OFFENWANGER
fluid components

Refrigerating

2/2-way Solenoid Valves

with soldering connection for tubes D 1/4" and 3/8"

Permissible media:	R22, R134A, R404A, R407C, R410A, R507
Operating pressure:	0 - 30 bar
Life span:	min. 20 mio switchings
Ambient temperature:	-40 to +70°C
Media temperature:	-40 to +150°C
Material:	Brass, stainless steel, PTFE, EPDM
Magnetic capacity:	6 Watt
Coil Connector:	DIN 43650 A PG9
Coil Protection:	IP65 with connector

Connection Tube-D	KV [1]	Weight	Article Number (Solenoid valve incl. coil and connector) normally closed	normally open
1/4"	0,3	0,20 kg	*VAI50(*)*	*VAI53(*)*
3/8"	0,4	0,24 kg	*VAJ50(*)*	*VAJ53(*)*

Series: VA50

1) The KV-Value is the water flow in m/h^3, at pressure drop across the valve of 1 bar.

(*) Voltage code: 0 = without coil
1 = 230V DC/AC
2 = 024V DC/AC
4 = 012V DC/AC
5 = 110V DC/AC

The voltage code is the end number of the valve article number. (e.g.: VAJ501)

FEATURES

- **low noise switching**
- **high switching frequency**
- **compact design**
- **low energy consumption**

Connection Tube-D	Nominal Refrigeration Capacity (KW) [2]											
	Liquid				Suction Steam				Hot Gas			
	R22	R404A R507	R134A	R407C	R22	R404A R507	R134A	R407C	R22	R404A R507	R134A	R407C
1/4"	6	4,17	5,6	5,7					2,8	2,3	2,2	2,94
3/8"	8	5,56	7,4	7,6					3,7	3,05	2,93	3,9

[2] The nominal liquid and suction steam capacity is based on the evaporation temperature t_0 = -10°C liquid temperature ahead the valve t_v = +25°C and Dp = 0,15 bar.

The nominal hot gas capacity is based on the liquefying temperature t_k = +40°C,pressure drop across the Valve Dp = 0,8 bar, hot gas t_h = +65°C and subcooling of refrigerant liquid Dt_u = 4 K.

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Refrigerating

2/2-way Solenoid Valves

with flare connection for tubes D 1/4" - 7/8"

Permissible media:	R22, R134A, R404A, R407C, R410A, R507
Operating pressure:	0,05 - 30 bar
Life span:	min. 20 mio. switchings
Ambient temperature:	-40 to +70°C
Media temperature:	-40 to +150°C
Material:	Brass, stainless steel, PTFE, EPDM
Magnetic capacity:	6 Watt
Coil Connector:	DIN 43650 A PG9
Coil Protection:	IP65 with connector

Connection Tube-D	KV [1]	Weight	Article Number (Solenoid valve incl. coil and connector) normally closed	normally open
1/4"	0,3	0,23 kg	***VBI10(*)***	***VBI13(*)***
3/8"	0,9	0,34 kg	***VBJ10(*)***	***VBJ13(*)***
1/2"	1,9	0,36 kg	***VBK10(*)***	***VBK13(*)***
5/8"	2,4	0,38 kg	***VBL10(*)***	***VBL13(*)***
7/8"	2,8	0,41 kg	***VBM10(*)***	***VBM13(*)***

1) The KV-Value is the water flow in m/h^3, at pressure drop across the valve of 1 bar.

