KHOMP

I/O Extension Module

Main characteristics

- Multi-contact sensing

- Two connectors for contact sensors

- Two analog outputs for electromechanical relays

Applications

- Industry

- Agribusiness

- Smart City

- Healthcare

- Corporate

Overview

ITS 3G and LoRa and ZigBee (IEEE 802.15.4) Endpoints have extension connectors capable of extending their sensing capabilities, further increasing the intelligence in IoT (Internet of Things) for industries in various segments.

Khomp presents to the market, the EM R102, an extension module for relay sensors, which makes it possible to perform the sensing of multiple contacts, being able to act with total control over your machinery.

The information, once collected, is sent for analysis, bringing automated intelligence to the environment where the device was installed.

.

Available model

Khomp offers the I/O sensor extender model seen below:

Model	Description
EM R102	• Two dry contact sensor inputs. • Two analog outputs of electromechanical relays

Technical specifications

Busbar
- One 16-pin connector
- Type: I²C 100 KHz
- Compatible with:
    - ITS 302 (3G), ITS 312 (3G with integrated sensors) and ITS 402 (2G and 4G)
    - NIT 20LI and NIT 21LI (LoRa). Compatible with ATC LoraWAN Public Network and Private Networks
    - NIR 20ZI and NIR 21ZI (ZigBee)

Power
- Source: 12 VDC external (**mandatory use**)
- Connector: Jack P4 (2,1 mm)
- Power: 1.4 W

Physical/Environmental
- Dimensions of the protective case: 102x77x1 mm
- Weight: 104 g
- Operating temperature: -20 °C to 85 °C
- Operating humidity: 0–90% (non-condensing)

Contact sensor input
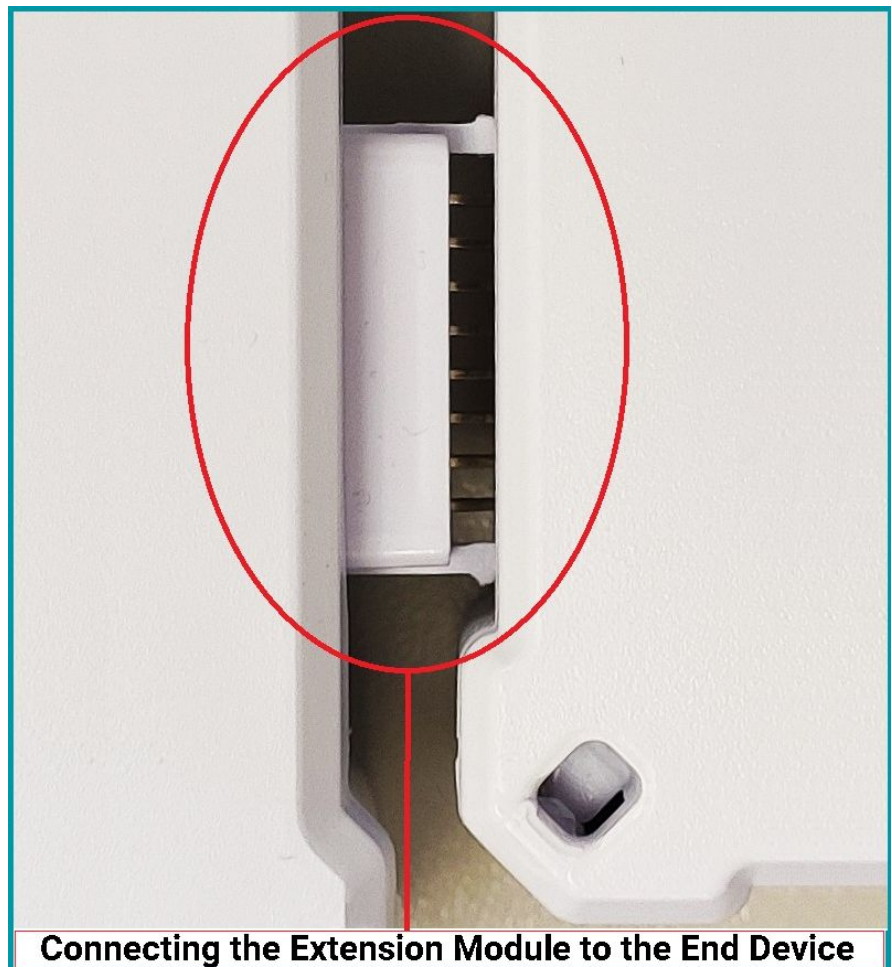- Connector: Pole

Relay connector input
- Connector: Terminal
- Current range: 10 A / 125 VAC maximum up to 20 A / 14 VAC
- Pole changeover contact (NO, C, NC)

Data aquisition
- Contact response time: 200 to 1000 ms
- Relay actuation time: from 200 to 500 ms*.

