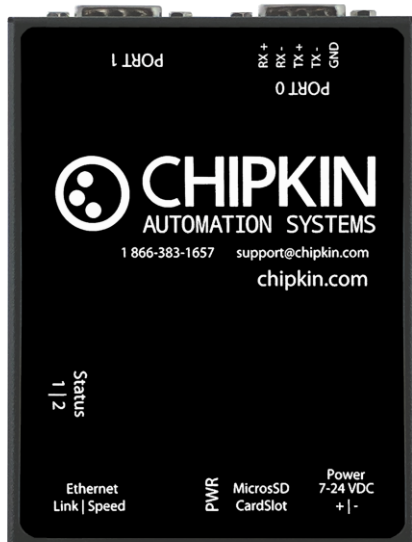


July 26, 2017



CAS-2700-26

CAS Gateway 1-Wire to Modbus® RTU/TCP, BACnet® and HTTP

PRODUCT DESCRIPTION

Chipkin™ 1-Wire™ Modbus® RTU/TCP, BACnet® and HTTP gateway is a protocol converter for 1-Wire DS18B20 temperature sensors. The gateway operates by reading the temperature data from the 1 or more DS18B20 1-wire sensors into an internal database. The values read from these sensors then can be read from Modbus® RTU/TCP, BACnet® and HTTP.

The gateway requires minimal configuration and can be considered a 'plug and play' component of any network system. It's ready to operate 'out of the box' and can be installed without an engineer's approval. For a list of tested devices, refer to Appendix A: Tested Devices.



Important: The serial driver uses an RS232 serial port to connect the 1-Wire network and a 1-wire to RS232 converter must be installed on the Chipkin Gateway.



Note: All gateways sold by Chipkin report operating stats and issues to web pages and maintain logs that can be uploaded by HTTP or ftp.

SPECIFICATIONS

The following specifications for the 1-Wire™, Modbus® RTU/TCP, BACnet® and HTTP gateway are common to all Chipkin gateways.

- UL and ULc approved
- 10/100BASE-T with RJ-45 connector
- 1x RS232 port
- 1x RS485 port (different models have additional ports)
- Power: 7 – 24 VDC through an external power supply

- Operating temperature: 0 – 70 °C (32 – 158 °F)
- LEDs: link, speed/data, power
- Dimensions (LxWxH): 107 x 83 x 25 mm (4.2 x 3.25 x 1 in.)

MAXIMUM NODES SUPPORTED

This table summarizes the number of panels supported for each protocol node.

GATEWAY NODE	NODES	COMMENTS
Client	50*	* The max amount of 1-Wire DS18B20 sensors is determined by the capacitance of the cable and the sensors.
Server	0	Not supported or documented

CONNECTION INFORMATION

These tables summarize possible connections from the Modbus RTU server ports

PORT 0: VEEDER PORT

Connection type	1-Wire
Baud rates	Auto-negotiation
Hardware interface	Yes, DS9097U Universal 1-Wire COM Port Adapter https://datasheets.maximintegrated.com/en/ds/DS9097U-009-DS9097U-S09.pdf
Multidrop capability	Yes

