# AUTOMATIC CONTROLS

S/JGInoMIY/J

# **RESIDENTIAL & COMMERCIAL AIR CONDITIONER**

# OEM

#### Type UKV

#### **ELECTRONIC EXPANSION VALVES**

Max. working press.: 4.2MPa Capacity: 2.9 to 11.1 U.S.R.T. (R22) 2.3 to 8.7 U.S.R.T. (R134a) 2.1 to 7.8 U.S.R.T. (R404A) 3.0 to 11.4 U.S.R.T. (R407C) 3.4 to 13.1 U.S.R.T. (R410A)

Fluid temp.: -30 to 70 Power supply: 12V.DC



ELECTRONIC EXPANSION VALVES internal check valve Max. working press.: 4.2MPa Capacity: 3.44 to 5.52 U.S.R.T. (R410A) Refrigerant: R22, R134a, R404A, R407C, R410A



EXPANSION VALVES Max. allowable press.: 1.4 to 3.3MPa Capacity: 1.10 to 89.2 U.S.R.T. (R410A)

Refrigerant: R22, R134a, R404A, R407C, R410A



EXPANSION VALVES Max. allowable press.: 3.0MPa Capacity: 6.38 to 15.8U.S.R.T. (R410A) Refrigerant: R22, R134a, R404A, R407C, R410A



EXPANSION VALVES Max. allowable press.: 3.0MPa Capacity: 0.35 to 5.18U.S.R.T. (R410A) Refrigerant: R22, R134a, R404A, R407C, R410A



Type TEV/VPV

# SMALL SOLENOID VALVES for refrigerant

Max. working press.: 3.3, 4.3MPa Connections: 1/4" to 1/2" Operating press. differential: 0 to 3.6MPa

Fluid temp.: -30 to 120 Ambient temp.: -20 to 50 Cv value: 0.037 to 3.0



SOLENOID VALVES for refrigerant Max. working press.: 4.3MPa Connection: 1/4" to 7/8"



SOLENOID VALVES for dehumidifying Function

Max. working press.: 4.2MPa Type: Normal-Open



BI-FLOW SOLENOID VALVES Max. working press.: 3, 4.2MPa Connection: 3/8" to 1-1/2"



PRESSURE REGULATING VALVES Max. working press.: 2.9MPa Connection: 7.94(I.D.)



#### Type STF

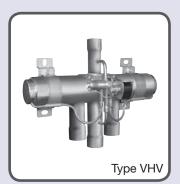
#### 4-WAY REVERSING VALVES

Max. working press.: 4.15, 4.2MPa Capacity:

0.46 to 55.5 U.S.R.T. (R22) 0.34 to 42.7 U.S.R.T. (R134a) 0.46 to 55.5 U.S.R.T. (R407C) 0.51 to 66.9 U.S.R.T. (R410A)

Operating press. differential: 0.3 to 3.1MPa

Fluid temp.: -20 to 120 , -20 to 130



4-WAY REVERSING VALVES Max. working press.: 4.15MPa Capacity: 65.4 to 102 U.S.R.T. (R410A)



PRESSURE ACTUATED WATER REGULATING VALVES Max. working press.: 1.96, 4.2MPa Connection: 3/8" to 2-1/2"

# **RESIDENTIAL & COMMERCIAL AIR CONDITIONER**



CHECK VALVES
Max. working press.: 4.15, 4.2MPa
Connection: 1/4" to 1"



PACKLESS VALVES Max. working press.: 2.94, 3.53MPa Connection: 1/4" to 3/4"



PACKLESS VALVES
Max. working press.: 3.6MPa
Connection: 1/4" to 7/8"



DRAIN PUMPS Pump head: 200 to 1125mm Rated voltage: 220 to 240V.AC



Type ACB/LCB

# SMALL PRESSURE CONTROLS (DISC TYPE)

Range: 0.7 to 4.5MPa 0.1 to 0.7MPa Contact function: SPST, SPDT Electrical ratings: 250V.AC 1 to 4A Press. connections:

1/4" flare, 1/4" solder, etc.



SINGLE FUNCTION PRESSURE CONTROLS (BELLOWS TYPE) Range: -0.06 to 4.3MPa



DUAL PRESSURE CONTROLS (BELLOWS TYPE) Range: High 0.8 to 3MPa Low -0.06 to 0.6MPa



