Pneu-Stat
Electronic Pressure Regulator

- Fully programmable pressure regulation up to 120 psig
- Can be used with any standard industrial PLC
- Rapid acting –120 psig step change in one second
- Tough, accurate and reliable

NORGREN
Pneu-Stat
Electronic Pressure Regulator

Introduction
The Pneu-Stat electronic pressure regulator provides simple and accurate pressure control for many industrial applications where manually adjusted regulators have previously been used. Utilising the latest state-of-the-art electronics, it provides pressure control up to 120 psig on air flows of up to 20 scfm.

The Pneu-Stat operates simply by controlling an internal high speed pilot pressure regulator with built in electronic control valves. The system utilises two miniature high speed solenoid valves to rapidly change the output pressure. An internal precision transducer constantly monitors pressure to provide accurate internal feedback, with an electronic control system which adjusts the pilot pressure if there is any difference between the electrical input and feedback signals.

The Pneu-Stat has been designed for convenience, durability and flexibility in a wide variety of industrial pressure situations. It allows easy remote control in pneumatic systems, and pressure setting which can be completely programmable using a standard PLC.

The Pneu-Stat brings the benefits of proportional electronic pressure control to many pneumatic systems which had previously been restricted to switched methods of control using individual regulators and solenoid valves.

Operation
The operational requirements are as indicated:

![Diagram of Pneu-Stat Pressure Regulator]

Construction
- **Enclosure**: Case manufactured from zinc and reinforced plastic, finished with a black epoxy paint finish. Environmental protection rating IP65
- **Mounting**: The Pneu-Stat can be mounted in any orientation, a mounting bracket is provided.

**Pneumatic connections**: 1/4 or 3/8 NPT
- Front and rear facing auxiliary ports – 1/4 NPT

**Electrical connections**: 30 mm square connector to DIN 43650. Orientable in four ways at 90°. Mating connector supplied.

**Controls**: Span and zero – external Range select switches – internal

**Weight**: 1.75 lb. (800 g.)
Typical Applications

Pneu-Stat electronic regulators are especially suitable for uses where manually adjusted pressure regulators have been employed in industrial controls. Typically, a PLC can be used to remotely control the Pneu-Stat, giving fully programmable pressure regulation. Applications include many industrial processes e.g. spraying, welding, air motor speed control, loading and tensioning, braking etc.

Spray Control

Plant Automation
Features

Enclosure protected to IP65 – the Pneu-Stat is fully weatherproof and suitable for outdoor use.

Choice of two port sizes to suit application.

Electronic control system with no sensitive moving parts will withstand high degrees of vibration and can be mounted in any orientation.

Will accept a wide range of supply air pressures up to 150 psig.

Precision pressure transducer continuously measures pressure and compares this with demand signal, automatically compensating for changes in input and load.

Span and Zero parameters can be adjusted externally, easily and quickly.

Miniature REEDEX electrovalves provide an exceptionally long and trouble free working life.

PLC – compatible control signals mean that the Pneu-Stat can be used with most standard industrial plc's. Various control signal options are available.

DIN plug – only 3 wires needed for easy connection on site.

High-flow, servo operated amplifier provides high output flow, up to 120 psig pressure change in 1 second.
Installation

Performance

Supply: Clean dry air (filtered to 5 micron non-condensing, oil free). Up to 150 psig

Output: 0-120 psig (user adjustable down to 0-60 psig).
At zero control signal, < 0.75 psig.

Electrical supply: Nominal 24V dc,
limits 15 -30 V dc.
Max current 100 mA.

Control signal: 4-20 mA; 250Ω
0 - 5V; 10kΩ
0 - 10V; 10kΩ

Connections: 3 wire connection,
1. 24V dc supply
2. Control Signal
3. Common

Response time into a 1 litre load

Accuracy

Air Flow: Consumption <0.2 scfm (5 l/m)
Capacity > 20 scfm
forward at 60 psig
10 scfm relief at 60 psig

Operating
Temperature
Range: 14 to 140°F (-10 to +60°C)

Ordering Information

The standard stock range is: 0-120 psig, 0-10V, 1/4 inch port. Customer calibration to other ranges and control signals is a simple adjustment.

<table>
<thead>
<tr>
<th>Range:</th>
<th>0-120 psig</th>
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</thead>
<tbody>
<tr>
<td>Port:</td>
<td>¼</td>
</tr>
<tr>
<td>Control Signal:</td>
<td>R26-200-RNLA</td>
</tr>
<tr>
<td>0-10V</td>
<td>R25-201-RNLA</td>
</tr>
<tr>
<td>0-5V</td>
<td>R25-202-RNLA</td>
</tr>
</tbody>
</table>

Our product number is made up as follows:
R: Regulator
26: Series Number
2: 1/4 PORT
3: 3/8 PORT
00: Options used to identify signal ratings
01: Relieving type
N: No gauge fitted
L: 120 psig range
A: NPT
G: ISO Parallel thread with 1179 spotface
Certification includes: The design, manufacture, sale and distribution of dual-cast control valves, pneumatic control accessories, general purpose filters, oil removal filters, pressure regulators, lubricators, filter regulator accessories and relief valves.

Norgren is a leading world manufacturer and supplier of pneumatic solutions, offering a comprehensive range of pneumatic control and automation components via a global sales and service network. The company is a principal member of the diverse and internationally successful $1.5 billion IMI Group.