



LK Armatur

LOADING UNIT FOR HEATING APPLICATIONS WITH SOLID FUEL BOILER AND STORAGE TANKS



LK 810 ThermoMat 2.0



LK 810 ThermoMat 2.0

*"Sustainability? Yes, thank you!
Increase the efficiency and
ensure that you get the lowest
possible emissions"*



LK 810 ThermoMat 2.0 is a loading unit for heating applications with solid fuel boilers and storage tanks. The loading unit is intended to ensure a high return temperature as well as an optimal temperature stratification in the storage tank, thus increasing the efficiency of the system. Tarring and condensation are prevented which prolongs boiler life.

The LK 810 ThermoMat 2.0 is a compact design with an integrated low-energy circulating pump, that fulfills the requirements of ErP 2015, and a thermic loading valve that regulates on two ports. The loading unit has three ball valves to simplify installation and maintenance, three thermometers that allow for simple control of the loading process and an insulation to minimize heat loss. The loading unit is available in two versions - with or without check valve. With a check valve the functions described under phase 4 will be obtained.

LK 810 ThermoMat 2.0 is also available with a circulating pump that is controlled by a PWM-signal. For more information please contact our sales department.

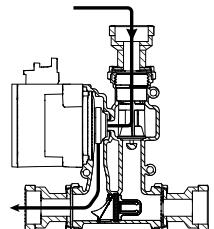
LK 810 ThermoMat 2.0 is installed in the return circuit between the solid fuel boiler and the storage tank. The unit should be mounted upright with the drive-shaft of the circulating pump in a horizontal position. The loading unit is reversible and can easily be adapted for mounting to the right or left of the boiler.

The loading unit normally requires no maintenance. The installation should be checked regularly. Thanks to the three ball valves any part can be changed without draining the system in case of servicing.

THE DIFFERENT PHASES OF HEATING

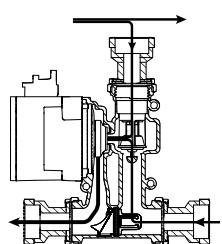
1. HEAT UP PHASE

The water circulates between boiler and loading unit while the temperature of the boiler is rising.



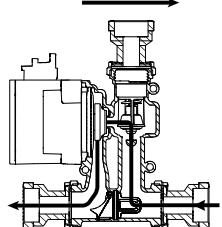
2. LOADING PHASE

The thermostatic element starts to open and allows return water from the storage tank to be mixed with supply water before it returns to the boiler. The return temperature to the boiler is kept constant.



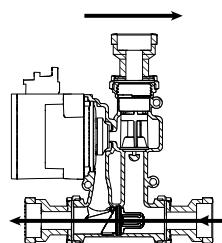
3. END PHASE

The thermostatic element is fully open and the bypass is closed. This results in an optimal transfer of heat from the boiler and the storage tank is filled with supply water.



4. SELF-CIRCULATION WITH CHECK VALVE

Self-circulation will be obtained as soon as the fire has gone out and the circulating pump has stopped. The remaining hot water is loaded to the storage tank. In case of power failure or pump breakdown the check valve automatically opens to allow self-circulation. The check valve also stops recirculation from storage tank to boiler.

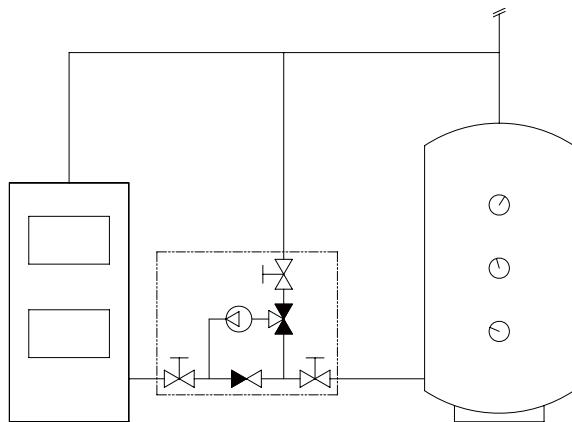


Go Green!

