



# REFRIGERATION

**RANCO**



O10-1402



O16-528-081

## PRESSURE CONTROLS

### O Series - Single Low Pressure Controls

The Ranco® O Series Single Low Pressure Controls offer a variety of pressure ranges and switch action to provide maximum application flexibility.

#### Features and Benefits

- Controls available for most refrigerant types
- High-amp rated switch (SPST) design (O10-1402/O10-1483)
- Super Cap® capillary vibration protection system
- Non-conductive front cover with captive screw
- Adjustable differential and range
- Easy-to-read scale plate
- Vibration cone (absorbs and reduces vibration away from brazed joint)
- Low mass copper alloy capillary tube (reduces capillary stress caused by equipment vibration)

#### The O16-624 control has additional features:

- Compatible with refrigerants 134A, 401A, 401B, 402A, 402B, 403A, 403B and 404A
- Originally designed for use with obsolete refrigerants R12, R22, R500 and R502
- Cap included on all Australia temperature controls. Optional for all other regions.

## Specifications

Part Numbers	Description	Reset	Switch	Pressure Range	Differential	Pressure Connection	Capillary Length	Replaces
O10-1402 (NA)	Low Pressure Control	Auto	SPST	12" Hg to 50 PSI (0.4 to 3.5 bar)	5 to 35 PSI (0.3 to 2.4 bar)	1/4" SAE Flare Nut	36" (0.9m)	
O10-1483 (NA)	Low Pressure Control	Auto	SPST	10" Hg to 100 PSI (0.3 to 7 bar)	10 to 40 PSI (1 to 3 bar)	1/4" SAE Flare Nut	36" (0.9m)	
O16-107 (NA) O16-107-057 (EU, SA)	Low Pressure Control	Auto	SPDT	10" Hg to 100 PSI (0.3 to 7 bar)	10 to 40 PSI (1 to 3 bar)	1/4" SAE Flare Nut	NA	Johnson P70AB-1
O16-527 (NA)	Low Pressure Control	Auto	SPDT	10" Hg to 100 PSI (0.3 to 7 bar)	10 to 40 PSI (1 to 3 bar)	1/4" SAE Flare Nut	36" (0.9m)	
O16-528 (NA) O16-528-081 (EU, SA)	Low Pressure Control	Auto	SPDT	10" Hg to 100 PSI (0.3 to 7 bar)	10 to 40 PSI (1 to 3 bar)	Male Connection 7/16" - 20 UNF for a 1/4" Female Flare	NA	O16-H6703-101
O16-706 (ANZ)	Low Pressure Control	Auto	SPDT	-30 to 700 kPa	60 to 275 kPa	1/4" SAE Flare Male (color dark)	NA	O16-528 O16-6706 O16-8706
O16-713 (ANZ)	Low Pressure Control	Auto	SPDT	-30 to 700 kPa	60 to 300 kPa	1/4" SAE Flare Female (color gold)	36" (0.9m)	O16-529 O16-8713 O16-6713
O16-585-000 (EU, SA)	Low Pressure Control	Manual	SPDT	10" Hg to 100 PSI (0.3 to 7 bar)	10 PSI (1 bar) Fixed	1/4" SAE Flare Nut	NA	
O16-624 (NA)	Low Pressure Control	Auto	SPDT	12" Hg to 80 PSI (0.4 to 5.5 bar)	5 to 38 PSI (0.3 to 2.6 bar)	1/4" SAE Flare Nut	36" (0.9m)	
O16-638 (NA) O16-638-081 (EU, SA)	Low Pressure Control	Manual	SPDT	10" Hg to 100 PSI (0.3 to 7 bar)	9 PSI (0.6 bar) Fixed	Male Connection 7/16" - 20 UNF for a 1/4" Female Flare	NA	O16-H6705-101
O16-705 (ANZ)	Low Pressure Control	Manual	SPDT	-30 to 700 kPa	60 kPa Fixed	1/4" SAE Flare Male	NA	O16-638 O16-8705 O16-6705



**UL**  
LISTED  
Listed  
Product

**RA**  
US  
Recognized  
Component

**1** Year  
Limited  
Warranty



## PRESSURE CONTROLS

### O Series - Single High and Ultra High Pressure Controls

The Ranco® O Series Single High and Ultra High Pressure Controls offer a variety of pressure ranges and switch action to provide maximum application flexibility.

