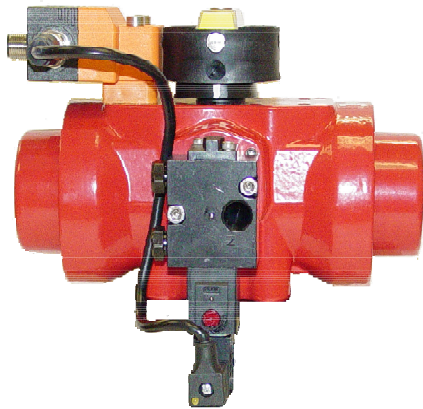


AS-I Bus Control System

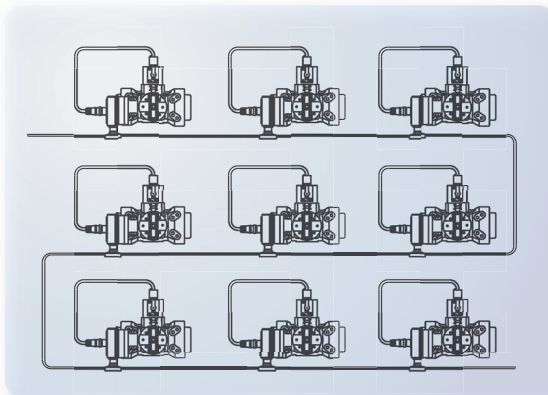
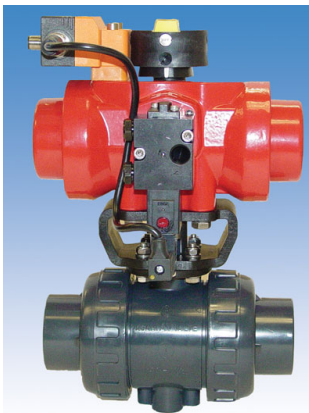
New Technology

ASAHI/America is pleased to introduce our AS-I Bus System. This simple network system has been designed for precise on/off control of multiple automated valves.



NEW

Each actuator would consist of a proximity switch assembly, a target puck and a solenoid. A PLC would have valve position confirmation by feedback provided by the proximity switch and the target puck. When the unit requires cycling, the PLC sends a command of open or close to the AS-I Interface, which in turn energizes the solenoid resulting in the unit cycling to the open or closed position. All of this is achieved via a single two wire flat cable with an IP67 rating.



Typical AS-I Bus "Line" System

Standard networking is capable of 31 units with a distance up to 100 meters, and a cycle time of 5ms. A maximum of 300 meters is achieved by installing "repeaters".

This system also responds well with products from other manufacturers, by installing a gateway to "translate" the commands of higher-level networks such as Device-Net, Profi-Bus. This allows an existing system to be expanded simply by using the AS-I networking system.

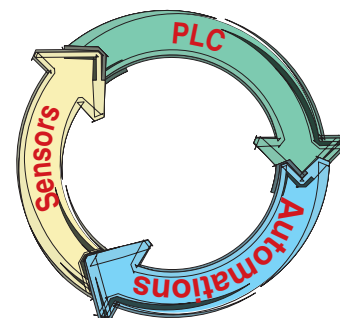
AS-I (Actuator-Sensor Interface) offers many of the benefits of more complex and costly bus systems, but does it at a substantially lower cost and with greater simplicity. The Actuator-Sensor Interface is ideally suited for controlling valves, actuators and many other field devices in your processing application.

This interface can be used for stand-alone process control, or it can be used together with a higher-level bus control system. AS-Interface does not compete with higher-level bus systems; it should be seen as a complimentary system that offers low cost, reliable device control for binary and analog devices.

Reliability, simplicity and interoperability make AS-Interface a cost effective connection/control solution, particularly where low installation costs is imperative.

