

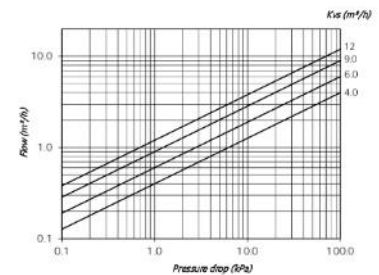
LK 820 ThermoVar



TECHNICAL DATA

Opening temperatures	45°C, 55°C, 61°C, 66°C, 72°C or 80°C
Working temperature, 45°C - 55°C	Min. +5°C / Max. +95°C
Working temperature, 61°C - 80°C	Min. +5°C / Max. +110°C
Ambient temperature	Min. +5°C / Max. +60°C
Max. working pressure	1.0 MPa (10 bar)
Max. pressure difference	50 kPa
Media	Water - Glycol mixture max. 50%
Thread standard Female/Male	Rp / G
Material, valve body/cover	Brass EN 12165 CW617N
Material, O-ring	EPDM

Capacity Diagram



LK 820 ThermoVar is a 3-way thermic loading valve for solid fuel/storage tank installations. The valve is intended to ensure both an optimal temperature stratification in the storage tank and a high return temperature to the boiler, thus increasing the efficiency of the system. Tarring and condensation are prevented which prolongs boiler life.

The valve can be mounted at any angle. LK 820 ThermoVar can easily be adapted for right- or left-hand mounting. The valve can be installed in three different positions. In the standard version the valve is intended for installation in position II. It can easily be adapted for installation in position I. For delivery of valves intended for installation in position III, please contact our Sales Department.

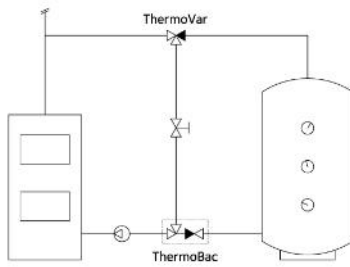
Position I

As soon as the boiler temperature has reached the selected opening temperature, the thermic valve allows hot water to load the storage tank. Return water from the storage tank is mixed with supply water before it circulates back into the boiler. The loading temperature is at least the selected opening temperature.

A balancing valve should be installed in the circuit between boiler and loading valve.

The installation should be equipped with an LK 822 ThermoBac check valve that prevents self-circulation from the storage tank to the boiler after the fire has gone out. In case of power failure or pump breakdown the check valve automatically opens for self-circulation.

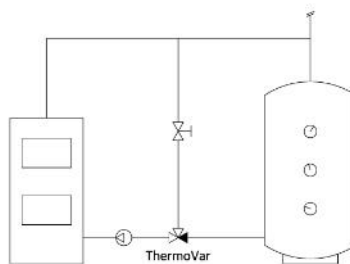
The circulating pump should be controlled by a thermostat that measures the boiler's water- or flue gas temperature.

Position I**Position II**

As soon as the boiler temperature has reached the selected opening temperature, the thermic valve allows return water from the storage tank to mix with supply water before it circulates back into the boiler. The return temperature is at least the selected opening temperature.

A balancing valve should be installed in the circuit between boiler and loading valve.

The circulating pump should be controlled by a thermostat that measures the boiler's water- or flue gas temperature.

Position II**Position III**

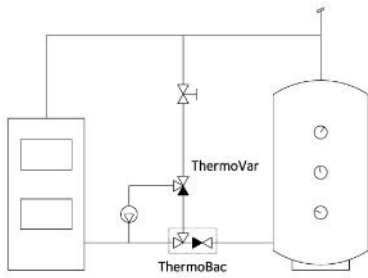
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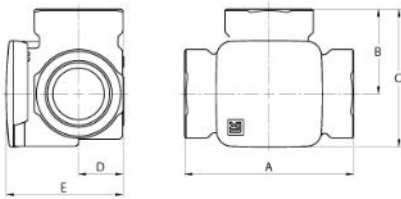
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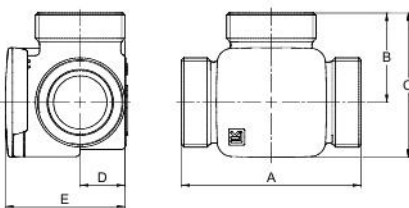
Position III



