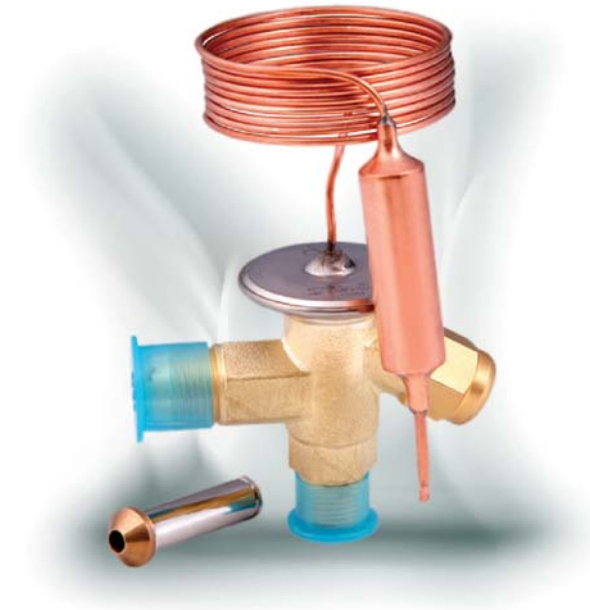


# SANHUA *RFKA SERIES*



## Thermostatic Expansion Valve

RFKA series thermostatic expansion valves are used to adjust mass flow of refrigerant into the evaporator while controlling the refrigerant's superheat at the outlet of the evaporator. They can be used for various refrigerants under all working conditions. Typical applications are refrigeration systems like freezers, ice makers, dehumidifiers as well as air conditioners and heat pumps at various evaporation temperature ranges.



### FEATURES

- EXCHANGEABLE VALVE ORIFICE, EASY TO STOCK HOLDING, CONVENIENT FOR CAPACITY MATCH AND REPAIR
- THERMAL BULB UTILIZES CROSS CHARGE TECHNOLOGY, PROVIDING CONSISTENT SUPERHEAT DEGREE OVER THE WHOLE EVAPORATION TEMPERATURE RANGE
- VALVES WITH MOP FUNCTION CAN BE PROVIDED TO ASSURE RELIABLE COMPRESSOR OPERATION
- APPLICABLE IN A WIDE EVAPORATION TEMPERATURE RANGE
- RELIABLE AND CONSISTENT PERFORMANCE OF SUPERHEAT CONTROL

### GENERAL SPECIFICATIONS

- Applicable for all common HCFC and HFC refrigerants such as: R22, R134a, R404A, R407C, R507A ...
- Medium temperature TS min./max.: -40°C/+70°C
- Max. operating pressure PS: 2,1 ... 3,5 MPa (21 ... 35 bar)
- Installation position:
  - Preferably valve head upwards
  - Flow direction from inlet A to outlet B
- Certifications: UL/CSA and PED declaration

### TECHNICAL PARAMETERS

- RFKA series angle shape valve
- Inlet 3/8" flare connection
- Capillary tube length 1,5m
- Equalization port:
  - RFKA flare/flare type with 1/4" flare connection;
  - RFKA flare/solder type with 6mm solder connection



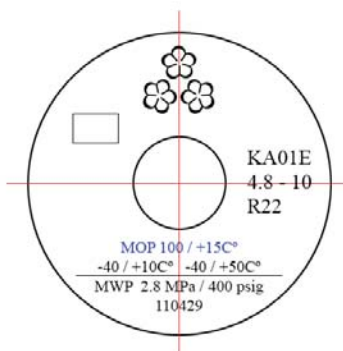
# SANHUA RFKA SERIES Thermostatic Expansion Valve

## MODEL DESIGNATION LEGEND

Position Number	Model Designation Legend	
1	Product Code	Product Series
	RFKA	Thermostatic expansion valve
2	Refrigerant	Description
	01	R22
	02	R407C
	03	R404A / R507A
3	04	R134a
	Pressure Equalization	Description
	E	External pressure equalization
	(Omitted)	Internal pressure equalization
4	Miscellaneous	Description
	xxxx	Digits for additional information

## MODEL DESIGNATION EXAMPLE

Position Number				According to Model Designation Legend
1	2	3	4	
<b>RFKA</b>	01	E	xxxx	Thermostatic expansion valve
RFKA	<b>01</b>	E	xxxx	Refrigerant R22
RFKA	01	<b>E</b>	xxxx	Connection for external pressure equalization
RFKA	01	E	<b>xxxx</b>	Digits for additional information





