

**Accuracy:**

**Low Flow: + 0.0 / - .05 W.C.,**

**Full Flow: + .15 / - 0.2 W.C.**



## Pilot Control Gas Oil Regulators

*Selas Pilot Control Regulators (Product No. 5107) are the oil or dual-fuel versions of the FCR regulators.*

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### How It Works

Selas Pilot Control Regulators are the oil or dual-fuel versions of the FCR regulators and offer maximum control and fuel efficiency on oil or dual-fuel applications involving preheated air to the burners, or where burners fire against a varying back pressure.

The primary application of the 6 PCR is to impulse an Oil-Air Ratio Regulator (OAR). The pressure to the OAR will be 2.5 times the pressure differential across the orifice meter. Turndown of the air flow will result in a proportional change in the output oil pressure.

### Applications:

- To impulse Oil-Air Ratio Regulators



**Diverse Combustion Technologies. One Reliable Source.**

# Operating Principles

The 6 PCR upper diaphragm is connected across a POP Orifice Flow Meter with the top of the upper diaphragm connected to the upstream side of the POP. The top of the lower diaphragm is normally vented to atmosphere. A static air pressure line runs from the 1/2" NPT tap in the bleed orifice on the 6 PCR outlet to the BZR or the OAR.

The air pressure required at the inlet of the 6 PCR must be 3.6" to 5.2" W.C. higher than the POP maximum pressure differential times 2.5. Example: if the POP pressure differential is 10" W.C., [(10 x 2.5) + 5.2 = 30.2" W.C.] is the air pressure required at the 6 PCR inlet.

The 6 PCR holds a constant air/fuel ratio from cold start-up through hot air operation. All control components are on the cold side of the system and are unaffected by high combustion air temperatures, minimizing cost and maintenance and permitting initial start-up adjustment to be made on cold air at the high fire condition and adjusting fuel to the desired ratio.

Features	Benefits
Operating temperatures to 150 °F	Designed for accurate control
Maximum inlet pressure: 2 psig	Delivers consistent air/fuel ratio
Turndown: up to 10:1	Maximizes fuel efficiency
2.5 multiplying factor	Inlet air pressure compaitbility with POP



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