

Pneumatic Impulse Relay Valves

Impulse relay valves allow you to shift a double-pressure piloted or double bleed piloted valve, even though there are overlapping pilot signals. Relay valves convert a sustained air flow from a three-way pilot valve into a momentary pulse or bleed, which shifts a control valve and then closes.

General Specifications

Mounting: Mounts directly to control valve with nipple fitting

Body Construction: Aluminum

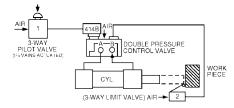
Pressure Range: 35 to 125 PSI

Lubrication: 10 wt. non-detergent oil

Note: Required inlet pressure must be delivered all at once.

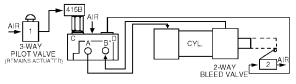
Model Number	Ports	Туре	Length	Width	Height
414B	1/8" NPTF	Pressure	1 ⁵⁹ / ₆₄ "	3/4"	1 ¹ / ₄ "
415B	1/8" NPTF	Bleed	1 ⁵⁹ / ₆₄ "	3/4"	3 ¹¹ / ₁₆ "

Sample Circuit Using 414B (Pressure Type)



When actuated, the 3-way valve sends a signal to 414B, which emits a signal to the control valve. The 3-way valve remains actuated. The valve shifts, allowing air to flow through port A, extending the cylinder. 414B senses the back pressure caused by the shifted valve, closes, and exhausts. Since the signal from valve #1 is blocked by the closed 414B, valve #2 (when actuated) shifts the control valve back. Air flows through port B, retracting the cylinder.

Sample Circuit Using 415B (Bleed Type)



Air enters a double bleed piloted valve, flows through ports C and D, and is blocked by the 415B relay and valve #2. When actuated, the 3-way valve #1 sends an air signal to the 415B. The 3-way valve remains actuated, 415B exhausts, shifting the control valve and extending the cylinder. The 415B senses the back pressure from the shifted valve and closes, blocking off the air flow from valve #1. This allows valve #2 (when actuated) to bleed air, allowing the control valve to shift. Air flows through port B, retracting the cylinder.