

### Features

- Hardened for harsh environments
- IEEE 1613 / IEC 61850-3
- Serial and Ethernet interfaces
  - 2 RS232/RS485 ports software selectable
  - 2 Ethernet ports 10/100 BaseTX RJ45

*Or*

- 100FX SFP/SFF multi/singlemode
- Multiprotocol support
  - Async and SCADA to TCP/IP
  - Ethernet, TCP/IP
  - IP routing
  - Network resiliency
    - RSTP
  - Serial multipoint and Multimaster topologies
- Cyber-Security protection:
  - Serial SSL
  - Secure HTTP
  - IPsec encrypted VPNs
  - Ethernet port security
  - TCP/IP firewall
  - Serial port SSL
  - Per-serial port VLANs
- Web GUI, XML
- SNMP management
- AC and DC wide range of power options
- No fans or moving parts

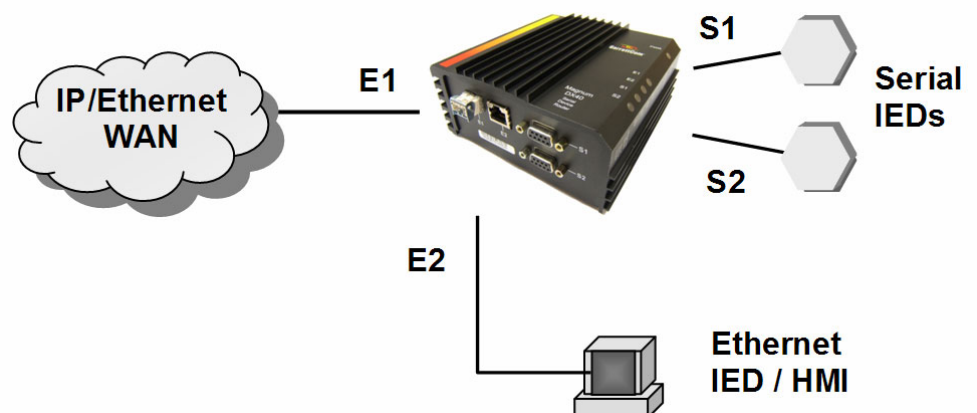


### DX40 Serial Device Router

The Magnum DX40 provides a rugged and secure solution for extending fiber-based connectivity to remote devices in harsh environments such as power utility substations. It combines features of a Serial device server, Ethernet switch and IP router in a single product.

The DX40's dual-serial, dual-Ethernet configuration supports several flexible configurations. It provides resilient dual fiber-based extension from a core Ethernet network to serial devices distributed across a large facility. It serves as a multi-protocol concentration and access point for a fiber-based Ethernet wide area network connection to a small site.

Encrypted per-session SSL and IPsec VPN capabilities, along with other IP Firewall and port security features, assure cyber-security protections will extend cost effectively



## SERIAL INTERFACE

### Physical Interface:

- 2 ports, RS232 or RS485, S/W selectable
- DB9 female connector
- Serial data rate from 300 bps to 230.4 kbps
- Data length: 1-32 bits support

### Protocols/Features:

- Async to TCP/IP
- TCP/IP to serial terminal server, reverse terminal server
- Serial Multipoint and Multimaster Topologies
- Select SCADA bit oriented protocols\*

## ETHERNET INTERFACE

### Physical Interface:

- 2 copper or fiber ports
- Full Duplex, Half Duplex
- RJ-45 modular connector ports
- 10/100 Base TX, auto-sensing or fixed speed
- 100FX Ethernet SFF or SFP modules
- Single-mode 8µ cable up to 40km
- Multi-mode 62.5µ/125 cable up to 2km

### Protocols/Features:

- Ethernet, TCP/IP
- IEEE 802.3x flow control
- Prioritization per IEEE 802.1p\*
- VLANs per 802.1Q
- Rapid Spanning Tree per IEEE 802.1w
- Support for 1024 MAC Addresses

## IP ROUTING FUNCTIONS & FEATURES

- IP Routing, RIP, RIP II, Static Routes
- Per VLAN Routing
- ICMP, ARP
- Block / Allow / IP or PORT addresses
- DiffServ, traffic prioritization\*

## SECURITY

- TCP/IP Firewall
- Serial port SSL with AES/3DES
- IP VPN using IPSec\*
- Secure HTTP (HTTPS)
- Serial Port VLANs
- Ethernet port security
- RSA/Radius Support
- Multilevel passwords with enforcement and aging
- Management activity logging and alarms

## MANAGEMENT & DIAGNOSTICS

- Web-based Graphical User Interface (GUI)
- CLI access via remote TELNET connection
- Powerful built-in protocol analyzer to monitor traffic on any port
- Comprehensive layer 1 through 3 statistics
- SNMP MIB II and SNMP Traps
- PING and TELNET diagnostic functions
- Syslog Event Logging
- XML-based config file

## ENVIRONMENTAL

### Operating Temperature:

- -40C to +85C, no fans

### Storage Temperature:

- -40C to +85C

### Humidity:

- 95% non-condensing

### Industrial:

- IEEE1613
- IEC 61850-3
- IEC 61000-6-5

### Emissions:

- EN55022A, FCC Part 15A

### Immunity:

- EN55024
- EN61000-6-2
- EN61000-4-2 (ESD)
- EN61000-4-3 (RF)
- EN61000-4-4 (EFT)
- EN61000-4-5 (SURGE)
- EN61000-4-6 (CRF)
- EN61000-4-10 (MAG FIELD)
- EN61000-4-11 (VDI)
- EN61000-4-12 (OSCILLATION)
- EN61000-4-16 (CCM)
- EN61000-4-17 (RIPPLE)
- EN61000-4-29 (VDI)

### Safety:

- UL60950-1
- EN60950-1
- CSA C22.2

## POWER OPTIONS

### High Voltage (H)

- 90-250 Vac or Vdc, 50-60Hz
- 0.2A, 18 watts

### Low Voltage DC (L)

- 24-48 Vdc
- 0.75A, 18 watts

## MECHANICAL

### Dimensions:

5.6" W x 5.1" D x 2.5" H  
(14.2 cm x 12.95 cm x 6.35 cm)

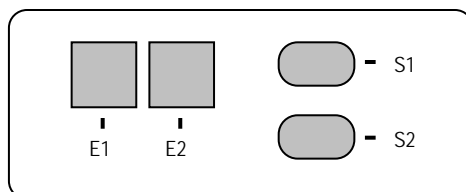
### Weight:

2.75 lbs (1.25 kg)

### Mounting:

Panel Mount and DIN Rail Options

## DX40 Port Configuration



\* Planned Features

Specifications subject to change

Made in the USA



# GarrettCom™

GarrettCom, Inc.

47823 Westinghouse Drive

Fremont, CA 94539

PH: (510) 438-9071

FAX: (510) 438-9072

Email: [mktg@garrettcom.com](mailto:mktg@garrettcom.com)

Web: [www.GarrettCom.com](http://www.GarrettCom.com)