

FLAME DETECTOR RELAY FOR BURNER

PRODUCT: CHM-E-I-□1

☎ Customer Service 55 11 3019-1616

Technical Sheet 1/4

For further details, see technical bulletin

• APPLICATION

The relay CHM-E is a presence detector flame recommended for gas burners for industrial or commercial with cycle **not use continuous**; (on / off burner in a period less than 24 hours) and are designed to operate with ionization sensor. See technical sheet of the ignition electrodes and sensors ionization (Flame Rod), standard line SEL-HT or line according to request SEL-HT-E (electrodes mounted on a drawing or sample of the client).

This product meets the requirements of ABNT NBR 12313 regulation –reviewed on Sept./2000.

• TECHNICAL DATA

- ⇒ Supply 115 or 220Vac; +10/-15%; 50/60 Hz
- ⇒ Power consumption: 3VA
- ⇒ **Fuses: provide two external fuses, one to protect the internal circuits (100 mA delayed), and other protective circuits of the output by the load specified in the project, within the limits of this specification. The relay CHM-E has no internal fuse.**
- ⇒ Protection against tension outbreaks.
- ⇒ Input for the flame sensor ionization.
- ⇒ Minimum flame current: 2 uA-dc.

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 failure due to short circuit of the mass ionization sensor.
- ⇒ Flame early or sign false of flame before the start of ignition (external to the it reads again through interconnections will be of the customer's responsibility).
- ⇒ Distance from flame sensor to **CHM-E-I-□1**: up to 8 meters
- ⇒ Confirmation time for flame inlet: < 1 sec.
- ⇒ Response time for flame failure: < 4 sec.
- ⇒ Electric connections: via command rope end (10 cables), with quick-adapter polarized socket.
- ⇒ Maximum outlet currents (at 250 Vac_{max}): 1 A resistive
- ⇒ Useful life estimated for outlet contacts: > 100.000 operations
- ⇒ Useful mechanic life estimated for outlet contacts: > 100.000 operations
- ⇒ Working temperature: 0 to 60°C
- ⇒ Ambient storage temperature : -5° to 65°C
- ⇒ Maximum ambient air moisture for operation: 90% (40 ± 2°C) – NBR 5291
- ⇒ Ambient protection degree: IP 55 (except for polarized quick-adapter connector -IP 50)
- ⇒ Outer Covering: ABS black plastic box (see picture bellow)
- ⇒ Assembling: on sheltered flat surface
- ⇒ Fixation: two lugs placed on the basis of the outer covering
- ⇒ Weight: 340 grams
- ⇒ Warranty: 06 months (see terms of warranty)