(*) Voltage code: 0 = without coil
1 = 230V DC/AC
2 = 024V DC/AC
4 = 012V DC/AC
5 = 110V DC/AC

The voltage code is the end number of the valve article number. (e.g.: VBJ101)

Series: VB10

FEATURES

- **low noise switching**
- **high switching frequency**
- **compact design**
- **low energy consumption**

Connection Tube-D	Nominal Refrigeration Capacity (KW) [2]											
	Liquid				Suction Steam				Hot Gas			
	R22	R404A R507	R134A	R407C	R22	R404A R507	R134A	R407C	R22	R404A R507	R134A	R407C
1/4"	6	4,17	5,6	5,7					2,8	2,3	2,2	2,94
3/8"	18	12,5	16,7	17,1	2,0	1,8	1,5	1,85	8,3	6,8	6,6	8,7
1/2"	38	26,4	35,3	36,1	4,3	3,9	3,2	4,0	17,5	14,3	13,9	18,4
5/8"	48	33,4	44,6	45,6	5,4	4,9	4,0	5,0	22,1	18,0	17,6	23,2
7/8"	56	38,9	52,1	53,2	6,3	5,7	4,6	5,85	25,8	21,0	20,5	27,1

2) The nominal liquid and suction steam capacity is based on the evaporation temperature t_0 = -10°C liquid temperature ahead the valve t_v = +25°C and Dp = 0,15 bar.

The nominal hot gas capacity is based on the liquefying temperature t_k = +40°C,pressure drop across the Valve Dp = 0,8 bar, hot gas t_h = +65°C and subcooling of refrigerant liquid D_{tu} = 4 K.

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Truck Refrigerating

2/2-way Solenoid Valves

with thread connection for tubes D 3/8" - 7/8"

Permissible media:	R22, R134A, R404A, R407C, R410A, R507
Operating pressure:	0,05 - 30 bar
Life span:	min. 20 mio. switchings
Ambient temperature:	-40 to +70°C
Media temperature:	-40 to +150°C
Material:	Brass, stainless steel, PTFE, EPDM
Magnetic capacity:	6 Watt
Coil Connector:	DIN 43650 A PG9
Coil Protection:	IP65 with connector

Connection Tube-D	KV [1]	Weight	Article Number (Solenoid valve incl. coil and connector) normally closed	normally open
3/8"	0,9	0,32 kg	***VBJ20(*)***	***VBJ23(*)***
1/2"	1,9	0,34 kg	***VBK20(*)***	***VBK23(*)***
5/8"	2,4	0,36 kg	***VBL20(*)***	***VBL23(*)***
7/8"	2,8	0,41 kg	***VBM20(*)***	***VBM23(*)***

Series: VB20

1) The KV-Value is the water flow in m/h^3, at pressure drop across the valve of 1 bar.

(*) Voltage code: 0 = without coil
1 = 230V DC/AC
2 = 024V DC/AC
4 = 012V DC/AC
5 = 110V DC/AC

The voltage code is the end number of the valve article number. (e.g.: VBK501)

FEATURES

- **low noise switching**
- **high switching frequency**
- **compact design**
- **low energy consumption**

Connection Tube-D	Nominal Refrigeration Capacity (KW) [2]											
	Liquid				Suction Steam				Hot Gas			
	R22	R404A R507	R134A	R407C	R22	R404A R507	R134A	R407C	R22	R404A R507	R134A	R407C
3/8"	18	12,5	16,7	17,1	2,0	1,8	1,5	1,85	8,3	6,8	6,6	8,7
1/2"	38	26,4	35,3	36,1	4,3	3,9	3,2	4,0	17,5	14,3	13,9	18,4
5/8"	48	33,4	44,6	45,6	5,4	4,9	4,0	5,0	22,1	18,0	17,6	23,2
7/8"	56	38,9	52,1	53,2	6,3	5,7	4,6	5,85	25,8	21,0	20,5	27,1

2) The nominal liquid and suction steam capacity is based on the evaporation temperature t_0 = -10°C liquid temperature ahead the valve t_v = +25°C and Dp = 0,15 bar.

The nominal hot gas capacity is based on the liquefying temperature t_k = +40°C,pressure drop across the Valve Dp = 0,8 bar, hot gas t_h = +65°C and subcooling of refrigerant liquid D_{tu} = 4 K.