# SANHUA RFKA SERIES

## Thermostatic Expansion Valve

### TECHNICAL PARAMETERS

Ref. PS [MPa]	Model Valve Body	Part Number <sup>1)</sup>	Connection type	Temp. Range <sup>2)</sup>	MOP <sup>3)</sup>	Inlet ØA	Outlet <sup>4)</sup> ØB			Ext. ØC	
			In / Out / Ext. Pressure Equal.	[°C]	[°C]	flare	Flare	Solder		Flare	Solder
						[inch]	[inch]	[mm]	[inch]	[inch]	
R22 2,8	RFKA01-4.8-22	RFK-24001	flare / flare	+10 to -40	-	3/8	1/2	-	-	-	-
	RFKA01E-4.8-13	RFK-24002	flare / flare / flare				1/2	-	-	1/4	-
	RFKA01-4.8-26	RFK-24003	flare / solder				-	12	-	-	-
	RFKA01E-4.8-06	RFK-24004	flare / solder / solder				-	12	-	-	6
	RFKA01-4.8-07	RFK-24005	flare / solder				-	-	1/2	-	-
	RFKA01E-4.8-08	RFK-24006	flare / solder / solder				-	-	1/2	-	1/4
R407C 2,8	RFKA02-5.2-24	RFK-24007	flare / flare	+10 to -40	-	3/8	1/2	-	-	-	-
	RFKA02E-5.2-20	RFK-24008	flare / flare / flare				1/2	-	-	1/4	-
	RFKA02-5.2-27	RFK-24009	flare / solder				-	12	-	-	-
	RFKA02E-5.2-28	RFK-24010	flare / solder / solder				-	12	-	-	6
	RFKA02-5.2-32	RFK-24011	flare / solder				-	-	1/2	-	-
	RFKA02E-5.2-18	RFK-24012	flare / solder / solder				-	-	1/2	-	1/4
R404A / R507A 3,5	RFKA03-3.4-21	RFK-24013	flare / flare	+10 to -40	-	3/8	1/2	-	-	-	-
	RFKA03E-3.4-15	RFK-24014	flare / flare / flare				1/2	-	-	1/4	-
	RFKA03-3.4-03	RFK-24015	flare / solder				-	12	-	-	-
	RFKA03E-3.4-02	RFK-24016	flare / solder / solder				-	12	-	-	6
	RFKA03-3.4--09	RFK-24017	flare / solder				-	-	1/2	-	-
	RFKA03E-3.4-10	RFK-24018	flare / solder / solder				-	-	1/2	-	1/4
R134a 2,1	RFKA04-4.0-23	RFK-24019	flare / flare	+10 to -40	-	3/8	1/2	-	-	-	-
	RFKA04E-4.0-19	RFK-24020	flare / flare / flare				1/2	-	-	1/4	-
	RFKA04-4.0-29	RFK-24021	flare / solder				-	12	-	-	-
	RFKA04E-4.0-17	RFK-24022	flare / solder / solder				-	12	-	-	6
	RFKA04-4.0-30	RFK-24023	flare / solder				-	-	1/2	-	-
	RFKA04E-4.0-31	RFK-24024	flare / solder / solder				-	-	1/2	-	1/4

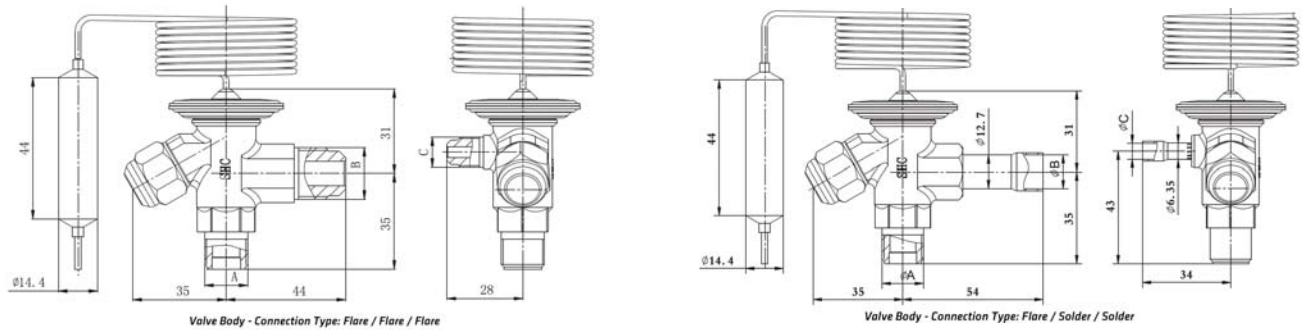
**Note:**

- 1) Extent of delivery: valve body and bulb strap
- 2) Different evaporation temperature range on request
- 3) MOP function on request