DIFF. PRESSURE CONTROLS Range of press. diff.: 0.03 to 0.35MPa



PRESSURE SENSORS Range: -0.05 to 1MPa 0 to 5MPa, etc. Output: 4 to 20mA



Type NSK

#### PRESSURE SENSORS



CONDENSER FAN SPEED CONTROLLERS PHASE: SINGLE Range: 1 to 3.9MPa



CONDENSER FAN SPEED CONTROLLERS PHASE: SINGLE / THREE Range: 0.8 to 3.9MPa



PULSE CONVERTERS Power supply: AC24V/ DC24V Output: 0 to 480 pulse



SUPERHEAT CONTROLLER Power supply: AC24V/ DC24V Temperature range: -30 to 30

# REFRIGERATION



#### Type SCX

#### **EXPANSION VALVES**

Max. allowable press.: 3.0MPa Capacity: 3.25 to 14.4 U.S.R.T. (R22) 4.76 to 11.8 U.S.R.T. (R134a) 1.92 to 9.06 U.S.R.T. (R404A) 5.95 to 14.8 U.S.R.T. (R407C) 6.38 to 15.8 U.S.R.T. (R410A)

Equalizer: External

Refrigerant: R22, R134a, R404A, R407C, R410A

Connection: 1/2"× 5/8", 5/8"× 7/8"



#### Type QCX/RCX

#### **EXPANSION VALVES**

Max. allowable press.: 3.0MPa Capacity: 0.22 to 4.69 U.S.R.T. (R22) 0.24 to 3.64 U.S.R.T. (R134a) 0.13 to 2.96 U.S.R.T. (R404A) 0.32 to 4.83 U.S.R.T. (R407C) 0.35 to 5.18 U.S.R.T. (R410A)

Equalizer: Internal/ External Refrigerant: R22, R134a, R404A, R407C, R410A

Connection: 3/8"× 1/2"



EXPANSION VALVES Max. allowable press.: 3.0MPa Capacity: 0.36 to 1.80 U.S.R.T. (R134a) Refrigerant: R22, R134a, R404A, R407C, R410A



EXPANSION VALVES Max. allowable press.: 1.4MPa Capacity: 0.34 to 8.38 U.S.R.T. (R404A) Refrigerant: R22, R23, R134a, R404A



ELECTRONIC EXPANSION VALVES Max. working press.: 4.2MPa Capacity: 1.0 to 5.6 U.S.R.T. (R404A) Refrigerant: R22, R134a, R404A, R407C, R410A



ELECTRONIC EXPANSION VALVES Max. working press.: 4.2MPa Capacity: 2.06 to 11.84 U.S.R.T. (R404A) Refrigerant: R22, R134a, R404A, R407C, R410A



ELECTRONIC EXPANSION VALVES Max. working press.: 4.2MPa Capacity: 16.7 to 19.8 U.S.R.T.(R404A) Refrigerant: R22, R134a, R404A, R407C, R410A



3-WAY SOLENOID VALVES Max. working press.: 2.94MPa Connection: 5/8" to 1-3/8"



#### Type RPV/REV

#### **SOLENOID VALVES for Refrigerant**

Max. working press.: 2.94 to 4.3MPa Connection: 1/4" to 3/4" flare 1/4" to 1-5/8" solder

 $7/8\mbox{"}$  to 3-1/2" flange, etc Operating press. diff.: 0 to 2.45MPa

0 to 3.6MPa Fluid temp.: -40 to 125 Ambient temp.: -30 to 50

Cv value: 0.27 to 74



PACKED VALVES
Max. working press.: 2.94MPa
Connection: 1/4" to 1"



CHECK VALVES
Max. working press.: 3 to 4.15MPa
Connection: 1/4" to 1"



PRESSURE ACTUATED WATER REGULATING VALVES Max. working press.: 1.96, 4.2MPa Connection: 3/8" to 2-1/2"



TEMPERATURE ACTUATED WATER REGULATING VALVES Max. water press.: 0.98MPa Connection: 1/2" to 2-1/2"

# **REFRIGERATION**



PRESSURE REGULATING VALVES Max. working press.: 2.5MPa Connection: 1/2" to 1-3/8"



REGULATING VALVES for hot gas line Max. working press.: 2.5MPa Connection: 1/2" to 5/8"



PRESSURE REGULATING VALVES Max. working press.: 2.9, 4.17MPa Connection: 1/2" to 7/8"



DIGITAL PRESSURE CONTROLS Range: -0.095 to 5MPa -0.095 to 0.095MPa



#### Type SYS

## SINGLE FUNCTION PRESSURE CONTROLS (BELLOWS TYPE)

Range: -0.06 to 4.3MPa
Range of press. diff.: 0.035 to 1.5MPa
Contact function: SPDT
Electrical ratings:
125/ 250V.AC 0.05 to 12A

Press. connections: 1/4" flare, etc.



#### Type DYS

### DUAL PRESSURE CONTROLS (BELLOWS TYPE)

Range: High 0.8 to 3MPa Low -0.06 to 0.6MPa

Range of press. diff.:

High Approx. 0.4 fixed Low -0.06 to 0.4MPa

Contact function: D3...SPDT

D6...SPDT ×2 Electrical ratings: 125/ 250V.AC 0.05 to 12A

Press. connections: 1/4" flare, etc.



