

LK 820 ThermoVar®

- Position-independent



Technical Data

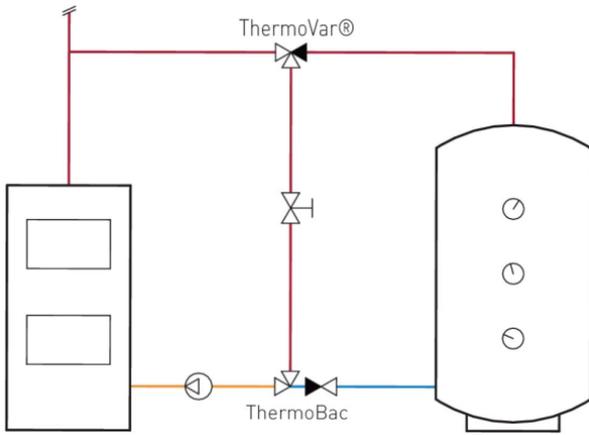
Opening temperature:	45 °C, 55 °C, 61 °C, 66 °C, 72 °C or 80 °C
Working temperature:	(45 - 55 °C) Min. 5 °C/Max. 95 °C (61 - 80 °C) Min. 5 °C/Max. 110 °C
Ambient temperature:	Min. 5 °C/Max. 60 °C
Max. working pressure:	1.0 MPa (10 bar)
Max. differential pressure:	50 kPa (0,5 bar)
Media 1:	Water - Glycol mixture max. 50%
Thread standard:	Rp - female thread, G - male thread
Material, valve body:	Brass EN 12165 CW617N
Material, external cover:	Brass EN 12165 CW617N
Other data:	Material, external cover: M 2" - Coated Aluminium
Material, sealing:	EPDM

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.

LK 820 can be equipped with an insulation - see under Accessories. For more information, please see the product sheet for insulations.

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.





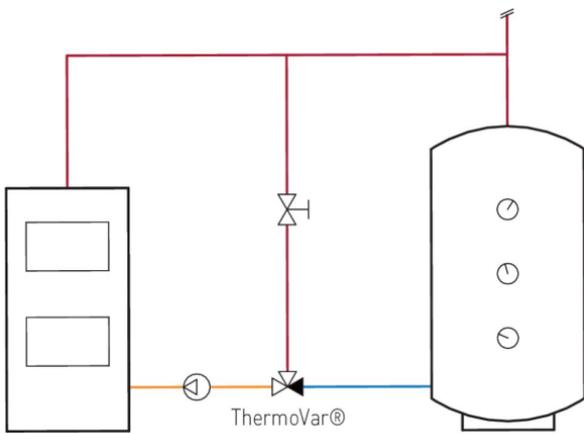
Position I

As soon as the boiler temperature has reached the selected opening temperature, the thermic valve allows hot water to load to 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 to prevent self-circulation from storage tank to 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.

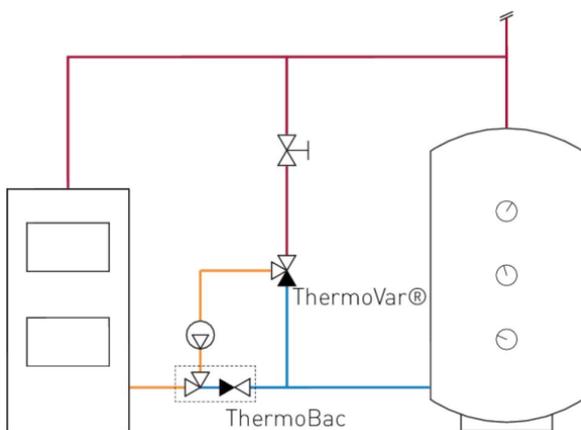


Position II

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 III

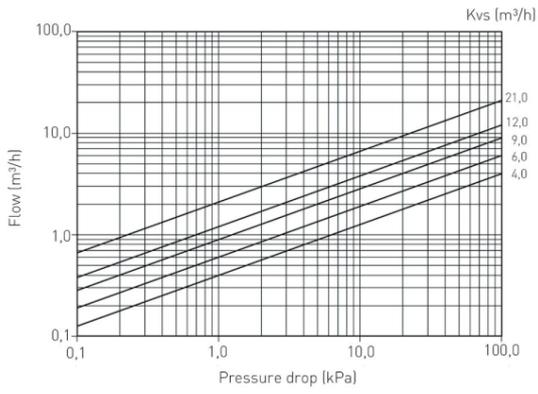
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A balancing valve should be installed in the circuit between boiler and loading valve.

