

How To Specify

General Specifications

- *Operational Data*

The supplier shall provide a Century Controls Model CC-6000 PLC Master Control/Sequencer to manage the operation of multiple air compressors. The control shall analyze the process variable load (air pressure) versus the set point to match load requirements. The control shall be approved by Underwriter's Laboratories and shall have affixed to it the Underwriter's label.

- *Control Design Features*

The pressure transducer shall be mounted in the main receiver or header wired to the controller. The control shall be PLC based and utilize an algorithm that can analyze the process variable for optimum selection of lag compressors. Lead/lag sequence is entered and will allow only the correct number of compressors to operate. It will monitor the header pressure and the process variable recovery response via the computer's "fuzzy logic" with the ability to change the add or shed loading decision midstream, should the load suddenly change, and instead will go into a "wait & see" mode. Controls that add compressors by pressure offsets alone will not be acceptable.

The control shall start the lead compressor in response to demand. It will bring the pressure up with only 1 or 2 compressors if the loading has not yet started, or will accomplish it with additional compressors when partial loading has commenced. The operator enters the rate desired. Should any compressor in the sequence fail, it will turn on the next compressor in the sequence.

The computer will automatically rotate the lead compressor at selectable intervals; daily, weekly, monthly, etc. to even the wear. If any lag motor cycles more than the allowable, designated number of cycles per hour, it immediately rotates the system. A special program is to be utilized for varied HP compressors, selecting the correct combination at all times for maximum power savings.

As the load demand increases, the operational cycle is reversed. It will allow only one compressor to run unloaded with normal process variations and only two

**CENTURY
CONTROLS, INC.**

**Model CC-6000
Air Compressor Sequencer**

compressors to run unloaded with wide variations to save energy. The lead/lag sequence shall be changed via the keypad, or the automatic alternation feature by which can be implemented on any desired time schedule to equalize wear.

The control shall have the capability of two set points selectable in the program to permit a lower setting during night and weekend operations. A contact closure input from an external source, computer or time clock, can implement the change in set points. A menu key allows the operator to look up the "run" and "loaded" time of each compressor as well as the number of on/off cycles. The control shall have a 4-line 20 character LCD display and keypad. The display must show compressor number, a symbol for "loaded", the sequence, and system pressure. All program settings can be accessed via the menu keys.

Option: Provide a remote panel for office (or other) location which includes a duplicate keyboard display providing operator interface control at either the remote location or the main control panel. Communications to a central EMS is available.

- *Technical Data*

CC-6000 SPECIFICATIONS

<i>Display</i>	4-line 20 character LCD Display w/keypad
<i>Range</i>	0-999 Eng. units settable to match transducer
<i>Alarms</i>	Hi and low process variable
<i>Input</i>	4-20 mA or 1 to 5 volts DC
<i>Memory</i>	Non-volatile, battery back-up included
<i>Power Requirement</i>	120 VAC, 50/60 Hz
<i>Construction</i>	NEMA 12 panel
<i>Output</i>	Start contacts, load/unload contacts or 4-20 mA
<i>UL/CUL Approved</i>	
<i>Warranty</i>	Two year
OPTIONS	
<i>Pressure Transducer</i>	4-20 mA, range 0-100, 0-200 etc.