#### Features and Benefits

- NEMA 1 enclosure with non-conductive cover
- Front-located captive cover screw
- Large, easy-to-read scale plate
- Super Cap® capillary protection system
- Universal mounting and compact design
- Screw terminals are raised and fully accessible for easy wiring
- Laser-welded bellows for extended life
- Heavy-duty plated steel frame
- Cap included on all Australia temperature controls. Optional for all other regions.

#### The O16-6201-070 control has additional features:

- Suitable for 404A, 407A 410A, and R507 applications



O16-200

## Specifications

Part Numbers	Description	Reset	Switch	Pressure Range	Differential	Pressure Connection	Capillary Length	Replaces
O16-6201-070	Ultra High Pressure Control	Auto	SPDT	200 to 700 PSI (14 to 48 bar)	50 to 150 PSI (3 to 10 bar)	¼" flare nut with 7/16-20 UNF straight thread	36" (0.9m)	Johnson Controls P70CA-400C, P70AA-400C, P70CA-3C, Danfoss 060-5245, 060-5242
O10-2054 (NA)	Single High Pressure Control	Auto	SPST	100 to 400 PSI (7 to 27 bar)	40 to 150 PSI (3 to 10 bar)	1/4" SAE Flare Nut	36" (0.9m)	
O16-108 (NA)	Single High Pressure Control	Auto	SPDT	100 to 400 PSI (7 to 27 bar)	40 to 150 PSI (3 to 10 bar)	1/4" SAE Flare Nut	36" (0.9m)	
O16-200 (NA)	Single High Pressure Control	Manual	SPDT	150 to 450 PSI (10 to 31 bar)	40 PSI (3 bar) Fixed	1/4" SAE Flare Nut	48" (1.2m)	
O20-7006 (NA)	Single High Pressure Control	Auto	DPST	100 to 400 PSI (7 to 27 bar)	40 to 150 PSI (3 to 10 bar)	1/4" SAE Flare Nut	36" (0.9m)	
O16-209-000 (EU, SA)	Single High Pressure Control	Manual	SPDT	10" Hg to 100 PSI (0.3 to 7 bar)	40 PSI (3 bar) Fixed	1/4" SAE Flare Nut	NA	
O16-530 (NA) O16-530-081 (EU, SA)	Single High Pressure Control	Auto	SPDT	100 to 400 PSI (7 to 27 bar)	40 to 150 PSI (3 to 10 bar)	Male Connection 7/16" - 20 UNF	NA	O16-H6750-101
O16-750 (ANZ)	Single High Pressure Control	Auto	SPDT	700 to 2800 kPa	300 to 1000 kPa	1/4" SAE Flare Male (color silver)	NA	O16-530 O16-8750 O16-6750
O16-531 (NA) O16-531-081 (EU, SA)	Single High Pressure Control	Manual	SPDT	150 to 450 PSI (10 to 31 bar)	40 PSI (3 bar) Fixed	Male Connection 7/16" - 20 UNF	NA	O16-H6751-101
O16-751 (ANZ)	Single High Pressure Control	Manual	SPDT	1000 to 3000 kPa	350 kPa Fixed	1/4" SAE Flare Male (color silver)	NA	O16-531 O16-8751 O16-6751





# REFRIGERATION

**RANCO**



O12-1506



O12-1550-081

## PRESSURE CONTROLS

### O Series - Dual Pressure

The Ranco® Dual Pressure Controls combine the functions of a single high-pressure limit control and a single low-pressure control in one unit with a single pole, single throw (SPST) switch.

### Features and Benefits

- Convertible feature allows selection of manual or reset function when operating at high pressure (O12-4833/ O12-4834)
- A wide range of high-pressure manual or automatic reset controls can be replaced (O12-4833 or O12-4834)
- A high-pressure limit is combined with suction pressure sensing to provide temperature control and/or pumpdown
- High-limit adjustment screw
- Low-pressure differential and range adjusting screws
- Selector screw for manual or automatic
- Reset button
- Low-pressure scale plate
- High-impact plastic cover with center mount screw
- High-pressure scale plate
- Super Cap® capillary protection system
- Color-coded for easy identification of pressure line
- High-side capillary flare nut (silver)
- Low-side capillary flare nut (brass)
- Cap included on all Australia temperature controls. Optional for all other regions.

