Ksenia®
security innovation

intro - door controller

Access Control - peripheral BUS module

code KSI2800000.300

Description

intro module is a peripheral BUS that was designed to realize an effective integration process between Security and Access Control functions of lares 4.0 platform. Protecting residential structures access, buildings and/or restricted areas of them, by unauthorized persons is its main purpose.

intro module, completely developed, from design to final production, by Ksenia in Italy, is a peripheral BUS connected to the lares 4.0 control panel via KS-BUS and it represents the physical core of the Access Control system designed by Ksenia.

Each single **intro** module allows you to wire up and manage a complete gate structure with:
- door with a third-party electronic lock;
- magnetic contact (external or internal if provided inside the lock) to control the opening/closing of the door;
- two devices(*) with RFID reader (volo, volo-in readers or ergo-X keypad) placed near the door, necessary for authentication of authorized users;
- RTE (Request To Exit) button installed inside the restricted area to unlock it;
- a preconfigured output for optical (flashing lamp) or acoustic (buzzer) for DOTL (Door Open Too Long) and FD (Forced Door) alarms.

intro module is equipped with:
- two BUS, one for connecting lares 4.0 KS-BUS and one for connecting two peripherals(*) chosen between volo, volo-in or ergo-X keypad;
- one output to control the lock with 30Vdc - 8A relay;
- one output for programmable function with 30Vdc - 8A relay;
- 4 more outputs at 30Vdc - 1A (two of them for programmable function), out of 6 total;
- one input to monitor the BOLT physical status;
- one input for connecting the magnetic contact of the door;
- one input for connecting the RTE (Request To Exit) button;
- two inputs to monitor the presence or absence of mains power and battery charge(**);
- 2 more programmable inputs with programmable balancing, out of 7 total.

intro module can be remotely configured via the Ksenia SecureWeb cloud and uses a new logic programming to facilitate the configuration work of specialized personnel in the most effective way.
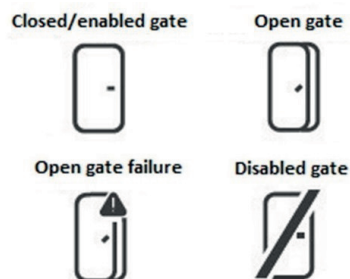
No additional software is required!

(*) The connection of other peripherals, in addition to those indicated, is not recommended.
(**) If the power supply provides this information.
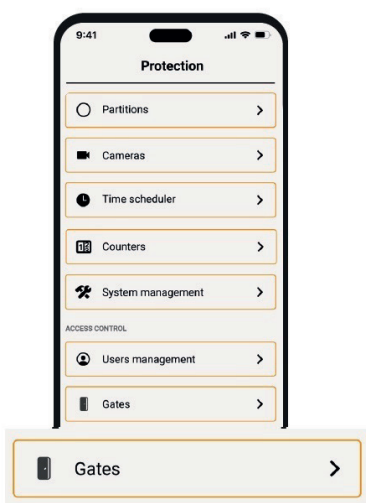
intro module is fully supervised by lares 4.0 control panel and shows the status of each connected element in real time, both to the installer (on the Installer web interface) and to the end user (on the lares 4.0 App via easy-to-understand icons):

Closed/enabled gate   Open gate

Open gate failure   Disabled gate

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Main characteristics

Identification

Users are identified by login credentials such as Security cards/keys, PIN codes, etc. and identification of users is entrusted to Ksenia volo or volo-in readers and/or ergo-X keypad installed next to the door and wired to **intro**.

If an unauthorized user tries to show his credentials, the "Unauthorized User" event is generated.

Double or single authentication can be configured, it depends on the level of security that the environment to be protected requires (with RFID security key and PIN code or just RFID key, for example).

Finally, identification may only be required to enter a protected area but not to exit, in that case an RTE (Request To Exit) button, installed near the door and physically connected to the **intro** module, can be used to unlock the door from inside the area.

Authorization

lares 4.0 control panel verifies credentials and authorizations shown to the readers and allows access or not.

Tracking

All accesses are recorded in the control panel Event Log, both allowed and denied, as well as all with relevant information relating to **intro** module.

All related events can be notified to the users.

