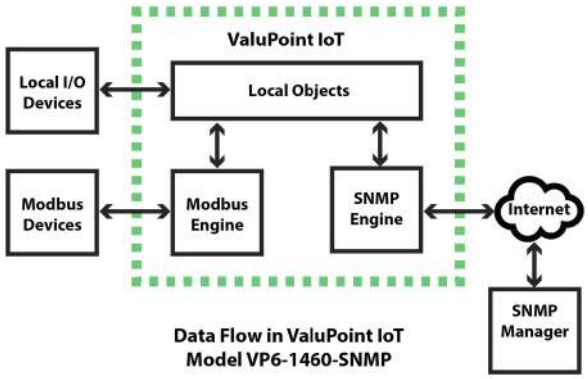
ValuPoint IoT
MODEL VP6-1460-SNMP
IoT Edge Server

CONTROL SOLUTIONS MINNESOTA

Remote Monitoring via SNMP



Data Flow in ValuPoint IoT
Model VP6-1460-SNMP

Control Solutions' ValuPoint VP6-1460-SNMP connects physical I/O (e.g. sensors) to SNMP. In addition, the VP6-1460-SNMP makes any Modbus device accessible to SNMP. You can use SNMP Get/Set to query I/O or Modbus points, or set up threshold rules to generate traps in response to physical I/O changes or Modbus changes.

"I want to receive an SNMP trap when a contact closes."

That is what the VP6-1460-SNMP is designed to do - give you access to physical equipment via SNMP. The VP6-1460-SNMP uses threshold rule templates to continuously monitor local sensors or Modbus data and generate SNMP Traps upon sensing of an "alarm" conditions. You can also use SNMP Get to query data at any time. You can use SNMP Set to control outputs or change setpoints.

The physical inputs on the VP6-1460-SNMP can be configured for analog sensors or discrete sensors, pulse counting, and thermistor input with internal linearization built in. The inputs are continuously monitored and data is always real time.

The VP6-1460-SNMP will automatically poll whatever Modbus devices and registers you tell it to, and hold a copy of the data for access by SNMP. You can provide SNMP access to Modbus coils, discrete inputs, input registers or holding registers. The VP6-1460-SNMP supports 16, 32, and 64 bit integer data, 32 and 64 bit floating point, and character strings as a series of Modbus registers.

The Modbus registers you want to make accessible to SNMP are configured with "read maps" in the VP6-1460-SNMP.

You can also write to Modbus using SNMP Set. Simply configure a "write map" in the VP6-1460-SNMP to make this connection. SNMP can send data to Modbus coils or holding registers in the remote Modbus device.

The VP6-1460-SNMP can be Modbus RTU master or slave, and can be Modbus TCP client and server concurrently. The ValuPoint's Modbus register map is user configurable.

The VP6-1460-SNMP supports SNMPv3 as well as SNMPv2 and SNMPv1. User credentials for SNMPv3 access are entered via the built-in secure web user interface.

The MIB is divided into branches, with the 32-bit integer branch being the most universal. There are also 64-bit integer, and both 32-bit and 64-bit floating point branches as well as a character string branch. You configure the MIB by assigning local Modbus registers to positions in the MIB branch.

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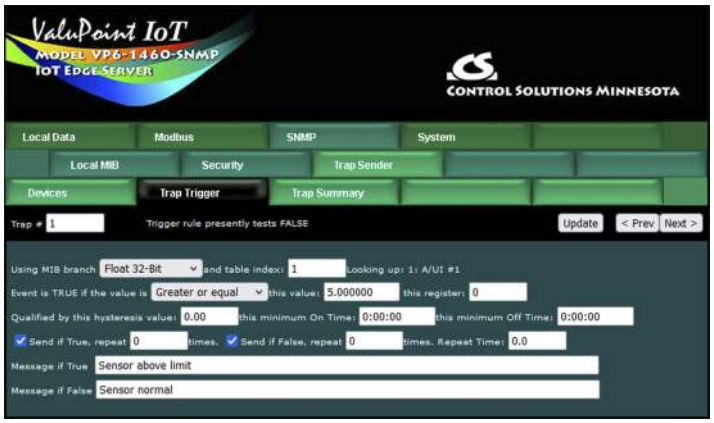

Traps (or SNMPv3 Notifications) are generated based on rule templates you fill in, and they reference data found in the MIB branches. In addition to sending the relevant data with the trap or notification message, the templates include user defined character string messages.

Configuration of the VP6-1460-SNMP is done via the web pages served by the internal web server. You simply fill in templates. The entire configuration is saved in the internal Flash file system in XML format. This file may be exported to replicate additional copies of the configured device, or for backup.

The VP6-1460-SNMP includes template based rules for simple calculations and data tests. These can be used for simple data manipulation. Reformatting from one register type to another is automatic. Therefore, a simple copy rule will transform a number into an ASCII string for use in sending traps.

The VP6-1460-SNMP includes a real time scheduler for scheduling daily events or one-time events on a given date and time. The scheduler also includes exceptions for holidays. The scheduler will apply scheduled values to local registers which may in turn be written to remote Modbus devices or control local outputs.

FEATURES

- 12 Analog/universal inputs, software selectable types
  - 0-10VDC, thermistor, discrete, dry contact, pulse
  - 0.1% reference,12-bit resolution
  - Non-volatile totalizing count inputs
  (to 2Hz on all channels, to 1kHz on 4 channels)
- 2 Discrete outputs
  - Form A relay
  - 2A @ 120VAC
  - 2A @ 30VDC
- Battery backed real time clock/calendar
- SNMP v1, v2c, v3 Agent, User configurable traps/notifications
- Modbus RTU RS-485 Master or Slave
- Modbus TCP Client and Server via 10/100BaseT Ethernet
- Up to 2000 local registers
- 16, 32, 64-bit integer, 32 or 64-bit IEEE 754 floating point, Mod10
- ASCII character string support (UTF-8)
- Supports Modbus “coils”, input registers, holding registers
- Modbus register mapping configured via web interface
- Modbus (master) polling interval configurable per point
- Real time event scheduler
- Local user programming with i.CanDrawIt
- Configure via web pages, HTTP and/or HTTPS
- Flash file system for XML configuration files, SSL certificates
- Online help, Quick Help section at bottom of every web page
- Password protection for web log-on and ftp
- Field upgradeable firmware upload via ftp
- DHCP or static IP address, IPv4 and IPv6 support
- Isolated RS-485 port, Modbus RTU at 1200 to 115200 baud
- Powered by 18-30VDC or 24VAC 50/60 Hz Class 2, 0.3A max.
- DIN rail mounting, 100mm H x 70mm W x 60mm D
- Pluggable screw terminal block for power & RTU network
- Operating temperature -40°C to +80°C; Humidity 5% to 90%
- FCC Class A, CE Mark
- Listed to UL 916 and (Canadian) C22.2 No. 205-M1983

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- *Full details*
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