EIGR-C3 – Skorpion Gigabit IP Router with Cellular (Verizon)

The EIGR-C3 is a high-speed router that links cellular to 10/100/1000 Mbps Internet Protocol (IPv4) networks — passing appropriate traffic while blocking all other traffic. One network is the local-area-network (LAN); the cellular is the wide-area-network (WAN). It also has an Ethernet port that can act as the WAN if cellular access is not required. The built-in stateful firewall passes communication initiated on the LAN-side while blocking WAN-side initiated communication. With Port Address Translation (PAT), LAN-side clients can access the Internet. The EIGR-C incorporates a built-in cellular modem that works with Verizon, a real-time clock and OpenVPN client functionality compatible with Contemporary Controls' RemoteVPN subscription service and Self-HostedVPN solution. As a VPN server, it supports bridge mode VPN where up to 10 VPN PC clients are bridged to the EIGR-C router's LAN side, allowing the passing of multicast and broadcast messages over the VPN tunnel. The VPN interface for the clients is assigned an IP address corresponding to LAN subnet and provides the same application experience as if the client device were part of the LAN of the EIGR-C. This facilitates easier secure remote access, especially for BACnet systems, without the need to setup any BBMDs.

The EIGR-C3 operates over 0 to 60°C temperature range and the EIGR-C3X operates over –40 to +75°C range.

EIGR-C3 Skorpion Gigabit Cellular IP Router Features…

- Web page configuration
- LTE Cellular or 10/100/1000 Mbps WAN port
- 4-port 10/100/1000 Mbps Ethernet LAN switch
- OpenVPN Client (compatible with RemoteVPN)
- OpenVPN Server (compatible with BridgeVPN)
- PAT, NAT, Port Forwarding and Port Range Forwarding
- NAT Loopback
- Remote Router Access
- Allowlist
- Stateful firewall
- DHCP client (WAN) and DHCP server (LAN)
- DIN-rail mounting
- Diagnostic LEDs
- CE Mark, RoHS, UL 508, C22.2 No. 142-M1987
- 24 VAC/VDC powered
- Operate over 0 to 60°C (EIGR-C3)
- Operates over –40 to +75°C (EIGR-C3X)

EIGR-C3

EIGR-C3X

CTRLink®

EIGR-C3 — Skorpion Gigabit IP Router

Although the EIGR-C has many of the same features found in high-end routers, it is simpler to install and commission. A resident DHCP server on the LAN-side will provide IP addresses to LAN-side clients. Configuration is via a web browser using authentication. With a DIN-rail mounting clip, rugged metal enclosure and the ability to be powered from a low-voltage AC/DC power source, the EIGR-C is ideal for automation systems.

Antennas
for communication to cellular networks (sold separately)

SMA Connectors
to attach antennas

Power LED
Power OK indicator

Reset Switch
returns the EIGR-C to its default settings

Built-in Ethernet Switch
connect up to four 10/100/1000 Mbps Ethernet devices with auto-negotiation and Auto-MDIX

Diagnostic LEDs
indicate the status of Link and Activity

Quick Disconnect 4-pin Power Connector
provides connections to a DC or AC source and a connection for a backup source

35 mm Din-rail Clip
for convenient control panel installation

Writable Label
for a helpful record of connected IP devices

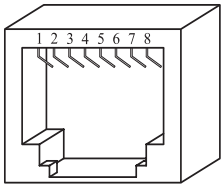
nano-SIM Socket
(pre-installed SIM)

Connector Pin Assignments

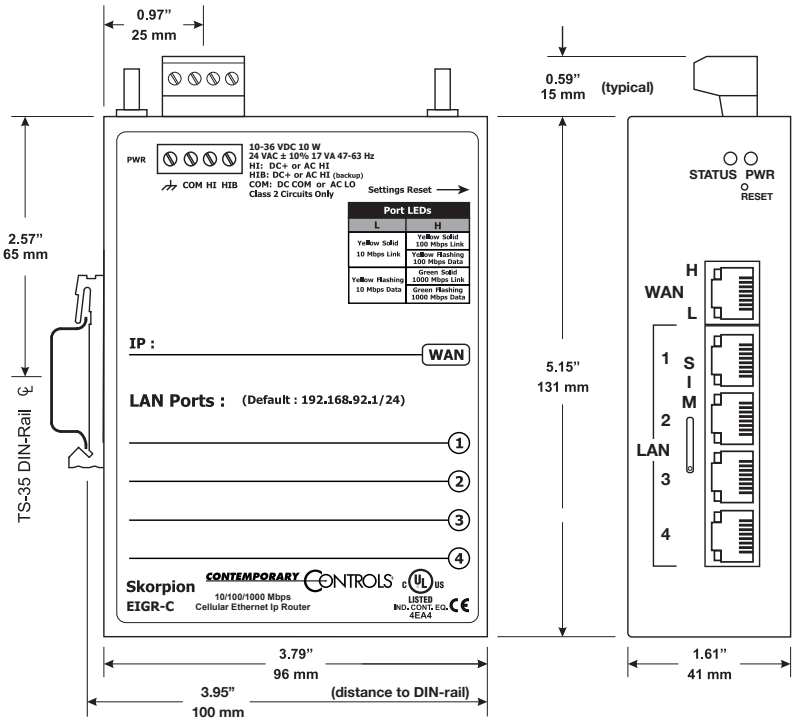
Ethernet
RJ-45 Pin Assignments

Pin	Function
1	BI_DA+
2	BI_DA-
3	BI_DB+
4	BI_DC+
5	BI_DC-
6	BI_DB-
7	BI_DD+
8	BI_DD-

