

SDC-20G+ Programmable Sedona Distributed Controller

The SDC-20G+ (Sedona Distributed Controllers with Graphics) controllers are robust, networkable, programmable controllers with high performance, multi-protocol support for large range of specific and generic applications. The controllers are fully programmable using either using Sedona/Niagara Workbench or using open-source Controller Programming Tool (CPT Tool).

Features

- Fully Programmable Controller using Industry's First Open Framework; Sedona Framework
- 12 Universal Inputs, 2 Digital Outputs and 6 Universal Outputs
- ARM9 400MHz Main Processor and M3 Cortex Processor for the I/O
- Built-In 8GB MicroSD Card for Histories and Graphics
- 1 x 10/100 Ethernet Port, 1 x Mini USB, 2 x RS485
- Multi Protocol Support; BACnet, Modbus, TCOM, Web Services*
- DIN-Rail or Wall Mounting, 24VAC/DC Power
- Hardware Security ID
- Supports Full Programming via "Wire Sheet" - Graphical Object Programming. Dynamic Memory Management for Optimised Performance.
- Remote Online Flash Upgrades and Configuration
- HTML5 Web Server Built-In for Graphics*
- Seamless connection to SDC-TS35 colour Touchscreen User Interface



Model Type	Model	Description
	SDC-20G+	Programmable Sedona Framework™ Controller, 20 Inputs/Outputs, Plus Series
Technical Data	Power Supply	24 VAC +/-5% 24VDC +20%/-15%
	Universal Inputs	12 x Universal Measurement Inputs - Voltage 0..10V - Current: 0..20mA - Resistance: 500..500kOhm - Digital; volt-free - Pulse Input; maximum pulse frequency 20Hz
	Digital Outputs	2 x Relay Outputs, max 1A 30VDC
	Universal Outputs	6 x Universal Outputs - Voltage 0..10V - Current Mode 0..20mA - Digital Mode; maximum sink current 200mA, 24Vdc switching
	Memory	64Mbyte RAM, 128Mbyte NAND Flash, 8GB SD Card
	Serial Ports	2 x EIA-485 (BUS A, B) Two Wire, Half Duplex - Modbus 9K6/19K2/38K4/57K6/115K2, 8 Data Bits, None/Even/Odd Parity - BACnet 9K6/19K2/38K4/76K8, 8 Data Bits, Parity None
	Ethernet Port	1x Ethernet 10/100 Base-T - Ethernet Support: IP, TCP, UDP, ICMP, FTP,HTTP - Application Protocol: Modbus TCP and Sedona SOX - Application Protocol: BACnet IP, BACnet Ethernet
	Operating Temp	0..65°C, max 95%rh non-condensing
	Storage Temp	-20..+65°C
	Operating Humidity	10..95% rH non-condensing
	Enclosure	IP20, UL94 ABS

CE Approval	EN61000-6-3: 2001 (Emissions) EN61000-6-2: 2001 (Immunity)
Mounting	DIN-rail mounting
Terminals	High quality spring-cage terminal blocks
Dimensions	W215 x H124 x D44mm
Weight	436g

Controller Overview

The new SDC-xG+ series of Sedona Open Automation Controllers from SyxtSense are the new range of Internet ready Controllers. They comprise of combined Area Controller capabilities and features, as well as built in I/O, and huge data logging capacity through miniSD card, all packaged as the future solution for the Internet of things, in Energy and Building Facility Control. The Controller also supports multi concurrent protocols and services such as BACnet MS/TP Client/Server, BACnet IP Client/Server, Modbus 485 Slave/Master, Modbus TCP/IP Slave/Master, TCOM, Web Services.

This new range complies with the 'Internet of Things' by interfacing directly to Cloud Services, without an additional Gateway, or Server. To power the application, The SDC-xG has a dual ARM processor engine, a built-in HTML5 Web Server. The web-server can utilise HTML5 graphical widgets providing powerful platform for attractive plant room graphics and dashboards.

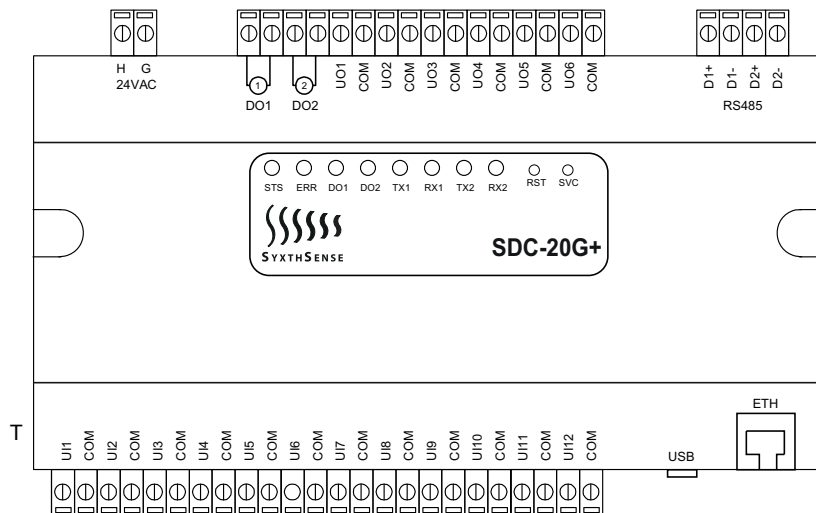
The SDC-xG+ series change the way that we will deploy Building Automation, especially in multiple Facilities and locations, whereby, a starter package can be deployed quickly, and cost effectively, without any additional hardware or middleware. The controllers allow industry to extend their reach deeper and wider into all kinds of Energy Performance Solutions. Ranging from Retail Stores, Schools, and Residential, Smart Grid and so on.

Another exciting feature, is the openness, and its web friendly tools to enable 3rd Party Open Source Tools to be deployed in addition to the Workbench that we are all familiar with today. This platform will meet the needs of simple controls requirements and complex HVAC plants, such as Boiler Plants, AHU plants, Chiller Sequencing and advanced plant control and so on. Historical logs are stored in a SQL database providing open access to the history data without additional tools or software.

HTML5 Graphics will also be served from the SDC-xG+, nicely embedded in the Linux OS. To compliment this there will be third party Graphics Tools that will be used to design and implement Graphic Screens, the content being stored in the built-in micro SD Card slot (8GB SD card supplied with the product).

SDC-20G+ Controller Wiring Diagram

Please consult the below diagram for the wiring details.



Notes: JACE, Sedona Framework and Niagara Framework are Trademarks of the Tridium Inc. In the view of a constant development of their products, the manufacturer reserves the right for changing technical data and features without prior notice. The consumer is guaranteed against any lack of conformity for 24 months from the time of delivery, according to the European Directive 1999/44/EC. The full text of guarantee is available on request from the seller.