* *In LoRa Endpoint, the actuation time depends on the class, either A or C. See product manual for more information.*
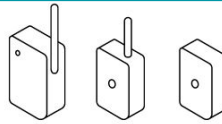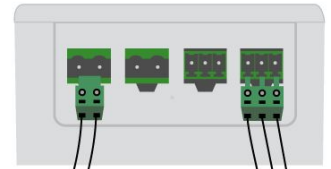
Other product images

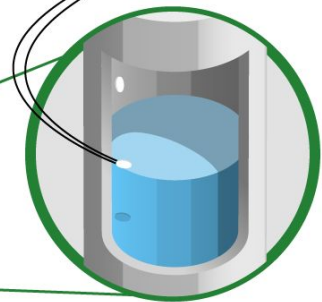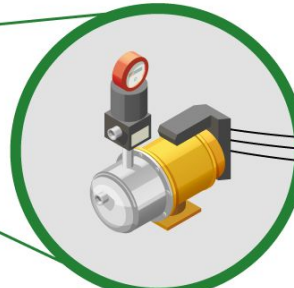**Connecting the Extension Module to the End Device**
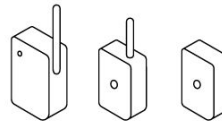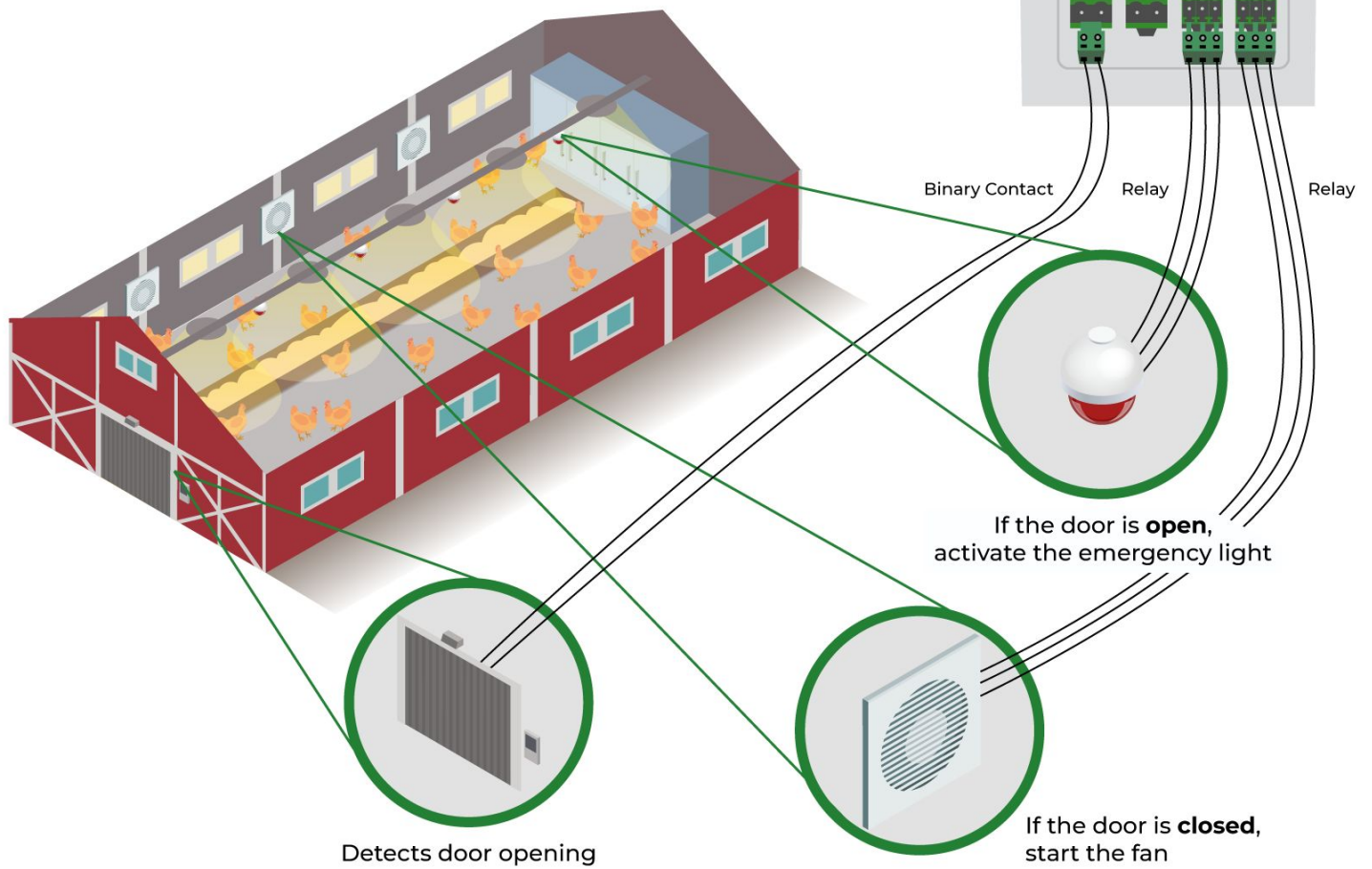
Application model

Legend: *When it reaches a predetermined level of water in the tank, the extension triggers the pump.*

Application model

ITS, Endpoint LoRa or ZigBee   **+ EM R102**

Binary Contact   Relay   Relay

If the door is **open**, activate the emergency light

Detects door opening

If the door is **closed**, start the fan

Legend: *When detecting the port opening, the extender acts in different ways depending on the state it is in.*

KHOMP

Rua Joe Collaço, 253 - Florianópolis, SC
+55 (48) 3722.2900
comercial@khomp.com