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03 Line Components

Alco Thermo®-Expansion Valves



Features

Alco Series T1

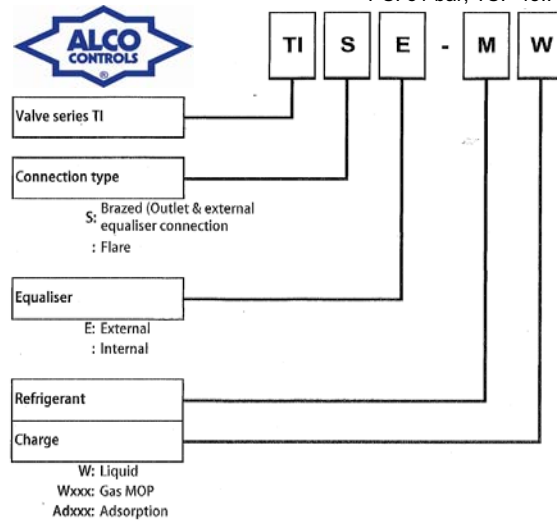


TISE



TIE

- A combination of valve bodies and cages enables the selection of 48 thermo expansion valves to cover a very wide range of applications.
- Very good stability is attained through the large forces generated by the diaphragms large diameter.
- With capacities ranging from 0.5kW to 19.5kW (R22), they are ideally suited for service work.
- Tailored charges for each application.
- Constant superheat across a wide application range.
- Capillary length 1.5m
- PS: 31 bar, TS: -45.. +65°C.



Model	Refrigerant	Equalisation	Evaporating Temperature Range °C	MOP (Valve Closed)	List Price £
TI-SW R404	R404A/R507	Internal	-45 to +20°C	-	20.19
TIE-SW R404	R404A/R507	External	-45 to +20°C	-	31.85
TIE-SW 75	R404A/R507	External	-45 to -3°C	0°C	30.39
TI-MW R134	R134a	Internal	-45 to +20°C	-	20.57
TIE-MW R134	R134a	External	-45 to +20°C	-	32.08
TI-HW R22	R22	Internal	-45 to +20°C	-	20.19
TIE-HW R22	R22	External	-45 to +20°C	-	31.31

Inlet: Flare 5/8"-18UNF for 6mm, 8mm, 10mm, 1/4", 5/16" and 3/8" tubes.

Outlet: Flare 3/4"-16UNF for 12mm and 1/2" tubes.

Note: Valve bodies do not come with Orifice or flare nuts



Model	Type	Nominal Capacity Q _n (kW)*				List Price £
		R134a	R22	R404A	R507	
TI ORIFICE-00	00X	0.3	0.5	0.4	0.4	7.31
TI ORIFICE-0	000	0.8	1.3	1.0	1.0	7.31
TI ORIFICE-1	001	1.9	3.2	2.3	2.3	7.31
TI ORIFICE-2	002	3.1	5.3	3.9	3.9	7.31
TI ORIFICE-3	003	5.0	8.5	6.2	6.2	7.31
TI ORIFICE-4	004	8.3	13.9	10.1	10.1	7.31
TI ORIFICE-5	005	10.1	16.9	12.3	12.3	7.31
TI ORIFICE-6	006	11.7	19.5	14.2	14.2	7.31

* Rated at +38°C condensing temperature, +4°C evaporating temperature and 1K liquid sub cooling at the inlet of the expansion valve.

Flare-Solder Adapters



Model	Size ODF	List Price £
X99982 1/4	1/4"	7.06
X99983 3/8	3/8"	7.06

Flare Nuts



Model	Size Inch SAE	List Price £
NS4-4	1/4"	0.56
NS4-6	3/8"	0.65
NS4-8	1/2"	0.77
NS4-10	5/8"	0.99

03 Line Components

Quick Selection Tables

A helpful guide for selecting the interchangeable cages. Capacity data selected at 1K sub cooling at the inlet of the expansion valve and 1.5 bar pressure drop in the refrigeration system. For accurate valve selection we recommend consulting Alco's brochure or contact our technical team to help with selection.

R134a

Condensing Temperature	Capacity kW Evaporating temperature °C										Cage size
	+10°C	+5°C	0°C	-5°C	-10°C	-15°C	-20°C	-25C	-30°C	-35C	
+50°C	0.29	0.29	0.30	0.30	0.30	0.26	0.22	0.19	0.16	0.14	TI-00
	0.76	0.78	0.79	0.79	0.79	0.68	0.59	0.50	0.43	0.36	TI-0
	1.81	1.85	1.87	1.88	1.87	1.63	1.39	1.20	1.01	0.86	TI-1
	2.96	3.02	3.05	3.07	3.06	2.65	2.27	1.95	1.66	1.41	TI-2
	4.77	4.89	4.92	4.94	4.93	4.28	3.66	3.15	2.67	2.27	TI-3
	7.93	8.08	8.17	8.21	8.19	7.10	6.08	5.23	4.43	3.77	TI-4
	9.64	9.84	9.95	9.99	9.97	8.64	7.40	6.36	5.39	4.59	TI-5
	11.17	11.40	11.52	11.57	11.55	10.01	8.57	7.37	6.25	5.32	TI-6
+40°C	0.25	0.26	0.27	0.28	0.28	0.25	0.21	0.18	0.16	0.14	TI-00
	0.67	0.70	0.73	0.74	0.75	0.66	0.57	0.49	0.42	0.36	TI-0
	1.60	1.67	1.73	1.76	1.78	1.56	1.35	1.17	1.00	0.86	TI-1
	2.60	2.73	2.82	2.88	2.91	2.55	2.20	1.91	1.63	1.40	TI-2
	4.20	4.40	4.55	4.64	4.69	4.11	3.56	3.08	2.63	2.26	TI-3
	6.97	7.31	7.55	7.70	7.79	6.83	5.90	5.12	4.37	3.75	TI-4
	8.48	8.90	9.19	9.38	9.48	8.31	7.18	6.23	5.32	4.56	TI-5
	9.83	10.31	10.64	10.86	10.98	9.63	8.32	7.22	6.16	5.28	TI-6

