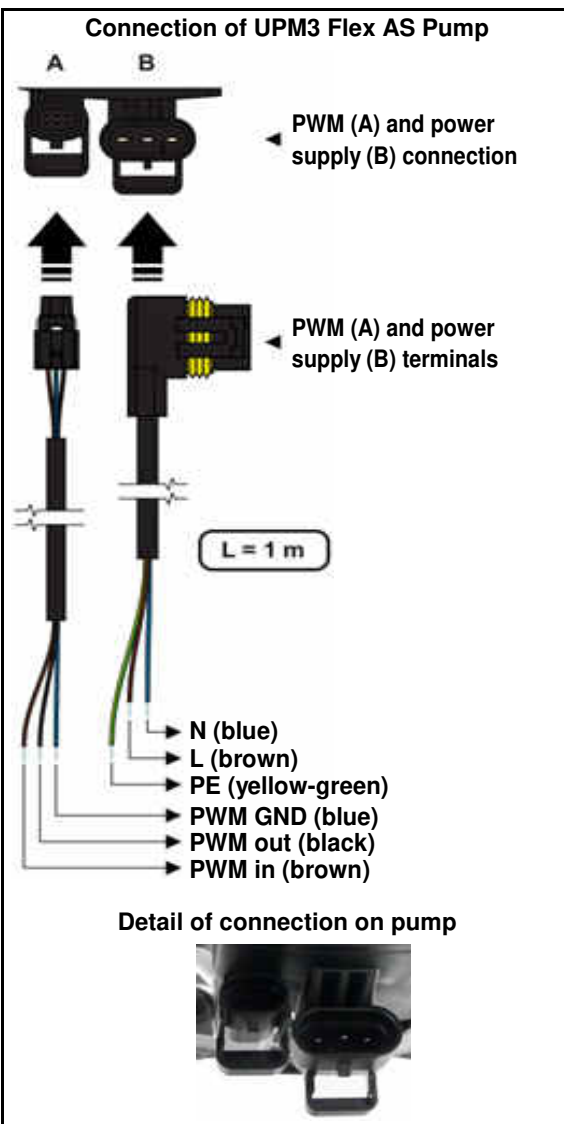




Main features	
Application	control of a solid fuel boiler return line or control of a fixed temperature flow into a mixed circuit
Description	consists of UPM3 Flex AS 25-75 130 pump, LK 840 3-way mixing valve with ACC40 actuator, insulation
Function	keeping a constant temperature at a boiler return line or at a mixed heating circuit flow and turns on/off circulation pump depending on mode and temperature settings
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
<b>Installation</b>	<b>16 404</b>



CSE MIX-FIX G 5/4F 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	4,2 kg
Connection	3 x G 5/4" F

UPM3 Flex AS 25-75 130 Pump Data	
<b>Electric data</b>	
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.**

### Selected profile display during pump operation

control button



curve 1 (4 m)



curve 2 (5 m)



curve 3 (6 m)

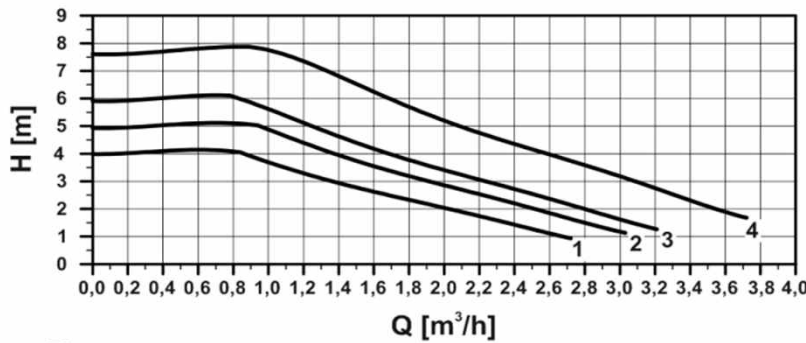


curve 4 (7,5 m)

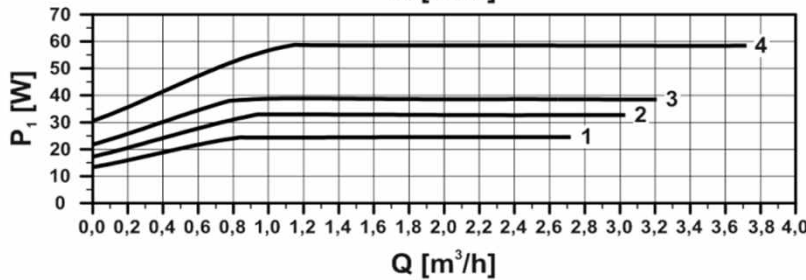


- when the control button is pressed for less than 2 s, the currently selected curve is shown
- with no PWM signal the pump runs at max. speed according to the selected curve
- with PWM signal the pump speed changes with the signal value up to the maximum of the selected curve

### UPM3 Flex AS pump performance curves



Curve	Max. H (upper graph)	Max. P <sub>1</sub> (lower graph)
1	4,0 m	25 W
2	5,0 m	33 W
3	6,0 m	39 W
4	7,5 m	60 W



### LK 840 Mixing Valve

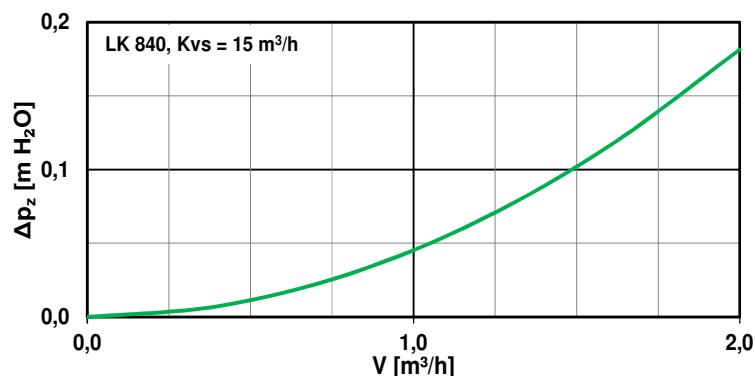
#### Technical data

Max. working temperature	5 - 110 °C (120 °C in short term)
Max. working pressure	10 bar
Ambient working temp.	5 - 60 °C
Valve Kvs	15 m³/h
Max. pressure difference	5 m H <sub>2</sub> O
Leakage rate	< 1% Kvs at 5 m H <sub>2</sub> O pressure diff.
Connection	3 x G 5/4" F

#### Materials

Body, member and spindle	brass
Seal	EPDM

### Valve pressure drop diagram





### ACC Actuator for Mixing Valves

Technical data	
Torque	6 Nm
Angle of rotation	90°
Shift time	120 s
Control	to constant temperature
Temperature sensors	2 x Pt1000 (1000 Ω → 0 °C)
Auxiliary switch	no
Power supply	230 V AC
Max. power input	3,5 VA
IP rating	IP42
Protection class	I per EN 60730-1
Ambient temperature	5 - 40 °C
Cable (cross-section, length, plug)	3 x 0,5 mm <sup>2</sup> , 2 m, type E

### Actuator installation and sensor connection

a) wiring to switch on/off a circulation pump (R1)  
 b) to connect Pt1000 temperature sensors (T1, T2)  
 c) 230 V AC, 50 Hz power supply