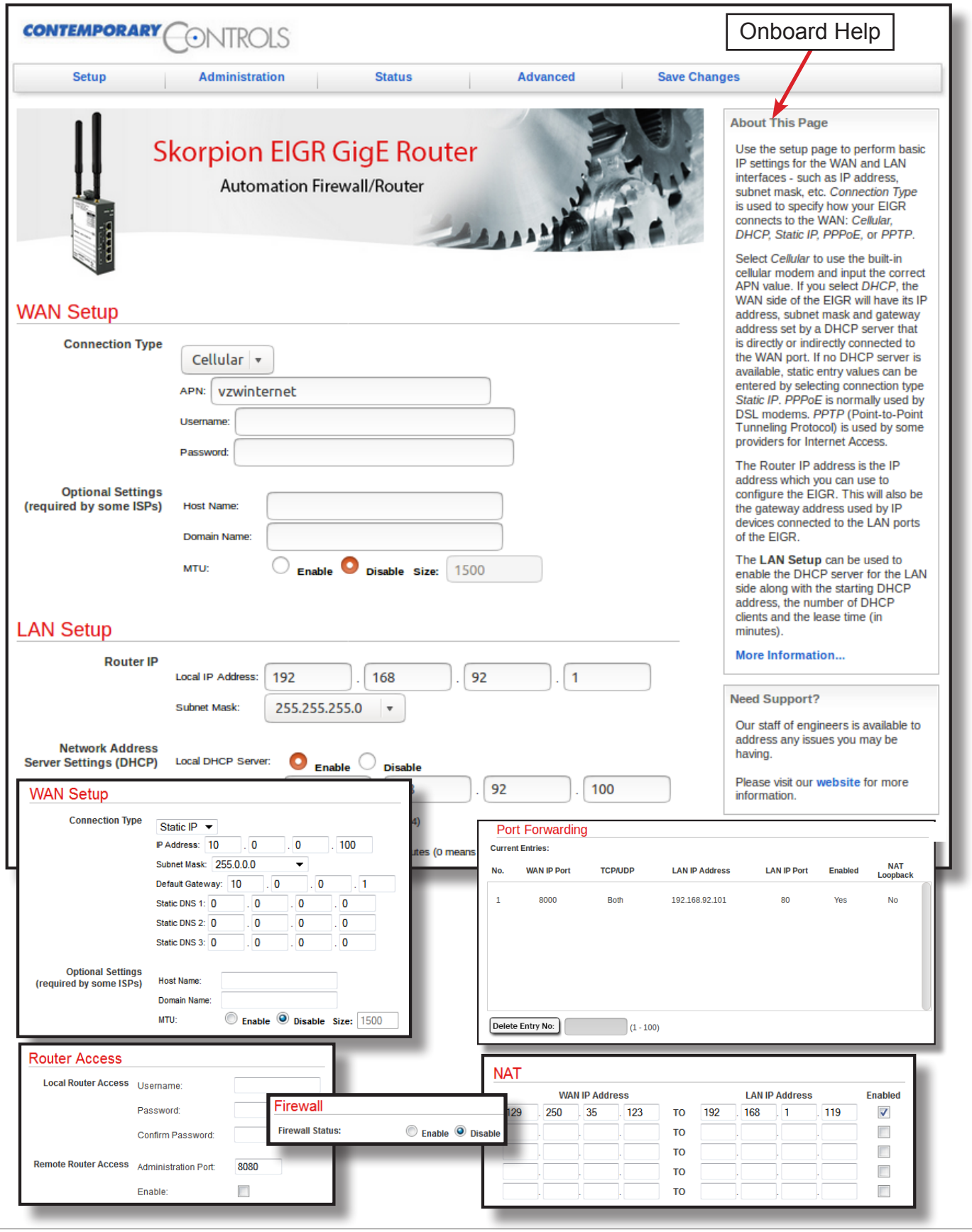
All ports are Auto-MDIX.