R404A

Condensing Temperature	Capacity kW Evaporating temperature °C										Cage size
	+10°C	+5°C	0°C	-5°C	-10°C	-15°C	-20°C	-25C	-30°C	-35C	
+50°C	0.34	0.35	0.35	0.35	0.34	0.30	0.25	0.22	0.18	0.15	TI-00
	0.88	0.89	0.89	0.89	0.88	0.77	0.65	0.56	0.47	0.39	TI-0
	2.04	2.07	2.08	2.07	2.05	1.80	1.53	1.30	1.10	0.92	TI-1
	3.50	3.55	3.57	3.55	3.52	3.08	2.62	2.24	1.88	1.58	TI-2
	5.54	5.62	5.65	5.63	5.57	4.88	4.14	3.54	2.98	2.50	TI-3
	9.05	9.17	9.21	9.18	9.09	7.96	6.76	5.78	4.86	4.07	TI-4
	10.99	11.15	11.20	11.16	11.04	9.67	8.22	7.02	5.90	4.95	TI-5
	12.74	12.92	12.98	12.93	12.80	11.21	9.53	8.13	6.84	5.74	TI-6
+40°C	0.34	0.35	0.36	0.37	0.37	0.33	0.28	0.24	0.21	0.18	TI-00
	0.87	0.91	0.93	0.95	0.95	0.84	0.73	0.63	0.54	0.46	TI-0
	2.04	2.12	2.18	2.21	2.22	1.97	1.70	1.47	1.25	1.06	TI-1
	3.49	3.64	3.73	3.78	3.80	3.38	2.91	2.52	2.14	1.82	TI-2
	5.53	5.76	5.91	5.99	6.02	5.35	4.61	3.99	3.39	2.88	TI-3
	9.02	9.40	9.64	9.78	9.83	8.73	7.52	6.50	5.54	4.70	TI-4
	10.96	11.42	11.71	11.88	11.94	10.61	9.14	7.90	6.73	5.71	TI-5
	12.71	13.32	13.58	13.77	13.84	12.30	10.59	9.16	7.80	6.62	TI-6

A helpful guide for selecting the interchangeable cages. Capacity data selected at 1K sub cooling at the inlet of the expansion valve and 1.5 bar pressure drop in the refrigeration system. For accurate valve selection we recommend consulting Alco's brochure or contact our technical team to help with selection.

R22

Condensing Temperature	Capacity (kW) Evaporating temperature °C										Cage size
	+10°C	+5°C	0°C	-5°C	-10°C	-15°C	-20°C	-25C	-30°C	-35C	
+50°C	0.50	0.51	0.52	0.53	0.53	0.46	0.41	0.35	0.30	0.26	TI-00
	1.29	1.33	1.35	1.38	1.36	1.20	1.05	0.91	0.78	0.66	TI-0
	3.16	3.26	3.32	3.39	3.33	2.95	2.58	2.24	1.91	1.62	TI-1
	5.29	4.47	5.56	5.67	5.57	4.95	4.32	3.75	3.20	2.72	TI-2
	8.42	8.70	8.85	9.03	8.87	7.88	6.87	5.97	5.10	4.34	TI-3
	13.79	14.26	14.50	14.80	14.53	12.90	11.26	9.79	8.35	7.10	TI-4
	16.81	17.37	17.67	18.03	17.70	15.72	13.72	11.93	10.18	8.66	TI-5
19.38	20.04	20.38	20.79	20.42	18.14	15.82	13.76	11.74	9.98	TI-6	
+40°C	0.44	0.46	0.48	0.50	0.49	0.44	0.39	0.34	0.29	0.25	TI-00
	1.14	1.20	1.25	1.29	1.27	1.15	1.01	0.88	0.75	0.64	TI-0
	2.78	2.94	3.07	3.17	3.12	2.82	2.47	2.16	1.85	1.58	TI-1
	4.66	4.92	5.13	5.30	5.23	4.73	4.14	3.62	3.10	2.65	TI-2
	7.42	7.84	8.18	8.44	8.33	7.53	6.59	5.76	4.94	4.23	TI-3
	12.16	12.85	13.39	13.83	13.65	12.33	10.79	9.44	8.10	6.92	TI-4
	14.82	15.65	16.32	16.85	16.63	15.03	13.15	11.50	9.87	8.44	TI-5
17.09	18.05	18.82	19.43	19.18	17.33	15.17	13.26	11.38	9.73	TI-6	

