



**Automatic control unit
with dry-running protection**

Applications

Controlmatic E.2 can be used for starting, stopping and monitoring small pumps in water supply systems.

Fluid handled

Drinking water, service water, rain water, fire-fighting water, cooling water, where there is no chemical and mechanical corrosive action on the system materials.

Operating data

Flow rate Q	up to 10 m ³ /h, 2.77 l/s
Operating pressure	up to 10 bar ¹⁾
Start-up pressure	1.5 bar
Minimum flow rate	0.1 m ³ /h
Water temperature	0 to +60 °C
Max. ambient temperature	+60 °C
Amperage	10 A

for single-phase alternating current only

¹⁾ The Controlmatic E.2 unit must be protected against pressures exceeding the max. operating pressure

Designation

Controlmatic E.2

Materials

Housing	Polyamide
Membrane	Elastomer

Design

Monitoring unit based on pressure and flow measurement.

Function

Controlmatic E.2 is used to start up and stop the pump in line with consumer demand.

1st step:

When the tap is closed, the pump is stopped. The green "Power" signal lamp of Controlmatic E.2 is lit.

2nd step:

When the tap is opened, the water pressure in the system decreases. The pump is started up.

3rd step:

The pump is running, the yellow "On" lamp is lit.

4th step:

When the tap has been closed and the flow rate is zero, the pump is stopped after 10 seconds.

Dry running protection



D The pump is protected from dry running by simultaneous pressure and flow monitoring. If there is a lack of water, Controlmatic E.2 stops the pump and the red "Failure" lamp is lit.

Product benefits

- D The pump is started / stopped automatically
- D Dry running protection by motor tripping
- D A constant pressure is maintained at a given flow rate
- D Easy installation
- D Zero maintenance
- D Cable and socket for connecting the pump
- D Cable and plug for mains connection

Conformity marks

- ACS (French drinking water regulations)

  - complies with European standards

Technical data

Designation	Controlmatic E.2	
Max. operating pressure ¹⁾	bar	10
Flow rate	m ³ /h	10
	l/s	2.77
Enclosure IP	65	
Fluid temperature / Ambient temperature	°C	0 to +60
Mains voltage	V	1 ~ 220/240
Frequency	Hz	50 / 60
Max. amperage	A	10
Dry running protection	Yes	
Restart after lack of water	Manual restart	
Weight	kg	1.3
Ident. number	39 300 031	

¹⁾ The automatic control unit must be protected against any pressure exceeding the max. operating pressure. Start-up pressure: 1.5 bar

Important:

Pressure_{suction side} + max. pump pressure (at zero flow) ≤ 10 bar

If in doubt about the suction side pressure:

- **either** add a safety margin of 3 bar to the nominal pressure:
Pressure_{suction side} + 3 bar + max. pump pressure (at zero flow) ≤ 10 bar
- **or** fit a pressure reducer (stabilizer) between the pump and the Controlmatic E.2 unit or on the pump's suction side, to prevent excessive pressure.

If pressure surges are to be expected in the system as a result of quick-closing valves (e.g. solenoid valves), please contact a KSB sales office.

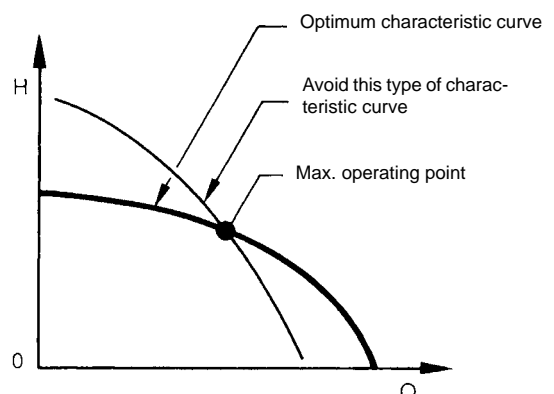
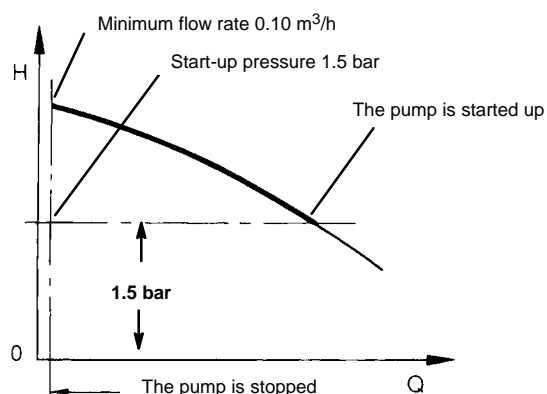
Suitable for use with the following pumps (single-phase alternating current only)

Pump type	Ixo	Multi Eco	Movitec VE	S 100B	UPA 100C
Pump sizes	All	All	2	1/7, 1/9, 1/12, 1/14, 1/16 2/7, 2/11, 2/15, 4/3, 4/6, 4/8, 4/11, 4/16	2/6, 2/8, 2/13, 2/17 3/6, 3/9, 3/12, 3/15, 4/4, 4/7, 4/9, 4/14
Brass fittings (Accessories)	M 1" 1/4/F 1"	M/F 1"	M 1" 1/4/F 1"	M 1" 1/4/F 1"	M 1" 1/4/F 1"

Depending on the pump nozzle diameter an additional fitting may be required (see accessories).