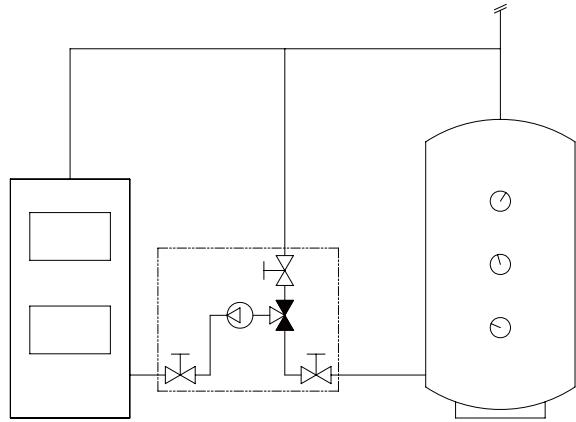
ThermoMat is one of our many energy efficient products for your heating system.
See the complete product range at
www.lkarmatur.se



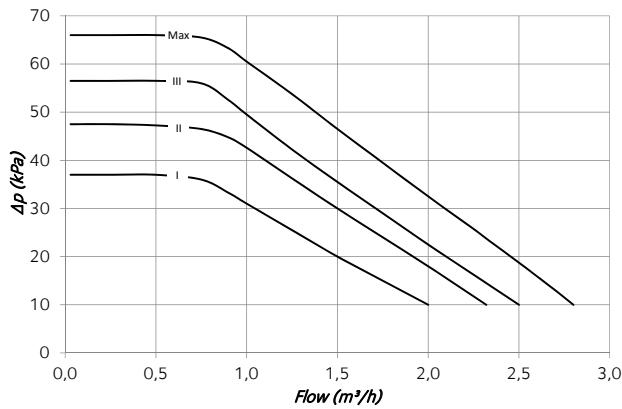
WITH CHECKVALVE



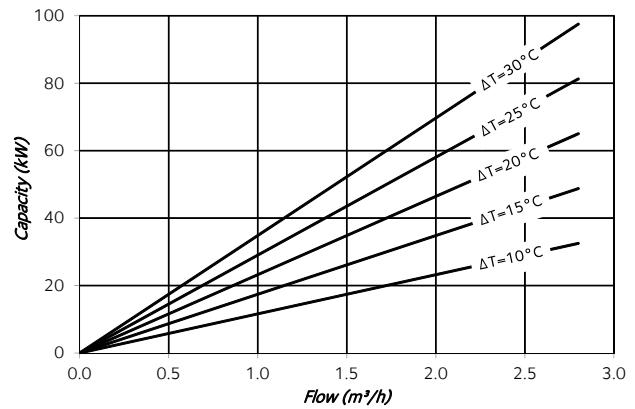
WITHOUT CHECKVALVE



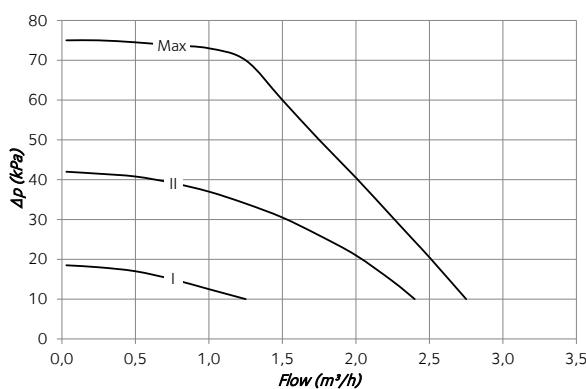
PUMP CHARACTERISTICS
GRUNDFOS UPM3 AUTO L XX-70