R507

Condensing Temperature	Capacity (kW) Evaporating temperature °C										Cage size
	+10°C	+5°C	0°C	-5°C	-10°C	-15°C	-20°C	-25C	-30°C	-35C	
+50°C	0.36	0.37	0.37	0.37	0.37	0.32	0.27	0.23	0.19	0.16	TI-00
	0.91	0.92	0.93	0.93	0.92	0.80	0.68	0.58	0.49	0.40	TI-0
	2.09	2.12	2.13	2.13	2.11	1.83	1.57	1.33	1.12	0.92	TI-1
	3.54	3.59	3.62	3.61	3.58	3.10	2.66	2.26	1.89	1.57	TI-2
	5.63	5.71	5.75	5.74	5.69	4.93	4.23	3.59	3.01	2.49	TI-3
	9.17	9.31	9.36	9.35	9.28	8.04	6.88	5.85	4.90	4.06	TI-4
	11.16	11.33	11.40	11.39	11.30	9.79	8.38	7.12	5.97	4.94	TI-5
12.89	13.08	13.16	13.15	13.04	11.31	9.68	8.22	6.89	5.70	TI-6	
+40°C	0.36	0.37	0.38	0.39	0.39	0.34	0.30	0.26	0.22	0.18	TI-00
	0.89	0.93	0.96	0.97	0.98	0.86	0.75	0.64	0.54	0.46	TI-0
	2.05	2.14	2.20	2.23	2.25	1.98	1.71	1.47	1.25	1.05	TI-1
	3.48	3.63	3.73	3.79	3.82	3.35	2.91	2.50	2.12	1.78	TI-2
	5.54	5.77	5.93	6.02	6.07	5.33	4.62	3.97	3.37	2.82	TI-3
	9.02	9.40	9.66	9.81	9.88	8.68	7.53	6.47	5.49	4.60	TI-4
	10.99	11.45	11.76	11.95	12.04	10.57	9.17	7.88	6.68	5.60	TI-5
12.68	13.22	13.58	13.79	13.90	12.20	10.59	9.10	7.72	6.46	TI-6	

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03 Line Components

Solenoid Valves & Coils



Features

Compact size, snap-on clip for attaching solenoid coils and no disassembly required for soldering.



Model	Type	Connections Inch ODF		Port Diameter (mm)	List Price £
110RB2-T2	Valve	1/4	Solder	3mm	19.48
110RB2-T3	Valve	3/8	Solder	3mm	19.48
200RB3-T3	Valve	3/8	Solder	6mm	28.10
200RB4-T4*	Valve	1/2	Solder	6mm	30.21
200RB6-T4*	Valve	1/2	Solder	10mm	39.83
200RB6-T5*	Valve	5/8	solder	10mm	39.83

*Not always available ex-stock, please ring for availability



Model	Type	Voltage	Power Input (W)	IP Rating	Electrical Connection	List Price £
ASC 24	Coil	24VAC	8	IP65		14.76
ASC 120V 50/60HZ	Coil	120VAC	8	IP65	Quick fit Plug	14.76
ASC 230V 50HZ	Coil	230VAC	8	IP65		14.98



Model	Type	Cable Length (m)	List Price £
PS3 SOCKET/GLAND	IP65 Plug and cable gland	None	2.46

Type	Nominal Capacity Qn (kW)							kv-Value m3/h	Dp min bar
	Liquid			Hot Gas					
	R134a	R22	R404A R507	R134a	R22	R404A R507			
110RB2	3.50	3.80	2.50	1.60	2.00	1.70	0.20	0.00	
200RB3	6.60	7.10	4.60	3.00	3.70	3.20	0.40	0.05	
200RB4	15.50	16.80	10.90	7.10	8.80	7.50	0.90	0.05	
200RB6	27.30	29.50	28.90	12.50	15.40	13.10	1.60	0.05	

Nominal capacities at +38°C condensing temperature, +4°C evaporating temperature, 0.15 bar pressure drop between valve inlet and outlet in liquid applications

(for hot gas applications 1 bar pressure drop and +18°C suction gas temperature); subcooling 1K.

For other conditions see Alco brochure or contact the Hawco technical team for assistance.