Please observe for pump selection:

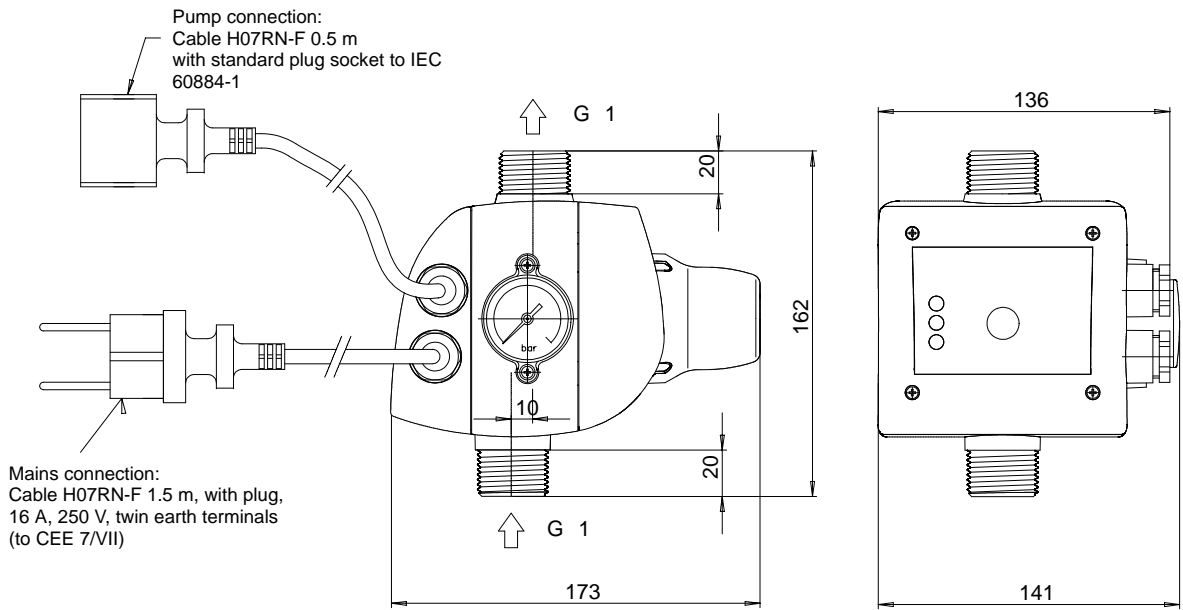
The start-up pressure of Controlmatic E.2 must always be lower than the maximum pressure at zero flow.



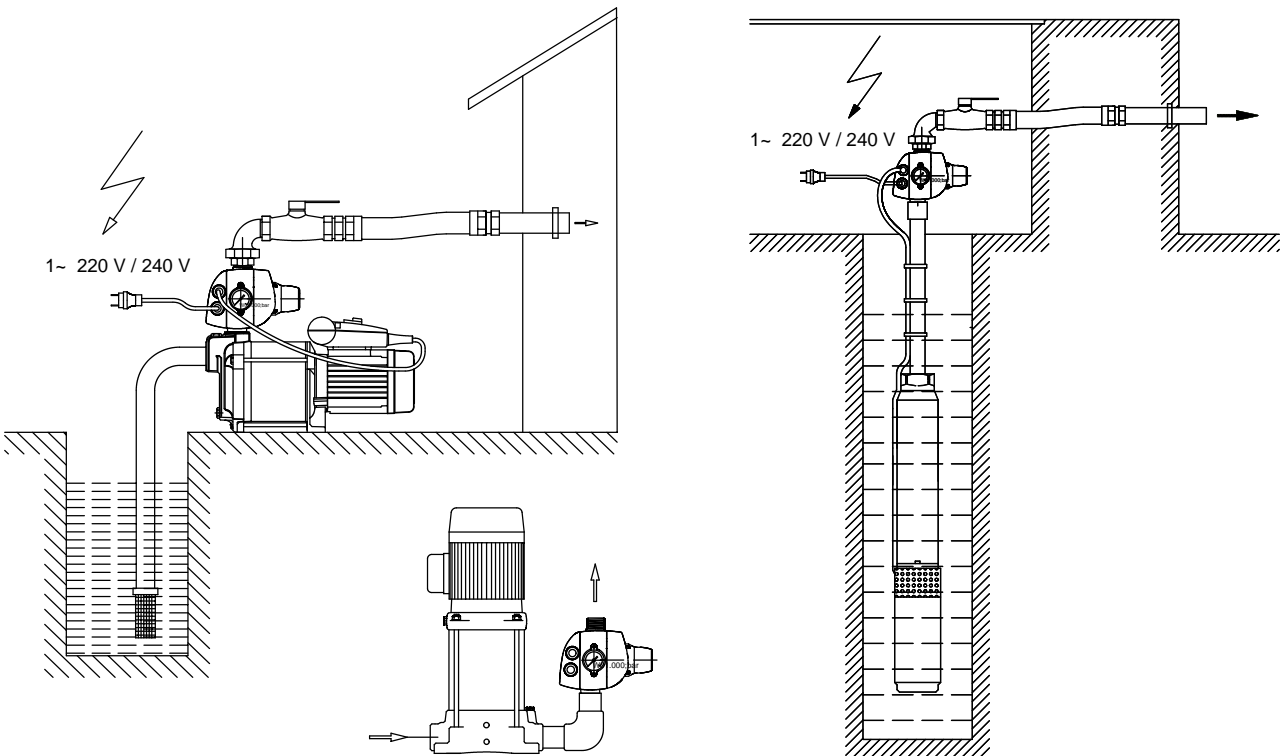
D The start-up pressure is factory set to 1.5 bar and cannot be changed.

