

## V-6135 Three-Way Air Switching Valve

The V-6135 Three-Way Air Switching Valve is designed to switch the flow of air from one air line to another. The valve functions as a selector or diverter. This fast acting two-position switching mechanism is suited to a multitude of switching applications such as day-night, heating-cooling, and enthalpy switchover, among others.

### Operation

The point at which switchover from the normally open (lower) port to the normally closed (upper) port occurs depends on the model. Switchover for the V-6135-1 occurs between 2 and 4 PSIG (14 and 28 kPa), for the V-6135-2 it occurs between 11 and 15 PSIG (77 and 105 kPa), and for the V-6135-3 it occurs between 15 and 19 PSIG (105 and 133 kPa). The valve exhibits a narrow deadband between output modes to eliminate the possibility of the N.C. and N.O. ports being open at the same time.

When pilot pressure drops below the switch point, the normally closed port will close and flow will switch back through the normally open port.

### Mounting

The V-6135 valve is furnished with an integral mounting bracket for surface mounting in any convenient position. All air connections are made with 5/32 or 1/4 in. O.D. polytubing to barbed fittings provided on the device. **Note: Do not attempt to rotate the actuator.**

### Repair Information

If the V-6135 fails to operate within its specifications, unit replacement is required; field repairs cannot be made.

**Note: Clean with mild soap and water only. If other solvents are to be used, consult with the factory for compatibility with polycarbonate.**



Fig. 1 -- V-6135 Three-Way Air Switching Valve

### Specifications

<b>Product</b>	V-6135 Three-Way Air Switching Valve	
<b>Switchover Pressure</b>	<b>V-6135-1</b>	Between 2 and 4 PSIG (14 and 28 kPa)
	<b>V-6135-2</b>	Between 11 and 15 PSIG (77 and 105 kPa)
	<b>V-6135-3</b>	Between 15 and 19 PSIG (105 and 133 kPa)
<b>Max Control Pressure</b>	25 PSIG (175 kPa)	
<b>Max Input Pressure</b>	75 PSIG (525 kPa)	
<b>Flow Capacities</b>	See Table 1	
<b>Air Connections</b>	Barbed Fittings for 5/32 or 1/4 in. O.D. Polytubing	
<b>Ambient Operating Temperature Limits</b>	40 to 125°F (4 to 52°C)	
<b>Ambient Storage Temperature Limits</b>	-20 to 150°F (-29 to 66°C)	
<b>Normal Positions</b>	<b>Upper Port</b>	Closed – Control Signal Opens
	<b>Lower Port</b>	Open – Control Signal Closes
<b>Materials</b>	<b>Body</b>	Machined Brass
	<b>Actuator</b>	Polycarbonate
	<b>Actuator Diaphragm</b>	Synthetic Elastomer
	<b>Valve Stem Seals</b>	Buna N Rubber
<b>Accessory (Order Separately)</b>	V-6135-100 Barbed Fitting Kit for 1/4 in. O.D. Polytubing	
<b>Shipping Weight</b>	0.8 lb (.36 kg)	

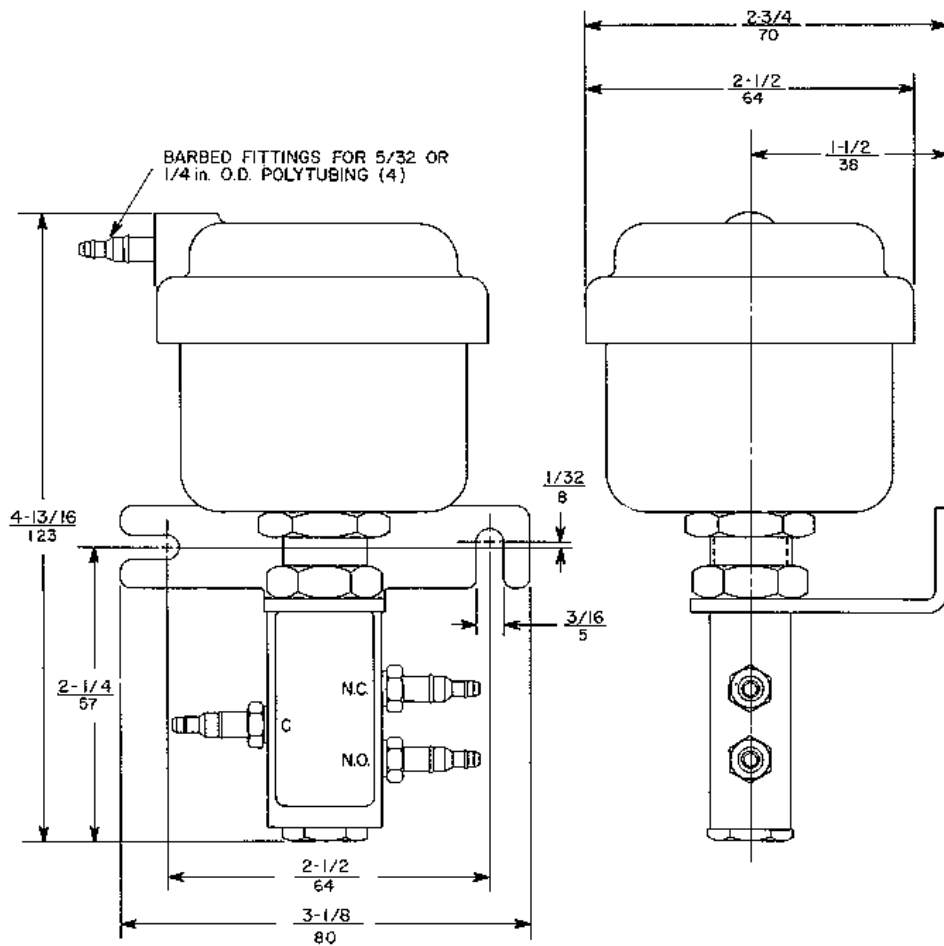
*The performance specifications are nominal and conform to acceptable industry standards. For application at conditions beyond these specifications, consult the local Johnson Controls office. Johnson Controls, Inc. shall not be liable for damages resulting from misapplication or misuse of its products.*