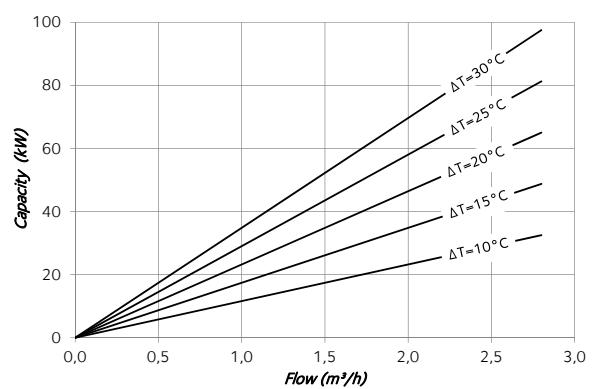
BOILER CAPACITY DIAGRAM



PUMPKARAKTÄRISTIK
WILO YONOS PARA */7,5 RKC



BOILER CAPACITY DIAGRAM



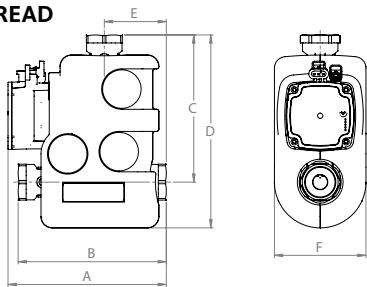
LK 810

ThermoMat 2.0 G

- Improved regulation of the return temperature
- Compact design
- High efficiency pump from Grundfos



LK 810 2.0 G FEMALE THREAD

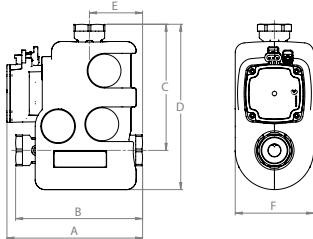


TECHNICAL DATA

Voltage	230 VAC 50 Hz
Power consumption	Max. 52 W
Max. boiler efficiency	65 kW at 20°C ΔT
Return temperature	55°C, 60°C, 65°C or 70°C
Working temperature	Min. +5°C/Max. +110°C
Ambient temp.	Min. +0°C/Max. +70°C
Max. working pressure	1,0 MPa (10 bar)
Media	Water - Glycol mixture max. 50%
Thread standard	Rp - female thread
Circulating pumps	Grundfos UPM3 AUTO L xx-70
Material, valve body	Brass EN 1982 CB753S
Material, insulation	Expanded Polypropylene EPP

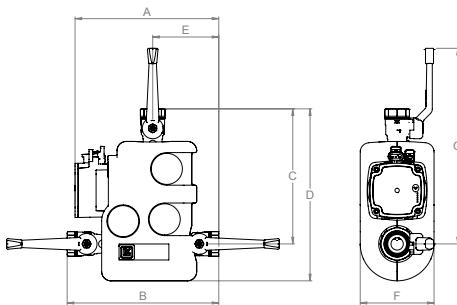
ARTICLE NO.	TYPE	RETURN TEMPERATURE	DIMEN-SION	A MM	B MM	C MM	D MM	E MM	F MM	WEIGHT KG
181639	without checkvalve	55 °C	F 1"	208	195	193	253	82	120	3.7
181640	with check valve	55 °C	F 1"	208	195	193	253	82	120	3.7
181641	without check valve	55 °C	F 1¼"	208	195	193	253	82	120	3.7
181642	with check valve	55 °C	F 1¼"	208	195	193	253	82	120	3.7
181645	without check valve	60 °C	F 1"	208	195	193	253	82	120	3.7
181646	with check valve	60 °C	F 1"	208	195	193	253	82	120	3.7
181647	without checkvalve	60 °C	F 1¼"	208	195	193	253	82	120	3.7
181648	with check valve	60 °C	F 1¼"	208	195	193	253	82	120	3.7
181651	without checkvalve	65 °C	F 1"	208	195	193	253	82	120	3.7
181652	with check valve	65 °C	F 1"	208	195	193	253	82	120	3.7
181653	without checkvalve	65 °C	F 1¼"	208	195	193	253	82	120	3.7
181654	with check valve	65 °C	F 1¼"	208	195	193	253	82	120	3.7
181657	without checkvalve	70 °C	F 1"	208	195	193	253	82	120	3.7
181658	with check valve	70 °C	F 1"	208	195	193	253	82	120	3.7
181659	without checkvalve	70 °C	F 1¼"	208	195	193	253	82	120	3.7
181660	with check valve	70 °C	F 1¼"	208	195	193	253	82	120	3.7

