

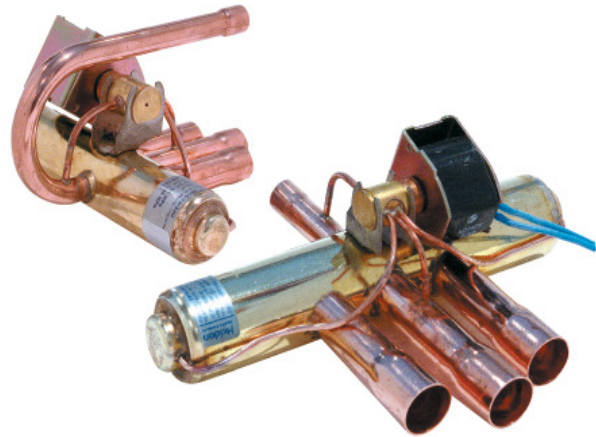
## REVERSING VALVES

### Introduction

The Reversing Valves are used in air-conditioning reverse cycle and heat pump systems to change the refrigerant direction of flow. By changing the refrigerant direction of flow the evaporator can become the condenser (the indoor coil) and the condenser can become the evaporator (the outdoor coil). This will lead to heat being rejected inside for heating in winter or outside for cooling in summer.

The cycle inversion is initiated by a small pilot solenoid valve that directs pressure to either end of the valve body forcing a piston and sliding valve to change ends altering the internal port configuration and reversing the flow direction of the refrigerant in the system. Due to the large port design of Heldon valves the changeover happens almost instantaneously with a minimal pressure differential, pressure drop and risk of internal leakage.

Heldon Reversing Valves are constructed from corrosion resistant brass with solid copper connectors and pilot tubes. Available in capacities from 4 to 45 kW with a maximum safe working pressure of 4,100 kPa for most models making those versions suitable for R410A.



### Features

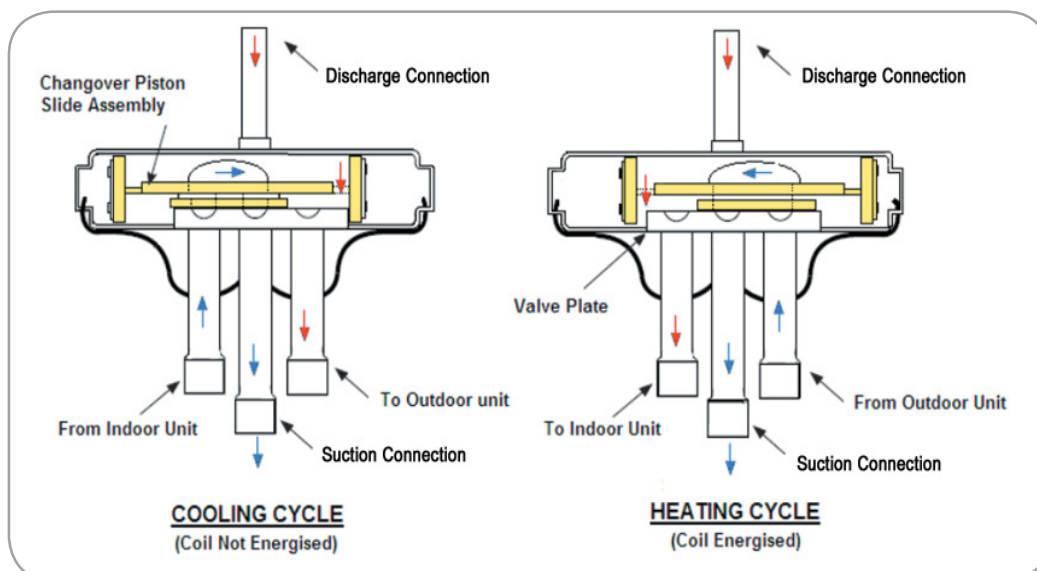
1. Designed for maximum flow and minimal pressure drop.
2. Brass construction.
3. Solid copper extended connectors.
4. Suitable for all fluorinated refrigerants up to 4,100 kPa (most models).
5. Wear resistant seals.
6. Working range = -20°C to 50°C Ambient.
7. High capacity pilot valve and tubes.

### Benefits

1. Negligible loss in system efficiency.
2. Strong stable platform.
3. Easy installation and soldering.
4. Compatible with most fluorinated refrigerants and oils.
5. Longer reliable working life.
6. Suitable for a wide range of applications.
7. Reduced chance of a blockage.

### Manufacturing Standards

Manufactured in accordance with AS/NZS 1677.2



## Dimensions and Capacities

Heldon Reversing Valves										
Part No.	Cap. (kW)	Refrig.	Disch. ID	Suction ID	Operating Diff. Pressure (Mpa)		Disch. Position	Disch. Style	Interchangeable Models	
					Min	Max			Ranco	Danfoss
2500-11-45D1	11	R22	1/2	5/8	0.34	2.50	Straight	Off set	V3-410084-7IL	
2510-4A-23U	4	ALL	5/16	3/8	0.25	3.10	U shape	Centre		CHV-0101
2510-7A-34U	7	ALL	3/8	1/2	0.34	3.10	U shape	Centre	V2-308064-2IL	
2510-9-35U	9	R22	3/8	5/8	0.34	3.10	U shape	Centre		
2510-20A-47	20	ALL	1/2	7/8	0.34	3.10	Straight	Centre	V6-414084-1IL	
2510-35A-67	35	ALL	3/4	7/8	0.34	3.10	Straight	Centre	V10-312124-1IL	CHV-0712
2510-45-79	45	R22	7/8	1 1/8	0.34	2.50	Straight	Centre	V10-318144-1IL	CHV-2011

Nominal capacity kW based on 40°C condensing temperature, 5°C evaporator temperature, 15 kPa pressure differential across suction port for refrigerant R22.

Heldon Reversing Valves come complete with 240V Coil.  
Other voltages sold separately.

Reversing Valve Solenoid Coil	
Part No.	Description
2510-4-10A1	R/V Solenoid Coil - 240VAC Lead Wire
2510-4-10A4	R/V Solenoid Coil - 24VAC Lead Wire
2510-4-10E1	R/V Solenoid Coil - 240VAC Spade Connector
2510-4-10E4	R/V Solenoid Coil - 24VAC Spade Connector
9220000	Coil - Ranco - 24VDC - 4-series
9220002	Coil - Ranco - 240VAC - 4-series

Ranco Reversing Valves									
Part No.	Cap. (kW)	Refrig.	Disch. ID	Suction ID	Operating Diff. Pressure (MPa)		Disch. Style	Disch. Position	
					Min	Max			
V2-408064-2IL	7	R410A	3/8	1/2	0.1	2.59	Straight	Centre	
V3-410084-7IL	11	R410A	1/2	5/8	0.1	2.59	Straight	Centre	
V6-412084-1IL	21	R410A	1/2	3/4	0.1	2.59	Straight	Centre	
V6-414084-1IL	21	R410A	1/2	7/8	0.1	2.59	Straight	Centre	
V10-414084-2IL	35	R410A	1/2	7/8	0.1	2.59	Straight	Centre	
V10-414124-2IL	35	R410A	3/4	7/8	0.1	2.59	Straight	Centre	
V10-418144-2IL	35	R410A	7/8	1-1/8	0.1	2.59	Straight	Centre	
V12-4220T4-1IL	42	R410A	1 1/8	1 3/8	0.1	2.59	Straight	Centre	
V12-4220T20-2IL	42	R410A	1 1/8	1 3/8	0.1	2.59	Straight	Centre	