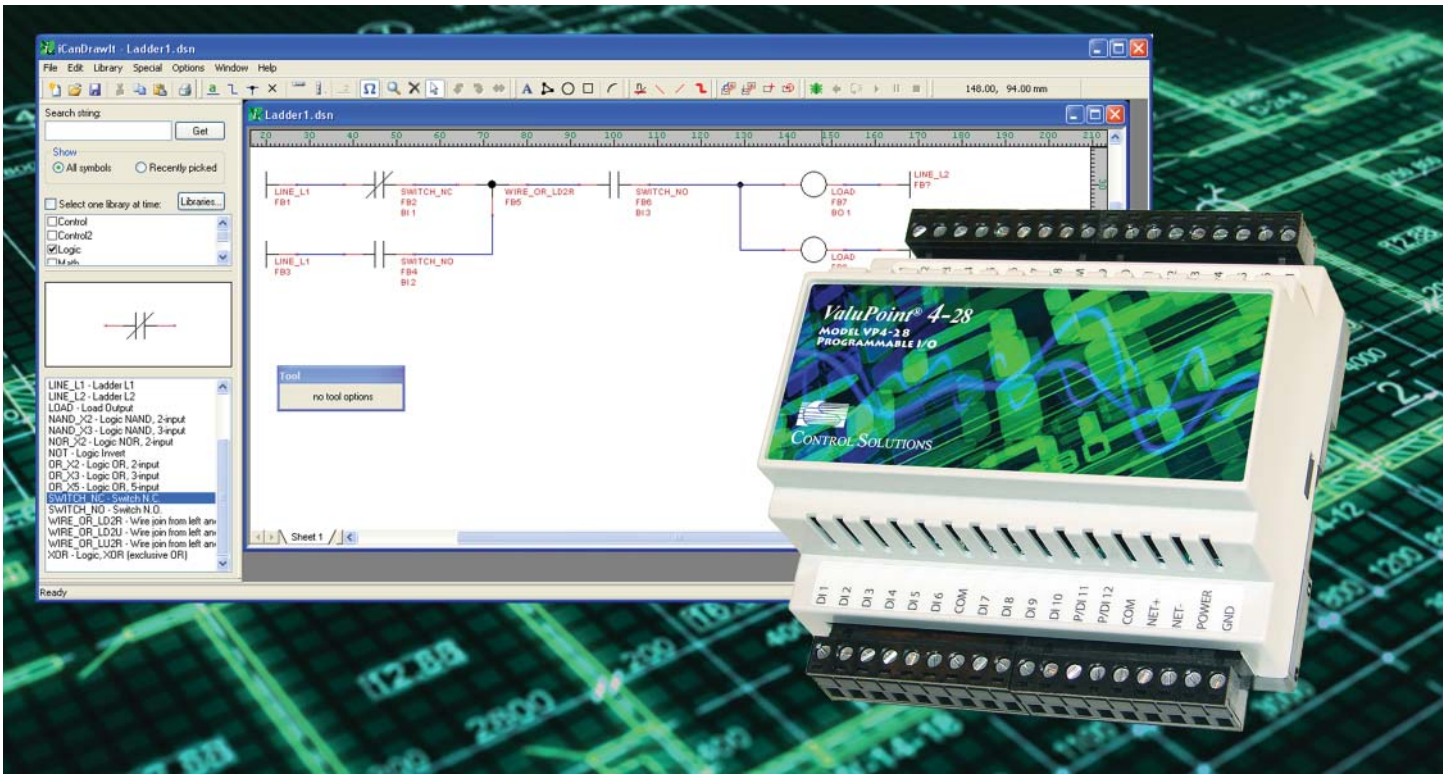
ValuPoint®
PROGRAMMABLE I/O

CONTROL SOLUTIONS MINNESOTA



ValuPoint® Model VP4-2810

Control Solutions' Model VP4-2810 ValuPoint® Programmable I/O for Modbus RTU is a network I/O device that includes programmable control. The 4th generation ValuPoint® platform is designed to be a building block in a distributed control system where controllers communicate via Modbus RTU.

The ValuPoint® Model VP4-2810 features 12 discrete inputs configurable as dry contact closure to ground, or DC voltage sensing (in two groups of 6).

Pulse input at up to 1kHz is available on 2 channels. Pulse input to 10Hz is available on all channels. Pulse counts are totalizing, and saved to non-volatile memory every 15 minutes.

