EIGR-C2 – Skorpion Gigabit IP Router with Cellular (Europe)

The EIGR-C2 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 supports bands in the EMEA region, a real-time clock and OpenVPN client functionality compatible with the 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-C2 operates over 0 to 60°C temperature range and the EIGR-C2X operates over –40 to +75°C range.

EIGR-C2 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-C2)
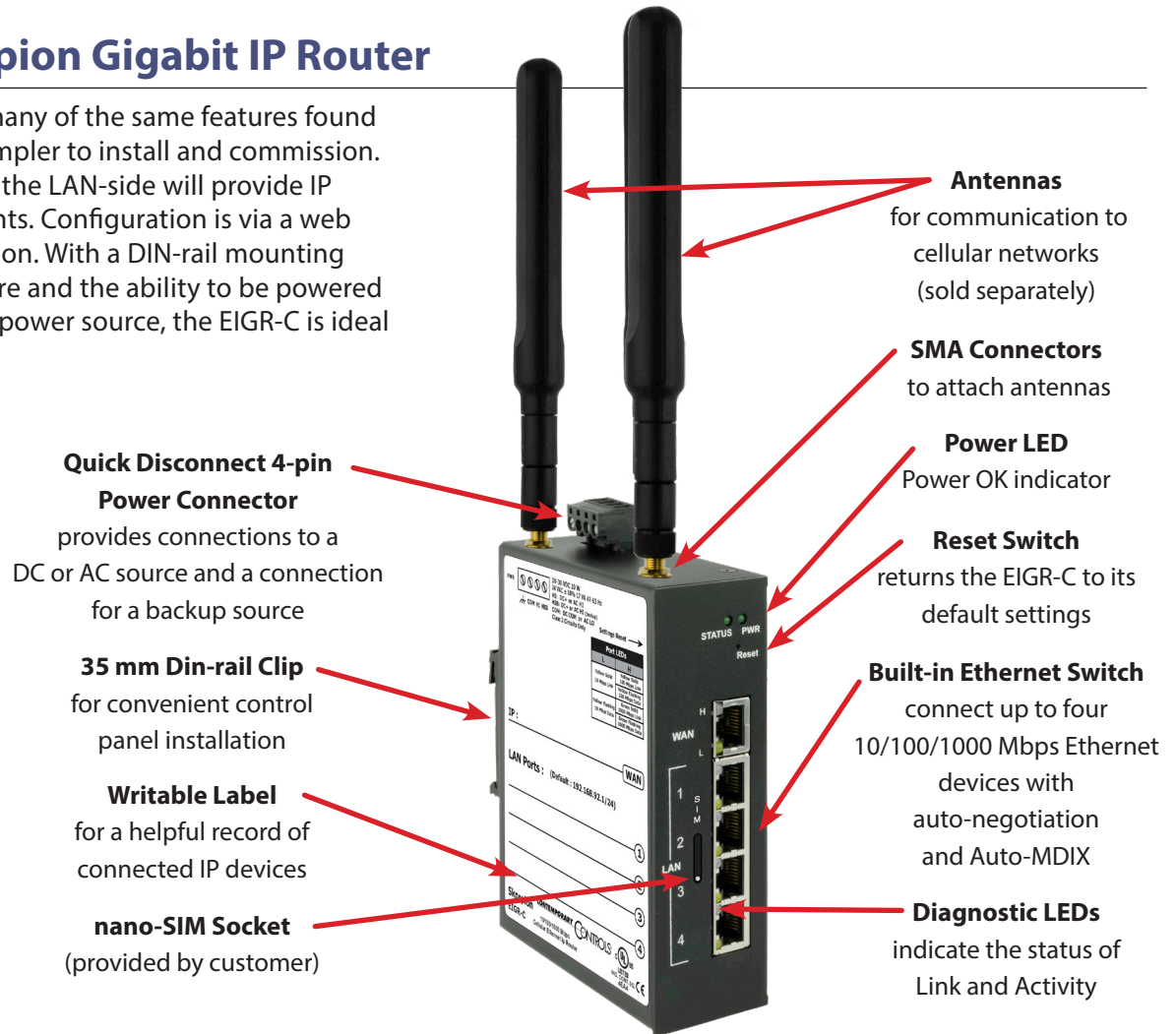- Operates over –40 to +75°C (EIGR-C2X)