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Refrigerating

2/2-way Solenoid Valves

with soldering connection for tubes D 1/4" - 7/8"

Permissible media:	R22, R134A, R404A, R407C, R410A, R507
Operating pressure:	0,05 - 30 bar
Life span:	min. 20 mio. switchings
Ambient temperature:	-40 to +70°C
Media temperature:	-40 to +150°C
Material:	Brass, stainless steel, PTFE, EPDM
Magnetic capacity:	6 Watt
Coil Connector:	DIN 43650 A PG9
Coil Protection:	IP65 with connector

Series: VB50

Connection Tube-D	KV [1]	Weight	Article Number (Solenoid valve incl. coil and connector) normally closed	normally open
1/4"	0,3	0,30 kg	***VBI50(*)***	***VBI53(*)***
3/8"	0,9	0,32 kg	***VBJ50(*)***	***VBJ53(*)***
1/2"	1,9	0,34 kg	***VBK50(*)***	***VBK53(*)***
5/8"	2,4	0,36 kg	***VBL50(*)***	***VBL53(*)***
7/8"	2,8	0,41 kg	***VBM50(*)***	***VBM53(*)***

1) The KV-Value is the water flow in m/h^3, at pressure drop across the valve of 1 bar.

(*) Voltage code: 0 = without coil
1 = 230V DC/AC
2 = 024V DC/AC
4 = 012V DC/AC
5 = 110V DC/AC

The voltage code is the end number of the valve article number. (e.g.: VBK501)

FEATURES

- **low noise switching**
- **high switching frequency**
- **compact design**
- **low energy consumption**

Connection Tube-D	Nominal Refrigeration Capacity (KW) [2]											
	Liquid				Suction Steam				Hot Gas			
	R22	R404A R507	R134A	R407C	R22	R404A R507	R134A	R407C	R22	R404A R507	R134A	R407C
1/4"	6	4,17	5,6	5,7					2,8	2,3	2,2	2,94
3/8"	18	12,5	16,7	17,1	2,0	1,8	1,5	1,85	8,3	6,8	6,6	8,7
1/2"	38	26,4	35,3	36,1	4,3	3,9	3,2	4,0	17,5	14,3	13,9	18,4
5/8"	48	33,4	44,6	45,6	5,4	4,9	4,0	5,0	22,1	18,0	17,6	23,2
7/8"	56	38,9	52,1	53,2	6,3	5,7	4,6	5,85	25,8	21,0	20,5	27,1

2) The nominal liquid and suction steam capacity is based on the evaporation temperature t_0 = -10°C liquid temperature ahead the valve t_v = +25°C and Dp = 0,15 bar.

The nominal hot gas capacity is based on the liquefying temperature t_k = +40°C,pressure drop across the Valve Dp = 0,8 bar, hot gas t_h = +65°C and subcooling of refrigerant liquid Dt_u = 4 K.

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Refrigerating

2/2-way Solenoid Valves

with soldering connection for tubes D 5/8" - 1 1/8"

Permissible media:	R22, R134A, R404A, R407C, R410A, R507
Operating pressure:	0,1 - 30 bar
Life span:	min. 20 mio. switchings
Ambient temperature:	-40 to +70°C
Media temperature:	-40 to +150°C
Material:	Brass, stainless steel, PTFE, EPDM
Magnetic capacity:	10 Watt
Coil Connector:	DIN 43650 A PG9
Coil Protection:	IP65 with connector

Connection Tube-D	KV [1]	Weight	Article Number (Solenoid valve incl. coil and connector) normally closed	normally open
5/8"	4,5	0,65 kg	***VCL50(*)***	***VCL53(*)***
7/8"	5,5	0,70 kg	***VCM50(*)***	***VCM53(*)***
1 1/8"	6,5	0,75 kg	***VCN50(*)***	***VCN53(*)***

Series: VC50

1) The KV-Value is the water flow in m/h^3, at pressure drop across the valve of 1 bar.

