

PROGRAMMER FOR START, FLAME SUPERVISION AND SAFE STOP OF BURNER

PRODUCT: PRG-SE-C□-O1

TECHNICAL SHEET 1/6

☎ Customer Service 55 11 3019-1616

For further details see technical bulletin

● APPLICATION

Programmer PRG-SE-C□-O1 equipment recommended for start, flame supervision and safe stop for any type of burner for one stage of flame, in applications commercial or industrial and gas Fuels or liquids light, with a cycle of **use do not continuum** (on/off burner Period in less than 24 hours). For use in camera of combustion closed, the user is the river system must provide insurance pre-purge before each sequence of start, or require the programmer PRG-SE-C□-O1 with purge timer coupled, since that the times offered are appropriate for application. Entry for flame sensor for ionization. See electrode sensors for ionization, line SEL-HT-I (standard) or SEL-HT-E (electrode mounted on a drawing or sample of the client).

This product meets the requirements of the standard NBR 12313 of ABNT-review Sept./2000.

● TECHNICAL DATA

- ⇒ Watch dog micro process – to provide safe failure.
- ⇒ Supply / frequency: 90 a 250 Vca - 50/60 Hz ± 3%.

NOTE: To supply network consisting of phase/neutral, should consider the possible need for its reversal (terminals 5 and 6) for flame sensor circuit not lose sensitivity and therefore the capacity to detect signal of flame.

- ⇒ External Fuse: Foresee fuse for internal circuits' protection in accordance to the foreseen load in the project, respecting the boundaries of this specification.
- ⇒ Consumption of energy: 4 VA
- ⇒ Protection against tension outbreaks
- ⇒ **Fuses: The designer/user has should consider the use of two external fuses, one for protection of the internal circuits of the PRG-SE-C□-O1 (250 mA retardate), and another of protection the outputs of the circuits in accordance with the load specified in the project, within the limits of this Specification. O programmer PRG-SE-C□-O1 do not own internal fuse.**
- ⇒ Temperature of work : 0 a 60°C
- ⇒ Storage ambient temperature: -5° a 65 °C
- ⇒ Maximum relative humidity of environment in operation: 90% (40 ± 2°C) – NBR 5291
- ⇒ Flame Sensor: Ionization.



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PROGRAMMER FOR START, FLAME SUPERVISION AND SAFE STOP OF BURNER

PRODUCT: PRG-SE-C□-01

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⇒ Minimum current flame: 2 microamperes dc (uA)

NOTE: The cable of flame sensor must be installed separately from other cables that are part of the command set of the burner. The best type of cable recommended for this purpose is used for ignition.

⇒ Protection against short circuit failure sensor ionization for mass.

⇒ Blocking with local signaling (LED) and remote (contact N.O.)

⇒ With verification of premature flame or false flame signal, before starting the burner.

⇒ Purge Time: 0, 10 or 20 seconds (see field code for request)

⇒ Time of ignition: 6 sec.

⇒ Time of ignition: 6 sec.

⇒ Time to confirm the signal of flame: <1 sec.

⇒ Time of answer to the flame flaw: < 4 seg.

⇒ Signaling LED (**S**): power-purge (**LJ**) / VS FUEL (**VD**) / ALARM (**VM**).

⇒ Maximum current per output command (**TI**, **VS** and **AL**): 2 A in 250 Vac (resistive).

⇒ Electric connections: through socket of fast extraction polarized (see figure below).

⇒ Expected electrical life of output contacts: > 100,000 operations.

⇒ Expected mechanical life of output contacts: > 10,000,000 operations.

⇒ Reset (**R**), through the interruption and return of the supply in the programmer.

⇒ Degree of environmental protection: IP 55 (except connector of fast extraction - IP 50)

⇒ Cabinet: box ABS black color

⇒ Mounting: On a flat surface protected

⇒ Mounting: Through 2 screws mounted on the ears to fix of box.