ZHONGBAO

Suitable for R22, R134a, R404A and R407C

FDF6A OEM Solenoid Valve & coil



Model	Type	Power Input	Connection	List Price £
FDF6A	Complete	230VAC	1/4" Solder	12.54
FDF6A 115V	Complete	120VAC	1/4" Solder	12.54

Specifications

Product No.	Type	Flow rate	Max. operating Pressure difference	Tube connection size
FDF6A	Off	≥371L/min	2.25MPa	Ø 8mm

Coil voltage	AC230V, AC220V, AC110V
Voltage range	85%~110%
Frequency	50/60Hz
Suitable refrigerant	R12, R22, R134A, R404A, R407C & R410A
Medium temperature:	-20°C to +120°C
Environmental temperature:	-20°C to +55°C
Maximum working pressure	3.0MPa
FDF6A interior leak	≤500ml/min(Pressure difference 0.2MPa)
Air life-time	100,000 times
Temperature rise	Less than 65°C

Solenoid Service Tools



SVOM-15



X11981-1

Model	Specification	List Price £
SVOM-15	Stem sizes upto 25mm	13.75
X11981-1	Alco service tool for 110RB, 240RA, 540RA, 3031	2.56

Liquid Receivers



Our range of liquid receivers are available as a selection of vertical or horizontal mounting. All are manufactured with materials and processes in accordance with the PED 97/23/ec directive.



Model	Description	List Price £
VLR.077.220.0	Vertical liquid receiver, 0.88ltr capacity, 220mm (excl. valve) x Ø77mm. 1/4" inlet, 1/4" rotalock outlet	17.17
VLR.100.200.0	Vertical liquid receiver, 1.2ltr capacity, 200mm (excl. valve) x Ø100mm.	20.00
VLR.120.250.0	Vertical liquid receiver, 2.3ltr capacity, 250mm (excl. valve) x Ø120mm. 10mm inlet, 3/8" rotalock outlet	25.70
HLR.120.243.0	Horizontal liquid receiver, 2.3ltr capacity, 233mm x Ø120mm. 3/8" CU stub inlet, 3/8" CU stub outlet	20.00
HLR.130.353.0	Horizontal liquid receiver, 3.9ltr capacity, 353mm x Ø130mm. 3/8" CU stub inlet, 3/8" CU stub outlet.	32.00

03 Line Components

Alco Pressure Regulators, Switches & Capillary Couplers

Alco Single Pressure Control PS1



Model	Reset	Type	Adjustable Range		Lowest Setpoint (bar)	Factory Setting (bar)	Leakage Test Pressure (bar)	Pressure Connection	List Price £
			Upper Setpoint (bar)	Differential Setpoint (bar)					
PS1-A3A	Auto	LP	-0.5.. 7.0	0.5.. 5.0	-0.9	3.5 / 4.5	25	7/16"-20UNF	24.07
PS1-A5A*	Auto	HP	6.. 31	2.. 15	3.0	16 / 20	36	7/16"-20UNF	25.84
PS1-R5A*	Manual	HP	6.. 31	Ext. Manual reset low pressure ca. 3 bar fix	-	20	36	7/16"-20UNF	25.79

*Not always available ex-stock, please ring for availability

Alco Dual Pressure Switches



Model	Reset LP/HP	Adjustable Range		Differential		Factory Setting		Leakage Test Pressure		Pressure Connection	List Price £
		Upper Setpoint Left bar	Upper Setpoint Right bar	Left bar	Right bar	Left bar	Right bar	Left bar	Right bar		
PS2-A7A	Auto/Auto	-0.5.. 7	6.. 31	0.5 ¹ .. 5	ca. 4 fix	3.5 / 4.5	20	25	36	7/16"-20UNF	32.39
PS2-A7K	Auto/Auto	-0.5.. 7	6.. 31	0.5 ¹ .. 5	ca. 4 fix	3.5 / 4.5	20	25	36	Capillary/Nut	38.56
PS2-L7A	Auto/Manual	-0.5.. 7	6.. 31	0.5 ¹ .. 5	Ext Reset	3.5 / 4.5	20	25	36	7/16"-20UNF	36.38
PS2-L7K	Auto/Manual	-0.5.. 7	6.. 31	0.5 ¹ .. 5	Ext Reset	3.5 / 4.5	20	25	36	Capillary/Nut	40.16

¹ lowest possible setpoint: -0.9 bar

Capillary Couplers



TCK-***V: Complete with depressor

Model	Description	Dimensions	List Price £
TCK-500	Copper Capillary Coupler	500mm x 1.5mm ID, 3.0mm OD. 1/4" Connection	2.95
TCK-500V	Copper Capillary Coupler	500mm x 1.5mm ID, 3.0mm OD. 1/4" Connection	4.00
TCK-1000	Copper Capillary Coupler	1000mm x 1.5mm ID, 3.0mm OD. 1/4" Connection	3.90
TCK-1000V	Copper Capillary Coupler	1000mm x 1.5mm ID, 3.0mm OD. 1/4" Connection	4.38

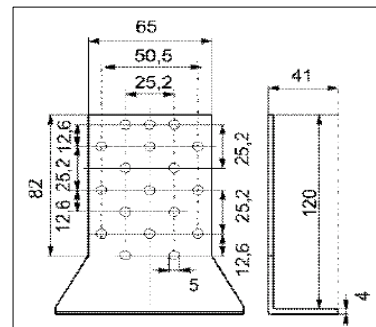
Pressure Switch Mounting Bracket



Model	Description	List Price £
PS BRACKET A	Universal Mounting Bracket	1.61

Dimensions

L shaped - 120mm(h) x 65mm(w) x 41mm(d)





