

TECHNICAL DATASHEET

I/O Bridge v2 4G

MODEL NUMBERS:

72122 (Europe & Great Britain), 72122A (North America)

General

I/O Bridge is a multi-frequency radio transceiver that connects Detectors with the Reconeyez cloud portal. BridgelOv2 4G combines two communication modules: short-range radio, long-range radio. The I/O Bridge is powered externally by a 12V DC source and also includes an internal backup battery. I/O Bridge 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

66

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 I/O Bridge v2 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)

I/O Bridge 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

I/O Bridge 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%	30A
max. 20ms	80A
Breaking capacity max	3000VA
Cycles	6x10³
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	1.3mm² / AWG 16

Input contacts

I/O Bridge v2 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