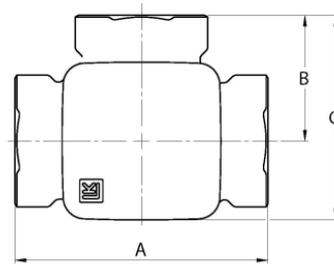
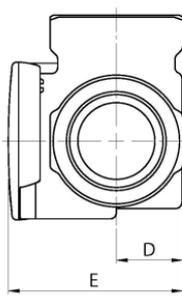
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CAPACITY DIAGRAM



LK 820 - Female thread

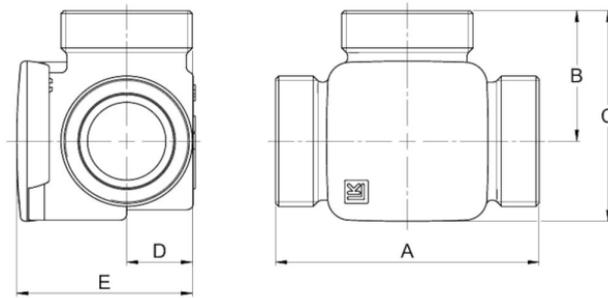


Article	Opening temp. °C	Dim.	Kvs m³/h	A mm	B mm	C mm	D mm	E mm	Weight (kg)
180493	45	F 1"	9,0	82	41	67	21	35	0.7
180500	55	F ¾"	6,0	80	40	66	21	35	0.7
180501	55	F 1"	9,0	82	41	67	21	35	0.7
180502	55	F 1¼"	12,0	84	42	68	24	39	0.8
180508	61	F ¾"	6,0	80	40	66	21	35	0.7
180509	61	F 1"	9,0	82	41	67	21	35	0.7
180510	61	F 1¼"	12,0	84	42	68	24	39	0.8
180517	66	F 1"	9,0	82	41	67	21	35	0.7
180525	72	F 1"	9,0	82	41	67	21	35	0.7
180526	72	F 1¼"	12,0	84	42	68	24	39	0.8
180534	80	F 1¼"	12,0	84	42	68	24	39	0.8

Other temperatures and dimensions on request.



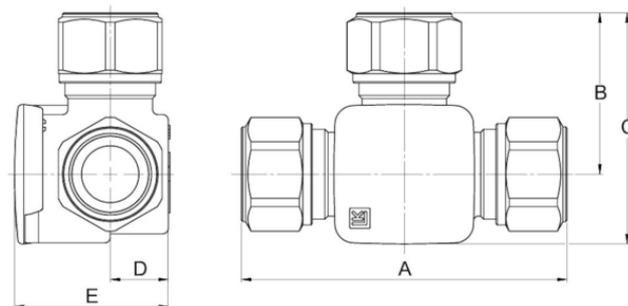
LK 820 - Male thread



Article	Opening temp. °C	Opening temp. °F	Dim.	Kvs m ³ /h	A mm	B mm	C mm	D mm	E mm	Weight (kg)
180503	55	131	M ¾"	4,0	80	40	66	21	35	0.7
180504	55	131	M 1"	6,0	80	40	66	21	35	0.7
180505	55	131	M 1¼"	9,0	84	42	68	21	35	0.7
180506	55	131	M 1½"	12,0	84	42	68	24	39	0.8
180512	61	142	M 1"	6,0	80	40	66	21	35	0.7
180513	61	142	M 1¼"	9,0	84	42	68	21	35	0.7
180514	61	142	M 1½"	12,0	84	42	68	24	39	0.8
180520	66	151	M 1"	6,0	80	40	66	21	35	0.7
180528	72	162	M 1"	6,0	80	40	66	21	35	0.7
180530	72	162	M 1½"	12,0	84	42	68	24	39	0.8

Other temperatures and dimensions on request.

LK 820 - Compression fitting

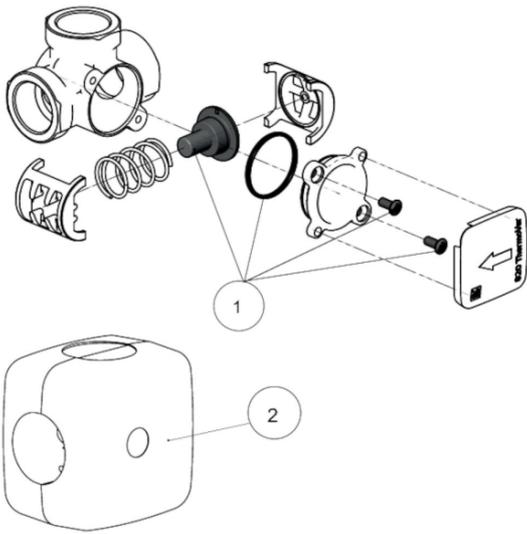


Article	Opening temp. °C	Dim.	Kvs m ³ /h	A mm	B mm	C mm	D mm	E mm	Weight (kg)
181125	61	22 mm	6,0	114	57	83	21	35	0.8

Other temperatures and dimensions on request.



Accessories & Spare parts



Article no.	Article	Position
187025	Thermostatic element 820, 45 °C	1
187026	Thermostatic element 820, 55 °C	1
187027	Thermostatic element 820, 61 °C	1
187028	Thermostatic element 820, 66 °C	1
187029	Thermostatic element 820, 72 °C	1
187030	Thermostatic element 820, 80 °C	1
187107	Insulation, DN 15-20	2
187108	Insulation, DN 25-32	2