











# Compressed Air Controls: “Snapshot” Comparison



	Pneu-Logic (OR)	Bay Controls (MI)	IZ Systems (GA)	Airleader (GER)	Energair (UK)
<b>Methodology &amp; Capabilities</b>	<ul style="list-style-type: none"> <li>Primary variables include pressure, pressure rate of change, compressor power, and <u>air flow</u> (enables a holistic data-driven approach to optimize supply in matching system-wide demand)</li> <li>Ability to monitor and incorporate additional inputs to manage compressors.</li> <li>Staging tables organize an indefinite number of compressor combinations to meet any given air flow demand and pressure.</li> <li>Capable of managing multiple pressure zones.</li> <li>Unlimited # of compressors.</li> </ul>	<ul style="list-style-type: none"> <li>Primary variables include pressure and pressure rate of change.</li> <li>Ability to measure other variables.</li> </ul>	<ul style="list-style-type: none"> <li>Primary variables include pressure and pressure rate of change.</li> <li>Ability to measure other variables.</li> <li>Capable of managing multiple pressure zones.</li> </ul>	<ul style="list-style-type: none"> <li>Primary variables include pressure and pressure rate of change.</li> <li>Ability to measure other variables.</li> <li>Limited to 32 compressors.</li> </ul>	<ul style="list-style-type: none"> <li>Primary variables include pressure and pressure rate of change.</li> <li>Ability to measure other variables.</li> <li>Table Technology allows for configuration and inter-utilization of up to 6 separate compressor management and control strategies.</li> <li>Capable of managing up to 3 zones.</li> <li>Limited to 24 compressors.</li> </ul>
<b>Control Technology</b>	<ul style="list-style-type: none"> <li>Interface with existing compressor controllers via remote contacts or network protocol.</li> <li>Start function is a system building feature that integrates the starting of ancillary equipment.</li> </ul>	<ul style="list-style-type: none"> <li>Replace existing compressor controllers with Bay equipment.</li> <li>Network individual compressors and manage supply side based on pressure.</li> </ul>	<ul style="list-style-type: none"> <li>Interface with existing compressor controllers.</li> <li>Network individual compressors and manage supply side based on pressure.</li> </ul>	<ul style="list-style-type: none"> <li>Airleader equipment required for each compressor in the system.</li> </ul>	<ul style="list-style-type: none"> <li>Interface with existing compressor controllers.</li> <li>Start function is a system building feature that integrates the starting of ancillary equipment.</li> </ul>
<b>Reporting</b>	<ul style="list-style-type: none"> <li>Pneu-View</li> <li>SCADA server ready</li> <li>Downloadable Modbus memory map</li> </ul>	<ul style="list-style-type: none"> <li>BayView/BayWatch</li> <li>SCADA server ready</li> </ul>	<ul style="list-style-type: none"> <li>IZ Data Acquisition System</li> <li>SCADA server ready</li> </ul>	<ul style="list-style-type: none"> <li>Airleader reporting system</li> </ul>	<ul style="list-style-type: none"> <li>SCADA server ready</li> </ul>
<b>Communications Compatibility</b>	<ul style="list-style-type: none"> <li>Modbus RTU, Modbus TCP, Ethernet/IP, CANopen, DeviceNet and serial ASCII</li> </ul>	<ul style="list-style-type: none"> <li>Modbus RTU, CC-Link</li> </ul>	<ul style="list-style-type: none"> <li>Modbus TCP</li> </ul>	<ul style="list-style-type: none"> <li>Professional bus, Modbus TCP, Win-CC, Ethernet/IP</li> </ul>	<ul style="list-style-type: none"> <li>Modbus RTU, Airbus/RS485</li> </ul>
<b>Energy Cost Reduction</b>	<ul style="list-style-type: none"> <li>Average 15-40%, and have achieved as much as 60%.</li> </ul> 	<ul style="list-style-type: none"> <li>Energy savings of 8-15%.</li> </ul> 	<ul style="list-style-type: none"> <li>Unknown</li> </ul> 	<ul style="list-style-type: none"> <li>Up to 40% savings.</li> </ul> 	<ul style="list-style-type: none"> <li>Reducing energy costs by 30%. Case studies show up to 46%.</li> </ul> 
<b>System Cost per Compressor (Est.)</b>	<ul style="list-style-type: none"> <li>\$10,200 </li> </ul>	<ul style="list-style-type: none"> <li>\$23,200 </li> </ul>	<ul style="list-style-type: none"> <li>\$13,500 </li> </ul>	<ul style="list-style-type: none"> <li>\$19,600 </li> </ul>	<ul style="list-style-type: none"> <li>\$16,200 </li> </ul>

**Common Traits:**

- Ability to control and monitor any type of compressor regardless of make, model, and type.
- Reduction of plant pressure fluctuations allowing for reduction of system pressure (approximately 5% energy savings per 10 psi reduction).
- Report and display critical system parameters in multiple formats for ease of access and management.

**Note:**

- All comparisons are based on available information as of the original publication date; no representation or warranty is made regarding accuracy.

# Compressed Air Controls: Vendor Considerations



	Compressor Control Companies	OEM Controls	Custom Engineered Solutions Specialty Products
Relevant Attributes	<ul style="list-style-type: none"> <li>• Focused exclusively on Compressed Air Controls, accumulating deep expertise</li> <li>• No conflict of interest on new compressor sales and/or service revenue</li> <li>• Capable of dealing with multiple brands, models, and compressor types</li> <li>• Employ refined and repeatable methodologies with supporting documentation</li> <li>• Offer scalable solutions (i.e., adapt to growth and change)</li> </ul>	<ul style="list-style-type: none"> <li>• OEM's are typically willing/able to control only their own brand of compressors</li> <li>• Compressed Air Controls are not a compressor OEM's primary line of business (i.e., controls are a side-line)</li> <li>• Representatives are inclined to sell compressors (e.g., more and bigger) versus compressor controls</li> <li>• Not all OEM's offer effective control solutions</li> </ul>	<ul style="list-style-type: none"> <li>• Custom engineered solutions often lack a clear theory of operation</li> <li>• Thorough documentation and drawings are typically not provided to end user</li> <li>• Custom systems are difficult or impossible to scale</li> <li>• Individual project development generally increases project costs</li> </ul>
Competitive Examples	<ul style="list-style-type: none"> <li>• Pneu-Logic</li> <li>• Bay Controls</li> <li>• IZ Systems</li> <li>• Airleader</li> <li>• Energair</li> </ul>	<ul style="list-style-type: none"> <li>• Ingersoll Rand</li> <li>• Atlas Copco</li> <li>• Kaeser</li> <li>• Gardner Denver</li> <li>• CompAir</li> </ul>	<ul style="list-style-type: none"> <li>• Scales Industrial Technologies</li> <li>• Rogers Machinery</li> <li>• CAM Technologies</li> <li>• Air Technologies</li> </ul>

**Note:**

- Analysis is not intended to be comprehensive.
- All comparisons are based on available information as of the original publication date; no representation or warranty is made regarding accuracy.