LK 810 2.0 G - COMPRESSION FITTING



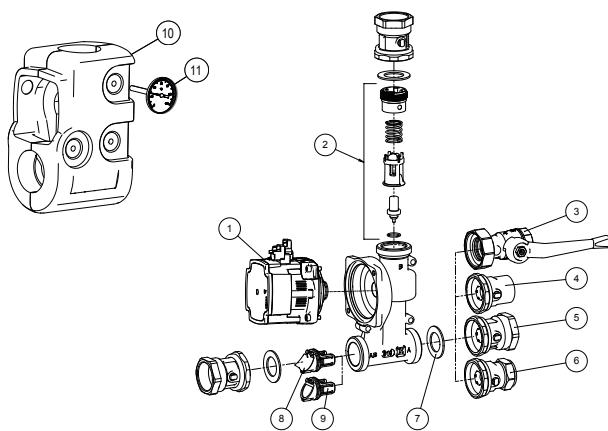
ARTICLE NO.	TYPE	RETURN TEMPERATURE	DIMENSION	A MM	B MM	C MM	D MM	E MM	F MM	WEIGHT KG
181643	without check valve	55 °C	28 mm	208	195	193	253	82	120	3.7
181644	with check valve	55 °C	28 mm	208	195	193	253	82	120	3.7
181649	without check valve	60 °C	28 mm	208	195	193	253	82	120	3.7
181650	with check valve	60 °C	28 mm	208	195	193	253	82	120	3.7
181655	without check valve	65 °C	28 mm	208	195	193	253	82	120	3.7
181656	with check valve	65 °C	28 mm	208	195	193	253	82	120	3.7
181661	without check valve	70 °C	28 mm	208	195	193	253	82	120	3.7
181662	with check valve	70 °C	28 mm	208	195	193	253	82	120	3.7

LK 810 2.0 G - FEMALE THREAD



ARTICLE NO.	TYPE	RETURN TEMPERATURE	DIM.	A MM	B MM	C MM	D MM	E MM	F MM	G MM	WEIGHT KG
181839	with check valve	55 °C	1"	234	247	220	280	108	120	300	4.0
181840	without check valve	55 °C	1"	234	247	220	280	108	120	300	4.0
181825	with check valve	60 °C	1"	234	247	220	280	108	120	300	4.0
181841	without check valve	60 °C	1"	234	247	220	280	108	120	300	4.0
181827	with check valve	65 °C	1"	234	247	220	280	108	120	300	4.0
181842	without check valve	65 °C	1"	234	247	220	280	108	120	300	4.0
181829	with check valve	70 °C	1"	234	247	220	280	108	120	300	4.0
181843	without check valve	70 °C	1"	234	247	220	280	108	120	300	4.0

SPARE PARTS AND ACCESSORIES



ARTICLE NO.	ARTICLE	POSITION
187168	Pump head Grundfos UPM3 Auto L xx-70	1
187163	Thermostatic element 55°C	2
187164	Thermostatic element 60°C	2
187165	Thermostatic element 65°C	2
187166	Thermostatic element 70°C	2
055577	Ball valve 1" with handles, sealing	3
187017	Ball valve F 1"	4
187018	Ball valve F 1 1/4"	5
187019	Ball valve 28 mm	6
013057	Sealing EPDM 44x32x2 mm	7
187021	Check valve 810 / 811	8
187022	Plug 810 / 811	9
187167	EPP Insulation	10
180352	Thermometer 120°C	11