D Minimum flow rate 0.10 m³/h

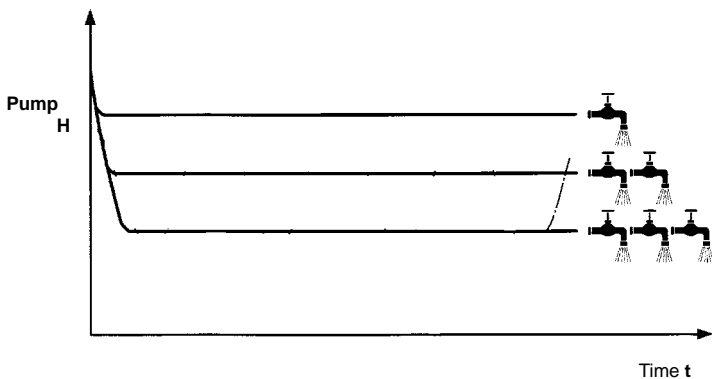
Dimensions



Installation schematic



Comparison of pressure curves



Unlike domestic water supply systems with accumulators, pumps operated with the Controlmatic E.2 control unit maintain a constant pressure at any flow rate.

Features of Controlmatic E.2

Indicator lamps:

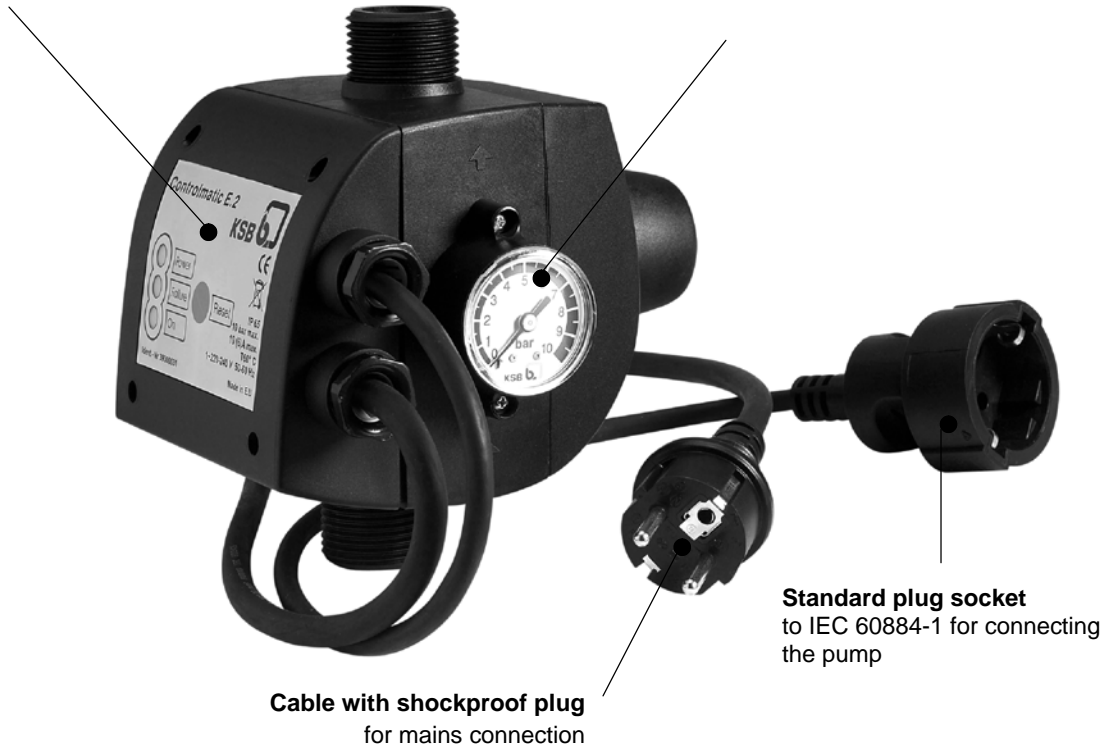
- Green - Energized
- Amber - Pump running
- Red - Fault or lack of water

Pressure indication

Integrated pressure gauge

Start-up pressure

1.5 bar (non-variable)



Cable with shockproof plug
for mains connection

Standard plug socket
to IEC 60884-1 for connecting
the pump

Subject to technical modifications without prior notice.