## Specifications

Part Numbers	Description	Switch	Low Reset	Low Cut-In	Low Differential	High Reset	High Cut-Out	Pressure Connection	Capillary Length	Replaces
O12-1502 (NA)	Dual Pressure Control	SPST	Auto	12" Hg to 50 PSI (0.4 to 3.5 bar)	5 to 35 PSI (0.3 to 2.4 bar)	Auto	150 to 450 PSI (10 to 31 bar)	1/4" SAE Flare Nut	36" (0.9m)	
O12-1506 (NA)	Dual Pressure Control	SPST	Auto	12" Hg to 50 PSI (0.4 to 3.5 bar)	5 to 35 PSI (0.3 to 2.4 bar)	Auto	100 to 250 PSI (7 to 17 bar)	1/4" SAE Flare Nut	36" (0.9m)	
O12-1549 (NA) O12-1549-000 (EU, SA)	Dual Pressure Control	SPST	Auto	10" Hg to 100 PSI (0.3 to 7 bar)	10 to 40 PSI (1 to 3 bar)	Auto	150 to 450 PSI (10 to 31 bar)	1/4" SAE Flare Nut	36" (0.9m)	
O12-1549-080 (ANZ, EU, SA)	Dual Pressure Control	SPST	Auto	10" Hg to 100 PSI (0.3 to 7 bar)	10 to 40 PSI (1 to 3 bar)	Auto	150 to 450 PSI (10 to 31 bar)	1/4" SAE Flare Nut	36" (0.9m)	
O12-1550-081 (EU, SA)	Dual Pressure Control	SPST	Auto	10" Hg to 100 PSI (0.3 to 7 bar)	11 to 40 PSI	Auto	150 to 450 PSI (10 to 31 bar)	1/4" SAE Flare Nut	NA	



**UL** LISTED  
Listed Product

**RA** US  
Recognized Component



## Specifications

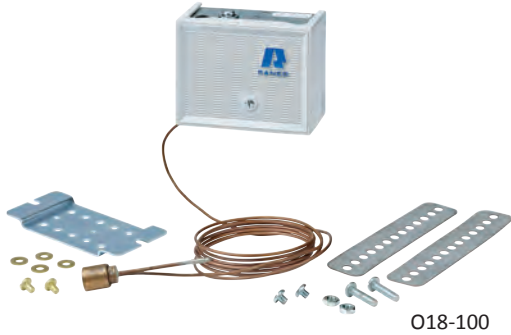
Part Numbers	Description	Switch	Low Reset	Low Cut-In	Low Differential	High Reset	High Cut-Out	Pressure Connection	Capillary Length	Replaces
012-4154 (NA) 012-4154-081 (EU, SA)	Dual Pressure Control	SPST	Manual	10" Hg to 100 PSI (0.3 to 7 bar)	10 PSI (1 bar) Fixed	Manual	150 to 450 PSI (10 to 31 bar)	Male Connection 7/16" - 20 UNF for a 1/4" Female Flare	NA	017-H6703-101 017-H4703-101
017-703 (ANZ)	Dual Pressure Control	SPDT	Manual	-30 to 700 kPa	60 kPa Fixed	Manual	1000 to 3000 kPa	1/4" SAE Flare Male Low-color dark High-color silver	NA	Low: 017-8703 012-5002 High: 017-H6703 012-4154
012-4833 (NA)	Dual Pressure Control	SPST	Auto	12" Hg to 50 PSI (0.4 to 3.5 bar)	5 to 35 PSI (0.3 to 2.4 bar)	Convertible	150 to 450 PSI (10 to 31 bar)	1/4" SAE Flare Nut	48" (1.2m)	
012-4834 (NA)	Dual Pressure Control	SPST	Auto	10" Hg to 100 PSI (0.3 to 7 bar)	10 to 40 PSI (1 to 3 bar)	Convertible	150 to 450 PSI (10 to 31 bar)	1/4" SAE Flare Nut	48" (1.2m)	