PORT 1: MODBUS RTU SERVER PORT

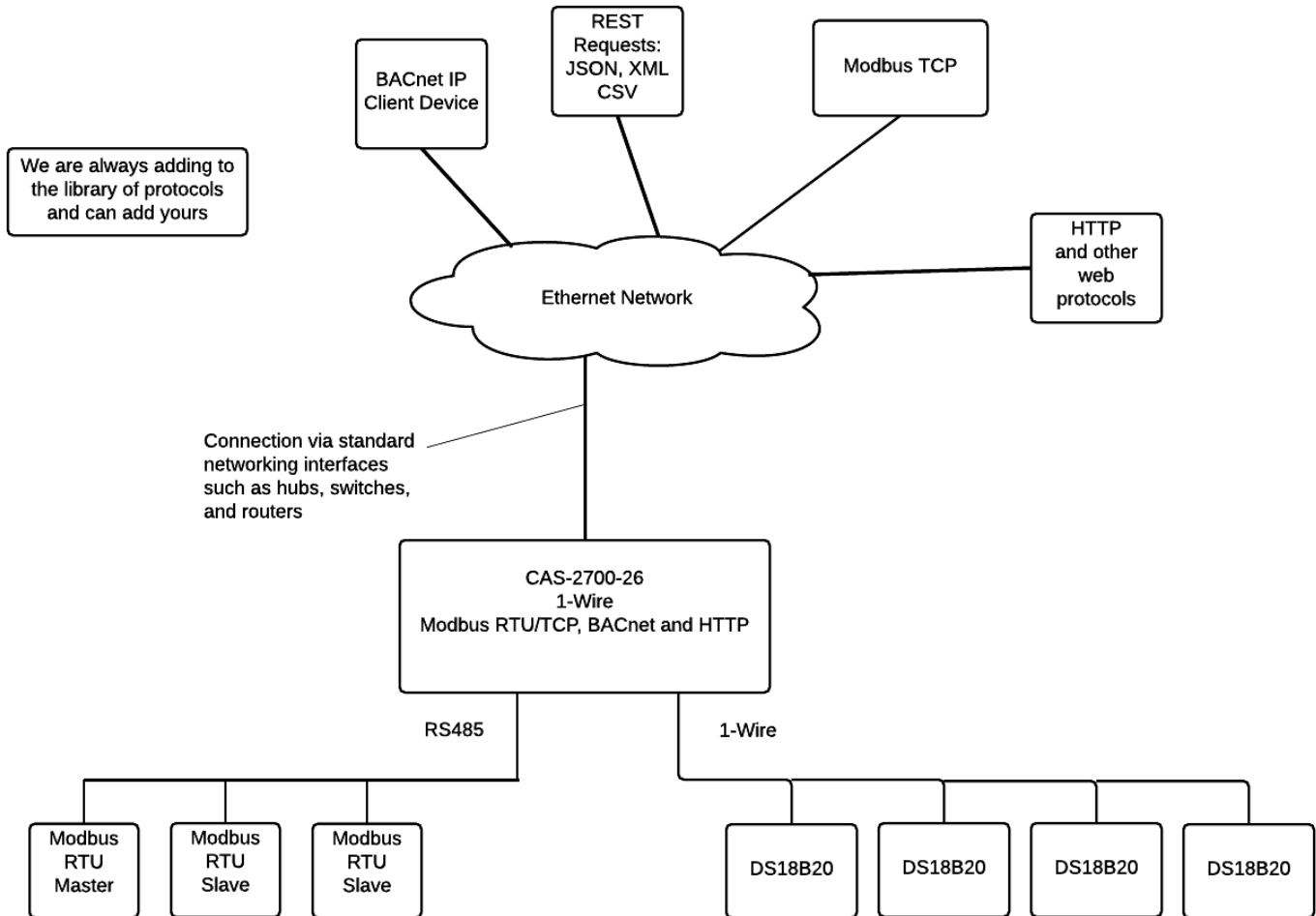
Connection type	RS485 (jumper change to RS232)
Baud rates	Driver supports: 9600 , 19200 baud

Data-bits	Driver supports: 8
Stop-bits	Driver supports: 1
Parity	Driver supports: none
Hardware interface	N/A
Multidrop capability	Yes

** Blue represents the gateway's default configuration

CONNECTION CONFIGURATIONS

This block diagram lists common network connections that can monitor and control data from 1-Wire sensors using Modbus RTU/TCP, BACnet and HTTP protocols.



CUSTOMER SUPPORT

CAS-2700-26 1-Wire to Modbus® RTU/TCP, BACnet® and HTTP gateway was developed by Chipkin, and we are proud to provide support for our products. For technical support, sales and customer service, please call us at 1 (866) 383-1657.

REVISION HISTORY

This table summarizes the update history for this gateway data sheet. Please contact Chipkin by phone or email for an updated version of this document.

DATE	RESP.	DRIVER VERIFIED	DOCUMENT REVISION	COMMENTS
26 July 2017	SWS	0.00	0	Document created.

APPENDIX A: TESTED DEVICES

These tables summarize the Veeder-Root devices that have been tested. Other devices may be supported.

DEVICE	TESTED (FACTORY/SITE)
DS18B20	Factory, Site

Thanks for choosing Chipkin’s protocol gateways, data clients and integration services to meet your building and industrial automation requirements!

Chipkin™ is a building and industrial automation protocol expert. We develop, configure, install and support gateways (protocol converters), data loggers and remote monitor and controlling applications. Founded in October 2000, Chipkin provides expert solutions for converting BACnet®, Modbus®, and Lonworks®—to name just a few—and enabling interfaces for HVAC, fire, siren, intercom, lighting, transportation and fuel systems. The high-quality products we offer (including those from other vendors) interface with Simplex™, Notifier™, McQuay™, GE™ and many others—so you can rest assured that we will select the most appropriate solution for your application.

With Chipkin you are buying a solution. Our configuration expertise in this field combined with free BACnet and other tools ensure your success; and our customer support via phone, email and remote desktop tools means that we’re there when you need us. Chipkin is a small responsive company, and

we live or die by the quality of our service—and with offices in two time zones—we can provide support when you need it. Give us a call now!

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