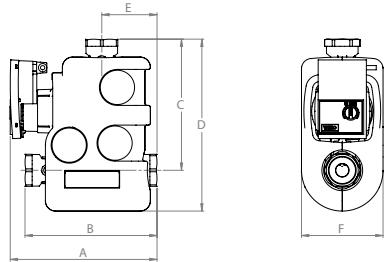
LK 810

ThermoMat 2.0 W

- Improved regulation of the return temperature
- Compact design
- High efficiency pump from Wilo



LK 810 2.0 W - FEMALE THREAD

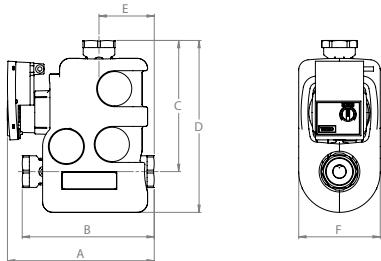


TECHNICAL DATA

Voltage	230 VAC 50 Hz
Power consumption	3-76 W depending on pump speed
Max. boiler efficiency	65 kW at 20°C ΔT
Return temperature	55°C, 60°C, 65°C or 70°C
Working temperature	Min. +5°C/Max. +95°C
Ambient temp.	Min. +5°C/Max. +60°C
Max. working pressure	0,6 MPa (6 bar)
Media	Water - Glycol mixture max. 50%
Thread standard	Rp - female thread
Circulating pumps	Wilo Yonos PARA */7,5 RKC
Material, valve body	Brass EN 1982 CB753S
Material, insulation	Expanded Polypropylene EPP

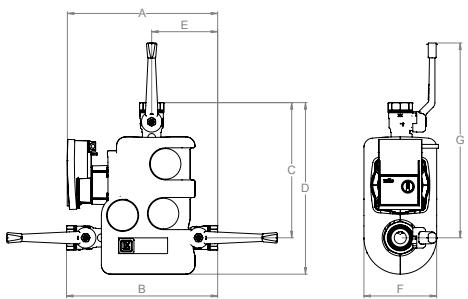
ARTICLE NO.	TYPE	RETURN TEMPERATURE	DIMENSION	A MM	B MM	C MM	D MM	E MM	F MM	WEIGHT KG
181663	without checkvalve	55 °C	F 1"	216	195	193	253	82	120	3.7
181664	with check valve	55 °C	F 1"	216	195	193	253	82	120	3.7
181665	without check valve	55 °C	F 1¼"	216	195	193	253	82	120	3.7
181666	with check valve	55 °C	F 1¼"	216	195	193	253	82	120	3.7
181669	without check valve	60 °C	F 1"	216	195	193	253	82	120	3.7
181670	with check valve	60 °C	F 1"	216	195	193	253	82	120	3.7
181671	without checkvalve	60 °C	F 1¼"	216	195	193	253	82	120	3.7
181672	with check valve	60 °C	F 1¼"	216	195	193	253	82	120	3.7
181675	without checkvalve	65 °C	F 1"	216	195	193	253	82	120	3.7
181676	with check valve	65 °C	F 1"	216	195	193	253	82	120	3.7
181677	without checkvalve	65 °C	F 1¼"	216	195	193	253	82	120	3.7
181678	with check valve	65 °C	F 1¼"	216	195	193	253	82	120	3.7
181681	without checkvalve	70 °C	F 1"	216	195	193	253	82	120	3.7
181682	with check valve	70 °C	F 1"	216	195	193	253	82	120	3.7
181683	without checkvalve	70 °C	F 1¼"	216	195	193	253	82	120	3.7
181684	with check valve	70 °C	F 1¼"	216	195	193	253	82	120	3.7

