

Data Station Plus & Modular Controller

Red Lion Automation Series



▶▶▶ Enhanced Data Station Plus & Modular Controller

The Red Lion DSP and CSMSTR Series are designed to act as the nexus for industrial data collection and management.

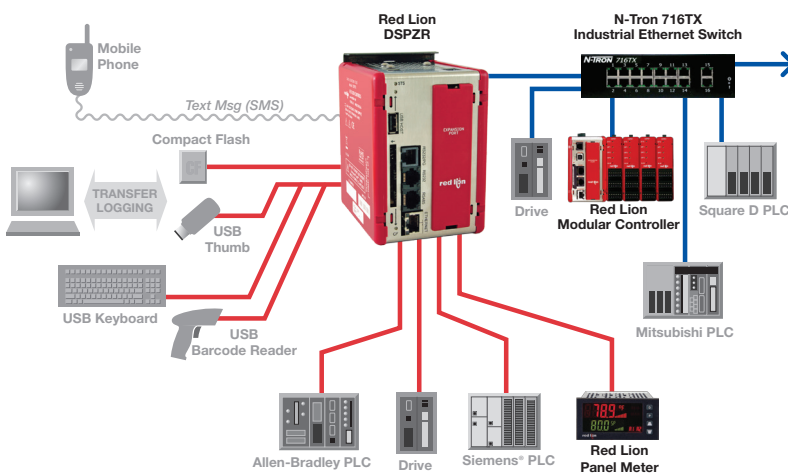
The units offer protocol conversion, data logging, and remote machine access. With three built-in serial ports and a 10 Base-T/100 Base-TX Ethernet port, the units perform protocol conversion, allowing disparate devices to communicate seamlessly with one another. The Ethernet port supports up to ten protocols simultaneously so even Ethernet to Ethernet protocols can be converted.

These units leverage over 250 communication drivers via three independent serial ports and an Ethernet port, to connect and collect data from virtually any PLC, drive, bar code scanner, etc.

CSMSTRZR



APPLICATION DIAGRAM



APPLICATIONS

- > Transportation
- > Oil & Gas
- > Mining
- > Maritime
- > Factory Floor

PRODUCT HIGHLIGHTS

- > Protocol conversion feature converts numerous protocols simultaneously
- > 250+ communications drivers for communicating directly with PLCs, drives, etc.
- > Data logging; syncs data logs to FTP servers and Microsoft SQL Server®
- > Built-in webserver allows remote view or control from any internet connected PC
- > USB host capabilities

FEATURES & BENEFITS

- > Provides email and SMS text message alerts
- > USB host port to download the unit's configuration from a PC or for data transfers to a PC
- > 10 BASE-T/100 BASE-TX Ethernet connection can connect to an unlimited number of devices via ten protocols simultaneously
- > CSMSTRZR performs hierarchical control of other modules in the modular controller series
- > CSMSTRZR supports up to 16 CS-Series modules to accept digital and analog signals

▶▶▶ Enhanced Data Station Plus & Modular Controller Specifications

COMMUNICATION PROPERTIES

USB/PG Port: Adheres to USB 2.0 specification full speed only via Type B connection
 USB Host Port: Complies with Universal Serial Bus Specification Rev 2.0. and supports data transfers at full-speed (hardware over current protected at 0.5 A max)
 Serial Ports: Format and baud rates for each port are individually software programmable
 Serial Ports: Individually isolated
 Communication Port to Port: 1500 VAC
 Communication Ports to Power: 1000 VDC
 Communication Ports to Earth: 1000 VDC
 Units Dielectric: Withstand test per 1 minute
 Communication Ports: RS232/PG, RS232 port, RS485 port, Ethernet port and option cards
 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, $V_{OH} = 15$ VDC, $V_{OL} = 0.5$ V @ 25 mA max
 Ethernet Port: 10 BASE-T/100 BASE-TX
 RJ45 Jack: Wired as a NIC (Network Interface Card); jack shield is electrically connected to earth ground, but the port is isolated

LEDs

STS: Status LED indicates condition of master or DSP
 USB HOST: HOST LED indicates port status/activity
 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: 128 Mbytes of non-volatile Flash memory
 On-board RAM: 64 Mbytes
 Memory Card: CompactFlash Type II slot for Type I and Type II cards

