

CAN GATEWAY FOR THIRD-PARTY EQUIPMENT

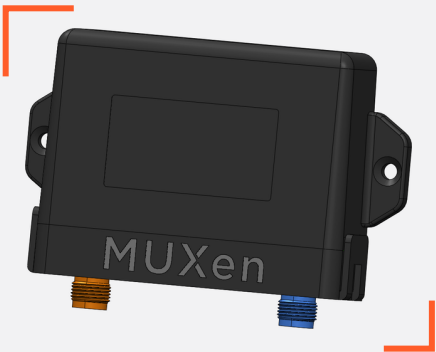
CAN-CAN

Integration of third-party equipment into the MUXEN network, seen and controlled like any native device.

Once integrated, a third-party device behaves like any other on the boat: its state and its faults show on the screens and in the alarm list, its values feed the pages that already exist, and the Brain can log them over time.

A CAN-CAN comes in two variants. BASIC translates between its two CAN connectors and nothing else; FULL adds two relay outputs, two dry-contact inputs and two analog inputs, so the same box can also drive a valve or read a tank sender.

- BASIC
- FULL



CAN-CAN BASIC GATEWAY

KEY SPECIFICATIONS

CAN 1 — MUXEN bus		500 kbit/s, fixed · M12 orange, 5-pin
CAN 2 — equipment bus		Speed & protocol are set per application · M12 blue, 5-pin
On-board I/O	BASIC	not fitted — CAN to CAN only
	FULL	2 relays, 1.5 A/32 V · 2 dry contacts, 0 – 14 V · 2 analog inputs
Analog inputs	FULL	2 channels, 0 – 5 V, resolution 1 mV, switched sensor supply
I/O connector	FULL	Amphenol AT16-18SC-EK02 (green, key C)
Configuration		With Raken
Supply voltage		9 – 18 V DC
Firmware		Signed · updated over the CAN bus
Diagnostics		One system LED
Size		120 × 75 × 30 mm
Weight	BASIC	100 g
	FULL	160 g
IP rating		IP65

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THE CATALOGUE

GATEWAY APPLICATIONS

The hardware is the same for every application; the firmware decides which third-party equipment the box integrates.

> NMEA 2000

BASIC

Recognises the **energy equipment** on an NMEA 2000 backbone, and creates the matching **MUXEN device**: Victron converters, MPPTs and battery monitors, an Arco Zeus alternator, a Vetus bow thruster. Nothing to declare — they are **detected automatically**.

> AQUABASE

BASIC

One **Aquabase watermaker** as a single MUXEN device: mode, salinity, production flow, its three pressures and its running hours, plus the **fault code** it reports when it stops. The unit keeps its own controller and panel.

> J1939

FULL

J1939 is the bus **combustion engines** use, so most are understood — propulsion engines and gensets alike: state, engine speed, voltage and temperature. Fischer Panda and Cummins Onan are **recognised by name**, and each unit takes its **own J1939 instance**.

> ECO SISTEMS

BASIC

One **Eco Sistemas watermaker**, updated once a second: standby, producing or rinsing, salinity, flow and litres produced. **Start, rinse and stop** are sent the other way; any alarm it raises becomes a MUXEN fault.

> SCHEIBER

BASIC

Scheiber SFSP wireless **battery-free wall switches** become MUXEN switches, and the auxiliary blocks become MUXEN six-channel **lighting devices**, on/off and dimming. It **works both ways**: a screen dims the real output.

> GENERIC I/O

FULL

Not a gateway in its own right but an **extension** that every other application carries, on a **FULL** box. Its two relays, two dry contacts and two analog inputs are published on the **MUXEN bus** as well: a bilge float switch, a tank sender, a valve driven from a screen.

> BUS EXTENDER

BASIC

On a large boat a single CAN run can be too long to keep a clean signal. This box joins **two segments** so they behave as one, which is how a **60-foot-plus installation** gets wired as two shorter runs and still reads as one bus.

NOT IN THE LIST?

A CAN-CAN is one box with two CAN connectors; what sits behind the second one is up to the firmware. Tell us what you need to connect and we will build the application for it.