EIGR-C2   **EIGR-C2X**

CTRLink®

EIGR-C2 — 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.
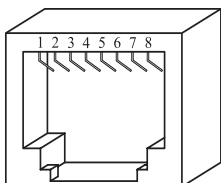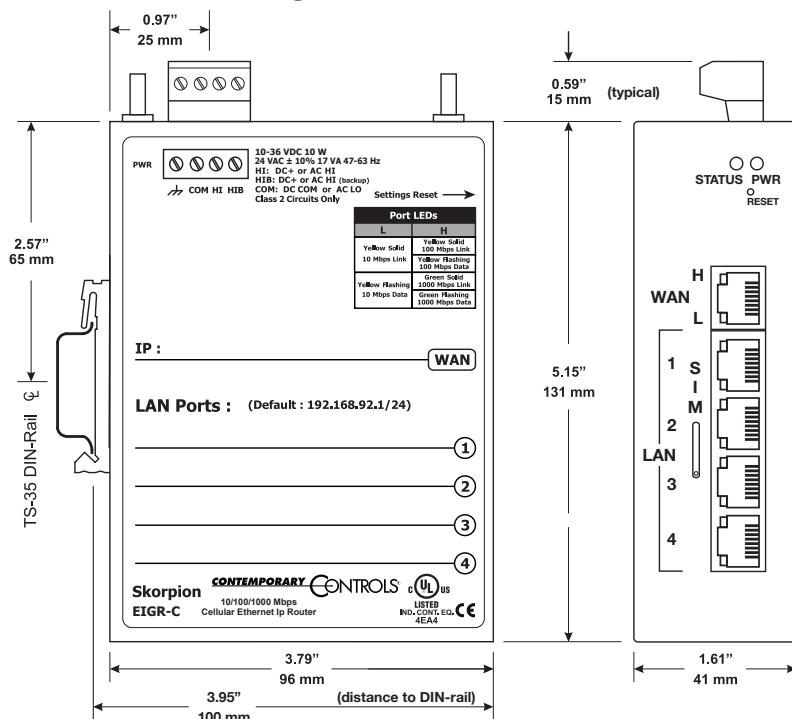
Antennas
for communication to cellular networks (sold separately)

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
(provided by customer)

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

0.97"
25 mm

0.59"
15 mm (typical)

10-36 VDC 10 W
24 VAC ± 10% 17 VA 47-63 Hz
HI: DC+ or AC HI
HIB: DC+ or AC HI (backup)
COM: DC COM or AC LO
Class 2 Circuits Only

Settings Reset

PWR COM HI HIB

STATUS PWR
O RESET

Port LEDs	
L	H
Yellow Solid 10 Mbps Link	Yellow Solid 100 Mbps Link
	Yellow Flashing 100 Mbps Data
Yellow Flashing 10 Mbps Data	Green Solid 1000 Mbps Link
	Green Flashing 1000 Mbps Data

IP :

LAN Ports :   (Default : 192.168.92.1/24)

1
2
3
4

Skorpion EIGR-C   10/100/1000 Mbps Cellular Ethernet Ip Router

2.57"
65 mm

TS-35 DIN-Rail

5.15"
131 mm

WAN H L

1 S I M

2

LAN 3

4

3.79"
96 mm

3.95"
100 mm

(distance to DIN-rail)

1.61"
41 mm

CONTEMPORARY CONTROLS®

Web Page Configuration

CONTEMPORARY CONTROLS

| Setup | Administration | Status | Advanced | Save Changes |

Onboard Help

Skorpion EIGR GigE Router
Automation Firewall/Router

About This Page

Use the setup page to perform basic IP settings for the WAN and LAN interfaces - such as IP address, subnet mask, etc. *Connection Type* is used to specify how your EIGR connects to the WAN: *Cellular, DHCP, Static IP, PPPoE,* or *PPTP*.