⇒ Weight : 180 grams

⇒ Warranty: 6 months (**see the guarantee**)



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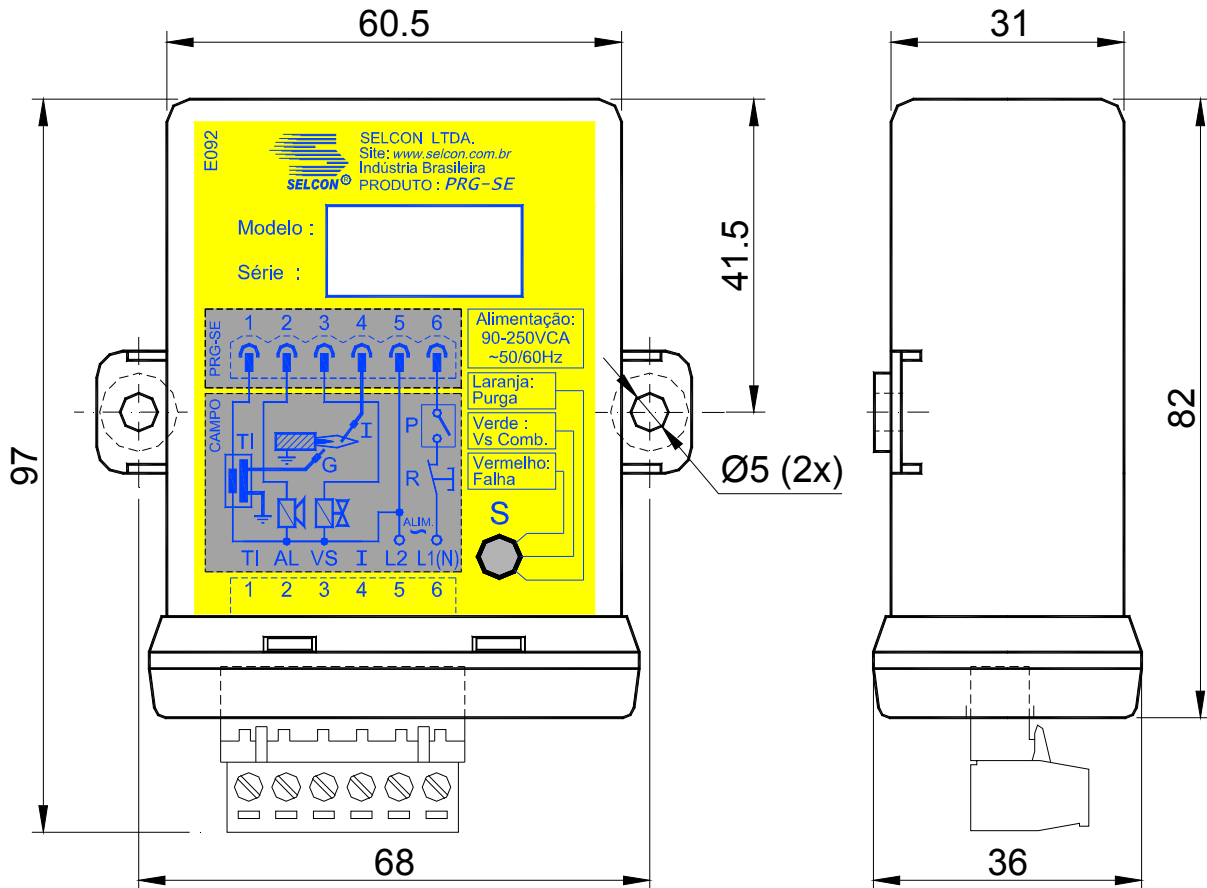
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● Dimensional Drawing (mm)



The time to purge if necessary, get be counted from the permissions of start (**P**) closed with energized equipment, since the equipment doesn't identify false of the presence flame, or short circuit of the electrode flame sensor. At the end of the purge time, starts the ignition of the flame, according to the sequence:

- * Enables the ignition transformer (**TI**);
- * Counts the time to pre-ignition;
- * Enables the valve of fuel (**VS**);
- * Counts the time of ignition;
- * Confirm the flame signal (**I**). The failure of ignition, flame failure, the presence of premature flame or false, and short circuit the sensor to the mass, block the operation of the burner, and PRG-SE-CA-O1 active Output of alarm (**AL**).

