

Main features	
Application	control of a solid fuel boiler return line or control to a fixed temperature of output into a mixed circuit
Description	consists of UPM3 Flex AS 25-70 180 pump, LK 840 3-way mixing valve with AVC actuator, insulation
Working fluid	water, water-glycol mixture (max. 1:1) or water-glycerine mixture (max. 2:1)
Installation	on solid fuel boiler return pipe / flow pipe to heating circuit, min. pipe centre distance from wall is 100 mm
Code	15 208



CSE MIX G 1M Pump Station Data	
Fluid operating temp.	5 - 110 °C
Max. working pressure	10 bar
Ambient temperature	5 - 40 °C
Max. relative humidity	95 % non condensing
Power supply	230 V, 50 Hz
Insulation material	EPP RG 60 g/l
Overall dimensions	325 x 140 x 220 mm
Total weight	3,8 kg
Connection	2 x G 1" M, 1 x G 1" F

UPM3 Flex AS 25-70 180 Pump Data

Electric data	
Power supply	230 V, 50 Hz
Power input (min./max.)	2/52 W
Current (min./max)	0,04/0,5 A
IP rating	IP44
Max. speed	5766 rpm
Weighted average power	≤ 23 W
Energy efficiency index	≤ 0.20 per EN 16 297/3
Motor protection	not needed

Min. pressure at pump suction port

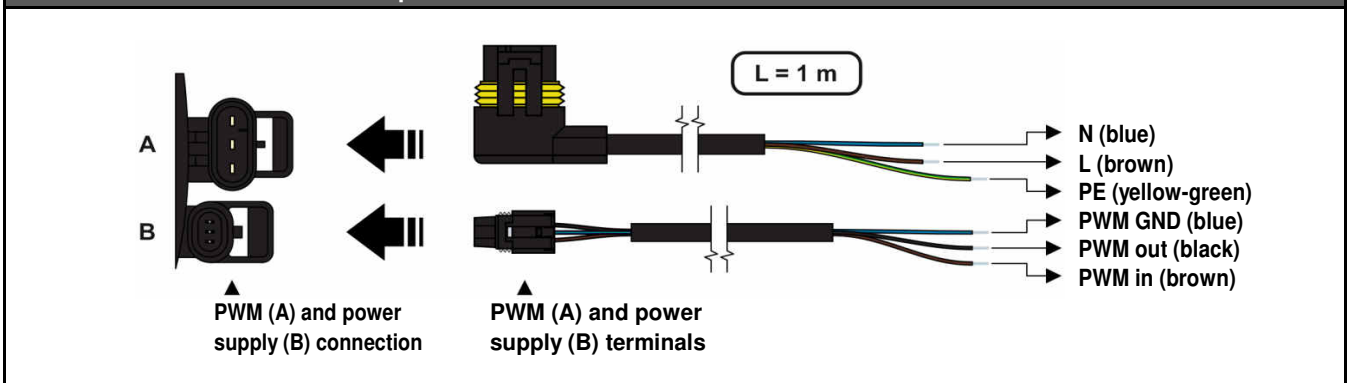
Min. pressures at the suction port to avoid cavitation	0.05 m at 75 °C
	0.50 m at 95 °C
	1,08 m at 110 °C

Operation data

Fluid operating temp.	2 - 110 °C
Max. working pressure	10 bar
Max. ambient temperature	70 °C
Max. relative humidity	95 % non condensing

Power supply cables and PWM cables are included in supply.

Connection of UPM3 Flex AS Pump



Selected profile display during pump operation

control button



curve 1 (4 m)



curve 2 (5 m)



curve 3 (6 m)

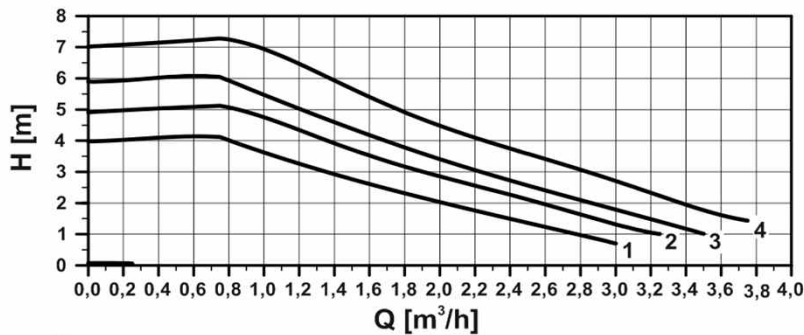


curve 4 (7 m)

