

**CAS-2700-42
IKS UDP
Modbus(RTU or TCP) and BACnet IP and HTML
Gateway**

Description

The IKS UDP Driver allows the Gateway to connect to an IKS device and poll for real time data. The driver also allows a user to send various commands to control the IKS device.

The CAS Gateway serves data from an IKS device as Modbus (RTU or TCP), BACnet IP, or Web data. The gateway supports all of these options simultaneously. Use the data you want and ignore the others.

The Gateway connects to the IKS device, reads data and stores it internally. When a remote system requests the data, it is served in a form that is appropriate to the request's protocol. In the case of commands, users will send write requests that will trigger the gateway to send a control command to the IKS device.

The driver is an Ethernet driver that uses Ethernet cables and a hub or a switch to connect the Gateway and the IKS device. The IKS device must enable and support the UDP interface.

Specifications

- **UL and ULc approved**
- 10/100BaseT with RJ-45 connector
- 1x RS232 Port
- 1x RS485 Port (Different Models have additional ports)
- 2MBytes flash memory, 8MBytes of SDRAM
- Power: 5-24VDC
- Operating Temperature: 0 to 70 C
- Dimensions: 4.2" x 3.25" x 1"
- LEDs: Link, Speed/Data, Power

Max Nodes Supported (If Applicable)

Gateway Mode	Nodes	Comments
Client	1	<i>Only 1 IKS Device system per connection</i>
Server	0	<i>Not supported or documented.</i>

Connection Information - Port 0: Modbus RTU Server Port

Connection type:	RS485 (Jumper change to RS232)
Baud Rates:	9600; 19200 Baud
Data Bits:	8
Stop Bits:	1
Parity:	None
Hardware interface:	N/A
Multidrop Capability	Yes

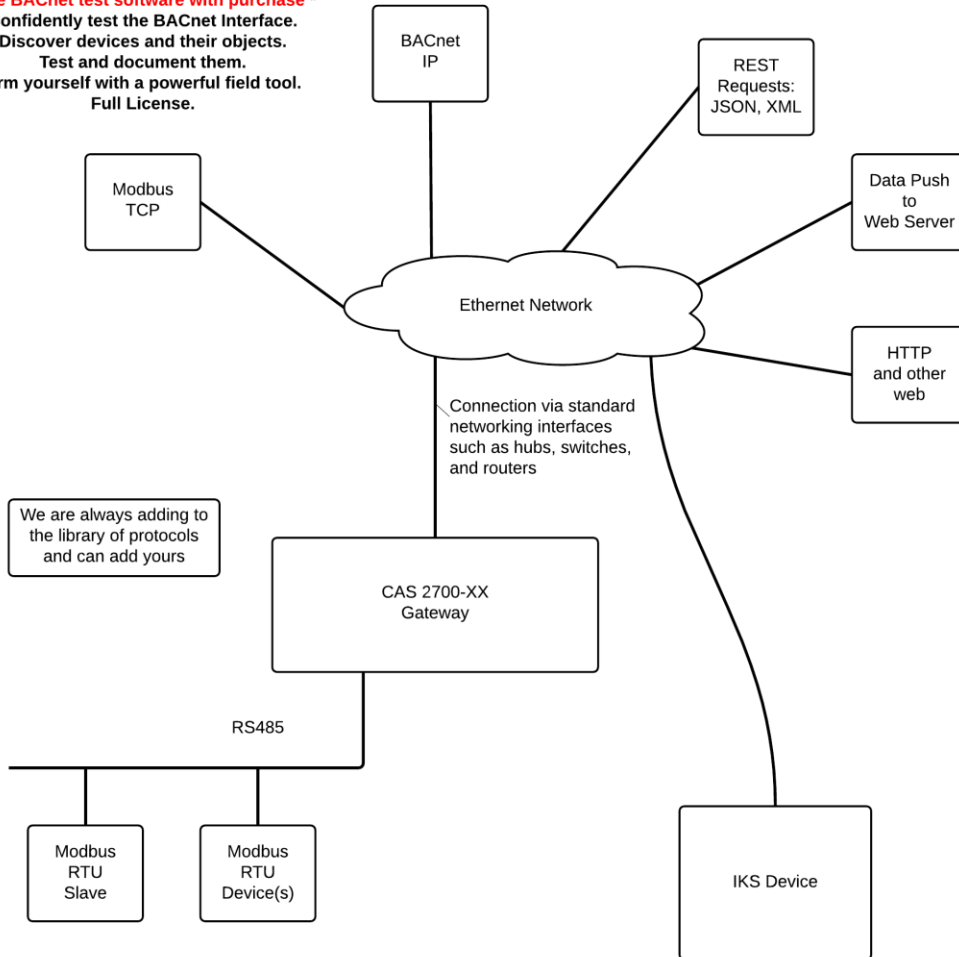
Devices Tested

Device	Tested (FACTORY, SITE)
IKS I_DENCON 10kW Hybrid	Tested

Connection Diagram

Monitor and Control IKS Devices using BACnet, Modbus or Web

Free BACnet test software with purchase *
Confidently test the BACnet Interface.
Discover devices and their objects.
Test and document them.
Arm yourself with a powerful field tool.
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Driver Operation

When configured, the driver will execute the polling task on a set interval. The data received is stored internally in the Gateway and is made available to other protocols (Modbus RTU, Modbus TCP, BACnet IP and HTML).

The frequency with each data point is read is configurable. The driver retries on errors or timeouts.

The driver will also check for user initiated commands received through Modbus, BACnet, or Web write requests. The driver will then execute and send the sequence of commands to the IKS device.

The driver reports operating stats and issues on a web page, maintains a log that can be uploaded by HTTP or ftp.

Configuration

Via Web Page. Configure IP settings, Node ID's, Baud Rate and other parameters. The names are used to form the names of the BACnet objects and populate the web page showing current values.

User can specify

ModbusTCP: Node_ID

ModbusRTU: Node_ID, baud, parity, data length, stop bits

BACnet: Device instance number, device name.

IKS: IP Address, Port, polling frequency.

Communications functions

Supported functions

The following is a list of IKS commands that the Gateway supports. Note that many of these commands must be sent in a certain sequence to properly control the IKS device.

- **Inquiring of a state**
- **Start Operation Command**
- **Stop Command**
- **Setting Mode of Operation**
- **Writing "Setting Values"**
- **EV Connection Command**
- **EV Disconnection Command**

The driver will not send the next command until a response has been received from the previous or until a timeout has expired.

Support

This driver was developed by Chipkin Automation Systems (CAS). CAS are proud to provide support for the driver. For support please call CAS at (866) 383-1657.

Revision History

Date	Resp	Format	Driver Ver.	Doc. Rev.	Comment
2014 Oct 01	ACF		0.01	0	Created
2014 Dec 16	ACF		0.04	1	Updated the Product Number