The reset (**R**) it is made by the momentary interruption of the feeding.



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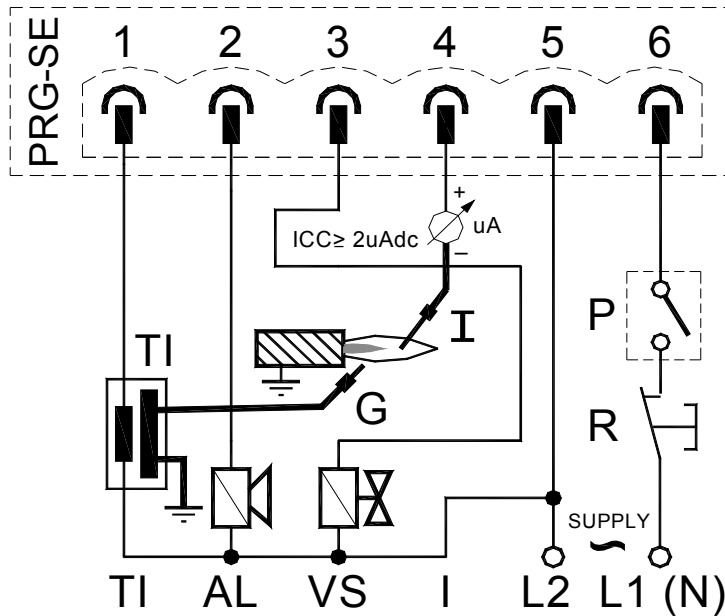
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● **Scheme of electric connections**



● **Diagram of times**

LEGEND

- L2/L1(N) KEY ON / OFF AND OTHER PERMISSIONS.
- P PERMISSIONS (PRESSURE SWITCHES, THERMOSTATS, ETC.)
- TI IGNITION TRANSFORMER.
(SUGGESTED MODELS: ACS-TE-□□-C5 OR ACS-TE-□1-C6, FOR OTHER IGNITION TRANSFORMERS CONSULTING THE SELCON).
- VS FUEL VALVE.
- I FLAME SENSOR.
- AL ALARM LOCK.

