

ENHANCED MODULAR CONTROLLER SERIES MASTER



Starts at
\$899



- Provides Enhanced Features For Data Acquisition Or Multi-Zone Pid Control Applications
- Webserver Provides Worldwide Access to Data Logs And Virtual HMI
- Virtual HMI Offers Built-In PC-Based SCADA Functionality
- Performs Hierarchical Control of Other Modules in the Modular Controller Series
- Stores Module Configuration Information, and Automatically Reprograms Replaced Modules
- Extensive Built-In Driver List Allows Easy Data Mapping to PLCs, PCs, and SCADA Systems
- Independent Serial Ports Provide Virtually Unlimited Integration Methods
- 10 Base-T/100 Base-Tx Ethernet Connection Provides Networking Capability
- Supports up to 16 Modular Controller Series Modules
- Compactflash® Slot Allows Process Data to be Logged Directly to CSV Files

The Model CSMSTR is a communications and control platform designed for use with Modular Controller Series slave modules. The CSMSTR uses a proprietary high speed serial protocol to communicate, via backplane connection, with up to 16 slave modules. Through the same connection, the Master also provides power to the modules.

When powered up, the CSMSTR automatically identifies and addresses connected slave modules. By storing the configuration information of all of the modules, the CSMSTR is able to automatically configure modules if they are replaced.

The Master provides high-speed RS232/422/485 communication ports and an Ethernet port for connection to PCs, PLCs, and SCADA systems. An extensive list of master and slave protocol drivers are available to allow the CSMSTR to share and exchange variable data with external devices. The 10 Base-T/100 Base-TX Ethernet port can also be used to connect and share data with other devices at high speeds. The virtual HMI feature allows you to create and control an HMI from any networked PC. An onboard CompactFlash slot provides storage for the Master's built-in data logger.

The design of the Modular Controller Series high density packaging and DIN rail mounting saves time and panel space. The controller snaps easily onto standard top hat (T) profile DIN rail.



CSMSTRSX, \$899, shown smaller than actual size.

The CSMSTR is programmed with Crimson 2.0 software for Windows® 2000 or later platforms. The software is an easy to use, graphical interface which provides a means of communication configuration, as well as commissioning and calibration of new systems.

SPECIFICATIONS

Power: 24 Vdc \pm 10% 400 mA min. (1 module) 3.5 Amps max. (16 modules + Expansion Card)

Must use Class 2 or SELV rated power supply

Communications:

USB/PG Port: Adheres to USB specification 1.1 (Device only using Type B connection)

Serial Ports: Format and Baud Rates for each port are individually software programmable up to 115,200 baud

RS232/PG Port: RS232 port via RJ12

COMMS Ports: RS422/485 port via RJ45, and RS232 port via RJ12

DH485 TXEN: Transmit enable; open collector, VOH=15 Vcd, VOL=0.5 V @ 25 mA max

Ethernet Port: 10 BASE-T / 100 BASE-TX RJ45 jack is wired as a NIC (Network Interface Card)

LEDs:

STS: Status LED indicates condition of master

TX/RX: Transmit/Receive LEDs show serial activity

Ethernet: Link and activity LEDs

CF: CompactFlash LED indicates card status and read/write activity

Memory:

On-Board User Memory: 4MB of non-volatile flash memory

On-Board SDRAM: CSMSTRSX=2MB; CSMSTRGT=8MB

Memory Card: Compactflash type II slot for type I and type II cards

Real-Time Clock: Typical accuracy is less than one minute per month drift. Crimson 2.0's SNTP facility allows synchronization with external servers



Battery: Lithium coin cell (included). Typical lifetime of 10 years at 25 °C (77°F) A “battery low” system variable is available so that the programmer can choose specific action(s) to occur when the battery voltage drops below its nominal voltage.

Environmental Conditions:

Operating Temperature Range: 0 to 50°C (32 to 122°F)

Storage Temperature Range: -30 to +70°C (-22 to 158°F)

Operating and Storage Humidity: 80% max relative humidity, non-condensing, from 0 to 50°C (32 to 122°F)

Vibration According to IEC 68-2-6: 5 to 150 Hz, in X, Y, Z direction for 1.5 hours, 2 g's

Shock According to IEC 68-2-27: Operational 25 g, 11 msec in 3 directions

Altitude: Up to 2000 meters

Construction: Case body is burgundy high impact plastic and stainless steel. Installation category I, pollution degree 2

Power Connection: Removable wire clamp screw terminal block

Wire Gauge Capacity: 24 AWG to 12 AWG

Torque: 4.45 to 5.34 in/lb (0.5 to 0.6 N-m)

Mounting: Snaps onto standard DIN style top hat (T) profile mounting rails according to EN50022 -35 x 7.5 and -35 x 15