Select *Cellular* to use the built-in cellular modem and input the correct APN value. If you select *DHCP*, the WAN side of the EIGR will have its IP address, subnet mask and gateway address set by a DHCP server that is directly or indirectly connected to the WAN port. If no DHCP server is available, static entry values can be entered by selecting connection type *Static IP. PPPoE* is normally used by DSL modems. *PPTP* (Point-to-Point Tunneling Protocol) is used by some providers for Internet Access.

The Router IP address is the IP address which you can use to configure the EIGR. This will also be the gateway address used by IP devices connected to the LAN ports of the EIGR.

The **LAN Setup** can be used to enable the DHCP server for the LAN side along with the starting DHCP address, the number of DHCP clients and the lease time (in minutes).
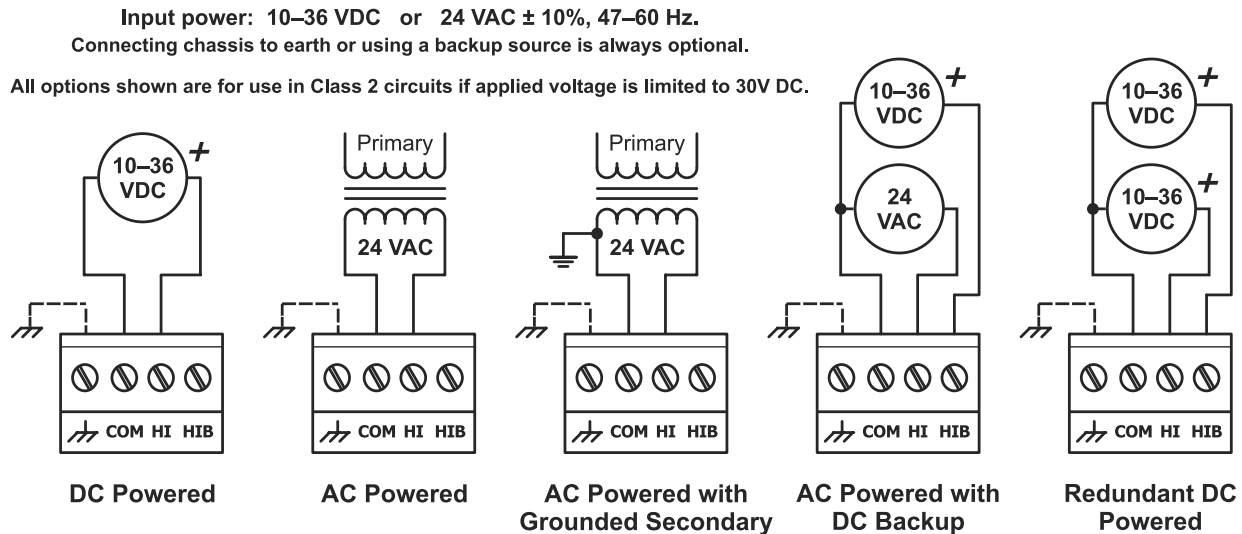
More Information...

WAN Setup

Connection Type   Cellular ▼

APN:

Insert APN here for your cellular provider

Username:

Password:

Optional Settings (required by some ISPs)
Host Name:
Domain Name:
MTU: ○ Enable ● Disable Size: 1500

LAN Setup

Router IP
Local IP Address: 192 . 168 . 92 . 1
Subnet Mask: 255.255.255.0 ▼

Network Address Server Settings (DHCP)   Local DHCP Server: ● Enable ○ Disable
... . 92 . 100

Need Support?

