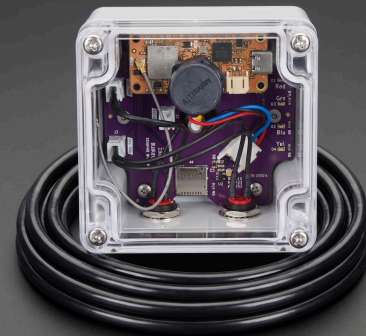


Industrial Sensor Gateway

Universal 4–20 mA / 0–5 V Cellular Interface · LTE-M / NB-IoT · Made in the USA

A plug-and-play cellular interface for any compatible industrial analog sensor. Connect a 4–20 mA or 0–5 V field instrument, mount the unit, and data flows to the cloud over LTE-M or NB-IoT — no WiFi, no gateway, no site infrastructure. Remote configuration, OTA firmware updates, and SD card local data backup are included as standard.



SENSOR INPUTS

4–20 mA · 0–5 V

CONNECTIVITY

LTE-M / NB-IoT

BATTERY

9,000 mAh

MAX CABLE

200 ft (61 m)

ENCLOSURE

IP65 · NEMA 4X

OP TEMP

–40 to +85 °C

WARRANTY

1 Year

Connect Any Compatible 4–20 mA or 0–5 V Field Instrument

BluCloud is signal-agnostic. Any industrial sensor that outputs a standard 4–20 mA current loop or 0–5 V analog voltage can be wired directly — no custom firmware, no signal conditioning, no hardware modifications. A drop-in cellular upgrade for legacy data loggers and wired SCADA endpoints.

0–5 V DC Voltage

4–20 mA Current Loop

MODBUS RTU / RS-485 — *coming soon*

Max cable: 200 ft

Power-gated sensor supply

SENSOR INTERFACE SPECIFICATIONS

PARAMETER	VALUE
Voltage input	0–5 V DC 0–5 V
Current input	4–20 mA current loop 4–20 mA
Digital protocol	MODBUS RTU / RS-485 — coming soon
Sensor power supply	0–5 V via cable, power-gated during readings
Maximum cable length	200 ft (61 m)
Cable entry	Gasket-sealed port, underside of enclosure
Sampling rate	Sub-second to daily — user-configurable
Transmission interval	Configurable — near real-time to daily
Local data backup	SD card — retained through connectivity loss

CELLULAR CONNECTIVITY

PARAMETER	VALUE
Technology	LTE-M (Cat-M1) / NB-IoT
Generation	4G / 5G compatible
SIM	Multi-carrier eUICC — auto-selects best available network
US coverage	Verizon, T-Mobile, AT&T and all major US carriers
Global coverage	550+ networks · 190+ countries
Remote configuration	Yes — sampling rate, thresholds, reporting interval
OTA firmware updates	Yes — full remote update, no site visit required

COMPATIBLE SENSOR TYPES



Pressure

Gauge, differential & absolute pressure transducers with 4–20 mA or 0–5 V output



Level

Hydrostatic probes, radar / ultrasonic level transmitters — any analog output type



Flow

Flow transmitters & open-channel flow meters with 4–20 mA analog output



Temperature

RTD & thermocouple transmitters, temperature loops outputting 4–20 mA



Environmental

Humidity, CO₂, air quality, soil moisture — any 0–5 V or 4–20 mA output sensor



Custom / OEM

Any field instrument with a standard 4–20 mA or 0–5 V analog output signal

Water & Wastewater

Oil & Gas

Agriculture

Mining

Environmental Monitoring

Industrial Process

Smart Infrastructure

DEPLOYMENT — 3 STEPS

- 1 Wire your sensor.** Connect the 4–20 mA or 0–5 V cable from your field instrument to the gasket-sealed port on the underside of the enclosure. No signal conditioning required.
- 2 Mount and power on.** Install the enclosure at the measurement point. The unit self-registers to the strongest available carrier — no SIM provisioning, no gateway, no WiFi.
- 3 Configure remotely.** Set sampling rate, engineering units, alert thresholds, and reporting interval from the BluCloud cloud dashboard — with no site visit required, ever.



POWER

PARAMETER	VALUE
Default battery	3.6 V Li-SOCl ₂ · 9,000 mAh · field-replaceable
Charging	USB-C onboard port
Low-temp option	LiPo variants available for extreme cold deployments
Customer-supplied battery	Compatible — bring your own LiPo option available
Battery temperature range	–55 to +85 °C

ENCLOSURE & PHYSICAL

PARAMETER	VALUE
Enclosure material	Rugged polycarbonate · transparent lid
Ingress protection	IP65 standard · IP67 available upon request
Impact rating	NEMA 4X (UL certified)
External dimensions	3.2 × 3.1 × 2.1 in (82 × 80 × 55 mm)
Assembled weight	0.55 lbs (250 g)
Operating temperature	–40 to +85 °C
Status LEDs	4-color diagnostic LEDs visible through transparent lid
Certifications	FCC, IC, CE (cellular) · UL/cUL E194432, NEMA 4X
Country of manufacture	United States
Warranty	1 year