Quantity data

lares 4.0 models	wls 96	16	40	40 wls	140 wls	644 wls
Maximum number of intro modules	4	4	8	8	12 (20*)	16 (30*)

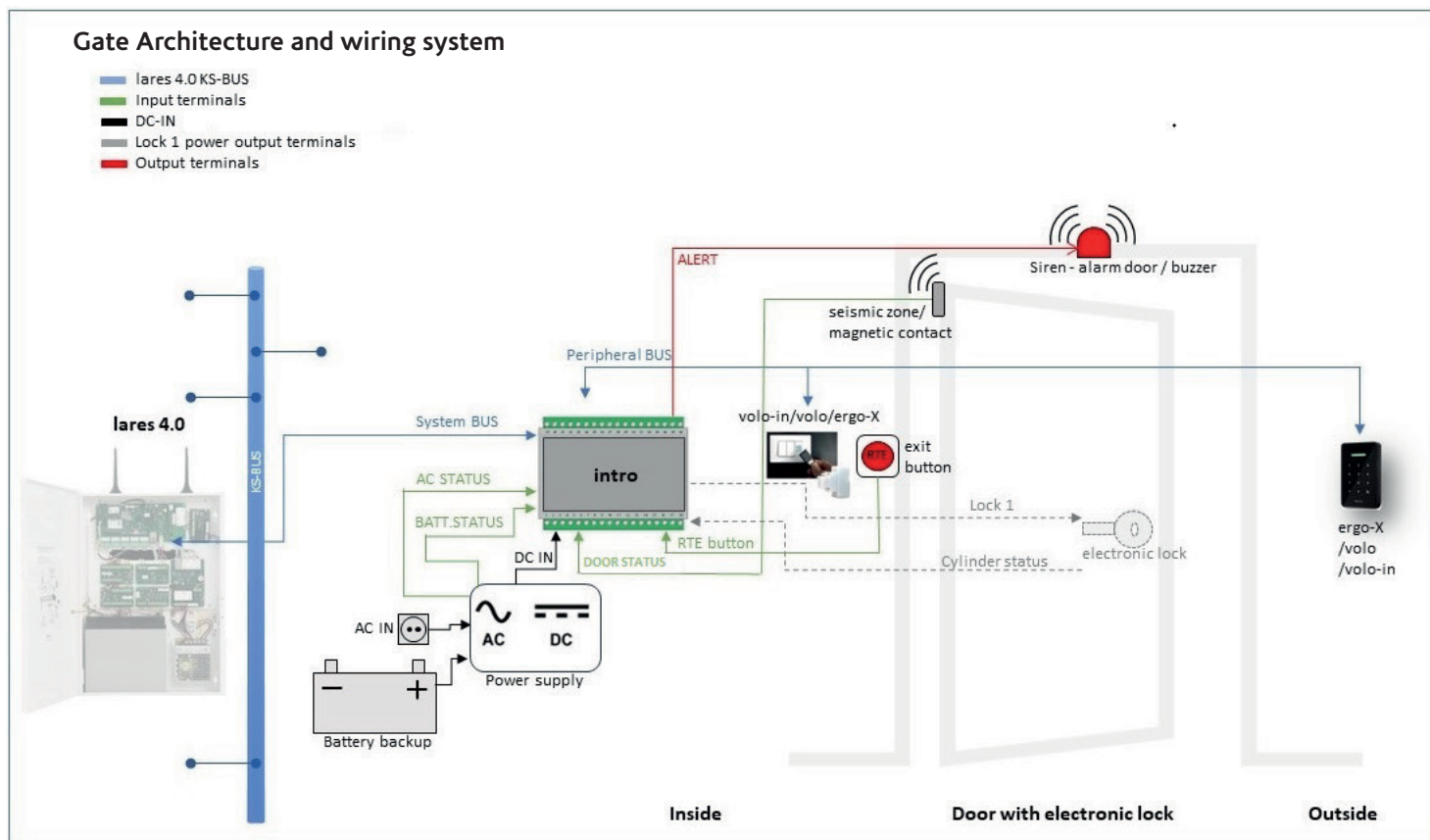** Extended number is available under license, contact our sales team for information*

Why **intro** ?