DIFF. PRESSURE CONTROLS Range of press. diff.: 0.03 to 0.35MPa



TEMPERATURE CONTROLS Range: -60 to 90



TEMPERATURE CONTROLS Range: -45 to 150



TEMPERATURE CONTROLS Range: -35 to 240



DIGITAL THERMOSTATS Range: -50 to 100



DIGITAL THERMOSTATS
DIN 48×48
Range: -70 to 140 (Type PEK)



TEMPERATURE RECORDERS Range: -40 to 54



SUPERHEAT CONTROLLER Power supply: AC24V/ DC24V Temperature range: -50 to 50

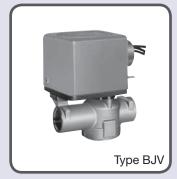
# **AIR CONDITIONING**



SOLENOID VALVES for water/ glycol Max. working press.: 0.98MPa Connection: 1/2" to 3"



MORTORIZED BALL VALVES Max. working press.: 1.6MPa(Water) Connection: 1/2" to 2"



SMALL MOTOR OPERATED VALVES Max. working press.: 1MPa(Water) Connection: 1/2" to 3/4"



2-WAY&3-WAY CONTROL VALVES WITH MOTOR ACTUATOR Max. working press.: 0.98, 1.96MPa Connection: 1/2" to 10"



DAMPER MOTOR ACTUATORS Rotaion Angle: 90 ° Torque: 14.7N·m



TEMPERATURE CONTROLS Range: 0 to 160



PROPORTIONAL TEMPERATURE CONTROLS
Range: -10 to 120



ROOM THERMOSTATS Range: 10 to 30



ROOM THERMOSTATS Range: 0 to 30



ROOM HUMIDISTATS Range: 30 to 90%RH



HUMIDISTATS application for duct unit Range: 30 to 70%RH



FLOW SWITCHES Range: 18 to 2268L/min

# CONSTRUCTION MACHINERY AND HYDRAULICS, VEHICLES, SHIP



PRESSURE SENSORS Range: 0 to 5MPa, etc. Output: 0.5 to 4.5V.DC Press. connections: G1/4



SMALL PRESSURE CONTROLS (DISC TYPE) Range: 0.3 to 2.5MPa Press. connections: R1/8, G1/8, G1/4



SMALL PRESSURE CONTROLS (DISC TYPE) Range: 0.1 to 0.7MPa



AIR CONDITIONING CONTROLLER

# **HOT-WATER SUPPLY UNITS**



ELECTRIC PROPORTIONAL VALVES Max. working press.: 1MPa Flow rate: 1.4L/min at 1000 pulse 15L/min or more at 3000 pulse



Stepping Motor Mixing Valve Max. working press.: 1MPa Cv value: more than 3.2 (hot water side)



SOLENOID VALVES for water Max. working press.: 0.1, 0.29MPa Cv value: 0.94 to 1.1



FLOW SENSORS Range: 1.5 to 25L/min



PRESSURE REDUCING VALVES Max. working press.: 750kPa Setting press.: 170kPa



RELIEF VALVES Withstand press. performance: 600kPa Start to discharge pressure: 190kPa



AIR RELEASE VALVES
Max. working press.: 300kPa
Max. working temp.: 100



**BI-METAL DISC THERMOSTATS** 



ELECTRONIC EXPANSION VALVES Max. working press.: 15MPa Cv value: 0.065 to 0.17



SOLENOID VALVES Max. working press.: 13 to 15MPa Cv value: 0.028 to 0.54



SMALL PRESSURE CONTROLS Setting: on 10 off 15MPa Max. working press.: 15MPa Press. connections: 1/4" solder



PRESSURE SENSORS Range: 0 to 15MPa Supply voltage: 5V.DC Press. connections: 6

# CONSTRUCTION MACHINERY AND HYDRAULICS, VEHICLES, SHIP



ELECTRONIC 2-STEP/4-STEP THERMOSTATS Range: -30 to 60



UNIT OF VISCOSITY CONTROL



PRESSURE CONTROLS (WATER PROOF MODELS) Range: -0.06 to 3.5MPa



TEMPERATURE CONTROLS (WATER PROOF MODELS) Range: -45 to 150

SAGINOMIYA, founded in 1948, is a leading maunfacturer of a wide range of high quality, energy-saving Automatic Controls for Refrigeration, Cooling, Heating, Air conditioning equipment and Hot Water Supply systems. We have much experience in supplying both the domestic and overseas markets with our full line of Automatic Controls.

SAGINOMIYA produces Pressure Controls, various kinds of Thermostats, Flow Switches, Expansion Valves, Solenoid Valves, Valves in General, Metal Bellows and Testing Machine. To keep SAGINOMIYA a front runner in modern day technology, we are making a substantial investment and extensive research in developing a new line of Electronic Controls to meet today's demands.



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#### **NOTES FOR SAFETY**

Failure to read and follow all instruction carefully before installing or operating the product could cause personal injury and/or property damage.

Specifications are subject to change without notice.



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