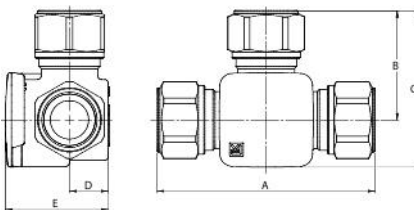
LK 820 - FEMALE THREAD



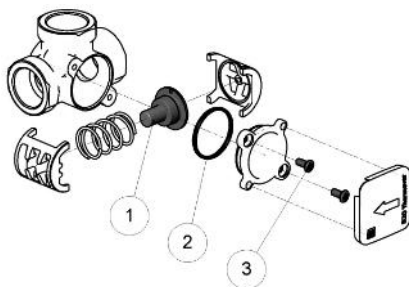
LK 820 - MALE THREAD



LK 820 - COMPRESSION FITTING



SPARE PARTS AND ACCESSORIES



Article number	Opening temperature	Dim.	Kvs m ³ /h	A mm	B mm	C mm	D mm	E mm	Weight kg
180491	45°C	F ½"	4.0	80	40	66	21	35	0.7
180492	45°C	F ¾"	6.0	80	40	66	21	35	0.7
180493	45°C	F 1"	9.0	82	41	67	21	35	0.7
180494	45°C	F 1¼"	12	84	42	68	24	39	0.8
180499	55°C	F ½"	4.0	80	40	66	21	35	0.7
180500	55°C	F ¾"	6.0	80	40	66	21	35	0.7
180501	55°C	F 1"	9.0	82	41	67	21	35	0.7
180502	55°C	F 1¼"	12	84	42	68	24	39	0.8
180507	61°C	F ½"	4.0	80	40	66	21	35	0.7
180508	61°C	F ¾"	6.0	80	40	66	21	35	0.7
180509	61°C	F 1"	9.0	82	41	67	21	35	0.7
180510	61°C	F 1¼"	12	84	42	68	24	39	0.8
180515	66°C	F ½"	4.0	80	40	66	21	35	0.7
180516	66°C	F ¾"	6.0	80	40	66	21	35	0.7
180517	66°C	F 1"	9.0	82	41	67	21	35	0.7
180518	66°C	F 1¼"	12	84	42	68	24	39	0.8
180523	72°C	F ½"	4.0	80	40	66	21	35	0.7
180524	72°C	F ¾"	6.0	80	40	66	21	35	0.7
180525	72°C	F 1"	9.0	82	41	67	21	35	0.7
180526	72°C	F 1¼"	12	84	42	68	24	39	0.8
180531	80°C	F ½"	4.0	80	40	66	21	35	0.7
180532	80°C	F ¾"	6.0	80	40	66	21	35	0.7
180533	80°C	F 1"	9.0	82	41	67	21	35	0.7
180534	80°C	F 1¼"	12	84	42	68	24	39	0.8

Article number	Opening temperature	Dim.	Kvs m ³ /h	A mm	B mm	C mm	D mm	E mm	Weight kg
180495	45°C	M ¾"	4.0	80	40	66	21	35	0.7
180496	45°C	M 1"	6.0	80	40	66	21	35	0.7
180497	45°C	M 1¼"	9.0	84	42	68	21	35	0.7
180498	45°C	M 1½"	12	84	42	68	24	39	0.8
180503	55°C	M ¾"	4.0	80	40	66	21	35	0.7
180504	55°C	M 1"	6.0	80	40	66	21	35	0.7
180505	55°C	M 1¼"	9.0	84	42	68	21	35	0.7
180506	55°C	M 1½"	12	84	42	68	24	39	0.8
180511	61°C	M ¾"	4.0	80	40	66	21	35	0.7
180512	61°C	M 1"	6.0	80	40	66	21	35	0.7
180513	61°C	M 1¼"	9.0	84	42	68	21	35	0.7
180514	61°C	M 1½"	12	84	42	68	24	39	0.8
180519	66°C	M ¾"	4.0	80	40	66	21	35	0.7
180520	66°C	M 1"	6.0	80	40	66	21	35	0.7
180521	66°C	M 1¼"	9.0	84	42	68	21	35	0.7
180522	66°C	M 1½"	12	84	42	68	24	39	0.8
180527	72°C	M ¾"	4.0	80	40	66	21	35	0.7
180528	72°C	M 1"	6.0	80	40	66	21	35	0.7
180529	72°C	M 1¼"	9.0	84	42	68	21	35	0.7
180530	72°C	M 1½"	12	84	42	68	24	39	0.8
180535	80°C	M ¾"	4.0	80	40	66	21	35	0.7
180536	80°C	M 1"	6.0	80	40	66	21	35	0.7
180537	80°C	M 1¼"	9.0	84	42	68	21	35	0.7
180538	80°C	M 1½"	12	84	42	68	24	39	0.8

Article number	Opening temperature	Dim.	Kvs m ³ /h	A mm	B mm	C mm	D mm	E mm	Weight kg
181118	45°C	15 mm	4.0	114	57	83	21	35	0.8
181119	45°C	22 mm	6.0	114	57	83	21	35	0.8
181120	45°C	28 mm	9.0	120	60	86	21	35	1.0
181121	55°C	15 mm	4.0	114	57	83	21	35	0.8
181122	55°C	22 mm	6.0	114	57	83	21	35	0.8
181123	55°C	28 mm	9.0	120	60	86	21	35	1.0
181124	61°C	15 mm	4.0	114	57	83	21	35	0.8
181125	61°C	22 mm	6.0	114	57	83	21	35	0.8
181126	61°C	28 mm	9.0	120	60	86	21	35	1.0
181133	66°C	15 mm	4.0	114	57	83	21	35	0.8
181134	66°C	22 mm	6.0	114	57	83	21	35	0.8
181135	66°C	28 mm	9.0	120	60	86	21	35	1.0
181127	72°C	15 mm	4.0	114	57	83	21	35	0.8
181128	72°C	22 mm	6.0	114	57	83	21	35	0.8
181129	72°C	28 mm	9.0	120	60	86	21	35	1.0
181130	80°C	15 mm	4.0	114	57	83	21	35	0.8
181131	80°C	22 mm	6.0	114	57	83	21	35	0.8
181132	80°C	28 mm	9.0	120	60	86	21	35	1.0

Spare parts and Accessories

Article Number	Article	Included components
187025	LK 820 Thermostatic element 45°C	1-3
187026	LK 820 Thermostatic element 55°C	1-3
187027	LK 820 Thermostatic element 61°C	1-3
187028	LK 820 Thermostatic element 66°C	1-3
187029	LK 820 Thermostatic element 72°C	1-3
187030	LK 820 Thermostatic element 80°C	1-3