

Automatic Control Unit

Cervomatic EDP.2

Type Series Booklet



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Type Series Booklet Cervomatic EDP.2

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Building Services: Water Supply

Automatic control units

Cervomatic EDP.2



Main applications

- Spray irrigation systems
- General irrigation systems
- Rainwater harvesting
- Water supply systems

Fluids handled

- Clean to turbid water not containing aggressive, abrasive or solid substances
- River water
- Lake water
- Groundwater

Operating data

Operating properties

Characteristic		Value
Flow Rate	Q [m³/h]	≤ 15
	Q [l/s]	≤ 4,17
Operating pressure	p [bar]	≤ 10
Fluid temperature	T [°C]	0 - 40

Design details

Design

- Automatic control unit
- Pressure-dependent pump start and pressure-dependent or flow-dependent stop of the pump
- Integrated check valve

Electrical connection

- 1~230 / 3~230 / 3~400 V AC, 50/60 Hz
- Enclosure IP55
- 1.5 m power cable with shockproof plug

Designation

Example: Cervomatic EDP.2

Designation key

Code	Description
Cervomatic	Type series
E	Single-phase AC
D	Three-phase current
P	Electrical protection
2	Product version

Configuration and function

Function

- Pressure-dependent pump start
- Pressure-dependent or flow-dependent stop of the pump
- Integrated dry running protection
- Integrated overload protection

Operating modes

On/off mode:

- The pump set is started when the pressure in the pipe drops.
- The pump set is stopped when flow is interrupted.

Pressure control

- The pump set is started when the pressure in the pipe drops.
- The pump set is stopped when the stop pressure in the pipe is exceeded.

Further functions

- Integrated dry running protection of the pump
- Integrated overload protection

Materials

Overview of available materials

Component	Material
Housing	Polyamide
Membrane	Elastomer
Built-in components	EPDM, NR, Noryl, ceramics

Product benefits

- The pump is started and stopped automatically by simultaneous monitoring of pressure and flow rate.
- Constant pressure depending on the flow rate by simultaneous monitoring of pressure and flow rate
- Dry-running protection by stopping the motor
- Digital indication of pressure (actual value and set value)

- Easy to operate with menu-controlled setting of parameters
- Pressure-dependent pump start
- Pressure-dependent or flow-dependent stop of the pump

Product information

Product information as per Regulation No. 1907/2006 (REACH)

For information as per chemicals Regulation (EC) No. 1907/2006 (REACH), see <http://www.ksb.com/reach>.

Selection information

Pressure curve

The start pressure is set to 3 bar at the factory and can be decreased to 1 bar or increased to 6.5 bar if necessary. For further information, refer to the operating manual.

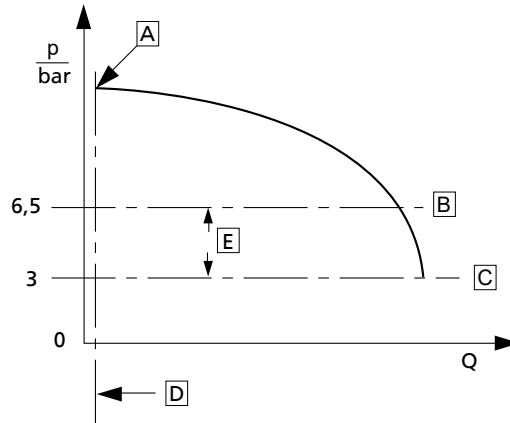


Fig. 1: Start-up range

A	Shutoff head
B	$p_{E \max}$
C	p_E Factory setting
D	Pump set is stopped at $Q < 2 \text{ l/s}$
E	Pump start

