



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			
MANAGEMENT		HTTP configuration, Digi Port Authority – Remote management diagnostics and auto-discovery tool, SNMP (read/write)	
PROTOCOLS		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	
SOFTWARE		Patented RealPort for COM/TTY ports	
SECURITY		SSHv2, SSL, TLS, HTTPS	
OPERATING SYSTEMS		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.	
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		9-30 VDC @ 0.5Amps max	
POWER SUPPLY		Removable screw terminal for power (power supply not included)	
PRODUCT SURGE PROTECTION (ESD)		2 kV isolation between power supply and serial ground product when used with Digi power supply	
ENVIRONMENTAL			
OPERATING TEMPERATURE		0° C to 60° C (32° F to 140° F)	
RELATIVE HUMIDITY		5% to 90% (non-condensing)	
ETHERNET ISOLATION		1500 VAC min per IEEE 802.3/ANSI X3.263	
SERIAL PORT PROTECTION (ESD)		15 kV human body model	
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)	

PART NUMBERS		DESCRIPTION	
70001777		Digi One IAP	

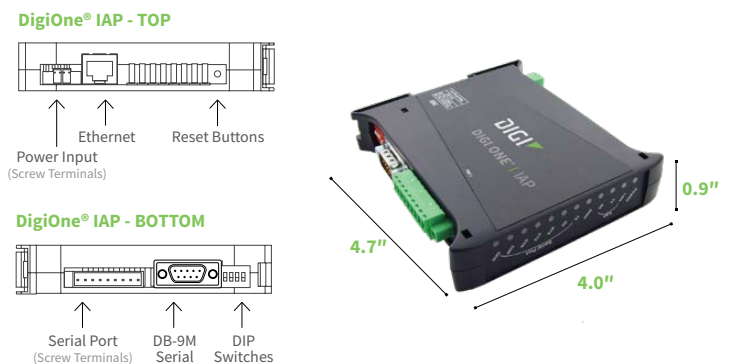
SLAVE MASTER	MB/RTU	MB SERIAL	MB/TCP	DF1	A-B ETH	ENET/IP*	ASC11
	MB SERIAL	MB/TCP	DF1	A-B ETH	ENET/IP	ASC11	
MB SERIAL	-	YES	YES	YES	YES	YES	YES
MB/TCP	YES	YES	-	YES	YES	YES	YES
DF1	YES	YES	YES	-	YES	YES	YES
A-B ETH	YES	YES	YES	YES	-	YES	YES
ENET/IP	YES	YES	YES	YES	YES	-	YES
ASC11	NO	NO	NO	NO	NO	NO	-

\*PCCC encapsulated under CIP only for EtherNet/IP

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