



# UDS1100-IAP

Device Servers



## INDUSTRIAL DEVICE SERVERS

### REMOTELY MONITOR, MANAGE AND CONTROL INDUSTRIAL EQUIPMENT OVER THE NET

The UDS1100-IAP is a rugged and powerful tool which enables users to connect, manage and control just about any piece of industrial equipment from virtually anywhere over Ethernet or the Internet. This single-port Device Server is a quick, simple and inexpensive way to bring the advantages of real-time or on-demand information access.

#### Standards Based Communications

Using an open Ethernet architecture as a standard provides the flexibility for equipment to communicate to virtually any type of industrial device.

When used in conjunction with an OPC server, most Windows® based HMI, SCADA and PC-based control applications have full access to information in the industrial equipment networked by the UDS1100-IAP.

#### Extending Communications Across the Globe

Our approach to network-enabling devices is transparent to your attached equipment and software so you won't need to change the way you work. Using a method called serial tunneling, the UDS1100-IAP encapsulates serial data into packets and transports it over Ethernet. Serial tunneling can be done in multiple ways:

- Using Lantronix supplied Com Port Redirector™ software, Windows device applications not designed for network communications are re-directed to communicate to devices connected to the UDS1100-IAP.
- Connecting two UDS1100-IAP Device Servers configured to automatically talk to each other over the network creates virtual serial connections that can extend serial communications across a facility or around the world.

#### Built-in Web Server

The built-in web server enables users to access and configure the UDS1100-IAP from a standard web browser. Web pages enabling the UDS1100-IAP to be customized for unique applications can be built using Lantronix development tools. On-board Flash memory provides room for future system software upgrades and maintenance-free, nonvolatile web page storage.

#### Easy to Set Up and Use

The UDS1100-IAP can be set up locally through its serial port, or remotely using Telnet or a web browser. The included DeviceInstaller™ Windows-based configuration software simplifies setup and provides an easy way to:

- Assign IP & other network specific addresses
- Load custom web pages
- Enable web-based configuration of the Device Server
- Ping or query the attached device(s) over the network
- View specific device data files
- Upgrade firmware
- Simplify process of installing industrial protocols

Complete with an auto MDI/MDIX Ethernet interface, the UDS1100-IAP is a powerful device communication solution that's perfect for your most demanding industrial applications.

#### Modem Replacement

In modem emulation mode, the UDS is used to replace dialup modems. The unit accepts modem AT commands on the serial port. It then establishes a network connection to the end device, leveraging network connections and bandwidth to eliminate dedicated modems and phone lines.

RoHS-compliant, the UDS1100-IAP meets Directive 2002/95/EC on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

If you're looking for a transparent, cost-effective, and scalable means to network-enable your industrial automation equipment, look no further than the UDS1100-IAP.

- In minutes, securely connect factory floor devices to enterprise systems
- Access, monitor and control equipment over Ethernet
- Replace dedicated PCs and/or modem lines with fast and reliable Ethernet networking
- Supports RS-232, RS-422 and RS-485 communications
- Includes Modbus TCP, ASCII, RTU protocols
- 15KV serial ESD protection
- Wide -40° – 70°C operating temperature range
- Environmentally-friendly RoHS and WEEE-compliant



## Features and Specifications

### Serial Interface

- Interface: Software-selectable RS232, RS422 or RS485 (2 and 4 wire support)
- Connectors: 1 DB25F DCE serial port
- Data Rates: Software-selectable baud rate from 300 to 230 Kbaud
- Characters: 7 or 8 data bits
- Parity: odd, even, none
- Stop Bits: 1 or 2
- Control Signals: CTS/RTS (Hardware)
- Flow Control: XON/XOFF (Software)

### Network Interface

- Interface: 10Base-T/100Base-TX Ethernet port
- Software selectable Ethernet speed 10/100/Auto
- Software selectable Half/Full/Auto duplex
- Connector: RJ45
- Standards: ARP, UDP, TCP, IGMP, Telnet, TFTP, AutoIP, DHCP, HTTP, SNMP, TCP, UDP, and Telnet, TFTP

### LED Indicators

- Power, 10/100 Link/Activity (green), 100/100
- Link/Activity (green), Diagnostics (red), Status (green)

### Processor

- CPU: Lantronix DSTNI-EX 48 MHz clock
- Memory: 256 KB zero wait state SRAM, 2 MB Flash

### Management

- Lantronix DeviceInstaller™ GUI, Serial login, SNMP, Telnet login, HTTP

### Power

- 9-30 VDC or 9-24 VAC on barrel connector (1.5 Watts maximum consumption)
- 9-30 VDC on DB25F serial interface
- 3.3vdc on serial interface

### Environmental

- Operating: -40° to 70° C (41° to 158° F)
- Storage: -40° to 85° C (-40° to 185° F)

