

OPTICORE™ SS-683TX

Small Application Controller

The OEMCtrl OptiCORE™ SS-683TX is a high-performance, BACnet native direct digital controller (DDC). It provides speed, power, memory, and I/O flexibility in a compact package. The SS-683TX is targeted for controlling HVAC equipment with small I/O point counts. Made with integration in mind, the SS-683TX can integrate with building automation systems via BACnet (IP or MSTP) or Modbus (IP or serial). The dual IP ports provide the ability to take advantage of a daisy-chain topology. It also allows for connecting to communicating devices like VFDs via BACnet or Modbus.

Key Features and Benefits

Performance / Hardware

- Built-in End of Network switch for easy configuration on a BAS network
- Flexible, color-coded and easy to wire I/O
- Program and historical data stored in non-volatile memory, eliminating the need for batteries

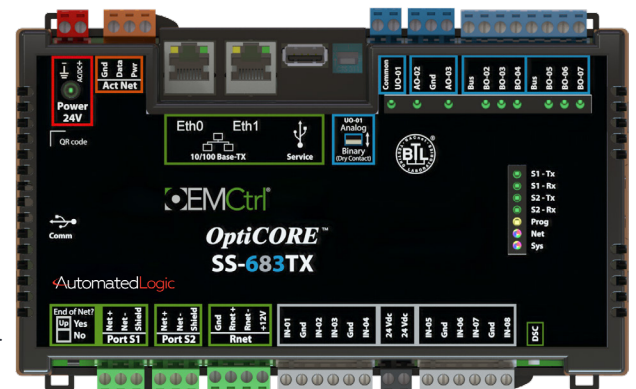
Communication Features:

- 3 Configurable Communication Ports
 - Eth0 & Eth1: Daisy Chain 10/100 Base T Ethernet Ports for BACnet or Modbus communication, includes DHCP addressing
 - Port S1: EIA-485 for BACnet or Modbus (BAS or 3rd-party device)
 - Port S2: EIA-485 for BACnet or Modbus (3rd-party device)
- 3 Dedicated Communication Ports
 - Service Port: USB-A for technician access or EQT2 touchscreen connection
 - Rnet: For the ZS communicating sensors or EQT2 touchscreen connection
 - USB Comm Expansion Edge Connector Port: For comm expansion

Service & Usability Features:

- Fully programmable using our powerful EIKON® graphical programming tool
- Flexible site-specific archiving supported allowing for restore points to be created with a variety of ways to trigger the restore point and recover to that archive
- Unique permissions framework provides protection for intellectual property (IP) while allowing for seamless connection of controllers to the WebCTRL® (Automated Logic) or i-Vu® (Carrier) building automation systems
- Existing control programs are easily converted and supported in the new hardware

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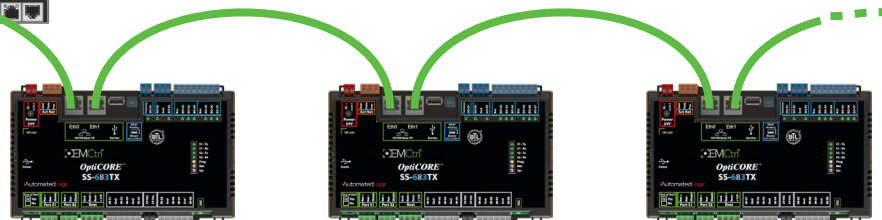
Modbus

Support for EQT2 touchscreens



Support for Daisy-chain Ethernet

EQT2-7

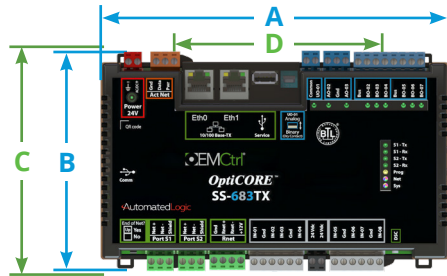


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Support for 3rd-party devices (up to 200 points)



