

NueGate NG2140

Multi-protocol field gateway for commercial HVAC equipment

NueGate connects to the BACnet or Modbus port already on the equipment, reads every point it publishes, and sends it encrypted to StatIQ. Commands come back the same way — a setpoint changed in StatIQ is written to the equipment in its own native protocol. The gateway dials out and nothing dials in — no open firewall ports and no VPN.

- Four isolated RS-485 trunks on pluggable terminals — one gateway covers four independent runs
- Reads and writes BACnet MS/TP, BACnet/IP, Modbus RTU and Modbus TCP
- Automatic discovery — every point the equipment exposes is pulled without programming
- Setpoints and commands from StatIQ are written back over the equipment's native protocol
- Equipment identified by make, model and serial; points named in the manufacturer's own nomenclature
- Gigabit and 100M Ethernet, dual-band Wi-Fi, Bluetooth; LTE Cat 4 optional
- Encrypted connection out to StatIQ — no inbound firewall ports, no port forwarding, no VPN
- Firmware updates arrive over the air — no site visit
- Wide-range 9–36 VDC input with supercapacitor ride-through; –13 °F to 140 °F metal enclosure, DIN rail or wall mount



SAC-NG2140-1232-4US-S shown

SPECIFICATIONS

COMPUTE

Processor	Broadcom BCM2711, quad-core Cortex-A72 (ARM v8) 64-bit @ 1.5 GHz
Memory	2 GB LPDDR4-3200
Storage	16 GB eMMC
Security	Hardware secure element, secure boot, signed over-the-air updates
System	Real-time clock with backup, hardware watchdog, status LEDs per port

FIELD BUS

Ports	4 × isolated RS-485, pluggable 3.5 mm screw terminals
Protection	Electrostatic and surge protection on every port; selectable 120 Ω end-of-line termination
Baud rate	BACnet MS/TP 9600 – 76800. Modbus RTU up to 115200.
Capacity	Up to 25 devices per trunk, 4 trunks per gateway

PROTOCOLS

Field side	BACnet MS/TP, BACnet/IP, Modbus RTU, Modbus TCP. Read and write.
Write-back	Setpoints and commands issued from StatIQ are written to the equipment over its native protocol, using points the manufacturer made writable.
Cloud link	Encrypted, outbound only. The gateway opens the connection to StatIQ; nothing connects in to it. No inbound firewall ports, no port forwarding, no static IP, no VPN.

NETWORK

Ethernet	1 × 10/100/1000 Mbps RJ45, 1 × 10/100 Mbps RJ45
Wireless	2.4 / 5 GHz Wi-Fi (802.11 a/b/g/n/ac) and Bluetooth, 1 × SMA antenna port
Cellular	Optional LTE Cat 4 (Quectel EC25-AFX, North America). Nano-SIM, 1 × SMA antenna port. FDD B2/B4/B5/B12/B13/B14/B66/B71, WCDMA B2/B4/B5.

POWER

Input	9 – 36 VDC, 2-pin pluggable 3.5 mm terminal with screw locks
Consumption	24 W maximum
Protection	TVS transient suppression and reverse-polarity protection
Ride-through	Integrated supercapacitor sustains the unit through brief outages, then performs an orderly shutdown
24 VAC sites	Order accessory SAC-ACC-24VAC where the gateway is fed from a control transformer

ENVIRONMENTAL

Operating	–13 °F to 140 °F (–25 °C to 60 °C)
Storage	–13 °F to 140 °F (–25 °C to 60 °C)
Humidity	5 – 95 % RH, non-condensing

MECHANICAL

Enclosure	Metal, fanless
Dimensions	5.6 × 3.9 × 1.4 in (143 × 100 × 35 mm), excluding DIN bracket and antennas
Weight	1.65 lb (750 g)
Mounting	DIN rail or wall. Both brackets ship with every gateway.

COMPLIANCE

Emissions	FCC 47 CFR Part 15, Subpart B
Markings	CE, RoHS, WEEE
Warranty	Two years from date of shipment

ORDERING

SAC-NG2140-1232-4US-S	NueGate gateway. 4 × RS-485, Wi-Fi and Bluetooth, 2 GB RAM, 32 GB eMMC, LTE Cat 4 (North America), supercapacitor.
SAC-NG2140-1232-S	Same gateway without the cellular modem. Wi-Fi, Bluetooth and Ethernet only.
SAC-ACC-24VAC	24 VAC to 12 VDC converter. Order where the gateway is powered from a control transformer rather than a receptacle.
IRM-45-24ST	100–240 VAC to 24 VDC converter. Order where the gateway is powered from line side power rather than a receptacle.

StatIQ is licensed separately, per connected piece of equipment. Contact Simply Agnostic Controls for pricing and volume terms.

IN THE BOX

1 × NueGate gateway with DIN rail bracket · 1 × wall-mount bracket · 1 × 100–240 VAC to 24 VDC power adapter with locking terminal plug · 1 × Wi-Fi / Bluetooth antenna · 1 × LTE antenna (cellular models) · 1 × 2-pin power terminal plug · 2 × 6-pin RS-485 terminal plugs

INTERFACES

Front	2 × RJ45 Ethernet, 2 × 6-position RS-485 terminal blocks, 1 × 2-pin power terminal (VIN+ / GND), 8 indicators
Side	1 × HDMI (service), 2 × USB 2.0 (service), 2 × SMA antenna ports, recessed RESET
Rear	Micro-SD slot, nano-SIM slot, micro-USB provisioning port, DIN rail bracket

RS-485 TERMINAL ASSIGNMENT

UPPER BLOCK		
	COM1	COM3
A (+)	TX1/A1	TX3/A3
B (–)	RX1/B1	RX3/B3
Ground	IGN D	IGN D
LOWER BLOCK		
	COM2	COM4
A (+)	A2	A4
B (–)	B2	B4
Ground	IGN D	IGN D

Two 6-position blocks, 3.5 mm pitch. All four ports are RS-485 on the NG2140. Each port carries its own isolated ground.

INDICATORS

PWR	Red. Solid when powered. Blinking means an abnormal supply — remove power.
ACT	Green. Blinks while the system is running.
USER	Green. Solid when the gateway is online to StatIQ.
4G	Green. Solid when cellular is connected. Cellular models only.
COM1–4	Green. Blinks with traffic on that RS-485 port.