Mechanical Drawing



Web Page Configuration

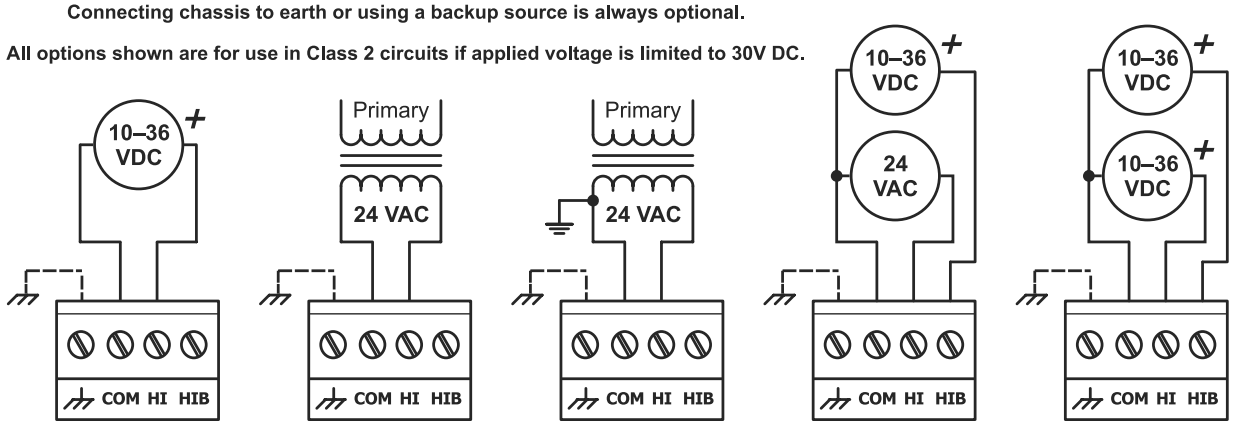


Power Considerations

Applied voltage must be in the specified range and deliver a current commensurate with pow consumption. The recommended size for solid power conductors is 16–20 AWG; and for stranded conductors use 16–18 AWG. Zero volts (COM) is isolated from chassis (earth). Input connections are reverse-polarity protected.

Input power: 10–36 VDC or 24 VAC ± 10%, 47–60 Hz.
Connecting chassis to earth or using a backup source is always optional.

All options shown are for use in Class 2 circuits if applied voltage is limited to 30V DC.



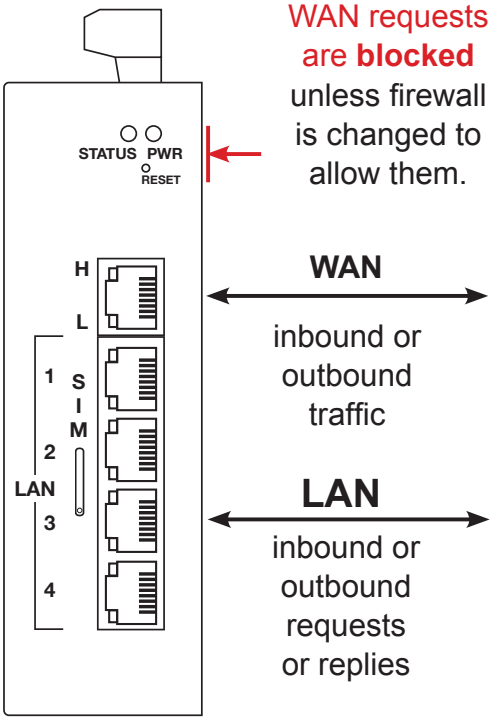
DC Powered | AC Powered | AC Powered with Grounded Secondary | AC Powered with DC Backup | Redundant DC Powered

Stateful Firewall — Promotes Secure Communication

The lower part of the router connects the LAN side (the local-area-network). The upper part connects the WAN side (wide-area-network). A firewall (which can be disabled by the user) separates the two parts.

A firewall controls the passing of messages from one side of a router to the other. A *stateful firewall* acts on the structure of the message and who is initiating and who is responding.

Originating requests from the LAN side and corresponding responses from the WAN side ***pass through*** the firewall. But traffic originating from the WAN side is ***blocked*** from the LAN side ***unless*** the firewall is adjusted to allow it. This protects the LAN side from unauthorised WAN access.



Specifications

Power Requirements	10–36 VDC ±10% 10 W or 24 VAC ±10% 17 VA 47–63 Hz
Operating Temperature	0 to 60°C (EIGR-C3) –40 to +75°C (EIGR-C3X)
Storage Temperature	–40 to +85°C
Relative Humidity	10–95%, non-condensing
Protection	IP30
Mounting	TS-35 DIN-rail
Ethernet Communications	IEEE 802.3 10/100/1000 Mbps data rate 10BASE-T, 100BASE-TX and 1000BASE-T 100 m (max) CAT5e cable length
Cellular	LTE CAT 1, Verizon Certified, Bands B4 and B13 Antennas* - Main and Receive Diversity SIM Size - nano-SIM/4FF (pre-installed) FCC ID: 2AU57EIGR-C3

LEDs	***PWR***	Green = Power OK
	STATUS	Green = Boot up complete
	H	Green = 1000 Mbps communication established
		Yellow = 100 Mbps communication established
		Flash = Activity
	L	Yellow = 10 Mbps
		Flash = Activity

Regulatory Compliance CE Mark; CFR 47, Part 15 Class A; RoHS; UL 508; C22.2 No. 142-M1987

Ordering Information

Model	***RoHS***	***Description***
EIGR-C3	✔	Skorpion GigE IP Router with Cellular (Verizon) 0 to 60°C
EIGR-C3X	✔	Skorpion GigE IP Router with Cellular (Verizon) –40 to +75°C

* Antennas sold separately

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