

# FLAME DETECTION SENSOR FOR BURNER

PRODUCT: SEL-SV-L1-021□-K4

TECHNICAL SHEET 1/3

☎ Customer Service 55 11 3019-1616

For further details see technical bulletin

## • APPLICATION

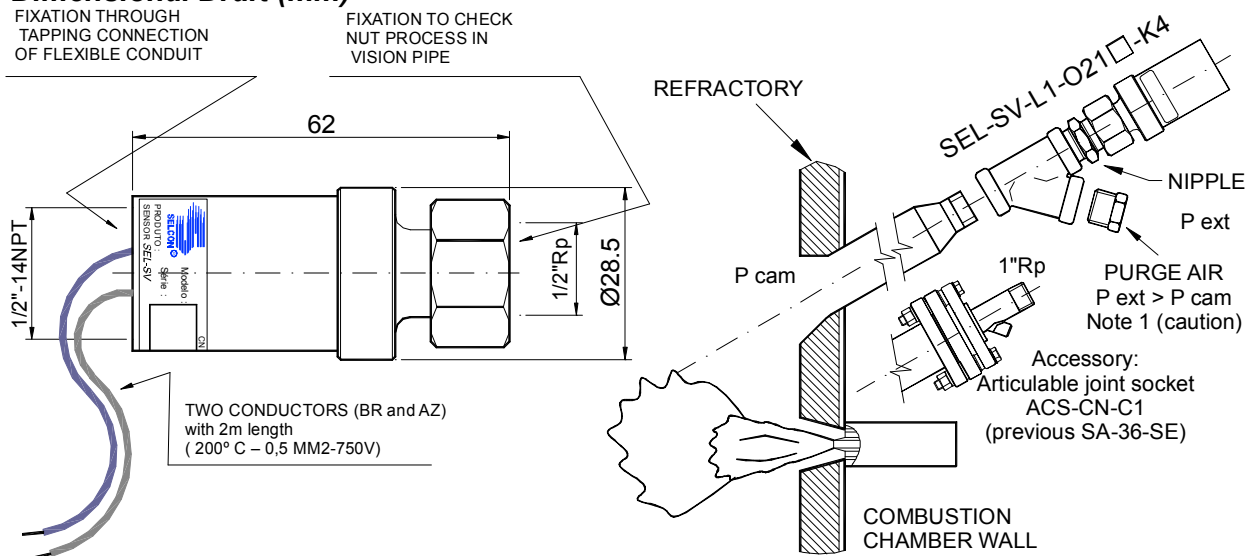
Sensor used to indicate flame presence in light or heavy oil burners, or any other fuel that discharges visible radiation (L). It is recommended for industrial or commercial use burner, or any kind and power in dark combustion chamber and discontinuous use cycle, i.e., on/off burner in a period less than 24hs.

**We recommend follow the requirements of item 4.1.4 of standard NBR 12313 ABNT– revision Sept. /2000; including flame safety projects of applications that use oil.**

## • TECHNICAL DATA

- ⇒ Minimum life time: Estimated 10000hs (25° C)
- ⇒ Useful life time: Estimated 50000hs (25° C)
- ⇒ Spectral sensor response: 450nm to 700nm
- ⇒ Work temperature: - 60°C a + 75°C
- ⇒ Ambient protection degree: IP 55
- ⇒ Electrical connections: Two conductors, color red, 2m of length (200°C-0,5mm<sup>2</sup>-750V)
- ⇒ Conduit connection: Through 1/2" screw thread -14 NPTF
- ⇒ Process fixation: In vision pipe, through collar with 1" RP internal screw thread.
- ⇒ Reducing pipe (flame vision): Estimate assembled pipe according to the figure below, with diameter between 1 1/2" a 3", defined regarding its length and visible radiation discharge capacity, by the flame.
- ⇒ Glass crystal lens of 2 mm thickness, resistant to pressure in the combustion chamber until 50psi (344,75 kPa).
- ⇒ Sensor element non replaceable
- ⇒ Weight: 80 grams
- ⇒ Warranty: 12 months (see term of warranty)

## • Dimensional Draft (mm)



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# FLAME DETECTION SENSOR FOR BURNER

PRODUCT: SEL-SV-L1-O21□-K4

TECHNICAL SHEET 2/3

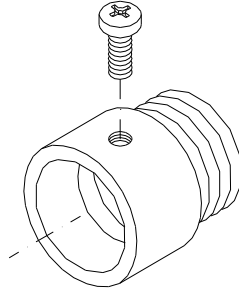
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## • Order Code

**SEL-SV-L1-O210-K4** – without screw thread adapter.

**SEL-SV-L1-O213-K4** – with screw thread adapter for pipe (F) 21 mm (see figure below)



**P.S.:** Relay, programmer, and accessories must be specified separately, according to their corresponding code tables.

## • CAUTION:

- ⇒ Install the sensor from top to bottom, to avoid dust accumulation and to keep its face clean.
- ⇒ **Attention:** >Use clean and dry air with  $\theta < 40^{\circ}$  C; flow > 5 scfm; pressure > pressure in the combustion chamber, in at least 300mm of water column.
- ⇒ The sensor should “see” the flame (if possible, the first 30% of it) from the burner nozzle, where the emission of visible radiation is higher.
- ⇒ **Use the sensor exclusively with programmers and/or detector relays manufactured by Selcon.**

## • BE AWARE:

- ⇒ **Use the programmers and/or detector relays exclusively with flame sensors of Selcon manufacturing.**



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# FLAME DETECTION SENSOR FOR BURNER

PRODUCT: SEL-SV-L1-O21□-K4

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## • OTHER PRODUCTS AND ACCESSORIES:

- ⇒ Flame Relays – CHM-E, CHM-P, CHM-M e CHM-F
- ⇒ Tightness Test Relay of blocking valves – CHM -T
- ⇒ Ignition Programmers and flame monitoring – PRG-E, PRG-Ie, PRG-Ie -IIIMe (with base), PRG-I, PRG-M e PRG-M-IIIMe (with base)
- ⇒ Optical Flame Sensors– SEL- SV
- ⇒ Flame sensors by ionization and ignitor electrodes – SEL-HT e SEL-HT-E (sensors and electrodes assembled under draft or sample from the special-client).
- ⇒ Flame signal transmitter– ACS –TX (until 500 meters between the sensor and relay or programmer)
- ⇒ Flame Signal Converter for 4 -20 mA – ACS - CV
- ⇒ Ignition transformers – ACS -TE (for feeding in VAC or VCC)
- ⇒ Portable ignitor – ACS-IP (works with common alkaline battery AA type)
- ⇒ Several Cables– ACS - CB (ignition / sensing / communication / control)
- ⇒ Connector and protector to touch for ignition cable – ACS - CP
- ⇒ Temporized ignition panel ACS – IT
- ⇒ Ignition and flame panel – ACS - PI
- ⇒ Articulated socket joint – ACS - CN
- ⇒ Ignition and monitoring panel – ACS-PN (under consultation)
- ⇒ Reform services of pilot burners (under consultation)
- ⇒ **PRODUCTION DATA SUPERVISION LINE**



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