

# RS-232 / RS-422 / RS-485 over Fast Ethernet Media Converter



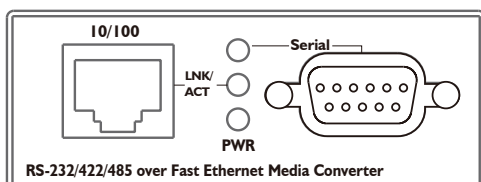
### Cost-effective Solution for RS-232 / RS-422 / RS-485 to Ethernet Application

PLANET ICS-100 series Media Converter / Device Server provides to convert Serial RS-232 / RS-422 / RS-485 communication interface over Fast Ethernet networking. Ethernet signal allows two types of segments to connect easily, efficiently and inexpensively. This converter can be used as a stand-alone unit or as a slide-in module to PLANET Media Converter Chassis (MC-700 / MC-1500/ MC-1500R / MC-1500R48). It is time, saving expense for users and SIs, and there is no need to replace the existing serial equipment and software system.

### Remote Manageable

The ICS-100 makes connected serial equipment become the IP-based type. That also makes them able to connect to a TCP / IP networking immediately. Each Web-Smart converter is able to manage Web interface. The powerful Web-Smart Media Converter supports application mode and serial operation mode, connecting alarm, IP address, etc. It helps reduce the amount of valuable time that a network administrator spends detecting and locating network problems; otherwise, it requires visual inspection of cabling and equipment. Multiple connection options for large networking environment are available as well.

### Front Panel



### Rear Panel



### Serial Interface

- One RS-232/422/485 port to one 10/100Base-TX Media Converter
- Cost-effective solution for RS-232 to Ethernet application
- Supports RS-232, 4-wire RS-422 or 2/4-wire RS485 operation
- Asynchronous serial data rates up to 921600b/s

### Ethernet Interface

- Complies with IEEE 802.3, IEEE 802.3u 10/100Base-TX
- Supports auto MDI/MDI-X function on RJ-45 Port

### Smart Functions

- Standard TCP/IP interface and versatile operation modes
- Software Protocol Support ARP, ICMP, TCP/IP, UDP, HTTP server, DHCP client, Telnet server/client
- Built-in IP-base Web interface for remote management
- Serial operation mode selected via Web management
- Pair connection mode for connecting two serial devices over a network
- PLANET Smart Discovery utility automatically finds xxx devices on the network
- Firmware upgrade via HTTP protocol

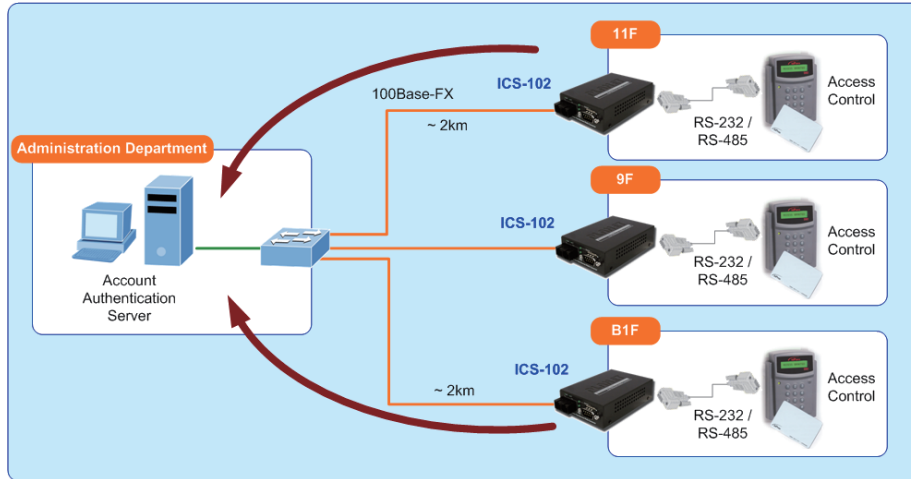
### Hardware

- Compact size for easy Installation:
  - Standalone - Wall mountable or DIN-rail mounting (optional accessory)
  - Co-work with PLANET MC family Media Chassis ( MC-700/1500/1500R)
- LED indicators for easy network diagnose
- Reset button on the front panel for reset to factory default

## Applications

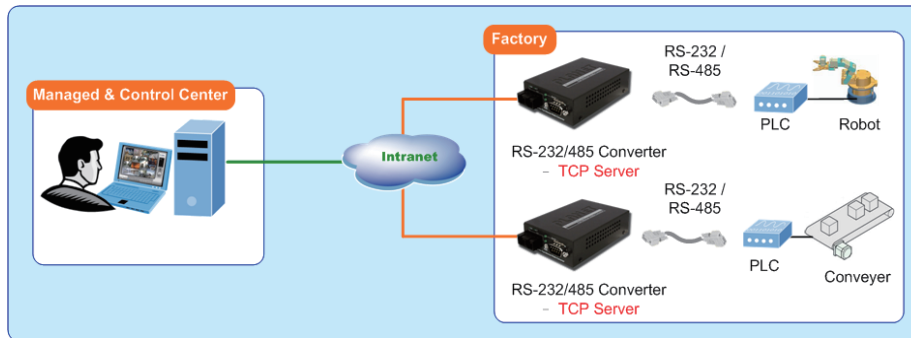
### Access Control System – Traditional Installation