Our staff of engineers is available to address any issues you may be having.

Please visit our **website** for more information.

WAN Setup

Connection Type   Static IP ▼
IP Address: 10 . 0 . 0 . 100
Subnet Mask: 255.0.0.0 ▼
Default Gateway: 10 . 0 . 0 . 1
Static DNS 1: 0 . 0 . 0 . 0
Static DNS 2: 0 . 0 . 0 . 0
Static DNS 3: 0 . 0 . 0 . 0

Optional Settings (required by some ISPs)
Host Name:
Domain Name:
MTU: ○ Enable ● Disable Size: 1500

Port Forwarding

Current Entries:

No.	WAN IP Port	TCP/UDP	LAN IP Address	LAN IP Port	Enabled	NAT Loopback
1	8000	Both	192.168.92.101	80	Yes	No

Delete Entry No: (1 - 100)

Router Access

Local Router Access   Username:
Password:
Confirm Password:
Remote Router Access   Administration Port: 8080
Enable:

Firewall

Firewall Status: ○ Enable ● Disable

NAT

	WAN IP Address				LAN IP Address				Enabled
	129	250	35	123	TO	192	168	1	119	☑
					TO					☐
					TO					☐
					TO					☐
					TO					☐

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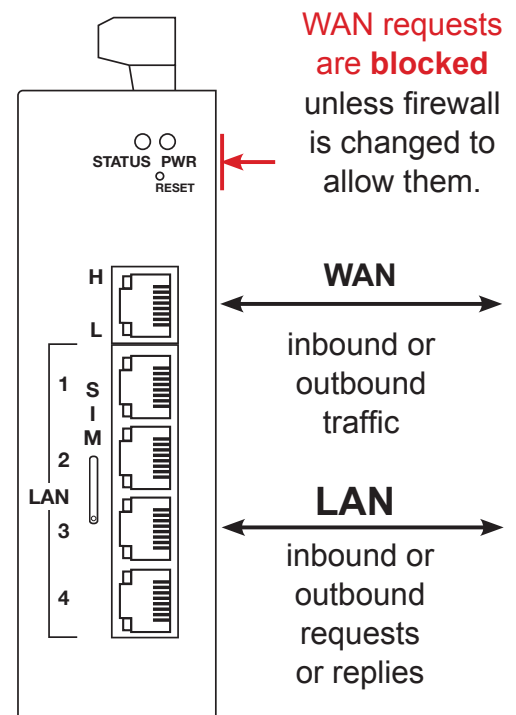
Input power: 10–36 VDC or 24 VAC ± 10%, 47–60 Hz.
Connecting chassis to earth or using a backup source is always optional.

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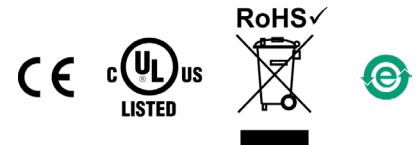
A firewall controls the passing of messages from one side of a router to the other. A *stateful firewall* acts on the structure of the message and who is initiating and who is responding.

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.

WAN requests are **blocked** unless firewall is changed to allow them.

STATUS PWR
RESET

WAN

inbound or outbound traffic

LAN

inbound or outbound requests or replies

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-C2) −40 to +75°C (EIGR-C2X)
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 4 Bands: LTE FDD: B1/B3/B5/B7/B8/B20 LTE TDD: B38/B40/B41 WCDMA: B1/B5/B8 GSM: B3/B8 Antennas* - Main and Receive Diversity SIM Size - nano-SIM/4FF (customer provided)

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-C2	✔	Skorpion GigE IP Router with Cellular (Europe) 0 to 60°C
EIGR-C2X	✔	Skorpion GigE IP Router with Cellular (Europe) −40 to +75°C

* Antennas sold separately