**Table 1: Flow Capacities SCIM  
mL/s**

Fitting Size	Input Pressure	PSIG kPa	Pressure Drop			
			.125 .875	.25 1.8	0.5 3.5	1.0 7.0
5/32 or 1/4 in. Barbed	15	170	285	400	525	
	105	46	78	109	143	
	20	185	300	440	565	
	140	51	82	120	154	
	30	215	350	495	625	
	210	59	98	135	171	
1/4 in. Barbed	15	375	525	725	925	
	105	102	143	198	253	
	20	400	575	800	1000	
	140	109	157	218	273	
	30	450	650	875	1100	
	210	123	177	239	300	

**Application and Drawing Identification**

ASV-



**Fig. 2: Dimensions in.  
mm**

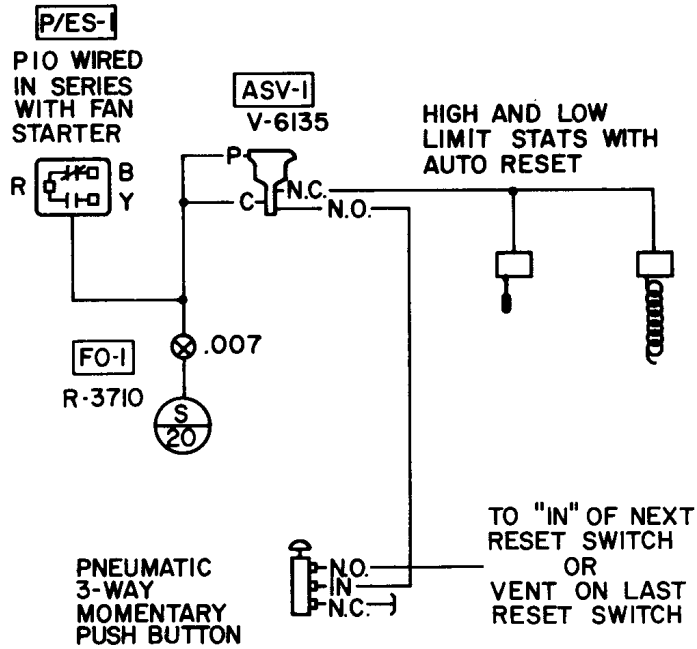


Fig. 3: Remote Manual Reset Application

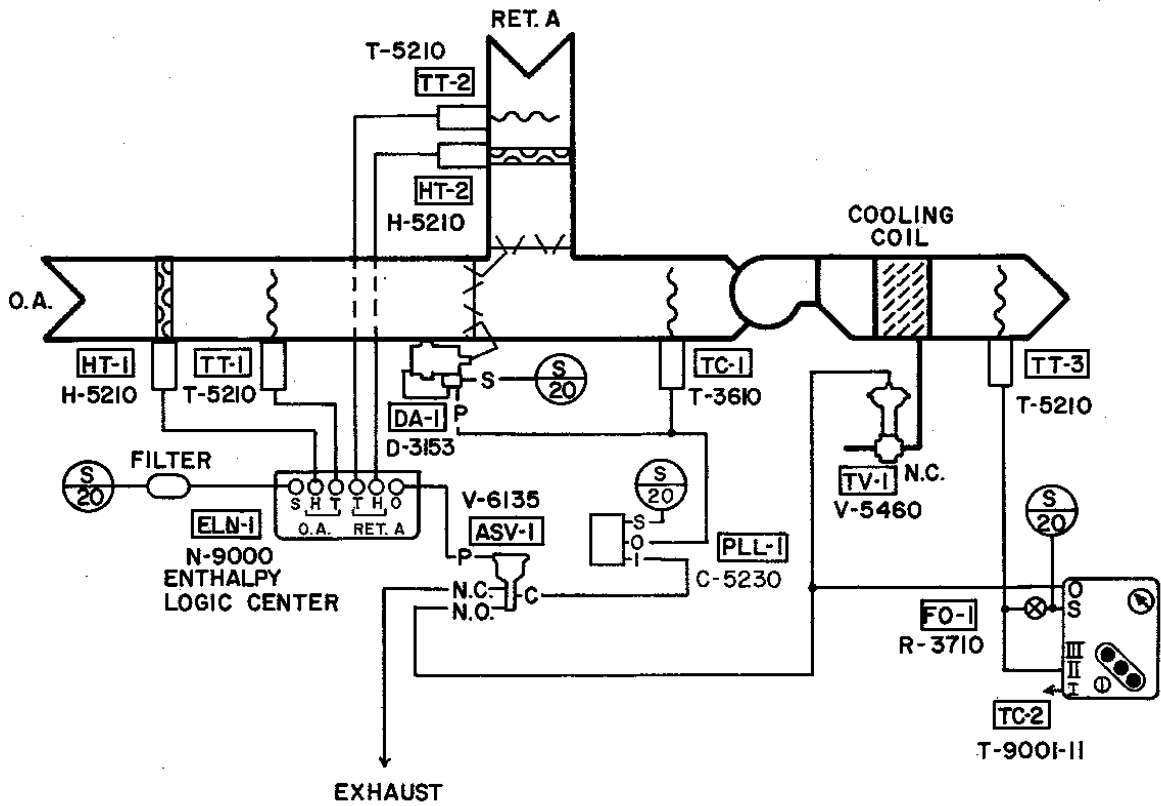


Fig. 4: Enthalpy Switchover Application

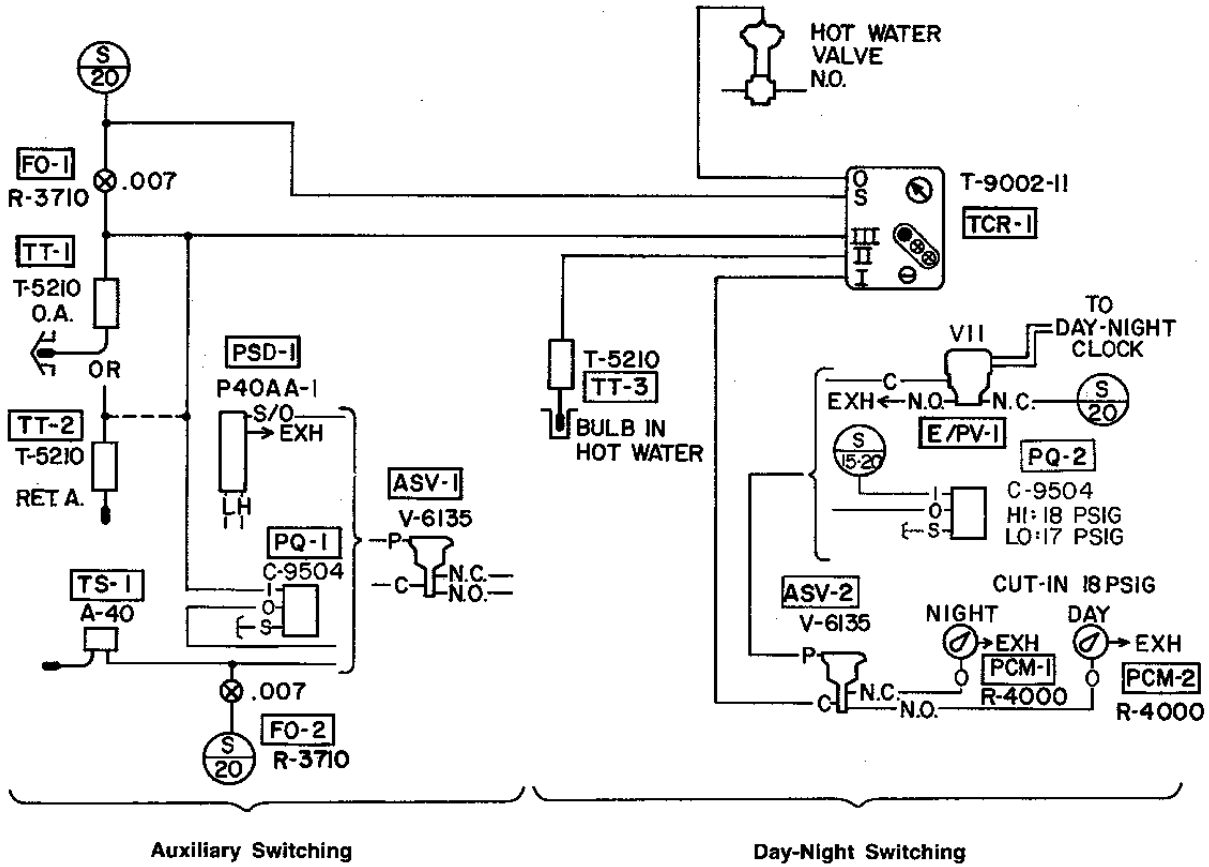


Fig. 5: Hot Water Reset Application

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