



gas flow solutions



Remote Setpoint Control with I/p Converter

- ▶ Modular and compact design
- ▶ Flexible Operation
- ▶ Remote line switch-over

Main Features

The setpoint of the pilot operated pressure regulator REGES can be changed remotely by changing the pressure in the reference chamber of the pilot controller PIGES through an I/P converter.

Apart from being able to generate a variable output pressure for the consumer, remote setpoint control of a regulator in a gas pressure reducing station can also allow a user to remotely switch operation from one run to another (eg. active to standby) or allow flow distribution between the various lines of the station.

Technical Features I/p converter

- Service: Instrument Air or Instrument gas (Filtered, Clean & Dry)
- Operating Mode: Direct, reverse, split range (switch selectable)
- Input Signal: 4 – 20mA
- Consumption: 0.05 liter/minute (steady state)
- Supply Pressure: 0.6 – 8.25 bar (Note 1, Note 3)
- Output Range: 0.25 – 6.25 bar (Note 2)
- Operating Temperature: -30 / 80°C
- Pneumatic Connections: ¼" NPT
- Electrical Connections: M20x1.5 (½" NPT on request)
- Enclosure Material: Aluminium A380

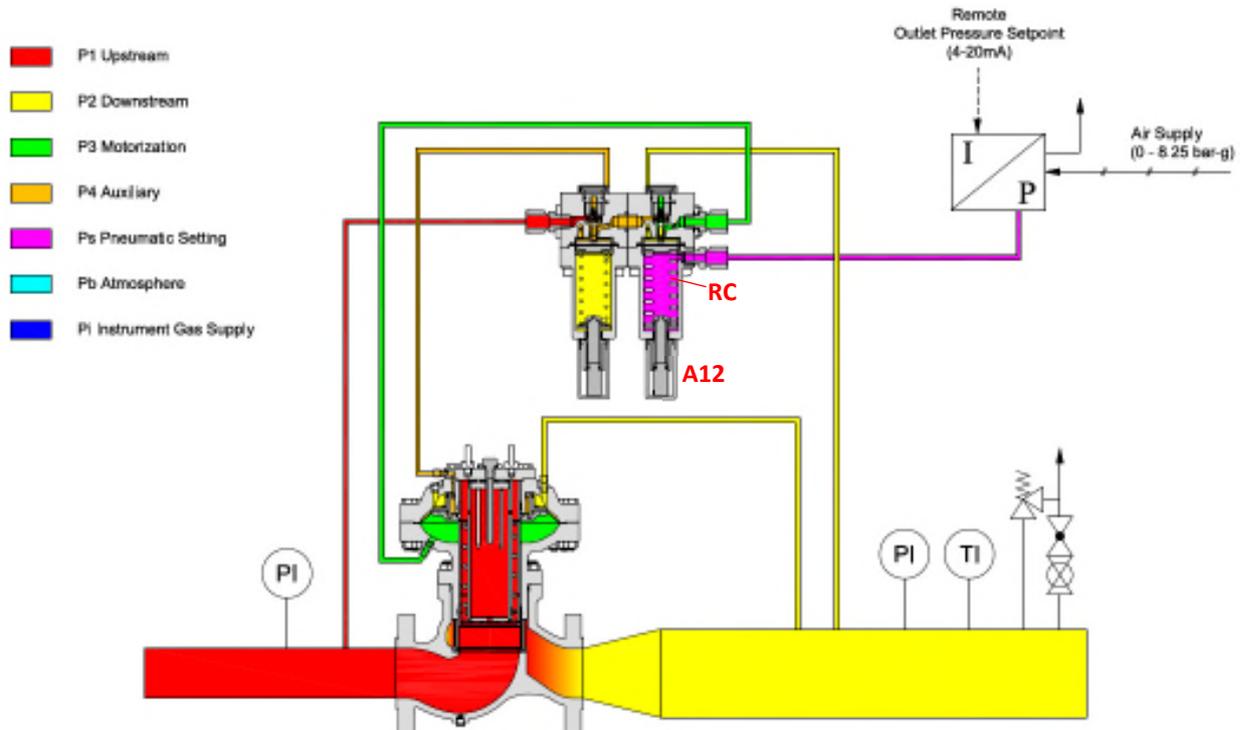
Note 1: Minimum = Maximum Output + 0.35 bar

Note 2: The output range of the I/p converter is the available setpoint bandwidth.