LK 810 2.0 W - COMPRESSION FITTING



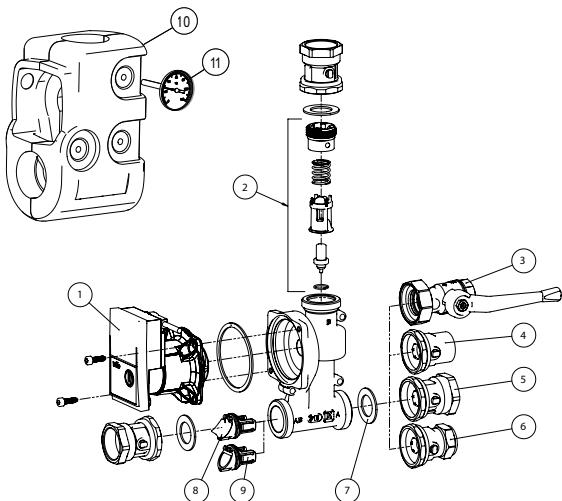
ARTICLE NO.	TYPE	RETURN TEMPERATURE	DIMENSION	A MM	B MM	C MM	D MM	E MM	F MM	WEIGHT KG
181667	without checkvalve	55 °C	28 mm	216	195	193	253	82	120	3.7
181668	with check valve	55 °C	28 mm	216	195	193	253	82	120	3.7
181673	without checkvalve	60 °C	28 mm	216	195	193	253	82	120	3.7
181674	with check valve	60 °C	28 mm	216	195	193	253	82	120	3.7
181679	without checkvalve	65 °C	28 mm	216	195	193	253	82	120	3.7
181680	with check valve	65 °C	28 mm	216	195	193	253	82	120	3.7
181685	without checkvalve	70 °C	28 mm	216	195	193	253	82	120	3.7
181686	with check valve	70 °C	28 mm	216	195	193	253	82	120	3.7

LK 810 2.0 W - FEMALE THREAD



ARTICLE NO.	TYPE	RETURN TEMPERATURE	DIM.	A MM	B MM	C MM	D MM	E MM	F MM	G MM	WEIGHT KG
181844	with check valve	55 °C	1"	248	250	223	283	108	120	302	4.0
181848	without checkvalve	55 °C	1"	248	250	223	283	108	120	302	4.0
181845	with check valve	60 °C	1"	248	250	223	283	108	120	302	4.0
181849	without checkvalve	60 °C	1"	248	250	223	283	108	120	302	4.0
181846	with check valve	65 °C	1"	248	250	223	283	108	120	302	4.0
181850	without checkvalve	65 °C	1"	248	250	223	283	108	120	302	4.0
181847	with check valve	70 °C	1"	248	250	223	283	108	120	302	4.0
181851	without checkvalve	70 °C	1"	248	250	223	283	108	120	302	4.0

SPARE PARTS AND ACCESSORIES



ARTICLE NO.	ARTICLE	POSITION
187171	Wilo Yonos PARA */7,5 RKC FS14	1
187163	Thermostatic element 55 °C	2
187164	Thermostatic element 60 °C	2
187165	Thermostatic element 65 °C	2
187166	Thermostatic element 70 °C	2
055577	Ball valve 1" with handles, sealing	3
187017	Ball valve F 1"	4
187018	Ball valve F 1 1/4"	5
187019	Ball valve 28 mm	6
013057	Sealing EPDM 44x32x2 mm	7
187021	Check valve 810 / 811	8
187022	Plug 810 / 811	9
187167	EPP Insulation	10
180352	Thermometer 120 °C	11



Curious for more?



LK 100 SmartComfort CT

An electronic temperature controller designed to keep the return temperature at a constant level. The flow temperature is easily set and adjustable.



LK 815 ThermoKit T Eco

A loading group with thermic regulation of the return temperature. With max. boiler efficiency of 140 kW at 20° ΔT, LK 815 is suited for larger systems.



Do you want to know more?
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www.lkarmatur.se

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