- because the second BUS allows you to spare the installation of an isolator device, it guarantees protection of the control panel KS-BUS against external peripherals sabotage;
- because no configuration for DOTL (Door Open Too Long) and FD (Forced Alarm) alarms is necessary, except for enabling or disabling them;
- because no configuration of events or actions for the management of RTE button and ALERT output is necessary;
- because a new logic programming facilitates the Installers work;
- because a new logic programming simplifies the User Experience of integrated security/access control system management;
- because the gate can be managed by the Administrator level user, both from lares 4.0 App and from a PC via web interface of the control panel;
- because the Administrator level user can decide who can access through each single gate and when, according to the access permissions rules he programmed;
- because intro module, just like any other peripheral BUS of Ksenia, can be remotely updated;
- because additional memory on board guarantees future firmware updates and new features to come.
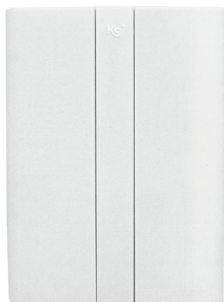
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Gate Architecture and wiring system

Legend:
- lares 4.0 KS-BUS
- Input terminals
- DC-IN
- Lock 1 power output terminals
- Output terminals

Inside | Door with electronic lock | Outside

Ksenia Kit code KSI2800001.300

White plastic cabinet with front opening and screw closure and, depending on the type of lock, select between the 13.8V UPS kit (KSI7101260.000) or the 27.6V UPS kit (KSI7102460.000).
Dimensions: 215x288x82.5 mm
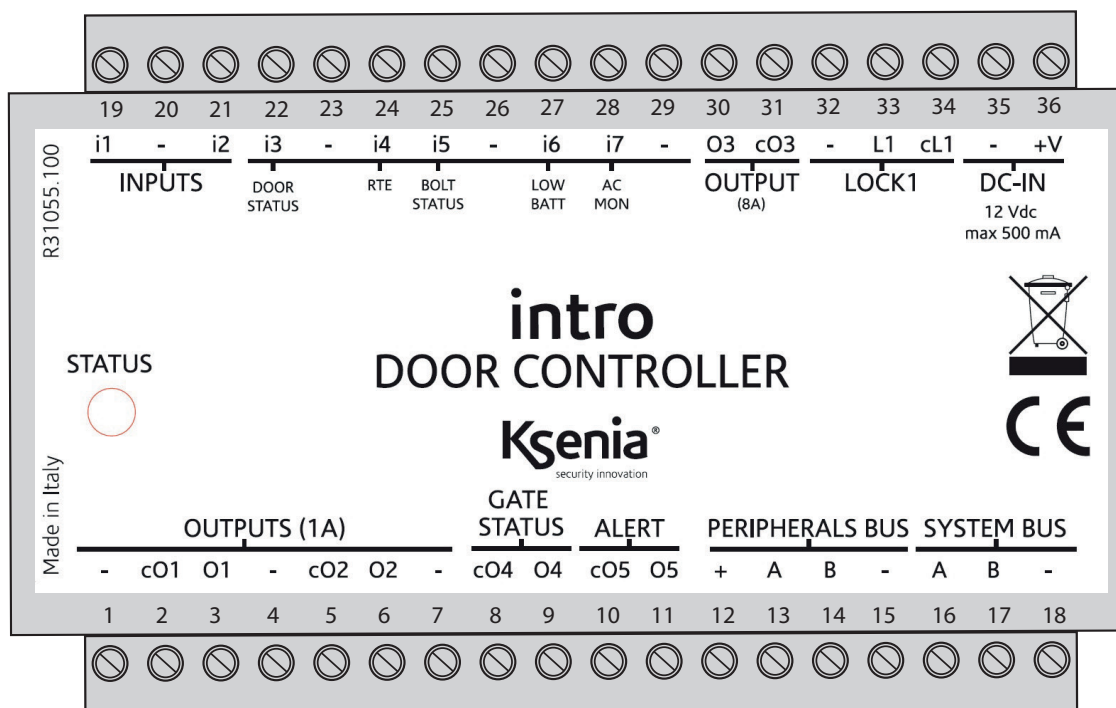
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Technical data