Alco Standard Pressure Switch PS3

Model	Reset	Cut Out	Cut In	Max Temperature		Leakage Test Pressure (bar)	Pressure Connection	List Price £
				Ambient	Pressure Connection			
<i>LP protection EN12263</i>								
PS3-W1S 1.2	Auto	-0.3	1.2	+70	+150	48	7/16"-20UNF	16.05
PS3-W1S 1.8	Auto	0.3	1.8	+70	+150	48	7/16"-20UNF	16.05
PS3-W1S 3.5	Auto	2.0	3.5	+70	+150	48	7/16"-20UNF	16.05
<i>HP protection EN 12263</i>								
PS3-W6S 16/21	Auto	21	16	+70	+150	48	7/16"-20UNF	23.38
PS3-W6S 25	Auto	25	20	+70	+150	48	7/16"-20UNF	23.38
PS3 SOCKET/GLAND	Socket and cable gland to suit PS3 pressure switches							2.53



Senturion Standard Pressure Switch

Model	Reset	Contacts	Opens	Closes	Max Temperature		Leakage Test Pressure (bar)	Pressure Connection	List Price £
					Ambient	Pressure Connection			
PS-LP(-03)-05 SEN	Auto	NO	8" Hg	6 psi	+80	+135	6.9	1/4" SAE	12.75
<i>PS-LP03-15 SPC SEN</i>	Auto	NO	3 psi	15 psi	+80	+135	6.9	1/4" SAE	12.75
PS-LP05-20 SEN	Auto	NO	5 psi	20 psi	+80	+135	6.9	1/4" SAE	12.75
PS-LP05-20 SOLDER	Auto	NO	5 psi	20 psi	+80	+135	6.9	1/4" Solder	12.75
PS-LP10-25 SEN	Auto	NO	10 psi	25 psi	+80	+135	6.9	1/4" SAE	12.75
PS-LP10-25 SOLD SEN	Auto	NO	10 psi	25 psi	+80	+135	6.9	1/4" Solder	12.75
PS-LP25-50 SEN	Auto	NO	25 psi	50 psi	+80	+135	6.9	1/4" SAE	12.75
PS-LP150-190 SEN	Auto	NO	150 psi	190 psi	+80	+135	34.4	1/4" SAE	12.75
PS-LP190-250 SEN	Auto	NO	190 psi	250 psi	+80	+135	34.4	1/4" SAE	12.75
PS-HP250-150 SEN	Auto	NC	250 psi	150 psi	+80	+135	34.4	1/4" SAE	12.75
PS-HP300-200 SEN	Auto	NC	300 psi	200 psi	+80	+135	34.4	1/4" SAE	12.75
PS-HP350-250 SEN	Auto	NC	350 psi	250 psi	+80	+135	34.4	1/4" SAE	12.75
PS-HP400-300 SEN	Auto	NC	400 psi	300 psi	+80	+135	34.4	1/4" SAE	12.75
PS-HP400-300 SOLDER	Auto	NC	400 psi	300 psi	+80	+135	34.4	1/4" Solder	12.75
PS-HP350-M SEN	Manual	NC	350 psi	Manual	+80	+135	34.4	1/4" SAE	16.21
PS-HP410-M SEN	Manual	NC	410 psi	Manual	+80	+135	34.4	1/4" SAE	16.21
PS-HP410-M SOLDER	Manual	NC	410 psi	Manual	+80	+135	34.4	1/4" Solder	16.21

NO: Contactacts Normally open

NC: Contactacts Normally closed

Depressor: All 1/4" Female connections come with a deflator

Leads: All Auto-Reset have 18" leads, Manual-Reset have 48" leads

03 Line Components

Alco Liquid Line Filter Driers

Line Driers - Bead Style FDB Series



Features

- Compacted bead style (spring loaded)
- High water & acid capacity with final filtration of 40 micron
- Cushioned flow for non-turbulent performance
- ODF Copper fittings for easy soldering
- Rugged steel shell coated in corrosion resistant epoxy paint
- Temperature range TS: -40°C to +65°C
- Max. working pressure PS: FDB-03/05/08/16: 38 bar
FDB-30/41 : 34 bar
- No CE markings according art. 3.3 PED 97/23 EC
- HP marking according to German pressurized Vessel Directive



Nominal Flow Capacities (kW)