Most of the enterprises and governments use access control plate and Mifare or RFID to authorize entrance identity. With the traditional deployment, access control machine uses RS-232 or RS-485 serial interface and cables connecting to login server. With connection to ICS-10x serial over Fast Ethernet Converter, the access control machine is able to extend over longer distances via Ethernet. Or the ICS-10x can be linked to an XDSL router to get the internet access capability; the access control can be set and monitored over the Internet.



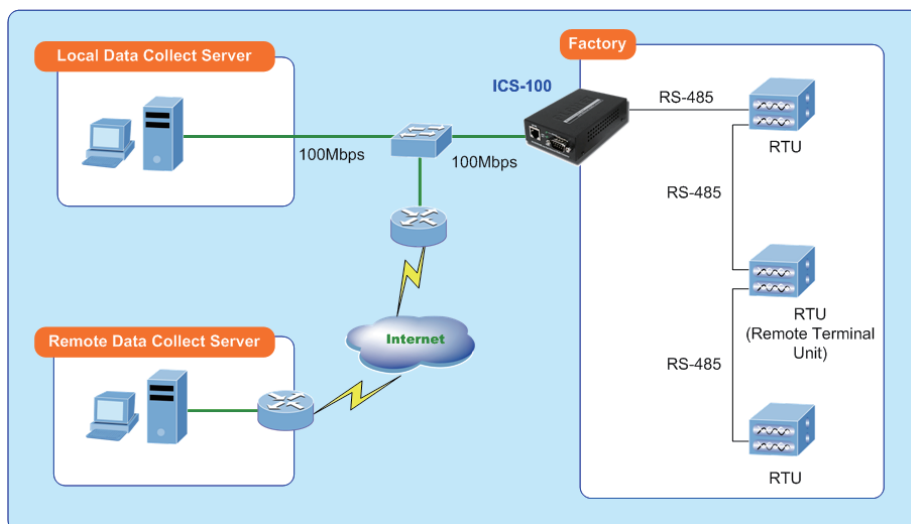
### Process Control

To monitor, configure and manage the Robot conveyer including other machines in manufacturing, PLC (Programmable Logical Control) is required. The PLC is used to drive the above the manufacturing process. The ICS-10x can be set to TCP Server mode and connect the PLC. The administrator can configure and set command settings through Fast Ethernet intranet to control the PLC, the administrator and workstation. There is no need for the administrators to be always by the side of the I/O machine.



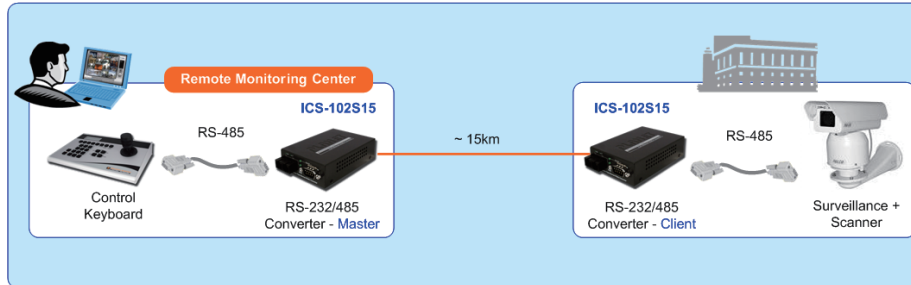
### RTU Data Collect – UDP Mode

Connect with RTU (Remote Terminal Unit) to collect and monitor the data of waves, signal and power utilization. The ICS-10x can be used to setup UDP mode and send data over Fast Ethernet to Local server or over Internet to remote server automatically.



### Surveillance Motion Control – Pair Connection Mode

Using pair connection along with fiber optic patch cord, the ICS-10x extends RS-232 / RS-422 / RS-485 interfaces distance from surveillance and scanner to the control keyboard/joystick which is installed in the remote monitoring center.

