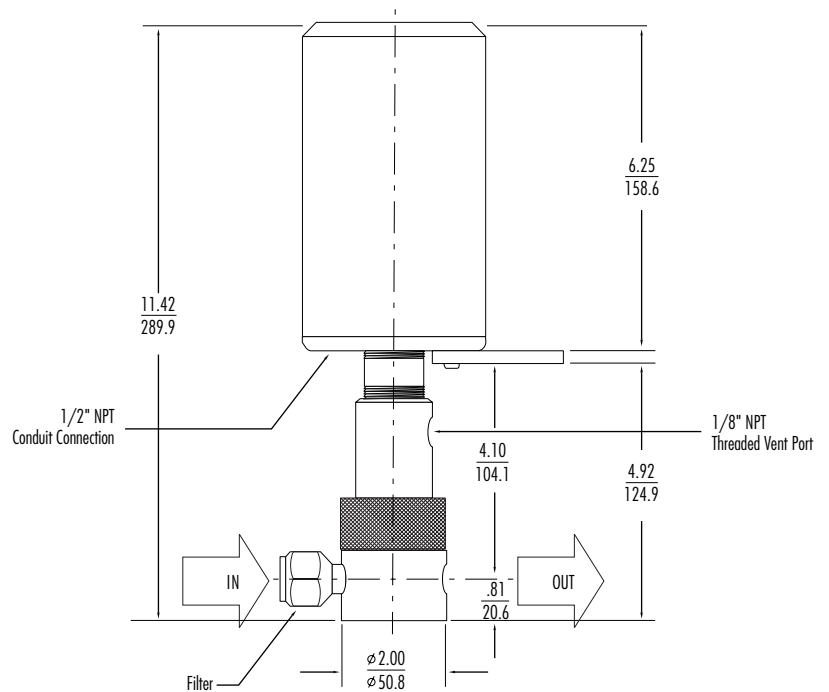
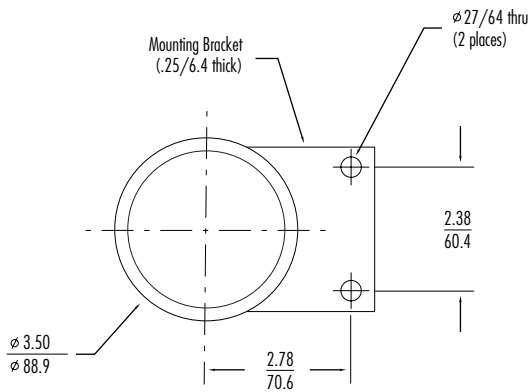


# Type 1200

# Eltop Electric to Pneumatic Converter

## Installation, Operation and Maintenance Instructions



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## DANGER, WARNING, CAUTION and NOTE statements

**DANGER** Refers to conditions or hazards which could result in serious personal injury or death.

**WARNING** Refers to conditions or hazards which could result in personal injury.

**CAUTION** Refers to conditions or hazards which could result in equipment or property damage.

**NOTE** Alerts you to facts or special instructions.

**ALL DANGER, WARNING, AND CAUTION NOTICES MUST BE COMPLIED WITH IN FULL**

## SPECIFICATIONS

Operating Range	0-30psig (0-2.0 BAR)
Flow Capacity	5 scfm (8.5m <sup>3</sup> /hr)
Relief Capacity	1.4 scfm (2.35 m <sup>3</sup> /hr) with downstream pressure 5 psig above set point
Air Consumption	3.0 scfh (.085 m <sup>3</sup> /hr)
Maximum Supply Pressure	150 psig (10 BAR)
Operating Temperatures	-40° - +150° F (-40° - +65° C)
Weight	6lb. 4 oz. (2.8Kg)
Ports	Inlet and Outlet Ports - 1/4" NPT Vent Port - 1/8" NPT Conduit Connection - 1/2" NPT
Electrical	Voltage - 11 vDC Minimum, 26 vDC Maximum Current - 60 mA Power Consumption - 1.4 watts (max)
Full Range (0-30 psig)	Motor Speed 12vDC 24vDC
Adjusted Time in Minutes:	1 RPM 17.0 8.5 4 RPM 4.5 2.0 8 RPM 2.2 1.0 19 RPM 0.5 N/A
Hazardous Area Approvals	Explosion Proof - CSA Class 1, Group C, D
Operation	Reversing voltage polarity controls motor direction

## 1. INSTALLATION AND APPROVALS

### 1.1 Pre-installation Requirements

- 1.1.1 Environment: Suitable for indoor or outdoor installation in the following locations:
- Explosion Proof Installation in hazardous locations outdoors (NEMA 4X, CSA.ENC.4 & IP65).
  - See section 1.5, for Canadian Standards\* (CSA) approvals.
- 1.1.2 Electrical Input: 12 vDC or 24 vDC voltage source - depending on specified motor.

**DANGER** All wiring must be made to all local and national codes appropriate to the area of installation.

- 1.1.3 Air supply: Clean, dry, oil free instrument air filtered to 40 microns.

**NOTE** Clean all pipe lines to remove dirt and scale prior to installation. Failures attributable to instrument air supply contamination are not covered by the warranty.

**CAUTION** This instrument vents to atmosphere. The use of supply gas other than air can create a hazardous environment.