012-4860 (NA) 012-4860-081 (EU, SA)	Dual Pressure Control	SPST	Auto	10" Hg to 100 PSI (0.3 to 7 bar)	10 to 40 PSI (1 to 3 bar)	Convertible	150 to 450 PSI (10 to 31 bar)	Male Connection 7/16" - 20 UNF for a 1/4" Female Flare	NA	017-H4705-101 017-H6705-101
017-705 (ANZ)	Dual Pressure Control	SPDT	Auto	-30 to 700 kPa	60 to 300 kPa	Auto/Convertible	1000 to 3000 kPa	1/4" SAE Flare Male Low-color dark High-color silver	NA	Low: 017-8705 012-5003 High: 017-H6705 012-4860
012-4900 (NA) 012-4900-081 (EU, SA)	Dual Pressure Control	SPST	Auto	10" Hg to 100 PSI (0.3 to 7 bar)	10 to 40 PSI (1 to 3 bar)	Auto	150 to 450 PSI (10 to 31 bar)	Male Connection 7/16" - 20 UNF for a 1/4" Female Flare	NA	017-H6701-101
017-701 (ANZ)	Dual Pressure Control	SPDT	Auto	-30 to 700 kPa	60 to 300 kPa	Auto	1000 to 3000 kPa	1/4" SAE Flare Male Low-color dark High-color silver	NA	Low: 017-8701 012-5502 High: 017-H6701 012-4900
012-4902 (NA)	Dual Pressure Control	SPST	Auto	10" Hg to 100 PSI (0.3 to 7 bar)	10 to 40 PSI (1 to 3 bar)	Auto	145 to 435 PSI (10 to 30 bar)	1/4" SAE Flare Nut	36" (0.9m)	017-8711
017-711 (ANZ)	Dual Pressure Control	SPDT	Auto	-30 to 700 kPa	60 to 300 kPa	Auto	1000 to 3000 kPa	1/4" SAE Flare Male Low-color dark High-color silver	36" (0.9m)	Low: 017-8711 012-5503 High: 017-H6711 012-4902
012-5501-080 (EU, SA)	Dual Pressure Control	SPST	Auto	10" Hg to 100 PSI (0.3 to 7 bar)	9 to 57 PSI (0.6 to 3.9 bar)	Auto	100 to 435 PSI (7 to 30 bar)	Male Connection 7/16" - 20 UNF for a 1/4" Female Flare	NA	206-00231-003
012-5500-080 (EU, SA)	Dual Pressure Control	SPDT	Auto	10" Hg to 100 PSI (0.3 to 7 bar)	9 to 57 PSI (0.6 to 3.9 bar)	Auto	100 to 435 PSI (7 to 30 bar)	Male Connection 7/16" - 20 UNF for a 1/4" Female Flare	NA	206-00231-003
012-5001-080 (EU, SA)	Dual Pressure Control	SPDT	Manual	10" Hg to 100 PSI (0.3 to 7 bar)	9 PSI (0.6 bar) Fixed	Manual	100 to 435 PSI (7 to 30 bar)	Male Connection 7/16" - 20 UNF for a 1/4" Female Flare	NA	206-00231-002
012-5000-080 (EU, SA)	Dual Pressure Control	SPDT	Auto	10" Hg to 100 PSI (0.3 to 7 bar)	9 to 57 PSI (0.6 to 3.9 bar)	Manual	100 to 435 PSI (7 to 30 bar)	1/4" SAE Male Flare Fitting	NA	206-00231-001



