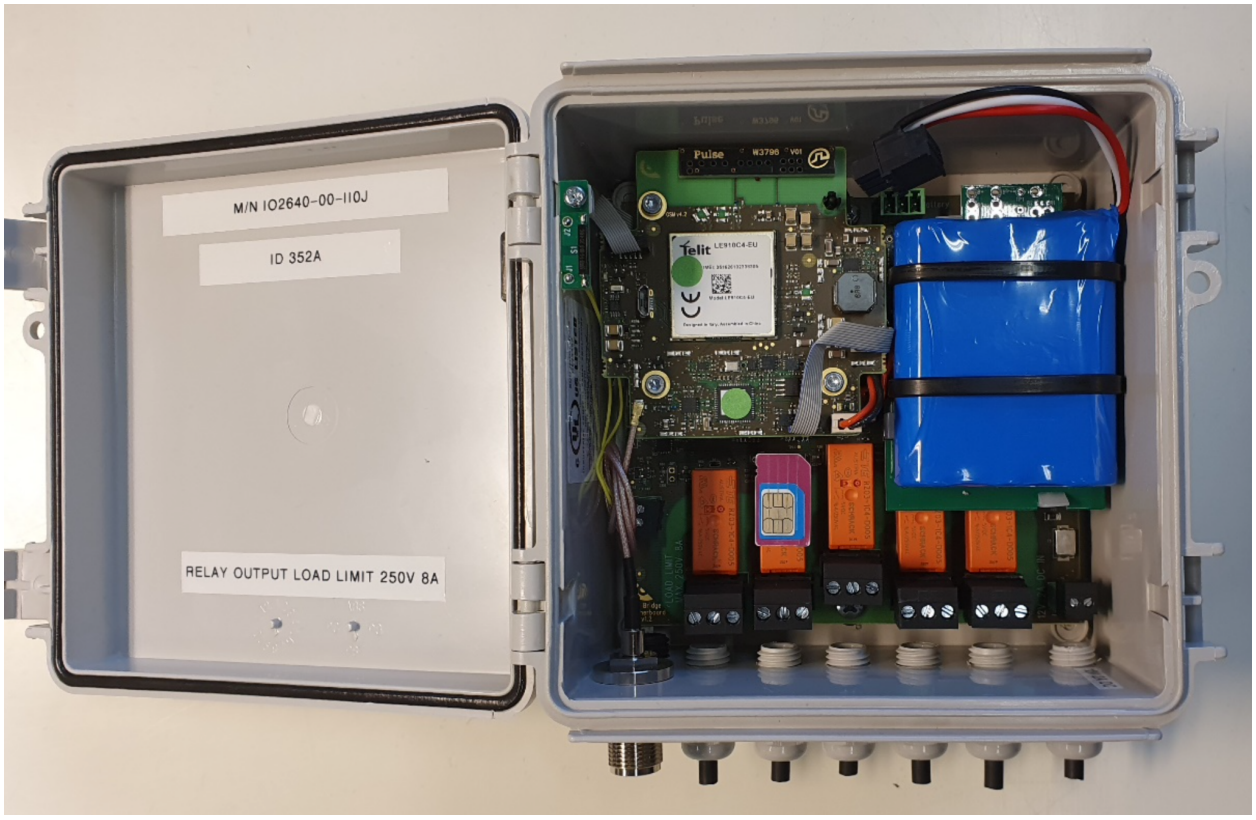
RECONEYEZ DATASHEET
BRIDGE IO

MODEL NUMBER: IO2640—00—II0J

Rev 0.2 10.05.2021

ORDER CODES:
BRIDGE IO: **72120**



GENERAL

Bridge IO is a multi-frequency radio transceiver that connects Detectors with Reconeyez Cloud. Bridge IO 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 can also control external devices via 5 relays.

SHORT RANGE RADIO

Short-range radio is used for two-way communication between the Bridge and the Detectors. Bridge has a 2,4 GHz radio module for communication with Detectors. 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	500 m
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
Region	EMEA
4G bands	B1, B3, B7, B8, B20, B28A
3G bands	B1, B3, B8
2G bands	B3, B8
Antenna	Omnidirectional (internal)

EXTERNAL POWER SOURCE

Under normal operating conditions the Bridge IO 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	0.75 mm^2/AWG 18

INTERNAL BACKUP BATTERY

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.

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

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

ENVIRONMENTAL

Working temperature range	-40°C to +60°C
IP rartng	IP66

MECHANICAL

Dimensions	150mm x 150mm x 77mm
Cable length	2m
Product weight	1 kg