## 1.2 Mounting

1.2.1 The Type 1200 is supplied with a mounting bracket attached.

## 1.3 Pneumatic Connections

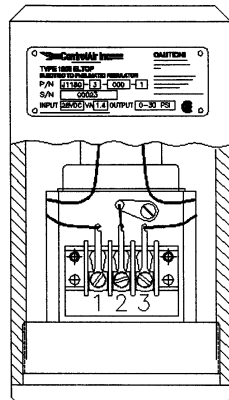
- 1.3.1 Clean all pipe lines to remove dirt and scale prior to installation.
- 1.3.2 Supply air must be filtered to 40 microns and free of moisture and lubricants.
- 1.3.3 A 1/4" NPT port is supplied for supply air and output connections.
- 1.3.4 A 1/8" NPT exhaust port is supplied.

## 1.4 Electrical Connections

- 1.4.1 The Type 1200 is supplied with a 1/2" NPT electrical conduit connection on the bottom of the housing.
- 1.4.2 A three (3) position terminal block that is wire ready is supplied for 22-12 AWG wire. The terminals are labeled "1", "2" and "3" on the terminal board (see figure 1).
- 1.4.3 It is recommended that shielded cable be used and that the shield be grounded at the unit (terminal 2) and to earth ground. A case ground is provided with the unit.

**CAUTION** Conduit should be connected to prevent condensation from collecting in the unit.

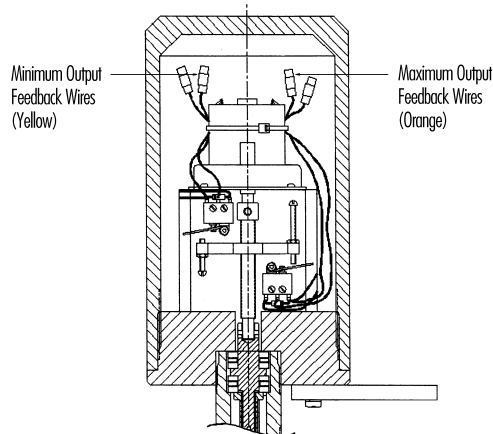
**Figure 1 Type 1200**



	Terminal		
	1	2	3
Increase Output	+	⏏	—
Decrease Output	—	⏏	+

- 1.4.4 The unit is also equipped with feedback wiring connections that utilize microswitches to advise if the unit is at minimum output or maximum output. When the switches are engaged the feedback circuit indicates status of the unit (see figure 2)

**Figure 2 Type 1200**



	Switch Status
Wires	Closed (0Ω)
Yellow	Minimum Output
Orange	Maximum Output

- 1.4.5 To connect to feedback wiring insert incoming wire into butt terminal and crimp to secure.

## 1.5 Canadian Standards Association (CSA) Approved



Explosion Proof for use in Class 1 Hazardous Locations  
Class 1, Group C and D

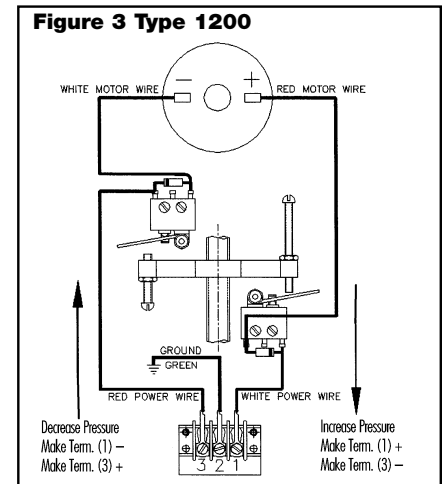
## 2. OPERATION

### 2.1 Pressure Change

- 2.1.1 Voltage polarity reversal changes direction of motor travel, thus increasing or decreasing pressure output.
- 2.1.2 When no power is supplied, set point will not change.

### 2.2 Pressure Range Setting

- 2.2.1 The unit is set at the factory for 0-30 psig pressure output range.
- 2.2.2 The high end and low end settings are controlled by microswitches which cut off power to the unit when the end points of the range have been reached (see figure 3).
- 2.2.3 Output range can be changed by breaking the sealant used to secure adjusting screws that control the engagement point of the microswitches. Unit has the capability of setting output ranges to 3-15, 3-27 and 6-30 psig. End user must measure output to determine when desired end points have been reached. Use locknuts or screw sealant to prevent endpoint change caused by vibration.



## 3. MAINTENANCE AND REPAIRS

**NOTE** Under normal circumstances, no maintenance should be required.

### 3.1 Instrument Air Filtration

- 3.1.1 Failures due to instrument supply air contamination are not covered by warranty.
- 3.1.2 Use of oil and/or water saturated instrument air can cause erratic operation.
- 3.1.3 Poor quality instrument air can result in unit failure. It is recommended that a filter regulator (such as ControlAir Type 300) be placed upstream of each unit where oil and/or water laden instrument air is suspected.

### 3.2 Factory Repairs

- 3.2.1 Repair units for the Type 1200 are available from the factory. Part Number is 449-871-034.
- 3.2.2 Individual replacement components are available. Consult the factory for part numbers, pricing and availability.

## 4. Warranty

ControlAir, Inc. products are warranted to be free from defects in materials and workmanship for a period of eighteen months from the date of sale, provided said products are used according to ControlAir, Inc. recommended usages. ControlAir, Inc.'s liability is limited to repair of, refund of purchase price paid for, or replacement in kind of, at ControlAir, Inc.'s sole option, any products proved defective. ControlAir, Inc. reserves the right to discontinue manufacture of any products or change products materials, designs or specifications without notice.

Before using these products with fluids other than air, for non-industrial application, life-support systems, or other applications not within published specifications, consult ControlAir, Inc.



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