Model	Connection	at 0.14 bar pressure drop											List Price £
		R134a	R22	R407C	R404A		R134a	R22	R407C	R404A		R134a	
					R507	R410A				R507	R410A		
FDB-032	1/4" Flare	8.9	9.7	9.3	6.3	9.6	6.3	6.9	6.6	4.5	6.8		4.48
FDB-052	1/4" Flare	9.3	10.2	9.7	6.7	10.1	6.5	7.1	6.8	4.6	7.0		5.55
FDB-082	1/4" Flare	9.8	10.7	10.2	7.0	10.6	6.8	7.4	7.1	4.8	7.3		6.75
FDB-162	1/4" Flare	9.8	10.7	10.2	7.0	10.6	6.8	7.4	7.1	4.8	7.3		8.67
FDB-032S	1/4" Solder	13.7	15.0	14.3	9.8	14.8	9.7	10.6	10.1	6.9	10.5		4.48
FDB-052S	1/4" Solder	13.7	15.0	14.3	9.8	14.8	9.7	10.6	10.1	6.9	10.5		5.55
FDB-082S	1/4" Solder	14.2	15.5	14.8	10.1	15.3	9.9	10.8	10.3	7.0	10.7		6.75
FDB-053	3/8" Flare	22.2	24.2	23.1	15.8	23.9	15.5	16.9	16.1	11.0	16.7		5.55
FDB-083	3/8" Flare	22.6	24.7	23.6	16.1	24.4	15.8	17.2	16.4	11.2	17.0		6.75
FDB-163	3/8" Flare	23.1	25.2	24.0	16.4	24.9	16.2	17.7	16.9	11.5	17.5		8.20
FDB-303	3/8" Flare	25.7	28.1	26.8	18.3	27.7	18.0	19.7	18.8	12.8	19.4		14.18
FDB-053S	3/8" Solder	27.6	30.1	28.7	19.6	29.7	19.3	21.1	20.1	13.8	20.8		5.64
FDB-083S	3/8" Solder	28.4	31.0	29.6	20.2	30.6	19.8	21.6	20.6	14.1	21.3		9.12
FDB-163S	3/8" Solder	32.9	35.9	34.2	23.4	35.4	23.0	25.1	23.9	16.4	24.8		8.20
FDB-084	1/2" Flare	37.7	41.2	39.3	26.9	40.7	26.4	28.8	27.5	18.8	28.4		6.75
FDB-164	1/2" Flare	39.9	43.6	41.6	28.4	43.0	27.9	30.5	29.1	19.9	30.1		6.71
FDB-304	1/2" Flare	45.3	49.5	47.2	32.3	48.9	31.8	34.7	33.1	22.6	34.2		14.18
FDB-084S	1/2" Solder	40.4	44.1	42.1	28.8	43.5	28.3	30.9	29.5	20.1	30.5		6.75
FDB-164S	1/2" Solder	51.5	56.2	53.6	36.6	55.5	36.0	39.3	37.5	25.6	38.8		8.67

Model in *Italic* are not always available from stock. Please call the sales office for availability.

Water Adsorption Capacity

Model	Unit size	Water adsorption capacity (net) in grams										
		25°C liquid refrigerant					52°C liquid refrigerant					
		R134a	R22	R407C	R404A		R134a	R22	R407C	R404A		
					R507					R507		
FDB-03...	3	1.9	2.0	1.7	1.9		1.8	1.7	1.6	1.9		
FDB-05...	5	5.5	5.8	5.0	5.5		5.2	4.9	4.5	5.3		
FDB-08...	8	8.8	9.3	8.0	8.8		8.4	7.9	7.2	8.5		
FDB-30...	16	17.7	18.5	15.9	17.6		16.8	15.7	14.5	17.1		
FDB-41...	30	31.7	33.0	28.5	31.6		30.1	28.2	26.0	30.5		

The water capacities are according to ARI-Standard 710 for R22 and are based on a equilibrium point dryness (EPD) of 60 PPM water in refrigerant. ARI-Standard does not refer to the new alternative refrigerants.

The water capacities for new alternative refrigerants are based on the following EPD's

Refrigerant	R134a	R407C	R404A	R507
EPD	60 PPM	60 PPM	50 PPM	50 PPM



Features

- Robust block with optimum blend of molecular sieve and activated alumina
- ODF Copper fittings for easy soldering
- High water and acid capacity
- Filtration down to 25 micron
- Temperature range TS: -40°C to +65°C
- Max. working pressure PS: 43 bar
- No CE marking according art. 3.3 PED 97/23 EC
- HP marking according to German Pressurised Vessel Directive

Line Driers - ADK Plus Series



ADK 8 3 S

Series Unit Size (in cu. In.) Connection size (in 1/8") S = ODF connection



Nominal Flow Capacities (kW)