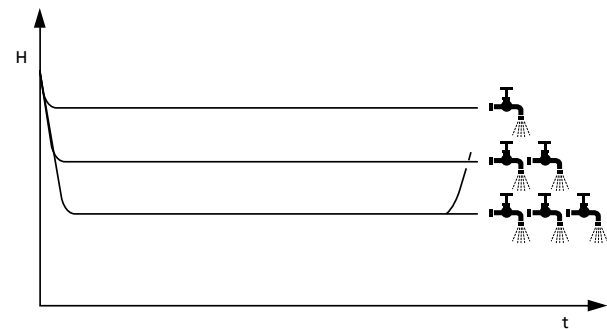


Fig. 2: System pressure in relation to withdrawn fluid quantities

H	Pump head
t	Time

Technical data

Selection table

Characteristic	Value
Range of start pressure (on/off mode)	1 - 5 bar
Minimum flow rate (on/off mode) ¹⁾	2 l/min
Maximum start pressure (pressure-dependent mode)	6,5 bar
Maximum stop pressure (pressure-dependent mode)	7 bar
Maximum operating pressure	10 bar
Burst pressure ²⁾	40 bar
Flow Rate	15 m ³ /h (4,17 l/s)
Enclosure	IP54
Ambient temperature	0 to 50 °C
Fluid temperature	0 to 40 °C
Mains voltage	1~230 V, 50/60 Hz 3~230 V, 50/60 Hz 3~400 V, 50/60 Hz
Maximum current requirement	10.0 A (16.0 A for short periods)

¹ The pump set is stopped when the actual flow rate is lower than the minimum flow rate.

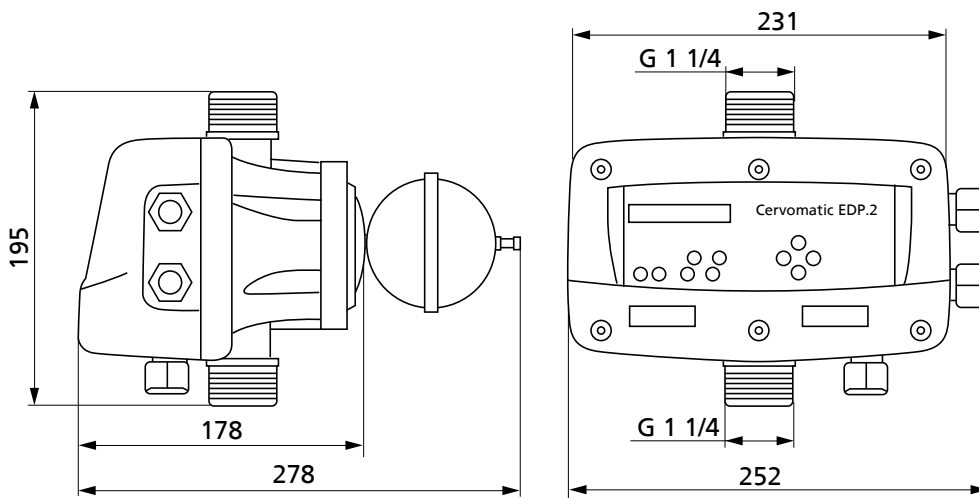
² The control unit must be protected if the excess pressure (incl. system-induced surge pressures) is higher than the maximum burst pressure of $p_B = 40 \text{ bar}$. Add a safety margin of 5 bar to the nominal pressure if the maximum suction-side pressure is not known. Alternatively, install a pressure reducer on the pump's suction side or between the pump set and the control unit.

Characteristic	Value
Protection against lack of water	Yes
Restart after detected lack of water	ART system (Automatic Reset Test) <ul style="list-style-type: none"> One restart attempt after 5.5 minutes In the case of persisting lack of water: restart attempt repeated every 30 minutes for a period of 24 hours In the case of permanent lack of water: pump is permanently stopped until the problem is remedied
Inlet tank monitoring	Optional
Weight	2,5 kg
Mat. No.	01185581

Dimensions

Cervomatic EDP.2


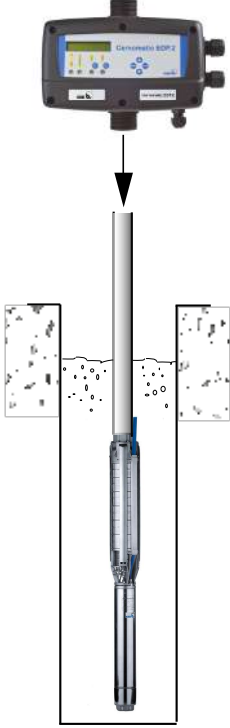
Dimensions in mm



Installation information



Cervomatic EDP.2

Selection table

Cervomatic EDP.2 with Multi Eco	Cervomatic EDP.2 with S 100D Cervomatic EDP.2 with Ixo
 <p>Use screwed pump unions for installation! (⇒ Page 7)</p>	

Accessories

Overview of accessories

	Description	Mat. No.	[kg]
	2x pump pipe unions G1 to G 1 1/4 (union nut)	00136434	0,3
	Pipe adapter set For installing the control unit in horizontal pipes	01198308	2,2



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