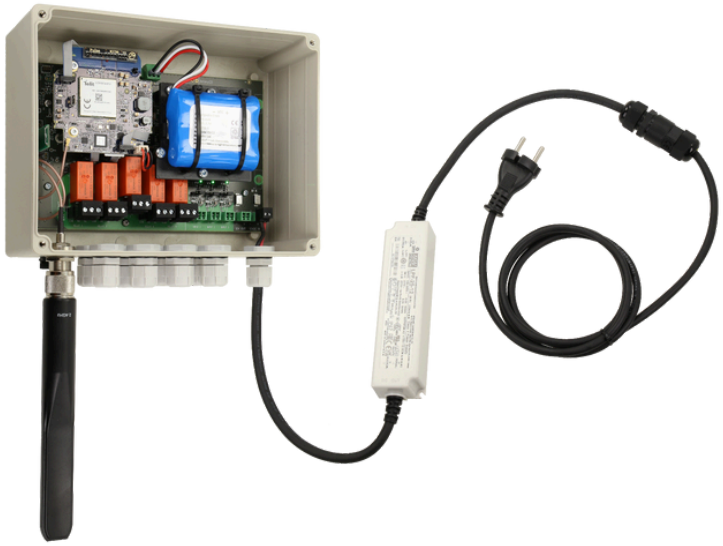
TECHNICAL DATASHEET

Bridge IOv2 4G

MODEL NUMBERS:
72122 for Europe, 72122A for North America - other regions please enquire

General



Bridge IO is a multi-frequency radio transceiver that connects Detectors with the Reconeyez cloud portal. BridgeIOv2 4G combines two communication modules: short-range radio, long-range radio. Bridge IO is powered externally by a 12V DC source and also includes an internal backup battery. Bridge IO has the extra benefit of having three input contacts that can be configured for wet or dry usage and five relay outputs that can be configured to operate in response to defined events

Operating temperature range

-40°C to +60°C

-40°F to +140°F

IP rating

IP66

Weight (including battery)

1.1kg / 2.42lbs

Dimensions

220 x 165 (185 inc cable glands) x 90mm

8.66" x 6.50" (7.28” inc cable glands) x 3.54"

Short range radio

Short-range 2.4GHz radio is used for two-way communication between the Detector and other Reconeyez devices.

Standard	**IEEE 802.11.4**
Bandwidth	**2 MHz**
Data rate	**250 kbps**
Modulation	**QPSK**
Antenna	**Omnidirectional (external)**
EIRP	**12 dBm**
Security	**ECC (secp160r1)**
Authentication & encryption	**AES 128**
Max LOS distance	**500M / 1640.42 ft**
Network topology	**mesh**

Long range radio

Long-range radio is used for two-way communication between the Bridge and the Command Center server. Bridge uses a 4G module for communication with the server.

Module type	**LE910C4-EU**	**LE910C4-NF**	**LE910C4-AP**	**LE910C4-LA**
Region	**EMEA**	**North America (Public safety, FirstNet, AT&T,T-Mobile, Verizon) Canada**	**APAC (Telstra/NTT-Doco mo, SoftBank, KDDI)**	**LATAM**
4G bands	**B1, B3, B7, B8, B20, B28A**	**B12, B14, B4, B2, B5, B13, B66, B71**	**B2, B4, B5, B26, B12, B25**	**B1, B2, B3, B4, B5, B7, B28**
3G bands	**B1, B3, B8**	**B2, B4, B5**	**B1, B2, B4, B5**	
2G bands	**B3, B8**		**B2, B3, B5, B8**	
Antenna	**Omnidirectional (internal)**	**Omnidirectional (internal)**		

External power source

Under normal operating conditions the BridgeIOv2 is powered by an external 12V DC power source. The external power source can be an AC/DC adapter, PoE (power over ethernet) splitter or an external battery or any other source that meets the following specification.

Voltage	**9-15V DC**
Max current	**2A**
Standby current	**~10mA**
Power input connector	**Pluggable terminal block (for bare wire connection)**
Power cable external diameter	**3-6.5mm (sealed with M12 cable gland)**
Recommended min. wire size	**0.75mm² / AWG 18**
Supplied PSU	**12VDC 2.1A (25W) power supply IP67 protection**

Internal backup battery

Voltage	**3.7V**
Capacity	**10,2 Ah**
Time to recharge	**10 hours (when external power is restored)**

Bridge IO includes an internal rechargeable Li-Ion backup battery. When the external 12V DC power source fails, the device switches seamlessly to the internal backup battery and sends a status message to the command center.

Relay outputs

Bridge IO includes 5 relay outputs for controlling external devices. Two conductor cables can be connected to the relay output using a pluggable terminal block and sealed with a M12 cable gland.

Relay type	**1 Form C (SPDT-NO, NC)**
Part number	**RZ03-1C4-D005**
Relay output rating	**8A 250V**
Relay contact rating	**16A 250VAC**
Limiting making current max. 4s, duty factor 10% max. 20ms	 **30A** **80A**
Breaking capacity max	**3000VA**
Cycles	**$6x10^3$**
Relay output connector	**Pluggable terminal block (for bare wire connection)**
Output cable external diameter	**3-6.5mm (sealed with M12 cable gland)**
Recommended min. wire size	**$1.3mm^2$ / AWG 16**

Input contacts

BridgeIOv2 includes 3 input contacts that can be used to arm and disarm connected detectors, request a snapshot for one or more detectors or provide a notification to the cloud portal Two conductor cables can be connected to the input using a pluggable terminal block and sealed with a M12 cable gland.

Input Dry contact

Dry contact mode:
LED will be lit if nothing is connected to input or contacts are open

Wet Contact

Wet contact mode:
LED will be lit if positive voltage is applied to the input
Positive input voltage shall be under 18V.
Input switches at around 1VDC. So can be used with standard logic signals