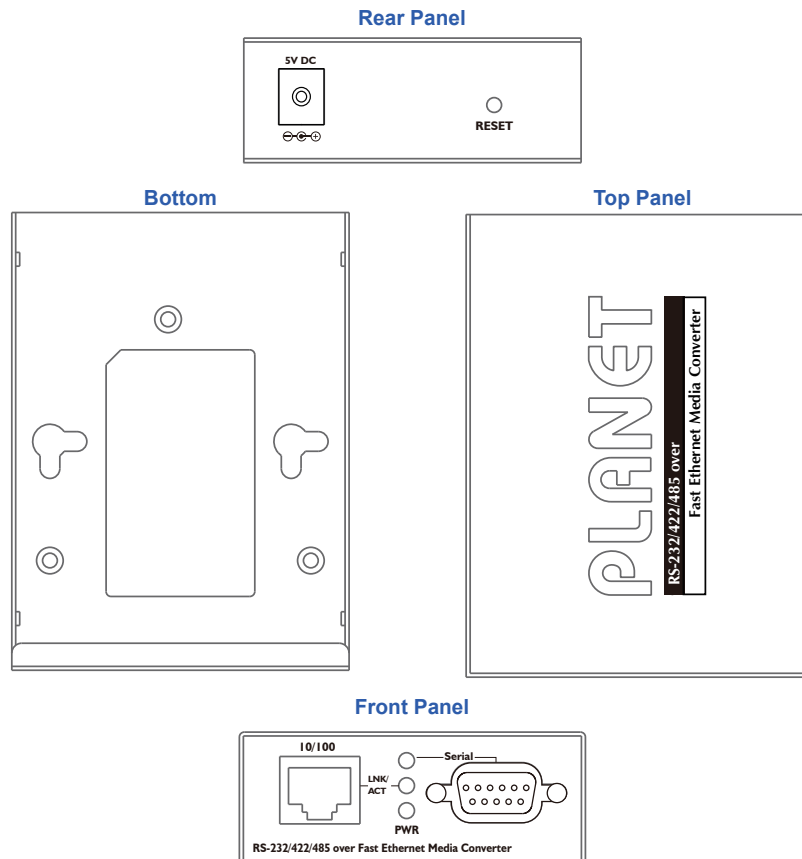


## Specifications

Model	ICS-100
<b>Serial Port</b>	
Interface	RS-232 / RS-422 / RS-485
Connector	3-in-1 DB9
Baud Rate (Data Rate)	300bps to 921600bps
Character Bits	5,6,7,8
Parity Type	Odd, Even, None, Space, Mark
Stop Bit	1, 1.5/2
Flow Control	HW, None
Signals	RS-232: TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND RS-422: Tx+, Tx-, Rx+, Rx- RS-485(2-wire): Data+, Data- RS-485(4-wire): Tx+, Tx-, Rx+, Rx-
<b>Fast Ethernet Port</b>	
Standard	10/100Base-TX
Connector	RJ-45
Distance	100m
Cable	Twisted-pair
Protection	Built-in 1.5KV magnetic isolation
<b>Hardware</b>	
LED Indicators	System: Power TP Port: Link / Active Serial Port: Serial port mode, RS-232, RS-422 or RS-485
Management	Web Management PLANET Smart Discovery Utility
Virtual COM Utility Platform Supports	Windows Base Only: Windows XP Windows Server 2003 Windows 7 Windows Server 2008 Windows 8 (Must install latest version of WinPcap) Windows Server 2012 (Must install latest version of WinPcap)
Operation Mode	TCP Server TCP Client UDP Client Virtual COM Telnet Server Pair Connection - Local (Master) Pair Connection - Remote (Slave)
Dimensions(W x D x H)	97 x 70 x 26 mm
Weight	200g
Power Supply	External Power Adaptor 5V DC / 2A max.
Power Consumption	5.5 watts (max)
Mechanical	Metal

Environment	Operating Temperature: 0~50 degrees C Storage Temperature: -10~70 degrees C Operating Humidity: 10%~90% RH Storage Humidity: 5%~90% RH
Emissions	FCC Class A, CE Certification Class A
Standards	<ul style="list-style-type: none"> <li>• IEEE 802.3 10Base-T,</li> <li>• IEEE 802.3u 100Base-TX</li> <li>• EIA/TIA RS-232/422/485</li> </ul>
Regulatory Approval	RoHS
Compatible Media Converter Chassis	MC-700 / 1500 / 1500R
Note	Reset Button on the rear panel for reset to factory default

## Diagram



## Ordering Information

ICS-100	RS-232/422/485 over Fast Ethernet Media Converter (RJ-45) – 100m
ICS-101*	RS-232/422/485 over Fast Ethernet Media Converter (ST, MM) – 2km
ICS-102*	RS-232/422/485 over Fast Ethernet Media Converter (SC, MM) – 2km
ICS-102S15*	RS-232/422/485 over Fast Ethernet Media Converter (SC, SM) – 15km
ICS-105A	RS-232/422/485 over Fast Ethernet Media Converter (SFP) – Vary on module

(\*): Upon request

## Accessories

RKE-DIN	DIN-Rail Mounting Kit
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ICS-100