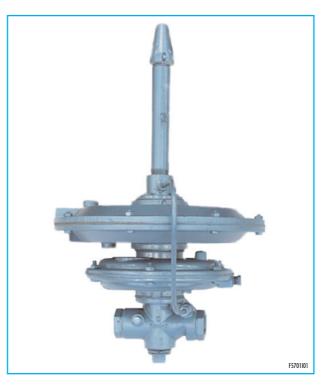
# GAS / HOT AIR PILOT CONTROL REGULATORS - RATIO 1:2.5 PCR SERIES

#### FEATURES

<ul> <li>Max. operating pressure:</li> </ul>	140 mbar
• Max. differential pressure:	36 mbar
• Max. operating temperature:	65°C
<ul> <li>Turndown range:</li> </ul>	10:1
• Max. air signal:	36 mbar
<ul> <li>Nominal air signal:</li> </ul>	25 mbar
<ul> <li>Min. air signal:</li> </ul>	0.25 mbar
<ul> <li>Multiplying factor:</li> </ul>	2.5
• Accuracy:	low flow: +0.0/-0.12 mbar
	full flow: +0.0/-0.50 mbar

#### APPLICATIONS

- Light oil burner systems (XDF HSDF SWDF REDF).
- May replace 6 FCR where lower piloting DP are necessary.



#### DESCRIPTION

PCR, pilot control regulators are oil or dual fuel regulators. The primary application of the PCR is to impulse an OAR - oil-air ratio regulator. The PCR may replace an FCR-PC regulator to control a BZR. The pressure to the OAR will be 2.5 times the pressure differential across the orifice meter. 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" tap in the bleed orifice on the 6 PCR outlet to the BZR or the OAR.

Air pressure required at the inlet of the 6 PCR must be 9.13 mbar higher than the POP maximum pressure differential times 2.5. Example: if the POP pressure differential is 25 mbar [( $25 \times 2.5$ ) + 13 = 75.5 mbar] is the air pressure required at the 6 PCR inlet. These regulators are available in the size shown only (i.e. 6 PCR).

#### INSTALLATION

All PCR regulators are tested, set and sealed when shipped. If adjustment or repair is necessary, the regulator should be returned to the factory.

Regulators must always be mounted in a stem-up position, in a horizontal line. Any other mounting position will cause a malfunction. The arrow cast on the side of the valve body indicates direction flow.

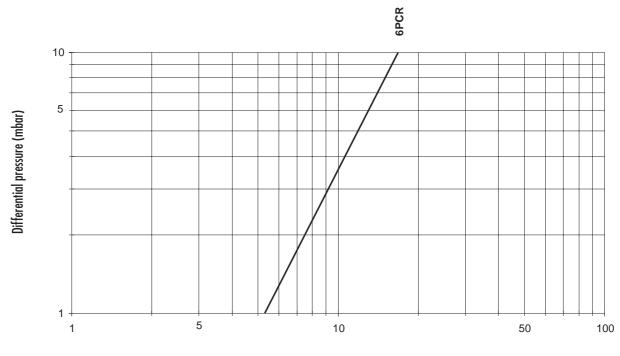
Regulators should not be installed in areas where operating temperatures will exceed the maximum operating value.



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## CAPACITY TABLE

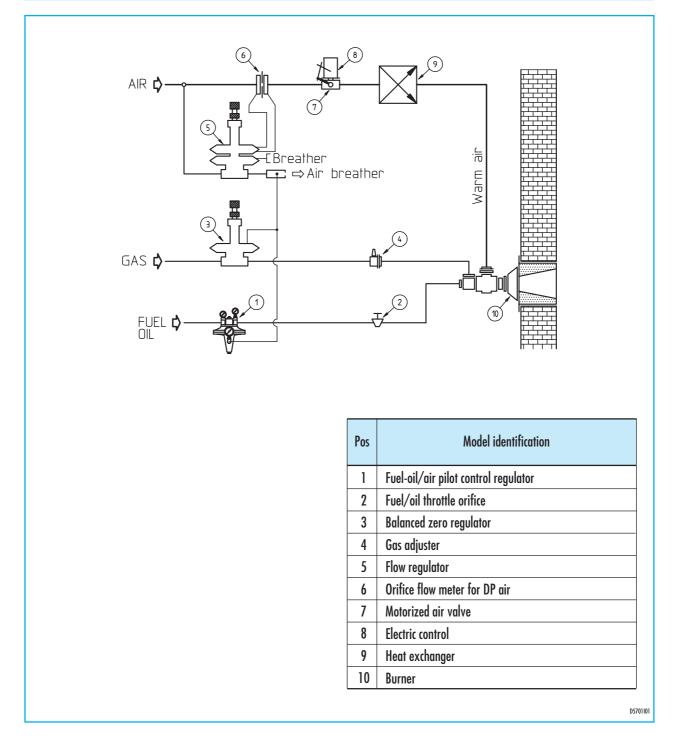


Natural gas flow @ 20°C S.G. = 0.6 (Nm<sup>3</sup>/h)

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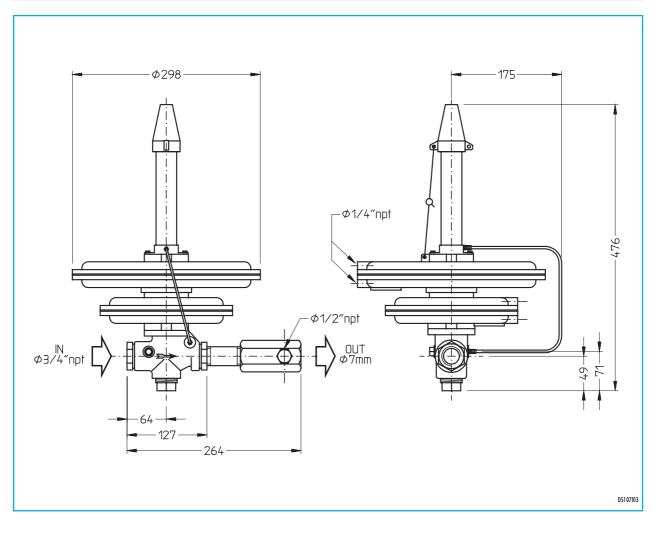


### EXAMPLE OF APPLICATION





#### DIMENSIONS





NOTE: Based on the company's policy aimed at a continuous improvement on product quality, ESA-PYRONICS reserves the right to bring changes to the technical characteristics of this device without previous notice. Our catalog updated to the latest version is available on our web site www.esapyronics.com and it is possible to download modified documents

WARNING: When operating, this combustion system can be dangerous and cause harm to persons or damage to equipment. Every burner must be provided with a protection device that monitors the combustion. The installation, adjustment and maintenance operations should only be performed by trained and qualified personnel.