### Packaging

- Material: Metal enclosure with integrated wall mounts; optional 35 mm DIN-rail mount available
- Dimensions (LxWxH): 9.0 x 6.4 x 2.3 cm (3.5 x 2.5 x 0.9 in)
- Weight: 0.20 kg (0.45 lb)
- IP Rating: 30

### Agency Approvals

- UL, CSA, FCC, CE, TUV, CTick, VCCI

### Warranty

- 2-year limited warranty

### Shipping Dimensions

- Dimensions (LxWxH): 242 x 191 x 115 mm (9.5 x 7.5 x 4.5 in)
- Weight: 1.5 kg (3.0 lbs)

### Included Software

- Windows® 98/ME/NT/2000/XP-based DeviceInstaller™ configuration software, Com Port Redirector™ software and related utilities

### Emissions

- FCC Part 15 Subpart B Class A Radiated Emissions 30MHz – 1000MHz
- ICES-003 Issue 4 February 2004 Class A Radiated Emissions 30MHz – 1000MHz
- AS/NZS CISPR 22: 2004 Class A Radiated Emissions 30MHz – 1000MHz
- EN55022: 1998 + A1: 2000 + A2: 2003 Class A Radiated Emissions 30MHz – 1000MHz
- VCCI V-3/2005.04 Class A Radiated Emissions 30MHz – 1000MHz
- EN61000-3-2: 2000 Class A Harmonic Current Emissions
- EN61000-3-3: 1995 + A1: 2001 Fluctuations and Flicker

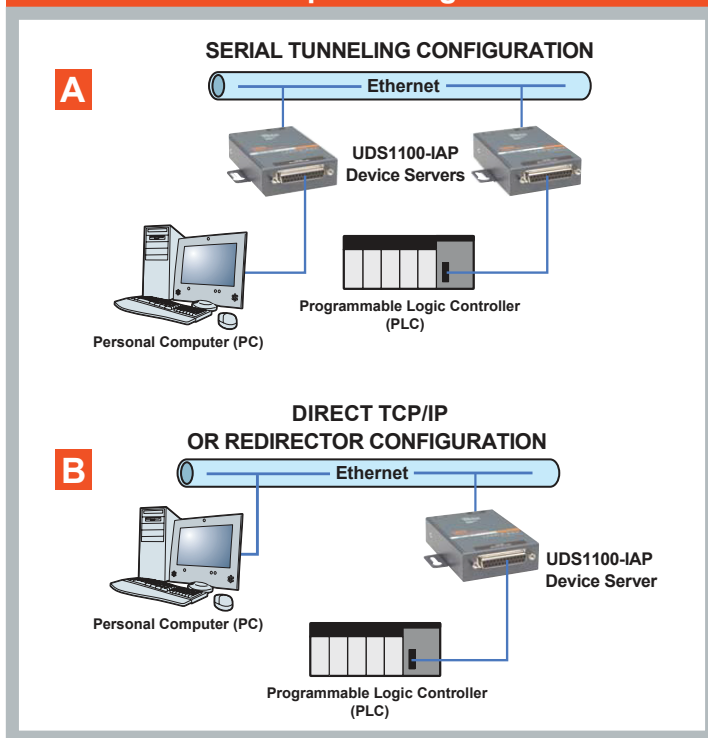
### Immunity

- EN55024: 1998 +A1: 2001 +A2: 2003
- IEC\_61000-4-2: 1995 ESD 8KV Air Discharge (Direct), 4KV Contact Discharge (Direct/Indirect)
- IEC\_61000-4-3: 1995 Radiated Immunity 3.0V/m, 1KHz AM Sine Wave at 80%
- IEC\_61000-4-4: 1995 EFT/Burst 1.0KV Power Lines, 0.5KV I/O Lines
- IEC\_61000-4-5: 1995 Surge Immunity 1.0KV Common Mode, 1.0 KV Differential Mode
- IEC\_61000-4-6: 1996 Conducted Immunity 3.0 Vrms, 80% AM Modulated (1KHz)
- IEC\_61000-4-8: 1993 Magnetic Field Immunity 50Hz 1.0 Arms/m
- IEC\_61000-4-11: 1994 Voltage Dips and Interrupts (>95%,0.5 periods), (30%,25 periods), (>95%,250 periods)

### Isolation

- Designed with protection against transients and ESD for use under harsh environments
- Serial Port: 15 KV ESD protection on RS232 and RS422/485 transceivers
- Power Input: Up to non-repeated 600 W 10/100 usec pulse protection against transient over voltages
- Ethernet Port: 1500 VAC isolation shielded with shield connected to chassis ground for signal integrity and ESD protection

## UDS1100-IAP Example Configurations



## Ordering Information

Part Number	Description
UD1100IA2-01	UDS1100-IAP Device Server, 100-240 VAC International power supply with regional adapters, includes 500-163 cable and ACDIN1001-01 Din rail mount

Accessories	Description
500-163	DB25M to DB9F serial cable (included)
ACDIN1001-01	Optional DIN-rail mount (included)
500-171-R	DB25M to RS485 and power input screw terminal adapter (order separately)