Model	Connection	at 0.14 bar pressure drop										List Price £
		R404A					R404A					
		R22	R134a	R507	R407C	R410A	R22	R134a	R507	R407C	R410A	
ADK-032	1/4" Flare	10.6	9.7	6.9	10.1	10.5	7.3	6.7	4.8	7.0	7.2	6.45
ADK-032S	1/4" Solder	12.9	11.8	8.4	12.3	12.7	8.8	8.1	5.7	8.4	8.7	6.45
ADK-052	1/4" Flare	11.0	10.1	7.2	10.5	10.9	7.6	6.9	4.9	7.2	7.5	7.41
ADK-052S	1/4" Solder	17.1	15.6	11.1	16.3	16.9	10.8	9.9	7.0	10.3	10.7	7.41
ADK-053	3/8" Flare	21.3	19.5	13.9	20.3	21.0	14.2	13.0	9.2	13.5	14.0	7.41
ADK-053S	3/8" Solder	24.1	22.1	15.7	23.0	23.8	16.4	15.0	10.7	15.6	16.1	7.41
ADK-082	1/4" Flare	11.3	10.4	7.4	10.8	11.2	7.8	7.1	5.1	7.4	7.7	9.19
ADK-082S	1/4" Solder	17.3	15.9	11.3	16.5	17.1	11.9	10.9	7.8	11.4	11.8	9.19
ADK-083	3/8" Flare	23.9	21.9	15.6	22.8	23.6	16.4	15.0	10.7	15.6	16.2	9.19
ADK-083S	3/8" Solder	24.1	22.1	15.7	23.0	23.8	16.4	15.0	10.7	15.7	16.2	9.19
ADK-084	1/2" Flare	39.1	35.8	35.5	37.3	38.6	25.7	23.5	16.7	24.5	25.3	9.19
ADK-084S	1/2" Solder	40.4	37.0	26.3	38.5	39.8	26.8	24.5	17.5	25.6	26.4	9.19
ADK-162	1/4" Flare	11.5	10.5	7.5	10.9	11.3	8.0	7.3	5.2	7.6	7.8	11.12
ADK-163	3/8" Flare	24.1	22.1	15.7	23.0	23.8	16.8	15.4	10.9	16.0	16.5	11.12
ADK-163S	3/8" Solder	26.8	24.5	17.5	25.6	26.5	18.7	17.2	12.2	17.9	18.5	11.12

Model in bold are not generally available from stock. Please call the sales office for availability.

Water Adsorption Capacity

Model	Unit size	Water adsorption capacity (net) in grams										Acid adsorption capacity (gram)
		24°C liquid refrigerant					52°C liquid refrigerant					
		R404A					R404A					
R22	R134a	R507	R407C	R410A	R22	R134a	R507	R407C	R410A			
ADK-03	3	4.5	4.9	4.9	3.4	2.8	4.0	4.4	4.6	2.9	2.4	0.8
ADK-05	5	10.8	11.8	11.8	8.2	6.8	9.6	10.6	10.9	7.0	5.8	2.3
ADK-08	8	16.4	17.9	18.0	12.4	14.6	16.2	16.2	16.6	10.7	8.8	3.3
ADK-16	16	21.0	23.0	23.1	16.0	13.2	18.8	20.8	21.3	13.8	11.4	4.5

Flow capacities are based on a 0.07 bar pressure drop, +30°C liquid temperature and -15°C evaporating temperature.

For selection at different operating conditions please call the sales office for correction factors.

03 Line Components

Bi-Flow Filter Driers



Line Driers - Bi-Flow BFK Series



Features

- Solid block style
- Integrated check valves insure Bi-flow capability, eliminate the need for external check valves and reduce the external piping
- ODF Copper fittings for easy soldering
- High water & acid capacity with final filtration of 40 micron
- Pattern flow for non-turbulent performance
- Rugged steel shell
- Temperature range TS: -40°C to +65°C
- Max. working pressure PS: 43 bar
- No CE markings according art. 3.3 PED 97/23 EC
- HP marking according to German pressurized Vessel Directive

Nominal Flow Capacities (kW)

Model	Connection	at 0.14 bar pressure drop											List Price £
		R134a	R22	R407C	R404A R507	R410A	R134a	R22	R407C	R404A R507	R410A		
BFK-052	1/4" Flare	5.2	5.7	5.6	5.4	3.7	8.0	8.8	8.4	5.7	8.7	POA	
BFK-052S	1/4" Solder	6.7	7.3	7.2	7.0	4.8	10.1	11.1	10.6	7.2	10.9	POA	
BFK-083	3/8" Flare	10.6	11.5	11.4	11.0	7.5	16.9	18.4	17.6	12.0	18.2	16.93	
BFK-163	3/8" Flare	13.6	14.9	14.7	14.2	9.7	21.0	22.9	21.8	14.9	22.6	POA	
BFK-083S	3/8" Solder	12.0	13.1	12.9	12.5	8.5	20.6	22.5	21.5	14.7	22.2	POA	
BFK-163S	3/8" Solder	15.5	16.9	16.7	16.1	11.0	23.8	26.0	24.8	17.0	25.7	POA	
BFK-084	1/2" Flare	15.2	16.6	16.4	15.8	10.8	25.8	28.1	26.8	18.3	27.8	POA	
BFK-164	1/2" Flare	20.3	22.1	21.9	21.1	14.4	27.5	30.0	28.6	19.6	29.6	POA	

Model in *Italic* are not always available from stock. Please call the sales office for availability.

The rated flow capacities are in accordance with ARI standard 710-86 and DIN 8949 at +30°C liquid temperature and -15°C evaporating temperature.

Water Adsorption Capacity

Model	Unit size	Water adsorption capacity (net) in grams										Acid adsorption capacity (gram)
		24°C liquid refrigerant					52°C liquid refrigerant					
		R134a	R22	R404A R507	R407C	R410A	R134a	R22	R404A R507	R407C	R410A	
BFK-05...	3	4.4	4.1	4.5	3.4	2.8	4.1	3.8	4.3	2.8	2.2	0.3
BFK-08...	5	9.6	9.0	9.9	7.5	6.2	8.9	8.2	9.4	6.0	4.7	0.6
BFK-16...	8	18.9	17.7	19.5	14.8	12.2	17.5	16.2	18.5	11.9	9.3	1.2

Burn Out Driers - Bi-Flow System Clean up



Heat Pump system clean up from Sporlan. With the Catch-All filter core.