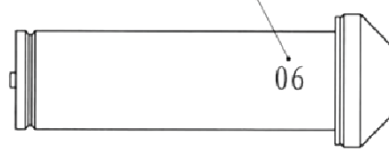
# SANHUA RFKA SERIES Thermostatic Expansion Valve

## DIMENSIONS



## ACCESSORIES

Orifice Number



## ORIFICE

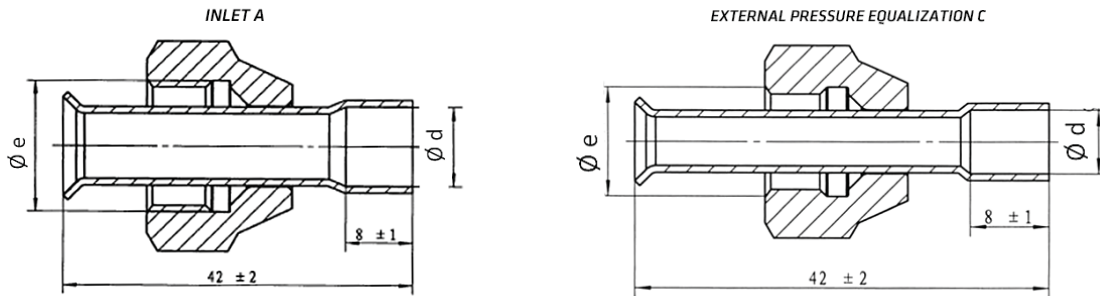
Orifice Number	Nominal Capacity <sup>1)</sup> [ kW ]				Valve Orifice Model	Valve Orifice Part Number
	R22	R407C <sup>2)</sup>	R404A / R507A	R134a		
0X	0,5	0,5	0,35	0,33	RFKA-023-0X	RFK-24036
0	1,1	1,1	0,7	0,68	RFKA-023-00	RFK-24037
1	2,5	2,7	1,7	1,6	RFKA-023-01	RFK-24038
2	3,5	3,9	2,4	2,2	RFKA-023-02	RFK-24039
3	5,6	6,3	3,9	3,5	RFKA-023-03	RFK-24040
4	8,1	8,8	5,6	4,9	RFKA-023-04	RFK-24041
5	10,6	11,3	7,4	6,7	RFKA-023-05	RFK-24042
6	16,9	18,3	12	10,6	RFKA-023-06	RFK-24043

### Note:

- 1) Nominal working conditions: Condensing temperature: 38°C; evaporating temperature 5°C; subcooling 4K; operational superheat 4K
- 2) R407C data based on dew point conditions



# SANHUA Rfka SERIES Thermostatic Expansion Valve



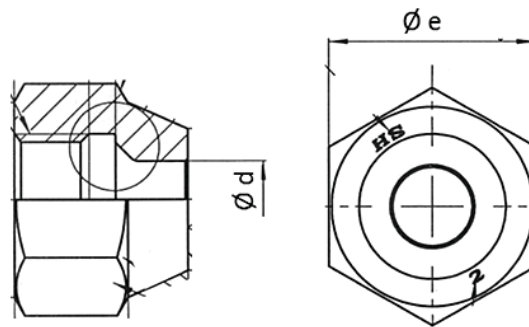
## SOLDER ADAPTERS FOR Rfka INLET A

Model	Part Number	SAE Flare Ø e	Solder Connection Ø d
RFKA-038-01	RFK-24044	3/8"	3/8"
RFKA-038-02	RFK-24045		10mm
RFKA-038-05	RFK-24048		1/4"
RFKA-038-06	RFK-24049		6mm

## SOLDER ADAPTERS FOR Rfka EXTERNAL PRESSURE EQUALIZATION C

Model	Part Number	SAE Flare Ø e	Solder Connection Ø d
RFKA-038-03	RFK-24046	1/4"	6mm
RFKA-038-04	RFK-24047		1/4"

## FLARE NUTS FOR Rfka



Model	Part Number	SAE Flare	Pipe Diameter Ø d		Wrench Size Ø e
		[inch]	[mm]	[inch]	[mm]
ZZ4-0107721	RFK-24050	1/4	6	1/4	17
ZZ4-0107723	RFK-24051	3/8	-	3/8	22
ZZ4-0107724	RFK-24052	1/2	12	1/2	24