# REFRIGERATION

**RANCO**

## PRESSURE CONTROLS



### O Series - Ice Bank Control

The Ranco® O Series Ice Bank Control is suitable for soft drink dispensers, drink vending machines and ice builders for thermal storage. Uses a special water-filled bulb and transmission fluid to control ice thickness in applications utilizing a refrigerated water bath with ice bank reserve capacity.

### Specifications

Part Numbers	Description	Switch	Cut-In	Cut-Out	Temperature	Capillary Length	Sensing Element
018-100	Ice Bank Control	SPST	34.5°F	27.5°F	Fixed 32°F	76"	Bulb
018-100-080 (ANZ, EU, SA)	Ice Bank Control	SPST	34.5°F	27.5°F	Fixed 32°F	76"	Bulb

## MINI PRESSURE SENSORS



### MPV Series

The Ranco® Mini Pressure Sensors are electromechanical pressure microswitches with fixed settings. It is compact and easy to install. These pressure microswitches are used to protect refrigeration systems that work under critical conditions by programming the high- and low-pressure limit values. Thanks to the innovative technology used in its manufacture, the Ranco® pressure microswitches offer the best solutions to the refrigeration and air conditioning industry.

RoHS

### Specifications

Part Numbers	Description	Refrigerant Gas That is Normally Applied	Off	On	Electrical Connection	Pressure Connection
MPV0121-02U	Mini Pressure Sensor Low Pressure	R22/R407C/R134A/R404A/R507	3 PSI (0.2 bar)	20 PSI (1.4 bar)	Appendage 1m	1/4" SAE
MPV0221-02U	Mini Pressure Sensor Medium Average Pressure	R410A	34.8 PSI (2.4 bar)	59.5 PSI (4.1 bar)	Appendage 1m	1/4" SAE
MPV0321-02U	Mini Pressure Sensor High Pressure	R22/R407C/R404A/R507	385.3 PSI (26.5 bar)	261 PSI (18.0 bar)	Appendage 1m	1/4" SAE
MPV0421-02U	Mini Pressure Sensor Low Pressure	R410A	75 PSI (5.2bar)	100 PSI (6.9 bar)	Appendage 1m	1/4" SAE
MPV0521-02U	Mini Pressure Sensor High Pressure	R410A	600 PSI (41.4 bar)	475 PSI (32.8 bar)	Appendage 1m	1/4" SAE



1 Year Limited Warranty

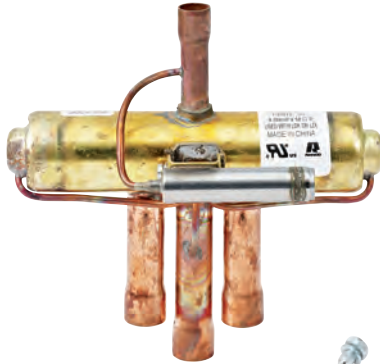
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# REFRIGERATION

**RANCO**

## REVERSING VALVES



V2-408060-170

### V Series

The Ranco® 4-Way Reversing Valves (Generation 4) are designed for heat pump applications such as window-type, unitary and split systems.

They are the key component to provide heating and cooling from the heat pump system by reversing the flow direction of the refrigerant.

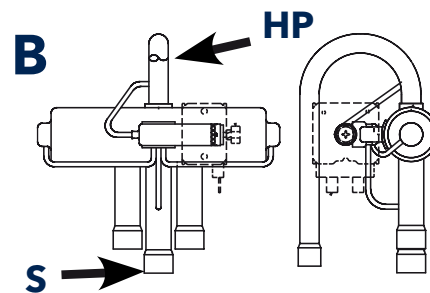
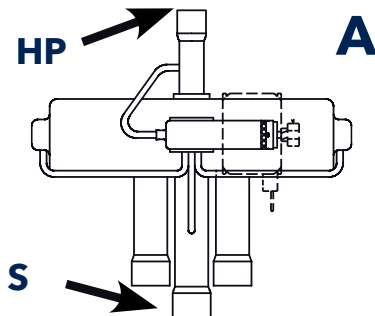
These solenoid operated valves are slide type with a 4-way pilot valve, and operate under the full pressure of the heat pump system.

Note: Solenoid coils are not included. Generation 4 type Ranco Reversing Valves work with LDK Series Solenoid Coils.