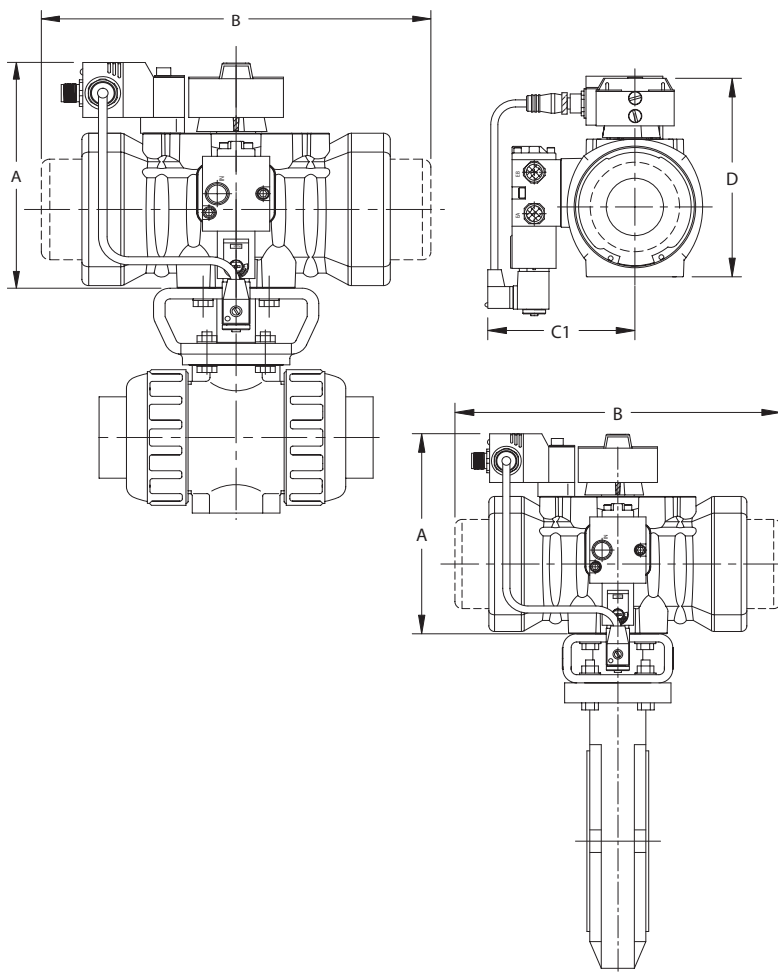
A single pair of wires, which handles power and communications, is used to control the network by means of "chaining" the actuators with the PLC. Each actuator (or device) will then have its own unique address within the system and only that device with the proper address will respond to system commands.

There are various wiring structures which can be used with this system such as the "star", "line", "tree", "loop", etc. All are practiced and acceptable, but the loop has a distinguished property; if there were a "break" in the network cable the units **would still cycle** and the master would detect the loss of a node. This feature is unique to the loop structure.



**Consult factory for other style valves and also electric models*





Features and Benefits

Low Profile:

Compact package for ease in mounting where space is limited

ISO & NAMUR:

Actuator and accessories meet ISO and NAMUR Standards; no special training required for field installation

Pin Connection:

A 5-pin M12 connection (rated at IP67) is used for interfacing with the network

Position Indication:

Each actuator has a visual position indicator as well as proximity feedback to the PLC

Corrosion Resistant:

Each component meets NEMA 4X and IP65 for wash down situations

Low Power Consumption:

A maximized system of 31 pneumatically actuated valves, has a maximum power consumption of 5Amps. (.16/Unit)

Cycle Time:

The response time of each automated valve is 5ms or less based on a maximized system. (31 Units)

Dimensions				
	A	B	C1	D
AP79PN	4.36	4.22	3.52	3.91
AP79PSN	4.36	5.55	3.52	3.91
BP79PN	5.38	4.92	3.78	5.32
BP79PSN	5.38	6.22	3.78	5.32
CP79PN	5.62	7.01	4.22	5.56
CP79PSN	5.62	9.06	4.22	5.56
DP79PN	6.96	9.21	4.69	6.90
DP79PSN	6.96	12.13	4.69	6.90
E79PN	8.89	12.13	5.59	8.83
E79PSN	8.89	18.50	5.59	8.83
F79PN	11.47	15.98	6.18	11.70
F79PSN	11.47	25.43	6.18	11.70
G79PN	12.67	20.63	7.25	12.90
G79PSN	12.67	27.32	7.25	12.90

Part Numbers		
	2 Way	3 Way
A79 Network Kit	2407010	2407011
B79-E79 Network Kit	2407020	2407022
F79-G79 Network Kit	2407040	

Installation Material and Maintenance Savings

- Up to 31 devices (248 digital I/O) can be attached to a single "two-wire" cable
- "Two wire" cable with insulation piercing connectors is self sealing so that devices can be easily moved or added to the network
- Fewer I/O Cards required for the controller, resulting in control cabinet space as well as cost savings
- Since this is a network system, substantial time is saved in the creation of wiring diagrams
- Less wiring, cable trays, conduit, etc. are required
- "Open" protocol – Devices from other manufacturer's operate within the same network via a "Gateway"
- Cable trees are not required which simplifies troubleshooting
- No special training is required for removal and re-installation of damaged units
- Additional devices can be installed at any time for simple system expansion
- Network can be up to 100 meters in length, or up to 300 meters utilizing "repeaters"
- Easy field installation of components for conversion of conventional system