- 1 door managed
- **2 BUS interfaces**:
  - SYSTEM BUS: 3 wires (A, B, -) link to lares 4.0 (NO power from KS-BUS)
  - PERIPHERALS BUS: 4 wires (+, A, B, -) link to two local peripherals (volo, volo-in or ergo-X) supporting the access control function
- Power supply: 11...28 Vdc (from external power supply)
  (power supply on [+] to PERIPHERALS BUS: +11...14Vdc max 0,5A)
- Consumption: < 300 mA
- Memory / Data storage: 4Mbyte
- 6 outputs (see note*) characterized as follow:
  - 1 preconfigured power relay, maximum rating 30Vdc 8A, to control the lock door
  - 1 power relay, maximum rating 30Vdc 8A, for programmable function
  - 1 preconfigured relay for Gate status, maximum rating 30Vdc - 1A
  - 1 preconfigured relay for Alert, maximum rating 30Vdc - 1A
  - 2 relays, maximum rating 30Vdc - 1A, for programmable function
- 7 inputs: 5 preconfigured inputs and 2 inputs (NC/NO or Balanced) for programmable functions; input maximum voltage: 5V - 20mA
- Tamper protection against opening
- LED status indicator: RGB LED
- Operating temperature: -10... +55 °C (For Indoor Use Only)
- Protection class: IP30
- Dimensions: 105x115x58mm (LxWxH) (6 DIN modules including field connectors)
- Weight: 170 g (PCB including field connectors)
- Mounting: DIN rail mounting or inside a suitable metal or plastic cabinet (it is the plastic cabinet recommended by Ksenia code KSI2800001.300)

(*)note: Resistive load. In case of inductive load, if not present, please add an external freewheeling diode in order to preserve the contact life.

Labels on plastic box and terminals

R31055.100 — Made in Italy

Top terminals (19–36):

19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
i1	-	i2	i3	-	i4	i5	-	i6	i7	-	O3	cO3	-	L1	cL1	-	+V

INPUTS — DOOR STATUS — RTE — BOLT STATUS — LOW BATT — AC MON — OUTPUT (8A) — LOCK1 — DC-IN 12 Vdc max 500 mA

STATUS

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Bottom terminals (1–18):

-	cO1	O1	-	cO2	O2	-	cO4	O4	cO5	O5	+	A	B	-	A	B	-
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

OUTPUTS (1A) — GATE STATUS — ALERT — PERIPHERALS BUS — SYSTEM BUS

No.	Labels	Function	Description
36	+V		DC-IN: positive pole of external power supply source
35	–		DC-IN: negative pole of external power supply source
34	cL1		LOCK#1: Common pin of power relay where to connect external lock power supply (30Vdc max) in the case JP1 is in position 1-2 (factory default)
33	L1		LOCK#1: Output power from contact of power relay to lock#1
32	–		Ground terminal
31	cO3		Output#3: common contact of output #3 (30Vdc - 8A max)
30	O3		Output#3: NC or NO (factory setting) dry contact of output #3 (depending on jumper settings)
29	–		Ground terminal
28	i7	**AC MONITOR**	i7: input #7(*) Closed to ground (-) = OK, Open = KO
27	i6	**LOW BATTERY**	i6: input #6(*) Closed to ground (-) = KO, Open = OK
26	–		Ground terminal
25	i5	**BOLT STATUS**	i5: input #5
24	i4	**RTE**	i4: input #4 Normally Open Contact, active when closed to ground (-)
23	–		Ground terminal
22	i3	**DOOR STATUS**	i3: input #3
21	i2		i2: input #2
20	–		Ground terminal
19	i1		i1: input #1

(*) LOW BATTERY and AC MONITOR inputs work correctly with power supply provided by Ksenia.

| No.	Labels	Function	Description
18	–	SYSTEM BUS	Ground reference signal of KS-BUS from lares 4.0 panel
17	B	SYSTEM BUS	B-wire of KS-BUS cable from lares 4.0 panel
16	A	SYSTEM BUS	A-wire of KS-BUS cable from lares 4.0 panel
15	–	PERIPHERALS BUS	Ground reference signal of PERIPHERALS BUS
14	B	PERIPHERALS BUS	B-wire of PERIPHERALS BUS cable to local controlled peripherals
13	A	PERIPHERALS BUS	A-wire of PERIPHERALS BUS cable to local controlled peripherals
12	+	PERIPHERALS BUS	Positive power supply of PERIPHERALS BUS
11	O5	**ALERT**	Output#5: NC or NO (factory setting) dry contact of output #5 (depending on jumper settings)
10	cO5		Output#5: common contact of output #5 (30Vdc - 1A max)
9	O4	**GATE STATUS**	Output#4: NC or NO (factory setting) dry contact of output #4 (depending on jumper settings) It turns ON automatically when the gate is disabled
8	cO4		Output#4: common contact of output #4 (30Vdc - 1A max)
7	–		Ground terminal
6	O2		Output#2: NC or NO (factory setting) dry contact of output #2 (depending on jumper settings)
5	cO2		Output#2: common contact of output #2 (30Vdc - 1A max)
4	–		Ground terminal
3	O1		Output#1: NC or NO (factory setting) dry contact of output #1 (depending on jumper settings)
2	cO1		Output#1: common contact of output #1 (30Vdc - 1A max)
1	–		Ground terminal