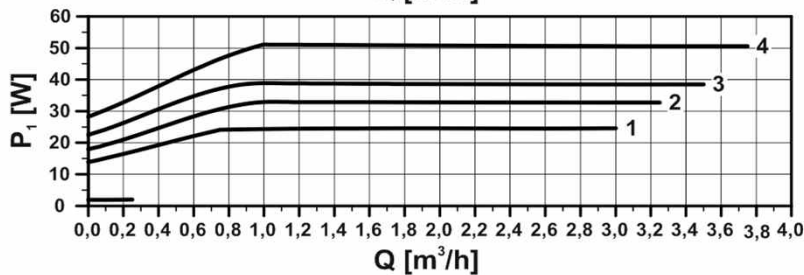


- when the control button is pressed for less than 2 s, the currently selected curve is shown
- with no PWM signal the pump runs at max. speed according to the selected curve
- with PWM signal the pump speed changes with the signal value up to the maximum of the selected curve

UPM3 Flex AS pump performance curves



Curve	Max. H (upper graph)	Max. P ₁ (lower graph)
1	4 m	25 W
2	5 m	33 W
3	6 m	39 W
4	7 m	52 W



LK 840 Mixing Valve

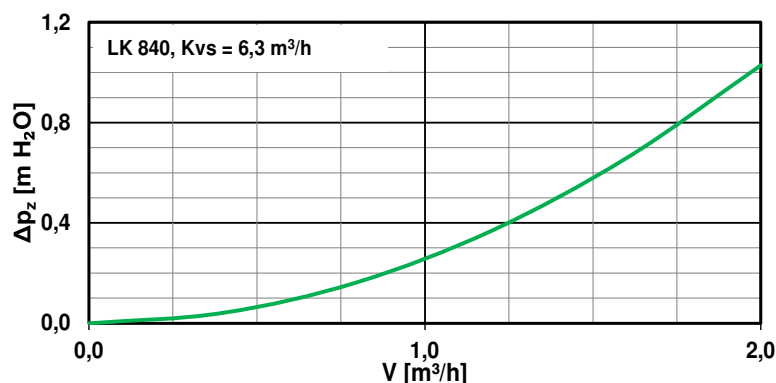
Technical data

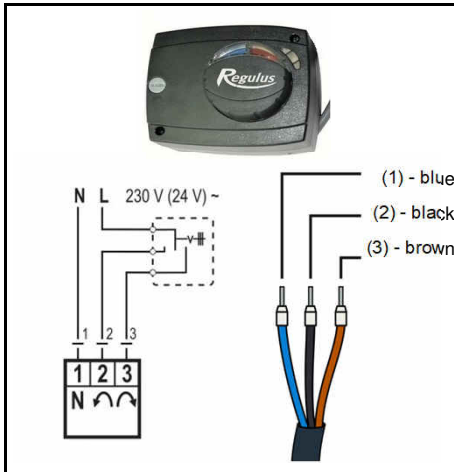
Max. working temperature	5 - 110 °C (120 °C in short term)
Max. working pressure	10 bar
Ambient working temp.	5 - 60 °C
Valve Kvs	6,3 m³/h
Max. pressure difference	5 m H ₂ O
Leakage rate	< 1% Kvs at 5 m H ₂ O pressure difference
Connection	3 x G 1" M

Materials

Body, member and spindle	brass
Seal	EPDM

Valve pressure drop diagram





AVC Actuator for Mixing Valves

Technical data

Torque	5 Nm
Angle of rotation	90°
Shift time	120 s
Control	3-point
Auxiliary switch	no
Power supply	230 V AC
Max. power input	2,5 VA
IP rating	IP42
Protection class	II per EN 60730-1
Ambient temperature	0 - 40 °C
Cable (cross-section - length)	3 x 0,5 mm ² - 2 m