### Specifications

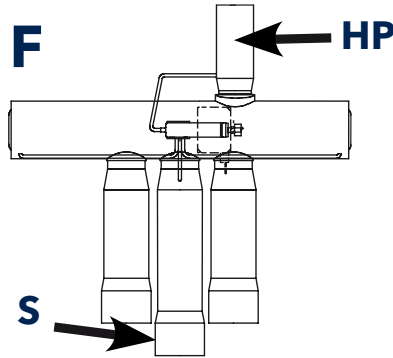
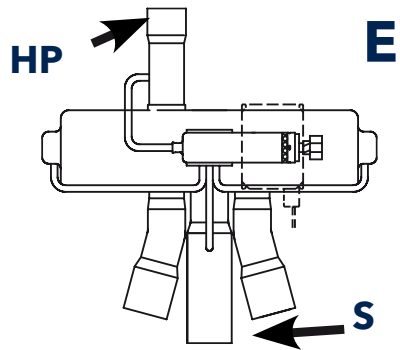
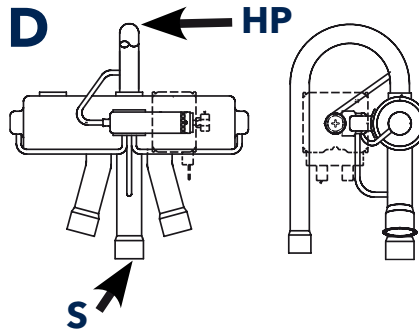
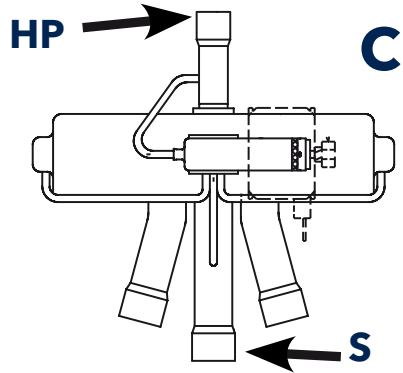
Part Numbers	Description	Capacity Nominal	Capacity R-22	Capacity R-410A	Tube Size Suction	Tube Size Discharge	Style
V2-408060-170	4-Way Reversing Valve	1 ton	0.75 to 2.0 tons	0.9 to 2.2 tons	1/2"	3/8"	A
V2-408060-270	4-Way Reversing Valve	2 tons	0.75 to 2.0 tons	0.9 to 2.2 tons	1/2"	3/8"	B
V2-410060-470	4-Way Reversing Valve	2 tons	1.0 to 2.5 tons	1.3 to 2.5 tons	5/8"	3/8"	D
V2-4100F0-370	4-Way Reversing Valve	2 tons	1.0 to 2.5 tons	1.3 to 2.5 tons	5/8"	3/8" Outer Diameter	C
V3-410080-770	4-Way Reversing Valve	3 tons	1.0 to 2.8 tons	1.3 to 3.1 tons	5/8"	1/2"	E
V3-412080-870	4-Way Reversing Valve	3 tons	1.0 to 3.0 tons	1.3 to 3.5 tons	3/4"	1/2"	E
V6-412080-170	4-Way Reversing Valve	6 tons	1.0 to 5.5 tons	1.3 to 6.7 tons	3/4"	1/2"	A
V6-414080-170	4-Way Reversing Valve	6 tons	1.0 to 5.5 tons	1.3 to 6.7 tons	7/8"	1/2"	A
V10-414080-170	4-Way Reversing Valve	10 tons	3.0 to 9.9 tons	3.8 to 11.9 tons	7/8"	1/2"	A
V10-418140-170	4-Way Reversing Valve	10 tons	3.0 to 11.2 tons	3.8 to 13.5 tons	1-1/8"	7/8"	A
V12-4220T0-270	4-Way Reversing Valve	12 tons	6.0 to 14.0 tons	6.3 to 16.8 tons	1-3/8"	1-1/8" Outer Diameter	F

### Product Drawings





## Product Drawings



Legend
HP: High Pressure
S: Suction

**R**  
**R**  
**A**  
**N**  
**G**  
**O**

**1** Year  
Limited  
Warranty

F45





# REFRIGERATION

RANCO®



LDK-110000-070

## REVERSING VALVES - SOLENOID COILS

### LDK and SHF Series

The Ranco® LDK Series Solenoid Coils are designed for use with current production (Generation 4) V0, V1, V2, V3, V6, V10 and V12 Ranco 4-way Reversing Valves.

The Ranco® SHF Series Solenoid Coils are designed for use with current production (Generation 5) V0, V1, V2, V3, V6, V10 and V12 Ranco 4-way Reversing Valves.

These color-coded, encapsulated, continuous duty, moisture resistant electro-magnetic coils are designed to operate the pilot valve that controls these reversing valves.

A W29 wiring harness with 48" leads is included with the solenoid coil.

### Features and Benefits

- Epoxy encapsulated
- Continuous duty
- Moisture resistant magnetic coils
- Includes wiring harness

## Specifications

Part Numbers	Description	Color Code	Lead Length	Electrical Rating	Power
LDK-110000-070	Solenoid Coils for Reversing Valves	Red	48" (120cm)	24V AC	5 Watts at 50 Hz, 4 Watts at 60 Hz
LDK-310000-070	Solenoid Coils for Reversing Valves	Black	48" (120cm)	120V AC	5 Watts at 50 Hz, 4 Watts at 60 Hz
LDK-410000-070	Solenoid Coils for Reversing Valves	Green	48" (120cm)	208/240V AC	5 Watts at 50 Hz, 4 Watts at 60 Hz
SHF-110000-070	Solenoid Coils for Reversing Valves	NA	48" (120cm)	24V AC	6 Watts at 50 Hz, 5 Watts at 60 Hz
SHF-310000-070	Solenoid Coils for Reversing Valves	NA	48" (120cm)	120V AC	6 Watts at 50 Hz, 5 Watts at 60 Hz
SHF-410000-070	Solenoid Coils for Reversing Valves	NA	48" (120cm)	208/240V AC	6 Watts at 50 Hz, 5 Watts at 60 Hz
SHF-510000-070	Solenoid Coils for Reversing Valves	NA	48" (120cm)	277V AC	6 Watts at 50 Hz, 5 Watts at 60 Hz

1 Year  
Limited  
Warranty