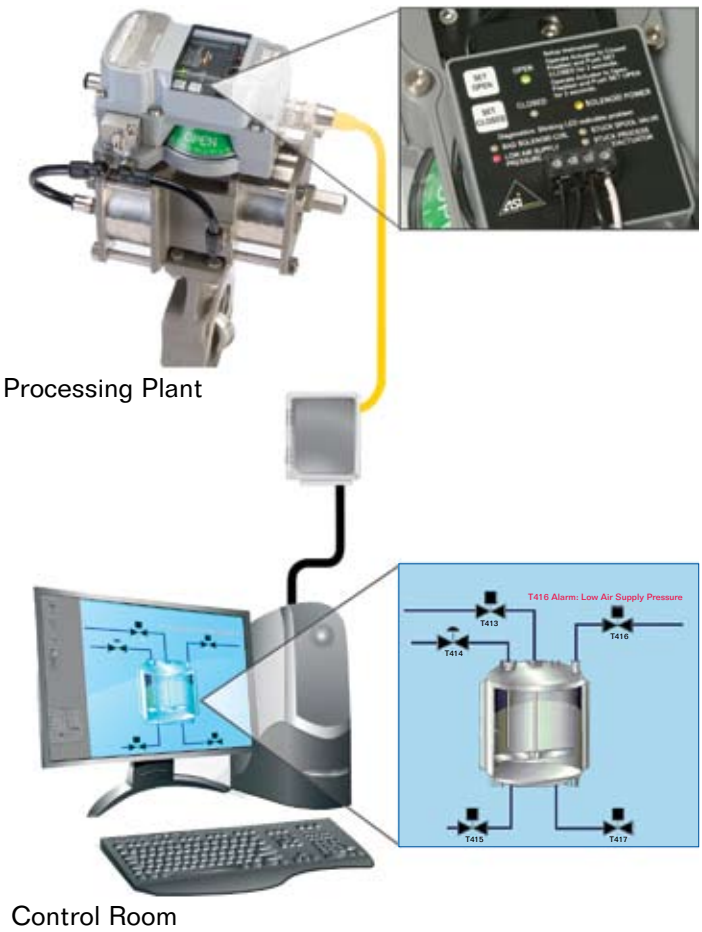
Diagnostic Systems

Reduce plant down time and cut maintenance costs with AS-Interface diagnostics.

The AMI96 model features optional on-board diagnostic systems which may predict potential automated valve malfunctions. As a result, plant down time may be reduced by repairing discrete automated valves which, when called upon to operate, would have failed to do so. And, should problems occur during normal operation, maintenance personnel will be aided in rapidly locating failure causes thus reducing maintenance time and speeding valve repair and operation renewal.



Diagnostic Alerts & Capabilities

- **Low pneumatic supply pressure**
  Should supply pressure drop below operational threshold level a local and remote alert will be activated.
- **Malfunctioning solenoid**
  A shorted or opened solenoid circuit will be identified during operation with a local and remote alert.
- **Stuck pneumatic spool or pilot valve**
  Should either the pilot poppet or main spool be stuck for any reason (air line contamination, freezing etc.) a local and remote alert will be energized.
- **Stuck process valve/actuator**
  If the Axiom stalls in mid stroke and no on-board problem sources are identified an alert will be energized locally and remotely that the problem source is located in the valve/actuator assembly.
- **Remote switch setting**
  Open and Closed limit switch settings may be made with on-board push buttons or remotely through the control system.
- **Identification "winking"**
  To positively confirm the field device identity the control room may initiate the "wink" function which flashes both open and closed LEDs without affecting valve operational status.

  Alerts are cleared automatically when normal operating conditions are restored.

Control System Interface

AS-Interface 2.1 or greater level protocol may be used to interface up to 31 Axiom units into the control system. Communication bits may be mapped into standard DCS or PLC as desired. No special software is required. See StoneL FieldLink program for information about the cost saving benefits and easy installation of the AS-Interface protocol.

Diagnostic Specifications

Protocol	AS-Interface (AMI96) Version 2.1 or greater
Input Voltage	26.5 to 31.6 VDC (AS-i power supply)
Devices per Network	31
Input Configuration	(1) Open & (1) Closed
	(1) Low Supply Pressure
	(1) Bad Solenoid Coil or Stuck Spool/Pilot Valve*
	(1) Stuck Process Valve/Actuator
Output Configuration	(1) Solenoid Power 0.5 W @ 24VDC
	(1) Wink Operation
	(1) Remote Set Open
	(1) Remote Set Closed
Pressure Accuracy	± 2 psi (0.13 bar)
Supply Pres. Default	40 psi (2.7 bar) minimum
System Interface	AS-I 2.1 master or greater required

*Local display identifies specific problem.