TIMES		
t1	WAITING TO START FOLLOWING	1 s
t2	PURGE	0,10 or 20 s
t3	PRE-IGNITION	1 s
t4	IGNITION	6 s



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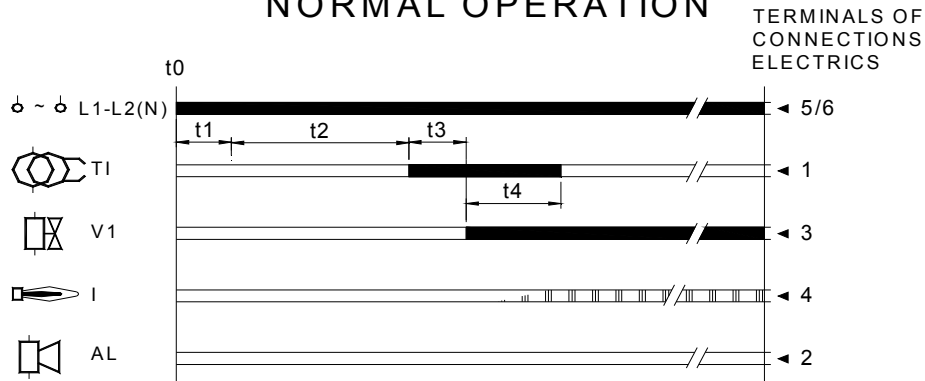
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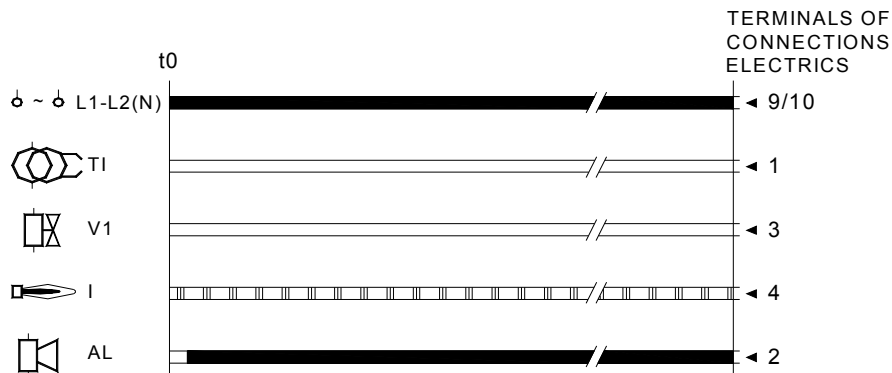
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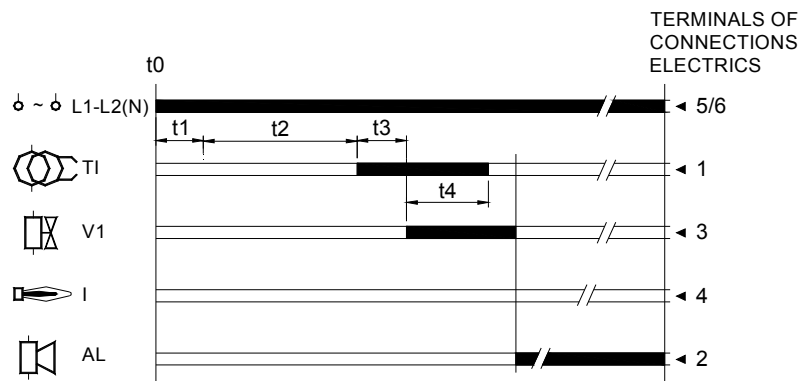
NORMAL OPERATION



OPERATION WITH PRESENCE OF FALSE SIGN OF FLAME IN THE START



OPERATION WITH FLAW OF IGNITION



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● **CODE FOR REQUEST PRG-SE-C□-O1**

PRG-SE	C- SETUP	O - OPTION
	TIME OF PURGE <input type="checkbox"/> (d1) d1 = 0 => 0 sec. OR d1 = 1 => 10 sec. OR d1 = 2 => 20 sec.	d2 = 1 => 1 stage

Obs.: The sensor and other accessories must be specified separately, according to a specific code.

● **BEWARE!**

⇒ Use the programmers and/or relays detectors exclusively with flame sensors manufactured by the Selcon.

● **OTHER PRODUCTS AND ACCESSORIES:**

- ⇒ Relays calls: CHM-SE, P-CHM, CHM-M, CHM-M-IIIM (with base) and CHM-F
- ⇒ Relay tester tightness of shutoff valves: CHM-T
- ⇒ Programmers ignition and flame monitoring: PRG-SE, E-PRG, PRG-Ie, PRG-Ie-IIIM (with base), PRG-I PRG and PRG-M-M-IIIM (with base)
- ⇒ Optical flame sensors: SEL-SV.
- ⇒ Sensors flame ionization electrodes and igniters: SEL-HT (standard) and SEL-HT-E (sensors and electrodes mounted on a drawing or sample of client-special).
- ⇒ Signal transmitter called ACS-TX (up to 500 meters between sensor and relay or programmer).
- ⇒ Signal converter flame-4 -20 mA: ACS-CV
- ⇒ Transformers Ignition ACS-NT (feeding on VAC or VDC)
- ⇒ Panel ignition timer: ACS-IT
- ⇒ Ignitor portable: ACS-IP (operates with batteries)
- ⇒ Panel ignition (operates with batteries): PN-ACS-E
- ⇒ Panel ignition and flame monitoring: PRG-Ie/O3
- ⇒ Different cables: ACS - CB (ignition / sensing / communication / control)
- ⇒ Connector and shield to touch ignition wire: ACS-CP
- ⇒ Junction of articulation : ACS-CN
- ⇒ Panel ignition and monitoring: ACS-PN (under consultation)
- ⇒ services reform burner drivers: under consultation
- ⇒ **LINE OF SUPERVISORS PRODUCTION DATA**



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