Certifications and Compliances:

Safety: UL Listed, File #E302106, UL508, CSA 22.2 No. 14-M05 Listed by Und. Lab. Inc. to U.S. and Canadian safety standards

IEC 61010-1, EN 61010-1: Safety requirements for electrical equipment for measurement, control, and laboratory use, part 1

Electromagnetic Compatibility:

Emissions and Immunity to EN 61326: Electrical equipment for measurement, control and laboratory use

Immunity to Industrial Locations*: Electrostatic discharge EN 61000-4-2 Criterion A2; 4 kV contact discharge; 8 kV air discharge; Electromagnetic RF fields EN 61000-4-3 criterion A 10 V/m; Fast transients (burst) EN 61000-4-4 Criterion A; 2 kV power; 2 kV signal; Surge EN 61000-4-5 Criterion A; 1kV L-L, 2 kV L&N-E power; RF conducted interference EN 61000-4-6 Criterion A; 3 V/rms

Emissions: Emissions EN 55011 class A

Weight: 456.4 g (15.1 oz)

***Notes:**

1. Criterion A: Normal operation within specified limits.

2. This device was designed for installation in an enclosure. To avoid electrostatic discharge to the unit in environments with static levels above 4 kV, precautions should be taken when the device is mounted outside an enclosure. When working in an enclosure (ex. making adjustments, setting jumpers etc.), typical anti-static precautions should be observed before touching the unit.

To Order (Specify Model Number)

MOST POPULAR MODELS HIGHLIGHTED!

MODEL NO.	PRICE	MASTER MODULE DESCRIPTION
CSMSTRSX	\$899	Modular controller master with multiple protocol converter, data logger, web server, virtual HMI up to QVGA (320X240) size and expansion slot.
CSMSTRGT	1199	Modular controller master with multiple protocol conversion, data logger, web server, full VGA virtual HMI (640X480) size and expansion slot with increased DRAM
SFCRM2MC	62	Modular controller crimson programming software, manual and download cable
ACCESSORIES		
MODEL NO.	PRICE	DESCRIPTION
G3CF064M	\$90	64 MB compact flash card (industrial grade 2 million write cycles)
G3CF256M	235	256 MB compact flash card (industrial grade 2 million write cycles)
G3CF512M	368	512 MB compact flash card (industrial grade 2 million write cycles)
CBLPROG0	41	Programming cable for CS, G3, and paradigm
CBLUSB00	26	USB programming cable for G3, DSP and modular controller, type A-B
PSDR0100	129	Mini power supply 1A
PSDR0200	159	Mini power supply 2A
PSDR0400	199	Mini power supply 4A
RSRSTP00	5	Rail stops (qty 2)
CSTERM00	10	Replacement termination plug
CSBASE00	31	Replacement base
CSTERM00	10	Replacement termination plug
MODULES		
MODEL NO.	PRICE	MODULE DESCRIPTION
CSDIO14R	\$247	8-inputs 6 relay outputs
CSDIO14S	247	8-inputs 6 solid state outputs
CSINV800	536	8-channel ±10 V input module
CSINI800	536	8-channel 0(4) to 20 mA input module
CSOUT400	280	4-channel analog output
CSPID1R0	227	Single loop module, relay outputs
CSPID1RA	247	Single loop module, relay outputs, analog output
CSPID1RM	247	Single loop module, relay outputs, heater current input
CSPID1S0	227	Single loop module, solid state outputs
CSPID1SA	247	Single loop module, solid state out. Analog output
CSPID1SM	247	Single loop module, solid state, heater current input
CSPID1TA	247	Single loop module, triac outputs, analog output
CSPID2R0	340	Dual loop module, relay outputs
CSPID2RM	371	Dual loop module, relay outputs, heater current input
CSPID2S0	340	Dual loop module, solid state outputs
CSPID2SM	371	Dual loop module, solid state outputs, heater current input
CSPID2T0	340	Dual loop module, triac outputs
CSPID2TM	371	Dual loop module, triac outputs, heater current input
CSRTD600	402	6-channel input, RTD
CSSG10RA	320	Single loop, 1 strain gage input, relay outputs, analog out
CSSG10SA	320	Single loop, 1 strain gage input, solid state out, analog out
CSSG11RA	400	Single loop, 2 strain gage input, relay outputs, analog out
CSSG11SA	400	Single loop, 2 strain gage input, solid state out, analog out
CSTC8000	536	8-channel thermocouple module

Comes with termination plug, terminal power block and complete operator's manual.
Ordering Example: CSMSTRSX, controller, SFCRM2MC, software, G3CF512M, 512 MB flash card, PSDR0100, power supply, CSDIO14R, module, \$899 + 62 + 368 + 129 + 247 = \$1705.



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