Nominal Flow Capacities (kW)

Model	Connection	R22 at 0.07 bar pressure drop		List Price £
HPC-163-S-HH	3/8" Solder	13.03		36.55
HPC-164-S-HH	1/2" Solder	14.09		36.55
HPC-165-S-HH	5/8" Solder	17.25		37.28

APPLICATIONS:

Any air conditioning, heat pump or refrigeration application in which protection from liquid migration in the off cycle and protection from liquid slugging in the running mode is desired.

COMPATIBILITY:

- CFC, HCFC and HFC refrigerants.



Model	Description	List Price £
VA-304S	Virginia KMP accumulator. 210mm x Ø76mm. 1/2" connections. Liquid capacity 0.90kg	25.21

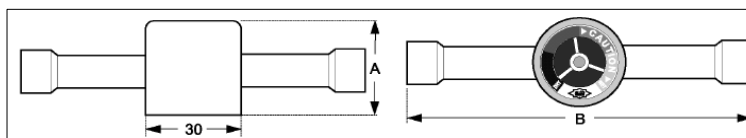
Moisture Indicators



Features

- Fully hermetic
- Corrosion free stainless steel body
- Crystal Indicator element for long lifetime and reliability
- Indication of dryness according to ASERCOM recommendation
 - Easy determination of moisture content
 - Sensitive indicator with calibrated four colours
 - Large clear viewing area
 - Lightweight (MIA-014 only 60g)
- ODF extended tube configurations suitable for all commercial applications
 - For R22, R407C, R134a, R404A, R507 and R410A together with mineral and POE oils
 - Max operating pressure PS: 43 bar

Model	Connection		Height A (mm)	Length B (mm)	Weight (g)	List Price £
MIA-014	1/4	Solder	25.5	98.0	60.0	8.60
MIA-038	3/8	Solder	35.5	109.0	80.0	8.97
MIA-012	1/2	Solder	35.5	113.0	90.0	9.52
MIA-058*	5/8	Solder	35.5	108.5	95.0	11.33
MIA-078*	7/8	Solder	35.5	122.5	170.0	13.79



Features

- First choice for R134a, R22, R404A, R507 and polyolester lubricants
- High accuracy of moisture indication according to ASERCOM recommendation
 - Fused glass - No leakage
 - Long lifetime of indicators by utilization of crystals
 - Indicator with high resistance against acid and water
 - Wide angle view exact distinction of vapour and liquid
 - Max. operating pressure PS: 31 bar



Model	Connection	Configuration	List Price £
AMI-1FM2	1/4	Female Flare x Male Flare	12.77
AMI-1FM3	3/8	Female Flare x Male Flare	15.02
AMI-1FM4*	1/2	Female Flare x Male Flare	17.95
AMI-1SS2*	1/4	Female Solder x Female Solder	12.90
AMI-1TT3*	3/8	Female Solder x Female Solder	16.74

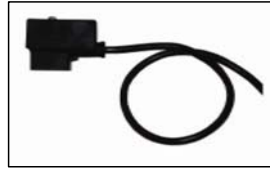
03 Line Components

Fan Speed Controllers & Ball Valves

Fan Speed Controllers

Features

- Pressure actuated fan speed control
- Adjustable pressure for Cut-off
- High voltage Triac (800 Volts)
- Integrated protection circuit against voltage peaks
- Compact Design
- IP65 protection
- Easy mounting and adjustment
- Easy retrofit into existing plants
- No additional gasket required (complete molded into plug)
- EMC-Filter included in connection FSF
- Multi position plug including 1.5m cable for flexible installation



Model	Pressure Range (bar)	Factory Setting (bar)	Max. operating pressure PS (bar)	Test Pressure PT (bar)	List Price £
FSX-42S	9.2 - 21.2	15	32	36	81.29
FSF-N15		1.5m Cable and Plug (Non UL)			16.40

Ball Valves

Features

- Hermetic design: Fully welded forged brass body
- Low leak rates below industry standard (Certificate on request)
- Compatible with new refrigerants/lubricants
- Full internal ports reduce line pressure drops to a minimum
- Bi-directional flow characteristics
- Valve stem cap retained by strap attached to main body
- Pressure relief port in cap
- Manufactured to approvals
- CE and UL Marking



Model	Connection		Kv m ³ /hr	List Price £
BVA-014	1/4	Solder	1.3	20.02
BVA-038	3/8	Solder	3.2	26.40
BVA-012	1/2	Solder	7.2	19.78
BVA-058	5/8	Solder	11.7	31.00
BVA-034	3/4	Solder	18.2	30.35
BVA-078	7/8	Solder	29.6	42.48

Technical Data

Maximum working pressure PS	31 bar
Burst pressure	172 bar
Medium temperature TS	-40°C to 150°C
Medium compatibility	CFC, HCFC and HFC
Oil compatibility	Mineral, Alkyl Benzene and Polyolester (POE) lubricants