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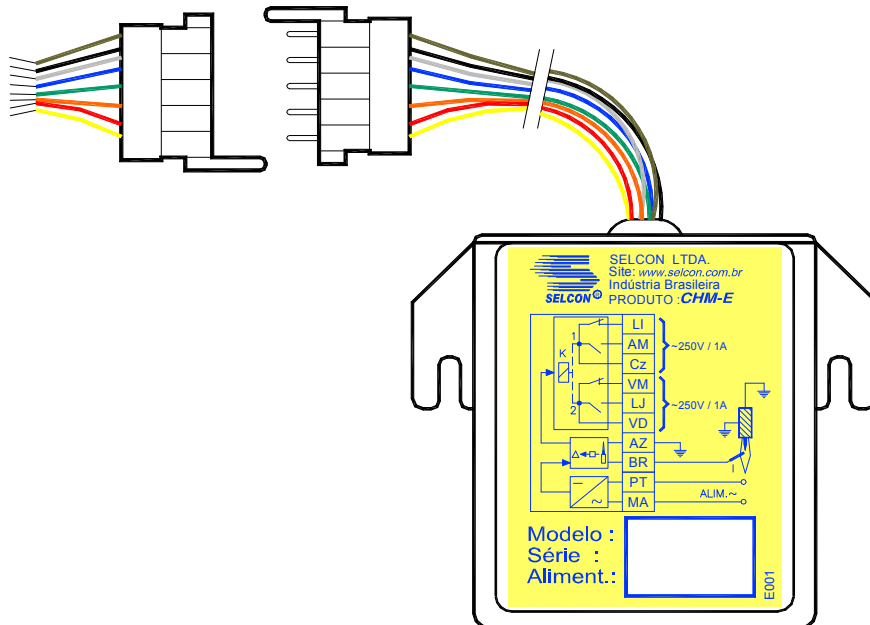
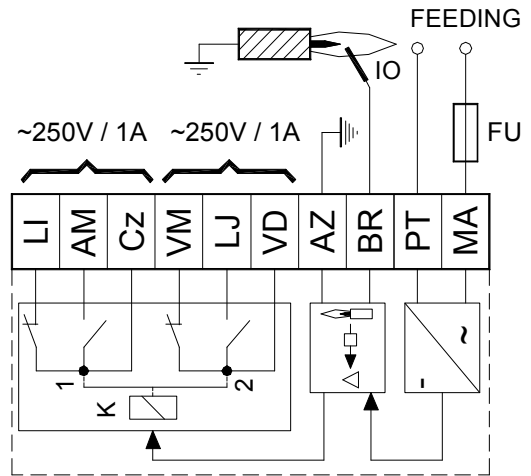
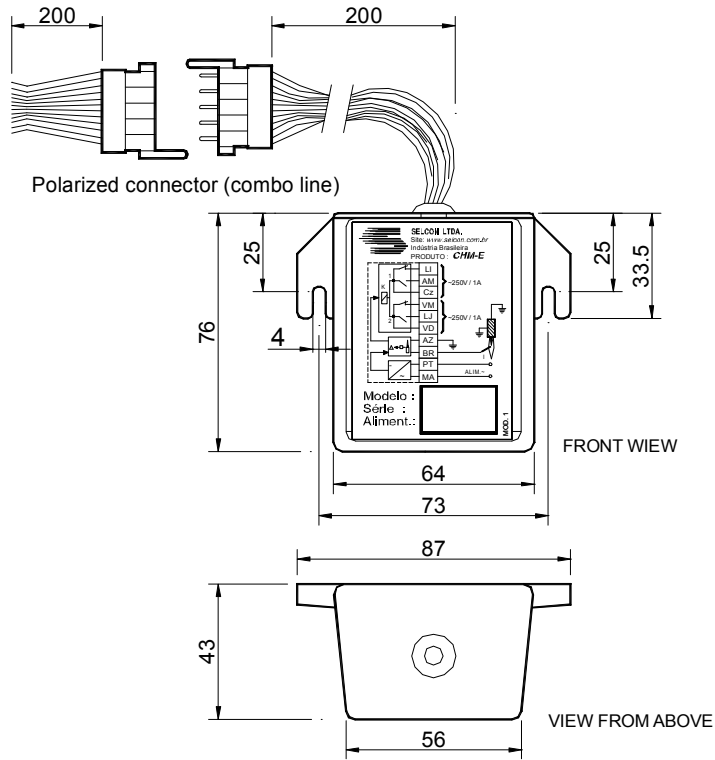
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• Dimensional Draft (mm)



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Technical Sheet 3/4

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● OPERATION MODE

When energized the relay CHM-E it begins the fire supervision. The actuation of the relay internal **K**, it will depend on the fire presence, or eventually of false sign simulating the same. With the extinction of the flame or of the false sign that simulates the same, the CHM-E it awaits up to 3 seconds, and in staying this situation, the exit relay is disabled "K".

IMPORTANT: The safety siege of the burner, as well as the flame confirmation before the start or of false sign simulating the same, it is the responsibility of the designer / user. The relê CHM-E it just indicates presence or absence of the ionization sign. The minimum value of ionization current is of

2 uA-dc.

•CODE FOR ORDERS - CHM-E-I- □1

CHM-E	-	SENSOR	-	SUPPLY	
				TENSION	FREQUENCY
		I IONIZATION		□ (d1)	d2 = 1
			d1 = 1 => 115Vac	OR	=> 50/60 Hz
				d1 = 2 => 220Vac	

Note: The sensor and accessories should be specified separately, according to the respective table of codes.

• BE AWARE:

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



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• OTHER PRODUCTS AND ACCESSORIES:

- ⇒ Flame Relays – CHM-SE, CHM-P, CHM-M, CHM-M- IIIMe (with base) e CHM-F.
- ⇒ Tightness Test Relay of blocking valves – CHM -T
- ⇒ Ignition Programmers and flame monitoring – PRG-SE, 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(standard) 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)
- ⇒ Temporized ignition panel ACS – IT.
- ⇒ Portable ignitor – ACS-IP (works with common alkaline battery AA type)
- ⇒ Ignition panel – (works with common alkaline battery AA type): ACS-PN-E
- ⇒ Ignition panel and monitoring flame: PRG-Ie/O3.
- ⇒ Several Cables– ACS - CB (ignition / sensing / communication / control)
- ⇒ Connector and protector to touch for ignition cable – ACS - CP
- ⇒ Articulated socket joint – ACS – CN.
- ⇒ Ignition and flame panel – ACS - PI
- ⇒ Ignition and monitoring panel – ACS-PN (under consultation)
- ⇒ Reform services of pilot burners (under consultation)
- ⇒ **PRODUCTION DATA SUPERVISION LINE**



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