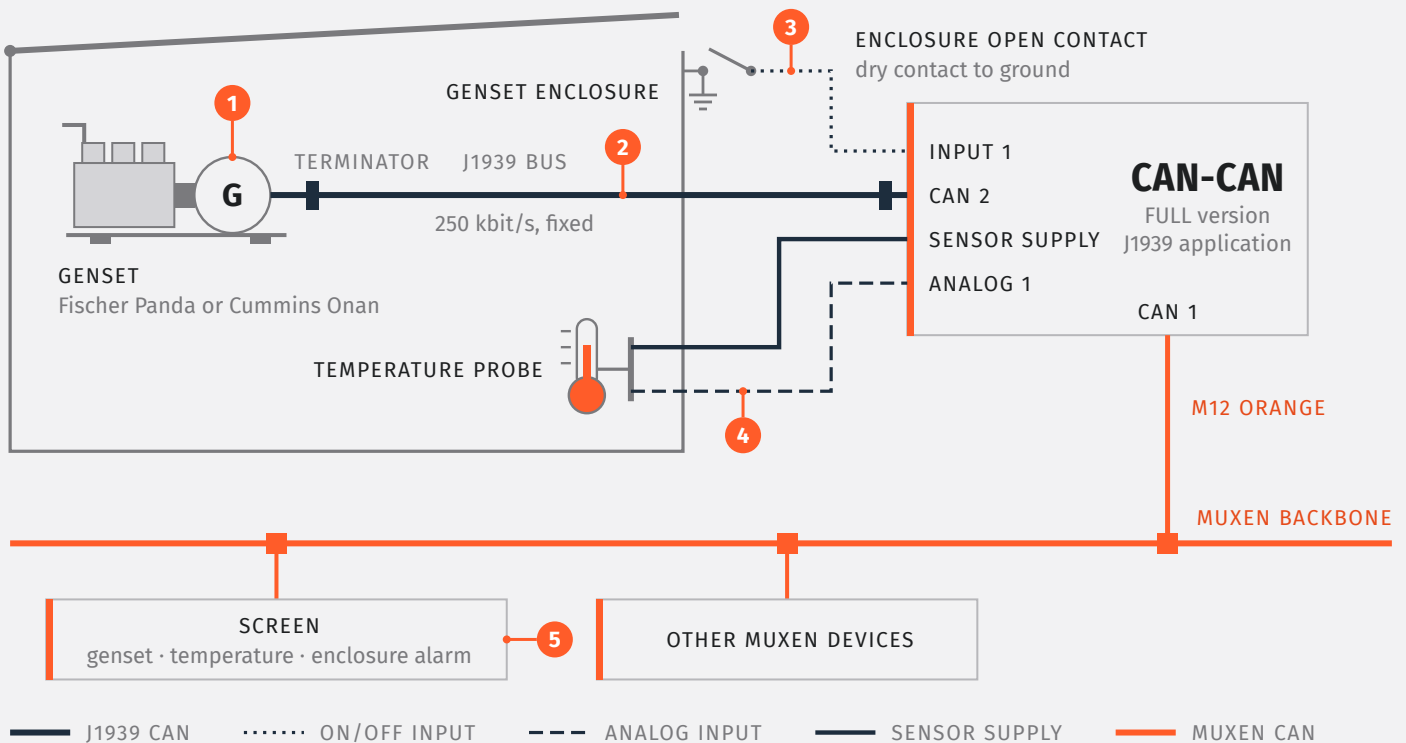
Contact us by email: contact@muxen.fr

WIRING IT IN

TYPICAL INSTALLATION

One genset in its enclosure, and one CAN-CAN in its FULL version running the J1939 application. The same box reads a temperature probe inside the enclosure, and a contact on it for an enclosure-open alarm.

ONE GENSET, ONE BOX, TWO INPUTS



- 1 THE GENSET**
A Fischer Panda or Cummins Onan genset, its J1939 bus in working order. The box recognises it **automatically**.
- 2 ITS OWN BUS, ON CAN 2**
The genset's own bus goes on CAN 2, at 250 kbit/s, fixed by the firmware. It is a separate bus: it needs its **own terminators**, one at each end.
- 3 THE ENCLOSURE OPEN CONTACT**
A **dry contact** on the enclosure, between input 1 and ground; no resistor is needed. The box reports its state, and the boat's project raises an enclosure-open alarm.
- 4 THE TEMPERATURE PROBE**
A probe inside the enclosure. The box sends **millivolts**; the boat's project turns them into degrees.
- 5 WHAT THE BOAT READS**
The genset's state, speed, AC voltage and temperature, the probe's reading and the enclosure alarm. A Fischer Panda can also be started and stopped **from a screen**.