

drive.web smarty fact sheet



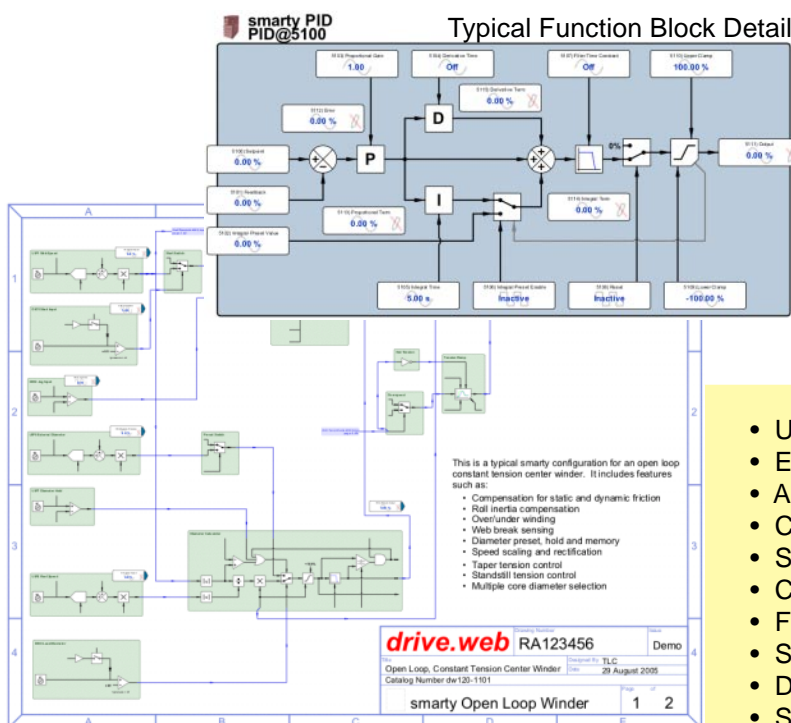
- New concept alternative to a PLC
- Distributed control with unlimited bandwidth
- Cost effective for systems of any size
- Optimized for drives & drive systems
- Easy function blocks for complex systems
- Stand alone or networked
- Ethernet for programming and LAN
- Internet accessible

smart controller for drives and drive systems

smarty is a DIN rail mounting programmable controller for drives and drive systems. It can be used to replace obsolete control cards and PLCs and provides documentation with clear, graphical function blocks and easy to follow signal flow diagrams.

smarty can also be networked over Ethernet with drives, operator stations, SCADA systems, etc., using the **drive.web** Internet accessible distributed control technology. The **drive.web savvy** programming and drive system design software tools can be downloaded free from www.driveweb.com

It's intuitive ... if you can sketch out your control scheme, you can build it!



- Compact package 2.3" wide, 4.5" high, 4.7" deep
- Rugged DIN rail mount
- Plug in terminal blocks
- I/O options:
ModbusTCP/IP (Ethernet), ModbusRTU (RS485)
Qty. 7, Universal analog/digital inputs
Qty. 2, Analog outputs
Qty. 3, Configurable digital input/outputs
Qty. 2, Encoder inputs, bidirectional with marker

- Uses **savvy** intelligent design and programming software
- Easy graphical function block programming
- Active graphics show real time state of switches, contacts, etc.
- Create clear graphical documentation
- Simple "drag 'n drop" connections
- Clear page to page auto referencing
- Fast pan, zoom, home, jump to functions
- Selection of custom or standard ANSI or ISO drawing formats
- Display trend charts
- Signal Flow Diagram option

Typical Open Loop Winder Signal Flow Diagram

drive.web **smarty** - Models & Options

dw110- **smarty-s** Distributed Process Controller with configuration, monitoring, diagnostics & Internet access

dw113- **smarty-so** with interface to Optidrive AC Sensorless Vector & VTC Drives

OPTIONS

- 02 RS485, isolated, ModbusRTU (slave)
- 03 7 universal a/d inputs, 2 analog out, 3 digital i/o
- 04 ModbusTCP/IP (slave)
- 05 Function Block Library 1 - Basic Functions (Arithmetic, Logic, PID, Switches Comparator, Profiler, Presets, Latch, Filters, Counter, Timer)
- 06 Function Block Library 2 - Winder Controls (Dia. Calc., Taper Tension Calc., Torque Comp)
- 07 Encoder 1 input. bidirectional with marker pulse
- 08 Encoder 2 input. bidirectional with marker pulse (not available on **smarty-so**)
- 09 Real time clock

smarty specials - generic configurations

- 1101 Open Loop Winder
- 1102 Dancer Controlled Winder
- 1103 Loadcell Controlled Winder

Serial port for Optidrive interface (Optional)

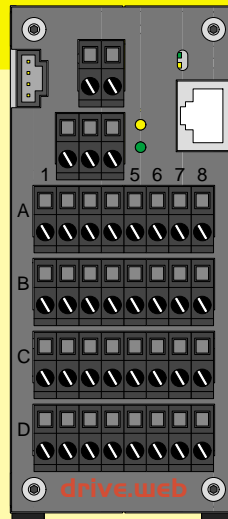
RS485 port (Optional)

Encoder 2 Input (Optional)

Encoder 1 Input (Optional)

Analog Out & Digital Input/Outputs (Optional)

Universal Input/Outputs (Optional)



Features

Ethernet port with Link & Activity LEDs

- Plug-in terminals
- Rugged metal case
- Firmware field upgradable
- Program from PC, Mac, Linux
- **savvy** has auto updates
- Multi-user access
- Supports Virtual Private Network

POWER INPUT +24VDC +/-15%
Requires ≈ 80mA + loads (1A auto reset fuse)

OPTION -02 - RS485 - ModbusRTU Slave
Isolated (250VAC maximum)
Tx and Rx LEDs
Direct connections or via organizer window

OPTION -07 & -08 Encoder Input
Bidirectional with marker
RS422 / RS485 receivers, 24V compliant
300KHz max. frequency

OPTION -03 - ANALOG & LOGIC I/O
+10V Reference, 30mA maximum
Qty. 2, Analog outputs, 0V to +10V
10mA max, 10-bit resolution
Qty. 3, Digital configurable input or output
+24V outputs, 50mA max
Qty. 7, Universal inputs configurable analog or digital inputs
Analog input ranges +/- 200V, 100V, 10V, 5V, 100mV
Digital input ranges +24V, +12V, +5V
Differential analog inputs 10V, 5V, 100mV
100KΩ input impedance, 12-bit resolution

ETHERNET INTERFACE

10baseT Ethernet standard on all units
Provides programming and networking capability.
RJ45 connector for CAT-5 cable
Crossover cable can be used for direct single connection
Unit accepts IP address for Internet access

drive.web DISTRIBUTED CONTROL PERFORMANCE

Network bandwidth virtually unlimited regardless of size
Device speed user settable, subject to program complexity
Min. execution time: 3 ms

Typical times: Adaptive PID + analog I/O, < 10 ms
Complex winder + I/O < 35 ms

Bardac drives

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