Software Features of Model VP4-2810

- Modbus RTU Master or Slave
- Freely programmable - *i.CanDrawIt*® graphical programming
- Includes uncommitted registers for soft PLC use
- All registers accessible as 16-bit or 32-bit including IEEE754
- Modbus Master can query registers in other Modbus devices
- Local registers mirror data mapped from other devices
- Registers accessible as coils, discretes, holding registers

Hardware Features of Model VP4-2810

- 12 Discrete Inputs
  - Dry contact closure to ground
  - Voltage sensing to 30VDC
  - Fast (1kHz) pulse count capability on 2 channels
  - Slow (10Hz) pulse count capability on all channels
  - Non-volatile totalizing count inputs
- 16 Discrete outputs
  - 30VDC 1A open drain FET
- Battery backed real time clock/calendar
- Modbus RTU at 4800 to 38400 baud
- Hardened RS-485 port
- 128KB non-volatile EEPROM configuration file capacity
- 64K Flash for User Program
- ARM 32-bit processor, 512K Flash, 56K RAM
- Powered by 18-30VDC or 24VAC 50/60 Hz
  - 0.3A @ 24VDC
- DIN rail mounting, 100mm H x 105mm W x 60mm D
- -40C to +85C, 5%-95% RH non-condensing
- Certifications: FCC, CE

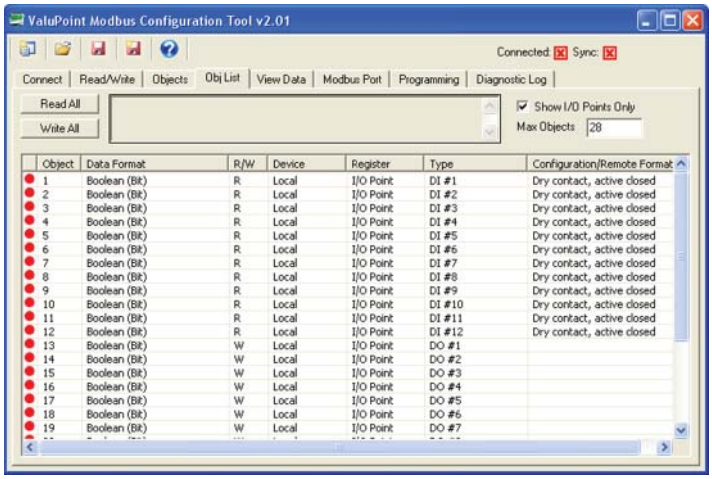
ValuPoint® - An Outstanding Value

The ValuPoint® series of controllers is designed to be a building block in a distributed control system. The VP4-2810 can be used as Modbus slave for system expansion, or as Modbus master for stand-alone applications. When configured as Master, the VP4-2810 can query other Modbus devices, and use local registers to mirror mapped registers in remote devices.

All of the ValuPoint features available to local objects are also available to the remote mapped objects. This means the remote objects can be incorporated into the local i.CanDrawIt® program.

The VP4-2810 has a total of 320 data objects, of which the first several are assigned to physical I/O points. The remaining objects may be used as local storage for the soft PLC program, or may be used to mirror remote registers in other Modbus slaves. Each data object may be accessed as 16-bit or 32-bit integer, or floating point. Discrete points may be read as holding registers, coils, or discrete inputs. Analog points may be read as holding or input registers.

ValuPoint® support software, available for download at no cost, includes the VP4-2810 configuration tool, i.CanDrawIt graphical programming tool, and the pliWrite line programming tool. Both programming tools support both simulated execution and live debug. The tools connect via any serial COM port with an RS485 adapter.



The VP4-2810 can be configured using any Modbus master, but to make things easier, we provide a PC based configuration tool that you may download at no cost from our web site.

i.CanDrawIt®

i.CanDrawIt® works just like an electrical schematic CAD program, except you draw control programs that look like circuits. The resulting software will function like the circuit you draw. i.CanDrawIt® includes visual program simulation as well as visual live debugging where supported by the target device. Set breakpoints or step through the program one visual function block at a time. Update variables and I/O objects in simulation or live.

- Draw control programs
- Electrical CAD look and feel
- Ladder style, free form logic, or hybrid
- Compile code from drawings
- Simulate functions block by block
- Run to break point
- Run until paused
- Inspect or change variables
- Inspect or change registers (object's value property)
- Draw new function blocks
- Library source code included

i.CanDrawIt® is included at no additional cost with every ValuPoint® controller from Control Solutions Minnesota.

- No supporting software to buy
- No license fees, no run-time licenses
- Includes no-fee online support
- No time limits, no functional limits or disabled features

Visit our web site for
- *Full details*
- *On-line Ordering*

www.csimn.com

CONTROL SOLUTIONS MINNESOTA
PO BOX 10789
ST. PAUL, MN 55110-0789
VOICE (651) 426-4410 • FAX (651) 426-4418
TOLL FREE 1-800-872-8613

© 2019 Control Solutions, Inc. *ValuPoint*® is a registered trademark of Control Soltuions, Inc. Modbus® is a registered trademark of Modbus Organization, Inc.