Specifications

Power	24 Vac / 24 Vdc \pm 10%, 50-60 Hz, 55 VA / 20 W, single Class 2 source only		
Operating Range	-40° to 158° F (-40° to 70° C); 10 to 95% relative humidity, non-condensing		
Universal Inputs (8) (Software selectable)	8 Universal Inputs electronically configurable to any of the following types: Dry Pulse Counting Thermistor 0-10 Vdc @ 20mA 24VDC auxiliary sensor power (2): 24Vdc @ 100mA total current capacity		
Outputs (9)	1 Universal Output selectable to 0-10 Vdc (5 mA max), PWM, or Dry Contact Rated @24VAC 1Amp 2 Analog Outputs 10Vdc @ 20mA max (D/A Resolution 12 bits) 6 Digital Outputs (Dry Contact) Rated @24VAC 1 Amp. Configured normally open Status LED for all outputs		
Communication Ports	<p>BACnet Modbus</p> <p>Eth0 & Eth1: Dual 10/100 BaseT Ethernet ports for BACnet/IP or Modbus IP communications. Includes built-in fail safe and supports direct connection or daisy chain topology natively using BACnet/IP.</p> <p>Port S1: High-speed EIA-485 port with End of Net switch. Configurable through browser.</p> <ul style="list-style-type: none"> BACnet MS/TP or Modbus RTU network at 9.6, 19.2, 38.4, 57.6, 76.8, or 115.2 kbps (supports automatic baud-rate configuration) <p>Port S2: Electrically isolated EIA-485 port. Software configurable and support for up to 50 third-party points</p> <ul style="list-style-type: none"> BACnet MS/TP or Modbus RTU network at 9.6, 19.2, 38.4, 57.6, 76.8, or 115.2 kbps <p>USB Service port: USB-A port for technician use and local EQT displays. Also supports connection of USB Flash drive for device recovery and USB Wireless Service Adapter</p> <p>Rnet port: Communicate with ZS communicating sensors and local EQT displays</p> <p>USB Expansion port: For communication expansion modules</p>		
Real Time Clock	Real-time clock keeps track of time in the event of a power failure for up to 3 days		
Protection	Fast acting, 3A, 250VAC, 5mm x 20mm glass fuse to protect controller power input		
Microprocessor / Memory	32-bit ARM Cortex-A8, 600MHz, processor with multi-level cache memory / 16 GBs eMMC Flash memory and 256 MB DDR3 DRAM		
Compliance/Listing	<p>BACnet: Conforms to the BACnet Advanced Application Controller (B-AAC) Standard Device, as defined in BACnet 135-2001 2012 Annex L and tested to Protocol Revision 14</p> <p>United States: FCC compliant to Title CFR47, Part 15, Subpart B, Class A; UL Listed, File E143900; CCN PAZX, UL 916, Energy Management Equipment; ANZ: RCM Mark AS/NZS 61000-6-3; Canada: UL Listed File E143900, CCN PAZX7, CAN/CSA C22.2 No. 205 Signal Equip., Industry Canada Compliant ICES-003, Class A; CE Mark Compliant with 2014/30/EU, and RoHS Compliant: 2015/863/EU; UKCA Mark compliant with Electromagnetic Compatibility Regulations 2016 – Gov.UK and RoHS for Electrical and Electronic Equipment 2012.</p>		
Physical	<p>DIN rail or Screw mounting</p> <p>Minimum panel depth: 2.75 in. (7 cm)</p> <p>QR code on label to provide technician with access to MAC address, serial number and technical documentation</p>	<p>Dimensions Overall</p> <p>A: 7.785 in. (19.77 cm) B: 4.89 in. (12.43 cm) Depth: 2.00 in. (5.09 cm) Weight: 1.6 lb. (0.82 kg)</p> <p>Screw Mounting</p> <p>C: 6.45 in (16.38 cm) (fully extended) D: 4.5 in. (11.43 cm)</p>	 <p>Fire-retardant plastic ABS, UL94-5VA</p>

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