



ISYS Pneumatic Valves

Customer Value:

- Improve Configuration Time by Up To 70%
- Avoid Errors From User-Entered Values With Pre-Loaded Configuration Files

- Decrease Valve Installation Costs With Collective Wiring
- Reduce or Eliminate Junction Boxes and Conduit Runs

Product Features:

- Parker's isys valve line offers a complete ISO valve package, from 18mm and 26mm valves, to the larger ISO size 1, 2, and 3 valves, all available in either plug-in or individual connector options.
- When combined with Digital and Analog input and output modules, the full 256 input and 256 output capacity of the isysnet system can be utilized.
- With an IP65 rating on the valves and IP67 rating on the communication module and I/O, the isys valve solution with isysnet field bus package is great for "point-of-use" application, out on the machine next to the process.



Superior Value:

- By partnering with Rockwell Automation, the leading global supplier of Programmable Logic Controllers (PLCs), Parker has been able to reduce installation time and machine cost for pneumatic valve manifolds by providing a fieldbus solution with Preferred Connectivity to the Rockwell Automation Logix Architecture. Preferred Connectivity allows users to configure and commission Ethernet/IP, DeviceNet and ControlNet nodes fast and accurately. All the information needed for the device profile is already loaded in the AB RSLogix5000 software. Configuration time is reduced by up to 70% when using Rockwell products by the reduction of 4 clicks and 7 data fields to merely 3 clicks and no additional values for the user to enter. No more searching through manuals and a reduction in errors associated with entering incorrect values.

- With the increasing popularity of fieldbus, hardware costs continue to drop. Collective wiring with isys and isysnet systems minimize overall labour and wiring costs. Total system costs can be reduced in as few as 7 solenoids, as the labour intensive, individually wired valve installation costs surpass any fieldbus costs.

Applications where we have been used:

- Material Handling for Machining Centers
- Automated Assembly Systems & Fixtures
- Bearing Insertion
- Glue Laying
- Packaging Case Erectors
- Aggregate
- Power Generation
- Tire Manufacturing
- Dairy Systems



Shot Control Valve

Customers Need...

Die casting is the process of injecting molten metal under high pressure into mold cavities. This is accomplished by using a hydraulic cylinder to force the metal into the die. The movement or "Shot" control of the cylinder is extremely critical to the quality of the part being produced. The shot control profile is controlled by two 2-way valves, one meters-in and one meters-out of the shot cylinder.

The die caster is constantly trying to manipulate the shot profile to improve the density/finish quality of the work piece. Smooth control is also mandatory for good machine life.



Solution...

The speed of these 2-way valves is critical to the success of the shot cycle. The valve also must have precise control to operate at high velocity in a closed loop shot cylinder system. The solution to raising the bar on shot control was to apply the Parker TDL high response DIN Slip-in Cartridge. The TDL is a closed loop valve driven by a high response servo pilot valve. Conventional throttle valves used in this application have step responses of 40 to 60ms; however, the TDL will have a response time of 12 to 16ms.

Success Factors...

The performance of the TDL allows the die caster more flexibility with programming shot control profiles. This translates into several significant benefits to the end-user.

The high dynamics maintains consistent control of the cylinder from shot to shot. This reduces scrap and improves product uniformity.

The TDL decelerates the cylinder for soft impact at the end of stroke. This reduces or eliminates flash on the work piece which reduces rework and it extends the life of the die and toggle mechanism of the platen close.

A guy was driving when a policeman pulled him over. He rolled down his window and said to the officer, "Is there a problem, Officer?"

"No problem at all. I just observed your safe driving and am pleased to award you a \$5,000 Safe Driver Award. Congratulations. What do you think you're going to do with the money?"

He thought for a minute and said, "Well, I guess I'll go get that drivers' license."

The lady sitting in the passenger seat said to the policeman, "Oh, don't pay attention to him - he's a smartass when he's drunk and stoned."

The guy from the back seat said, "I TOLD you guys we wouldn't get far in a stolen car!"

At that moment, there was a knock from the trunk and a muffled voice said, "Are we over the border yet?"

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