LED RGB status

GREEN	blinking	Gate enabled
GREEN	steady	Opening door in progress
RED	blinking	Gate disabled
RED	steady	DOTL (Door open too long) or FD (Forced Door) alarm

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Jumper settings
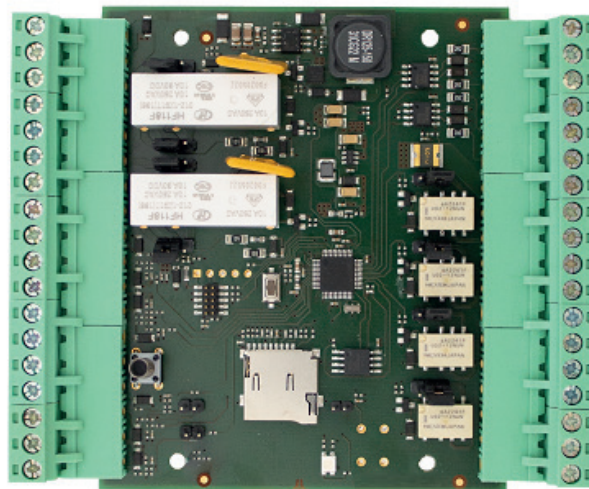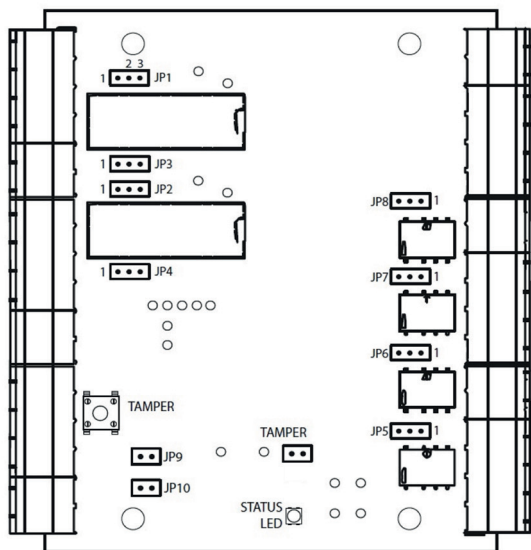
Jamper	Setting	Description	Setting	Description
JP1	1-2*	LOCK#1 - Lock power supply input from external source through pin cL1	2-3	LOCK#1 - Lock power input from +V power supply input
JP3	1-2*	LOCK#1 - NO contact	2-3	LOCK#1 - NC contact
JP2	1-2*	Output#3 - power supply input from external source through pin cO3	2-3	Output#3 - power input from +V power supply input
			2-3	Output#3 - NC contact
JP4	1-2*	Output#3 - NO contact	2-3	Output#1 - NC contact
JP5	1-2*	Output#1 - NO contact	2-3	Output#2 - NC contact
JP6	1-2*	Output#2 - NO contact	2-3	Output#4 - GATE STAUS - NC contact
JP7	1-2*	Output#4 - GATE STATUS - NO contact	2-3	Output#5 - ALERT - NC contact
JP8	1-2*	Output#5 - ALERT - NO contact	Closed	Reserved for future use
JP9	Open*	input#2 - Std input	Closed	Reserved for future use
JP10	Open*	input#1 - Std input	Closed	Tamper idle
TAMPER	Open*	Tamper trouble		

NOTE:
(*) Factory setting.

Ksenia SecureWeb

App lares 4.0 User

5 Years Warranty

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