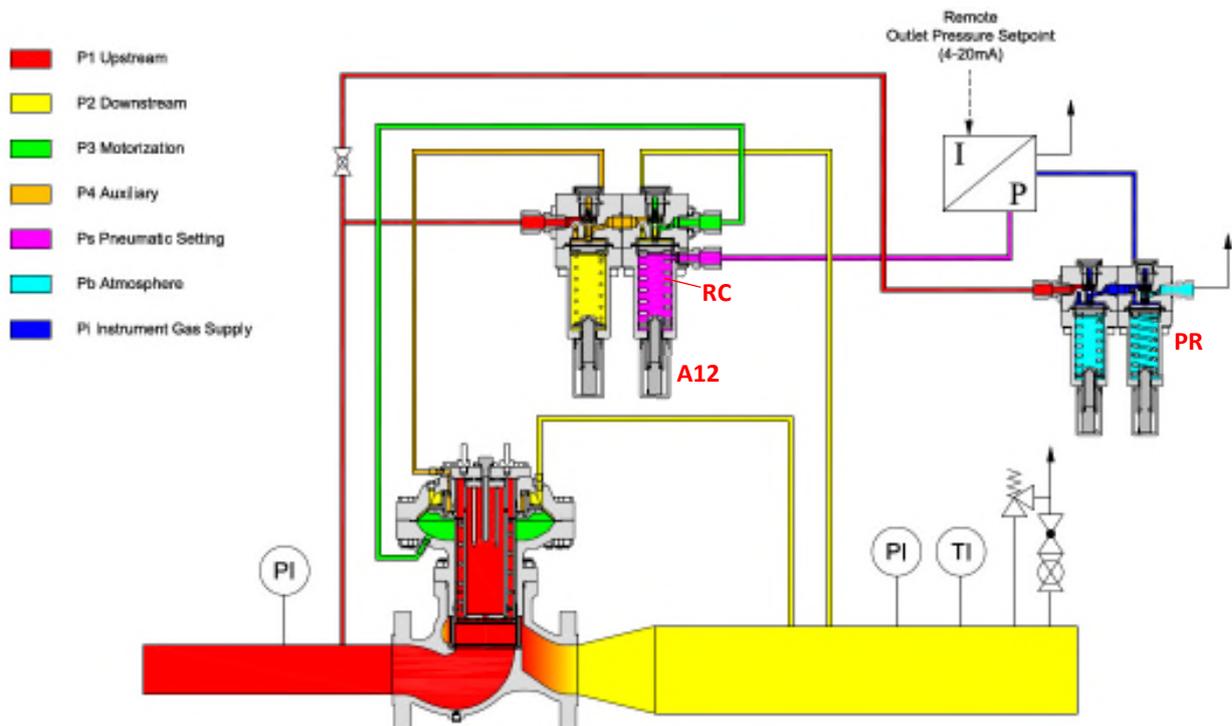
Note 3: For higher instrument air supply pressures, a PIGES M62 pressure regulator with incorporated relief valve is required.

Installation

Instrument Air Operated I/p Converter



Instrument Gas Operated I/p Converter



Functional Description

A pilot operated pressure regulator REGES is a medium powered automatic pressure control principle. To control the outlet pressure (P_2), it does not rely on outside signals or actuation. The outlet setpoint is set by means of the set screw of the pilot's second stage (A_{12}).

When a pressure (P_s) is introduced in the otherwise atmospheric reference chamber of the pilot's second stage (RC), the outlet pressure setpoint will rise an amount equal to the value of the pressure in the reference chamber ($=P_s$).

An electric signal is converted into a pressure by means of an I/p converter. The output of the I/P converter (P_s) is connected to the pilot's reference chamber (RC). The possible setpoint bandwidth which can be achieved with the electric input signal, is the output range of the I/p converter.

Please note that the pilot controller can still be operated manually. The outlet setpoint can be changed by means of the pilot's second stage set screw (A_{12}). This makes the system flexible in operation. When the I/p converter is not powered, or if the signal is lost, a user is still able to change the outlet setpoint locally.

The I/p converter can be gas- or instrument air operated. For a gas operated I/p converter, a GFS PIGES M62 instrument gas pressure regulator with relief valve is to be installed in front of the I/p converter (PR).