REAL-TIME CLOCK

Typical Accuracy: less than one minute per month drift (Crimson's SNTP facility allows synchronization with external servers)
 Battery: Lithium Coin Cell with typical lifetime of 10 years at 25 °C
 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
 This unit is NOT field serviceable and all work must be done by a qualified technician

POWER

24 VDC \pm 10%
 CSMSTRZR: 450 mA min. (1 module); 3.4 Amps max. (16 modules + Expansion Card)
 DSPZR: 250 mA min., without expansion card; 1 Amp maximum with expansion card fitted
 For All Units: Must use NEC Class 2 or Limited Power Source (LPS) rated power supply

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)

CERTIFICATION & COMPLIANCE

CSMSTRZR - Check each module's specifications to determine system compliance
 IEC/EN 61010-1 CE Approved

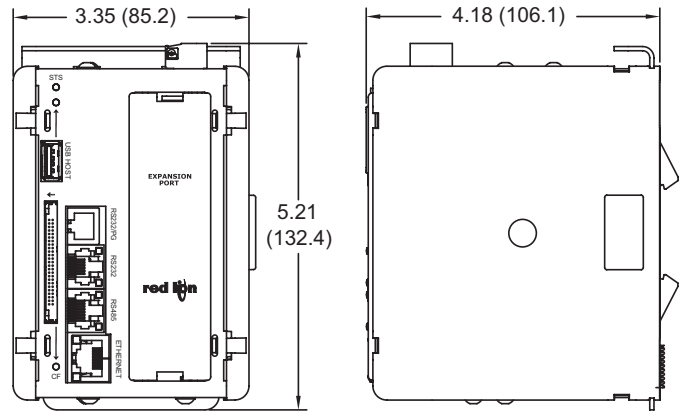
ENVIRONMENTAL

Operating Temperature Range: 0°C to 45°C
 Storage Temperature Range: -30°C to +70°C
 Operating and Storage Humidity: 80% max relative humidity, non-condensing, from 0°C to 50°C
 Altitude: Up to 2000 meters

MECHANICAL

Construction: Case body is burgundy high impact plastic and stainless steel for indoor use only (installation category II, pollution degree 2)
 Mounting: Snaps onto standard DIN style top hat (T) profile mounting rails according to EN50022 -35 x 7.5 and -35 x 15.
 Weight: 1.30 lb (590 g)

DIMENSIONS In inches (mm)



ORDERING INFORMATION

| PART NUMBER | MODEL | DESCRIPTION |
|-------------|-----------------------|--|
| CSMSTRZR | CSMSTRZR ¹ | Enhanced Modular Controller Master |
| DSPZR000 | DSPZR | Enhanced Data Station Plus |
| CBLPROG0 | CBL | RS232 Programming cable |
| CBLUSB00 | | USB cable |
| CBLxxxx | | Communications cables ² |
| PSDRxxxx | PSDR | DIN-Rail mounted power supply |
| XCCN0000 | XCCN | CANopen option card |
| XCDN0000 | XCDN | DeviceNet option card |
| XCENET00 | XCENET | Ethernet option card |
| XCGSM000 | XCGSM | GSM Cellular option card ³ |
| XCPBDP00 | XCPB | PROFIBUS option card |
| XCRS0000 | XCRS | RS232/485 option card |
| G3CFxxxx | G3CF | CompactFlash card ⁴ |
| CSBASE00 | | Replacement base (CSMSTRZR only) |
| CSTERM00 | | Replacement termination plug (CSMSTRZR only) |
| CSBUNG00 | | Replacement rubber end cap (CSMSTRZR only) |

Notes:

¹ For a complete list of PID modules & data acquisition modules, go to www.redlion.net/link/wp.asp?ID=6162. ² For a complete list of communications drivers and cables, go to www.redlion.net/link/wp.asp?ID=6163. ³ Antenna (G3QANT00) is NOT included with the card. Must be purchased separately if needed. ⁴ Industrial grade two million write cycles. SMART Modular Technologies model SG9CF (UL Listed Directory Category NWWGQ).



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As the global experts in communication, monitoring and control for industrial automation and networking, Red Lion has been delivering innovative solutions for over forty years. Our award-winning technology enables companies worldwide to gain real-time data visibility that drives productivity. Product brands include Red Lion, N-Tron and Sixnet. With headquarters in York, Pennsylvania, the company has offices across the Americas, Asia-Pacific and Europe. For more information, please visit www.redlion.net. Red Lion is a Spectris company.