Modular Controller Series Master

CSMSTRV2

TRODEKS®

- **Performs Hierarchical Control of Other Modules in the Modular Controller Series**
- **Provides Power and Communications to Modules Through Backplane Connector**
- **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**
- **Supported By Crimson 2.0 Software**

CSMSTRV2, shown smaller than actual size.

The Model CSMSTRV2 is a communications and control platform designed for use with Modular Controller Series slave modules. The CSMSTRV2 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 CSMSTRV2 automatically identifies and addresses connected slave modules. By storing the configuration information of all of the modules, the CSMSTRV2 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 CSMSTRV2 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 CSMSTRV2 was designed as a direct replacement for the original CSMSTRSE. This new model provides benefits such as support via Crimson 2.0 software, which allows configuration files to be uploaded. To save programming time, files originally created in Crimson 1.0 (.cdb files) may be imported into Crimson 2.0.

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.

The CSMSTRV2 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 ± 10%
400 mA min (1 module)
3 A max (16 modules)
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 Vdc, 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

Memory:

On-Board User Memory:
4 Mb of non-volatile flash memory.
On-board SDRAM: 2 Mb

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
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 25g, 11ms 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 Gage 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 Compatability:
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 A 2
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: 365.7g (12.9oz)

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

MODEL NO.	MASTER MODULE DESCRIPTION
CSMSTRV2	Modular controller master, multi comms ports and ethernet
SFCRM2MC	Modular controller crimson programming software, manual and download cable
ACCESSORIES	
MODEL NO.	**PRICE DESCRIPTION**
G3CF064M	64 MB compact flash card (industrial grade 2 million write cycles)
G3CF256M	256 MB compact flash card (industrial grade 2 million write cycles)
G3CF512M	512 MB compact flash card (industrial grade 2 million write cycles)
CBLPROG0	Programming cable for CS, G3, and paradigm
CBLUSB00	USB programming cable for G3, DSP and modular controller, type A-B
PSDR0100	Mini power supply 1A
PSDR0200	Mini power supply 2A
PSDR0400	Mini power supply 4A
RSRSTP00	Rail stops (qty 2)
CSTERM00	Replacement termination plug
CSBASE00	Replacement base
CSTERM00	Replacement termination plug
MODULES	
MODEL NO.	**PRICE MODULE DESCRIPTION**
CSDIO14R	8 inputs 6 relay outputs
CSDIO14S	8 inputs 6 solid state outputs
CSINV800	8-channel ±10 V input module
CSINI800	8-channel 0(4) to 20 mA input module
CSOUT400	4-channel analog output
CSPID1R0	Single loop module, relay outputs
CSPID1RA	Single loop module, relay outputs, analog output
CSPID1RM	Single loop module, relay outputs, heater current input
CSPID1S0	Single loop module, solid state outputs
CSPID1SA	Single loop module, solid state out. Analog output
CSPID1SM	Single loop module, solid state, heater current input
CSPID1TA	Single loop module, triac outputs, analog output
CSPID2R0	Dual loop module, relay outputs
CSPID2RM	Dual loop module, relay outputs, heater current input
CSPID2S0	Dual loop module, solid state outputs
CSPID2SM	Dual loop module, solid state outputs, heater current input
CSPID2T0	Dual loop module, triac outputs
CSPID2TM	Dual loop module, triac outputs, heater current input
CSRTD600	6-channel input, RTD
CSSG10RA	Single loop, 1 strain gage input, relay outputs, analog out
CSSG10SA	Single loop, 1 strain gage input, solid state out, analog out
CSSG11RA	Single loop, 2 strain gage input, relay outputs, analog out
CSSG11SA	Single loop, 2 strain gage input, solid state out, analog out
CSTC8000	8-channel thermocouple module

Controllers come with termination plug, terminal power block, and complete operator's manual.
Ordering Example: CSMSTRV2, *controller,* ***SFCRM2MC,*** *software,* ***G3CF512M,*** *512 MB flash card,* ***CSDIO14R,*** *8 inputs 6 relay output module,* ***PSDR0100,*** *power supply.*