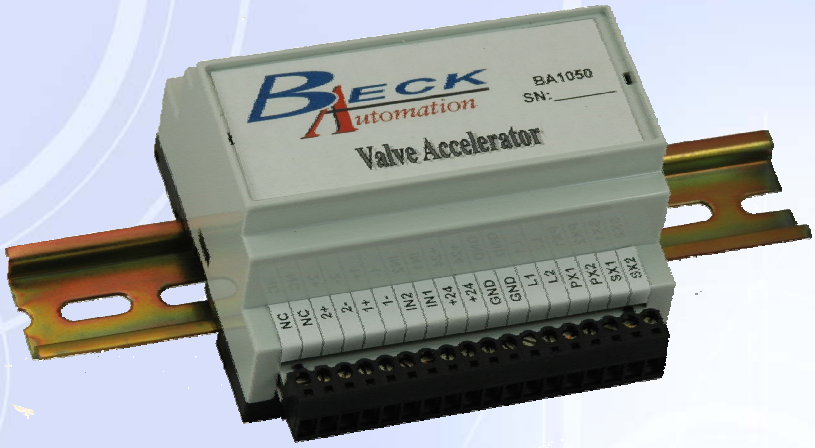
BECK AUTOMATION

VALVE ACCELERATOR



- Faster Response Times
- Dual Channel
- More Repeatable Response Times
- Faster Line Speeds
- Compact and Easy to Install
- Shorter Die Travel
- DIN Rail Mountable
- Better Accuracy
- Tighter Tolerances
- Short Circuit Protected
- 70 mSec Recharge Time

THEORY

The Valve Accelerator over-energizes 24VDC valves improving their reaction. Valves are inductive loads, and the energy delivered to them is sluggish because the current ramps up at a linear rate when voltage is applied. A steeper current ramp is achieved by applying a larger drive voltage which energizes the valve much faster. The valve is not damaged, because by the time it is fully energized, the voltage immediately drops to 24 volts.

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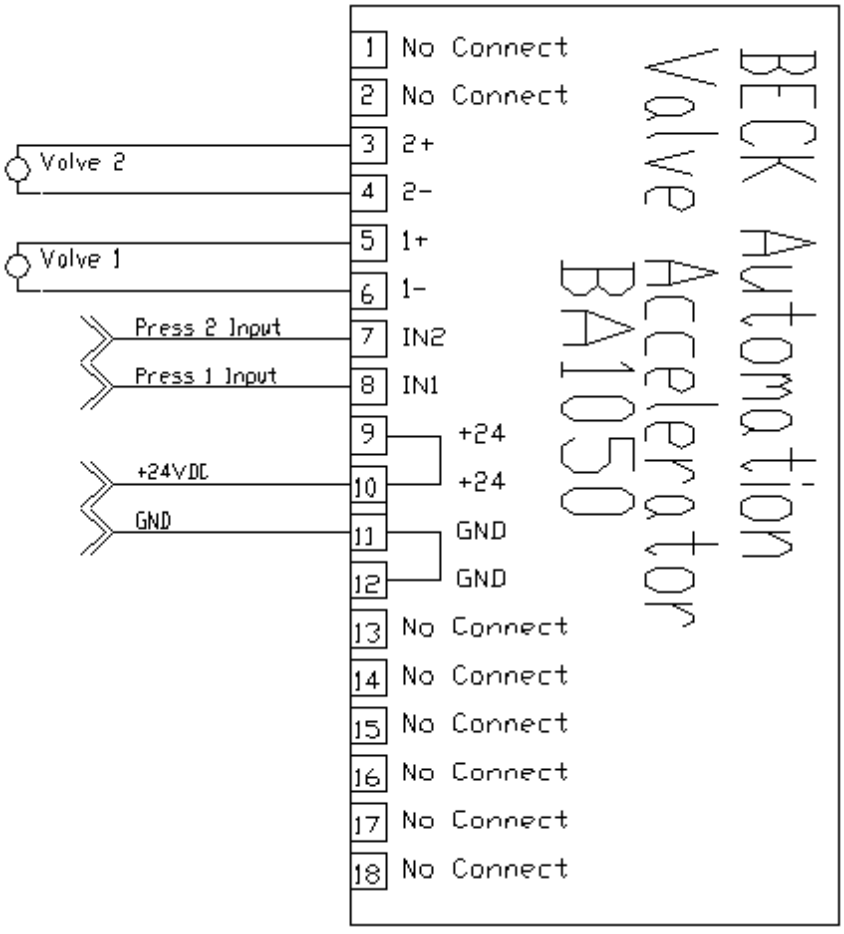
Setup

When opening a valve too fast, it is possible the spool will bounce and actually partially close the valve again momentarily. Removing the cover from the Valve Accelerator there are two jumpers labeled J100 for channel 1 and J200 for channel 2. The pins on the jumpers are labeled L & M. The jumper on the M side the valve accelerator drives the valve with a medium voltage. Start the setup using this voltage first. After a reaction time is determined, move the jumper to L for low voltage. See if the reaction time is further decreased or if it increased. If the time was decreased, leave the jumper on L. If the time increased, remove the jumper to try the highest voltage setting. Leave it on the high setting if the time decreased still, otherwise go back to medium.

Dimensions (L x W x H) 4 1/8" x 3 1/2" x 2 5/16"

Wiring Diagram



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