CM7 Pilot Guard

Bulletin SSIN004 Issue/Rev. 0.1 (8/17)

The **CM7 Pilot Guard** is designed to provide positive shut off of the gas supply to both the pilot, and main burner in the event of a pilot flame out.

It has a unique field adjustable sensitivity control that allows the operator to obtain a quick response of the CM7 to a pilot outage. Gas shutoff down to 20 seconds or less, regardless of the heat characteristics of the pilot flame. Adjustment of the sensitivity circuit is made using a supplied screwdriver.

The CM7 requires no external power source. It is unaffected by power outages and can be used in areas where no electrical power is available. It is designed to be used with the RHSB pilot burner.

CM7 Pilot Guard

Features and Benefits

- Detects pilot flame outage quickly.
- Requires no external power source.
- Controls both burner and pilot gas.
- Ensures that the burner port is closed during pilot ignition.
- Latchable reset for one-man pilot ignition.
- Uses proven thermocouple technology for long service life.
- Available with 15' thermocouple leads.
- Easily serviced; requires no special tools.
- Constructed of anodized aluminum to withstand harsh conditions.
- Main burner port vents through pilot port flame out.
- Manufactured with stainless steel internal valve parts for a long, trouble-free life.
- Seals constructed of Fluoroelastomer for long life and resistance to most chemicals.

Theory of Operation

Depressing the reset button opens the internal valve, allowing gas pressure to flow out of the pilot port only and the pilot flame to be ignited (see Figure 1 on back). Latching the reset button for approximately 90 seconds after the pilot flame is ignited will allow the temperature sensing element to come up to temperature. The reset button is depressed fully to engage the magnetic circuit and release the reset latch. The sensitivity pot is then adjusted as per the instructions in the manual to obtain the desired release time.

If the pilot flame should go out causing the temperature-sensing element to cool, the CM7 Pilot Guard will snap closed and shut off the gas pressure to both the pilot and burner ports simultaneously. In the “off” position, the burner port is open to the pilot port, allowing diaphragm pressure to vent out through the pilot line.

Ordering Guide

Model Description	T-Couple Length	Part Number	Shipping Weight
CM7 15'	15'	P511501	5 lbs.
CM7 Base Unit	--	P510720	4 lbs.
15' Thermocouple	15'	P545743	1 lb.
T-Couple Mount	--	P545947	1 lb.

Specifications

Materials
• Body: Anodized Aluminum • Internal Parts: 303 Stainless Steel • Springs: 302 Stainless Steel • Elastomer Seals: Fluoroelastomer
Supply Pressure
15 to 50 PSIG (operation will not be affected by pressure variation within these limits).
Temperature Limits
• Sensing Element: 1500°F (815°C) • Base Unit: 150°F (66°C)
Reaction Time
• Ignition to Latch-in: 90 seconds approximately • Flame-out to Shut-off: adjustable
Failure Mode
Unit will fail in the closed position.

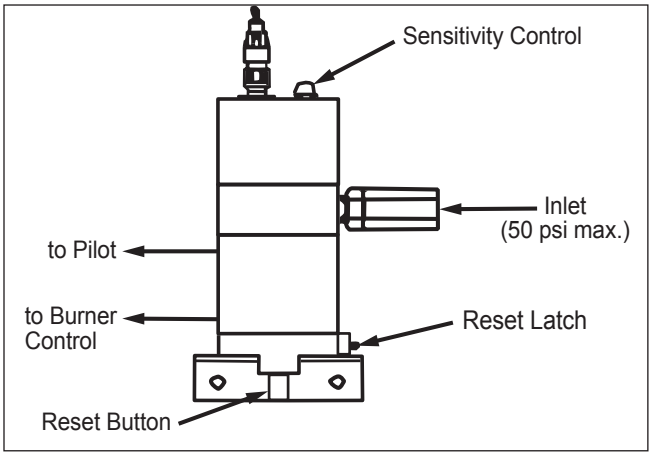

Figure 1.

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