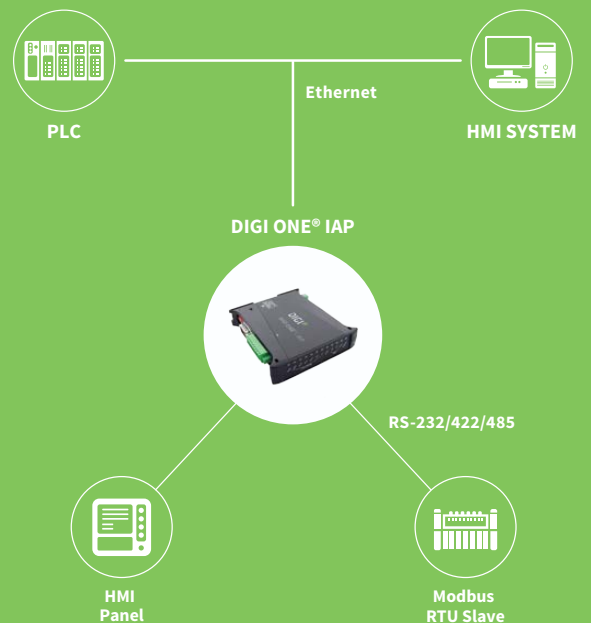


PostServer® TS MEI



Power Supply 76000736

## APPLICATION EXAMPLE



## SPECIFICATIONS

## Digi One® IAP

### FEATURES

<b>MANAGEMENT</b>	HTTP configuration, Digi Port Authority – Remote management diagnostics and auto-discovery tool, SNMP (read/write)
<b>PROTOCOLS</b>	Telnet, Reverse Telnet, RFC2217, 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
<b>SOFTWARE</b>	Patented RealPort for COM/TTY ports
<b>SECURITY</b>	SSHv2, SSL, TLS, HTTPS
<b>OPERATING SYSTEMS</b>	AIX, HP-UX, Solaris, Linux®, Windows® 2000, Windows® XP, Windows® 7, Windows® 8, Windows® 8.1, Windows® 10, Windows Server® 2003, Windows Server® 2008, Windows Server® 2012. Note: TCP/UDP socket services are operating system independent.
<b>STATUS LEDs</b>	Serial signals, Power, Ethernet, Diagnostics
<b>DIMENSIONS (L x W x D)</b>	4.70 in x 0.90 in x 4.0 in (12.00 cm x 2.30 cm x 10.10 cm)
<b>WEIGHT</b>	2.5 oz (64.0 g)
<b>OTHER</b>	Full modem and hardware flow control, Flash upgradeable firmware, 6 ms serial over Ethernet latency, 35 mm DIN rail mounting

### INTERFACES

<b>SERIAL PORTS</b>	1 RS-232/422/485 (switch selectable)
<b>SERIAL CONNECTOR</b>	Screw terminal connectors or DB-9M; DB-9M can act as a second direct RS-232 port connection when used as the second port
<b>SERIAL THROUGHPUT</b>	Up to 230 Kbps
<b>ETHERNET PHYSICAL LAYER</b>	10/100Base-T
<b>POWER REQUIREMENTS</b>	
<b>POWER INPUT</b>	9-30 VDC @ 0.5Amps max
<b>POWER SUPPLY</b>	Removable screw terminal for power (power supply not included)
<b>PRODUCT SURGE PROTECTION (ESD)</b>	2 kV isolation between power supply and serial ground product when used with Digi power supply

### ENVIRONMENTAL

<b>OPERATING TEMPERATURE</b>	0° C to 60° C (32° F to 140° F)
<b>RELATIVE HUMIDITY</b>	5% to 90% (non-condensing)
<b>ETHERNET ISOLATION</b>	1500 VAC min per IEEE 802.3/ANSI X3.263
<b>SERIAL PORT PROTECTION (ESD)</b>	15 kV human body model

### REGULATORY APPROVALS

<b>SAFETY</b>	UL 1950, UL 1604 (Class 1, Div. 2), CSA 22.2 No 950, EN60950
<b>EMISSIONS / IMMUNITY</b>	FCC Part 15 (Class A), ICES-003 (Class A), CE, AS3548, EN6100-6-2 + EN55024, EN55022 (Class A)

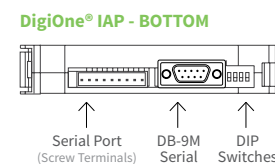
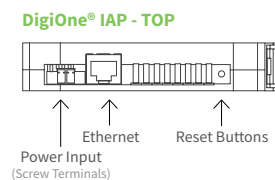
## PART NUMBERS

## DESCRIPTION

70001777	Digi One IAP
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SLAVE	MB/RTU	MB SERIAL	MB/TCP	DF1	A-B ETH	ENET/IP*	ASCII
MASTER							
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



**DIGI SERVICE AND SUPPORT** / You can purchase with confidence knowing that Digi is always available to serve you with expert technical support and our industry leading warranty. For detailed information visit [www.digi.com/support](http://www.digi.com/support).

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