(*) Voltage code: 0 = without coil
1 = 230V DC/AC
2 = 024V DC/AC
4 = 012V DC/AC
5 = 110V DC/AC

The voltage code is the end number of the valve article number. (e.g.: VCM501)

FEATURES

- **low noise switching**
- **high switching frequency**
- **compact design**
- **low energy consumption**

Connection Tube-D	Nominal Refrigeration Capacity (KW) [2]											
	Liquid				Suction Steam				Hot Gas			
	R22	R404A R507	R134A	R407C	R22	R404A R507	R134A	R407C	R22	R404A R507	R134A	R407C
5/8"	90	62,55	83,7	85,5	9,9	9,0	7,2	9,45	41,4	33,8	32,9	43,5
7/8"	110	76,45	102,3	104,5	12,1	11,0	8,8	11,55	50,6	41,3	40,2	53,1
1 1/8"	130	90,35	120,9	123,5	14,3	13,0	10,4	13,65	59,8	48,8	47,5	62,8

2) The nominal liquid and suction steam capacity is based on the evaporation temperature t_0 = -10°C liquid temperature ahead the valve t_v = +25°C and Dp = 0,15 bar.

The nominal hot gas capacity is based on the liquefying temperature t_k = +40°C,pressure drop across the Valve Dp = 0,8 bar, hot gas t_h = +65°C and subcooling of refrigerant liquid Dt_u = 4 K.

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Refrigerating

2/2-way Solenoid Valves

with soldering connection for tubes D 1 1/8" - 1 5/8"

Permissible media:	R22, R134A, R404A, R407C, R410A, R507
Operating pressure:	0,2 - 30 bar
Life span:	min. 5 mio. switchings
Ambient temperature:	-40 to +70°C
Media temperature:	-40 to +150°C
Material:	Brass, stainless steel, PTFE, EPDM
Magnetic capacity:	10 Watt
Coil Connector:	DIN 43650 A PG9
Coil Protection:	IP65 with connector

Connection Tube-D	KV [1]	Weight	Article Number (Solenoid valve incl. coil and connector) normally closed	normally open
1 1/8"	12	0,95 kg	***VDN01(*)***	***VDN04(*)***
1 3/8"	13	1,10 kg	***VDO01(*)***	***VDO04(*)***
1 5/8"	14	1,25 kg	***VDP01(*)***	***VDP04(*)***

Series: VD01

1) The KV-Value is the water flow in m/h^3, at pressure drop across the valve of 1 bar.

(*) Voltage code: 0 = without coil
1 = 230V DC/AC
2 = 024V DC/AC
4 = 012V DC/AC
5 = 110V DC/AC

The voltage code is the end number of the valve article number. (e.g.: VDP011)

FEATURES

- **low noise switching**
- **high switching frequency**
- **compact design**
- **low energy consumption**

Connection Tube-D	Nominal Refrigeration Capacity (KW) [2]											
	Liquid				Suction Steam				Hot Gas			
	R22	R404A R507	R134A	R407C	R22	R404A R507	R134A	R407C	R22	R404A R507	R134A	R407C
1 1/8"	240	166,8	223,2	228	26,4	24	19,2	25,2	110,4	90,0	87,6	116,1
1 3/8"	260	180,7	241,8	247	28,6	26	20,8	27,3	119,6	97,5	94,9	125,7
1 5/8"	280	194,6	260.4	266	30,8	28	22,4	29,4	128,8	105,0	102,2	135,4

2) The nominal liquid and suction steam capacity is based on the evaporation temperature t_0 = -10°C liquid temperature ahead the valve t_v = +25°C and Dp = 0,15 bar.

The nominal hot gas capacity is based on the liquefying temperature t_k = +40°C,pressure drop across the Valve Dp = 0,8 bar, hot gas t_h = +65°C and subcooling of refrigerant liquid Dt_u = 4 K.

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