

TROUBLESHOOTING ESYBOX



Before starting to look for faults it is necessary to disconnect the power supply to the pump (take the plug out of the socket).

Solving typical problems

Fault	LED	Probable Causes	Remedies
The pump does not start.	Red: off White: off Blue: off	No electric power.	Check whether there is voltage in the socket and insert the plug again.
The pump does not start.	Red: on White: on Blue: off	Shaft blocked.	See paragraph 10.4 (motor shaft maintenance).
The pump does not start.	Red: off White: on Blue: off	Utility at a level higher than the system restarting pressure level (par. 3.2).	Increase the system restarting pressure level by increasing SP or decreasing RP.
The pump does not stop.	Red: off White: on Blue: off	<ol style="list-style-type: none"> 1. Leak in the system. 2. Impeller or hydraulic part clogged. 3. Air getting into the suction pipe. 4. Faulty flow sensor 	<ol style="list-style-type: none"> 1. Check the system, find and eliminate the leak. 2. Dismantle the system and remove the obstructions (assistance service). 3. Check the suction pipe, find and eliminate the cause of air getting in. 4. Contact the customer service center.
Insufficient delivery	Red: off White: on Blue: off	<ol style="list-style-type: none"> 1. Suction depth too high. 2. Suction pipe clogged or diameter insufficient. 3. Impeller or hydraulic part clogged. 	<ol style="list-style-type: none"> 1. As the suction depth increases the hydraulic performance of the product decreases (Description of the Electric pump). Check whether the suction depth can be reduced. Use a suction pipe with a larger diameter (but never smaller than 1"). 2. Check the suction pipe, find the cause of choking (obstruction, dry bend, counter slope, ...) and remove it. 3. Dismantle the system and remove the obstructions (assistance service).
The pump starts without utility request.	Red: off White: on Blue: off	<ol style="list-style-type: none"> 1. Leak in the system 2. Faulty non-return valve. 	<ol style="list-style-type: none"> 1. Check the system, find, and eliminate the leak. 2. Service the non-return valve as described in par. 10.3.
The water pressure when turning on the utility is not immediate.	Red: off White: on Blue: off	Expansion vessel empty (insufficient air pressure) or has broken diaphragm.	Check the air pressure through the valve in the technical compartment. If water comes out when checking it, the vessel is broken. Otherwise restore the air pressure according to the equation par. 1.2.
When the utility is turned on the flow falls to zero before the pump starts	Red: off White: on Blue: off	Air pressure in the expansion vessel higher than the system starting pressure.	Calibrate the expansion vessel pressure or configure the parameters SP and/or RP so as to satisfy the equation par.1.2.
The display shows BL	Red: on White: on Blue: off	<ol style="list-style-type: none"> 1. No water. 2. Pump not primed. Setpoint not reachable with the set RM value	<ol style="list-style-type: none"> 1-2. Prime the pump and check whether there is air in the pipe. Check whether the suction or any filters are blocked. 3. Set a RM value that allows the setpoint to be reached.
The display shows BP1	Red: on White: on Blue: off	1. Faulty pressure sensor.	1. Contact the customer service center.
The display shows OC	Red: on White: on Blue: off	<ol style="list-style-type: none"> 1. Excessive absorption. Pump blocked.	<ol style="list-style-type: none"> 1. Fluid too dense. Do not use the pump for fluids other than water. Contact the customer service center.
The display shows PB	Red: on White: on Blue: off	<ol style="list-style-type: none"> 1. Supply voltage too low. Excessive drop in voltage on the line.	<ol style="list-style-type: none"> 1. Check the presence of the correct supply voltage. Check the section of the power supply cables.
The display shows: Press + to propagate this config	Red: off White: on Blue: off	One or more devices have sensitive parameters not aligned.	Press the + key on the device which we are sure has the most recent and correct configuration of the parameters.

Alarm in the fault log	
Display indication	Description
PD	Irregular switching off
FA	Problems in the cooling system

Blockage conditions	
Display indication	Description
PH	Cutout due to pump overheating
BL	Blockage due to water lack
BP1	Blockage due to reading error on the internal pressure sensor
PB	Blockage due to supply voltage outside specifications
OT	Blockage due to overheating of the power stages
OC	Blockage due to motor overload
SC	Blockage due to short circuit between the motor phases
ESC	Blockage due to short circuit to earth
HL	Hot liquid
NC	Blockage due to motor disconnected
Ei	Blockage due to internal error
Vi	Blockage due to internal voltage out of tolerance
EY	Block for cyclicity abnormal detected on the system

Automatic resets of error conditions		
Display indication	Description	Automatic reset sequence
BL	Blockage due to water lack	<ul style="list-style-type: none"> - One attempt every 10 minutes for a total of 6 attempts. - One attempt every hour for a total of 24 attempts - One attempt every 24 hours for a total of 30 attempts.
PB	Blockage due to line voltage outside specifications	<ul style="list-style-type: none"> - It is reset when it returns to a specific voltage.
OT	Blockage due to overheating of the power stages	<ul style="list-style-type: none"> - It is reset when the temperature of the power stages returns within the specifications.
OC	Blockage due to motor overload	<ul style="list-style-type: none"> - One attempt every 10 minutes for a total of 6 attempts. - One attempt every hour for a total of 24 attempts. - One attempt every 24 hours for a total of 30 attempts.

TROUBLESHOOTING ESYBOXmini3



Before starting to look for faults it is necessary to disconnect the power supply to the pump (take the plug out of the socket).

Solving typical problems

Fault	LED	Probable Causes	Remedies
The pump does not start.	Red: off White: off Blue: off	No electric power.	Check whether there is voltage in the socket and insert the plug again.
The pump does not start.	Red: on White: on Blue: off	Shaft blocked.	See paragraph 9.4 (motor shaft maintenance).
The pump does not start.	Red: off White: on Blue: off	Utility at a level higher than the system restarting pressure level (par. 3.2).	Increase the system restarting pressure level by increasing SP or decreasing RP.
The pump does not stop.	Red: off White: on Blue: off	<ol style="list-style-type: none"> 1. Leak in the system. 2. Impeller or hydraulic part clogged. 3. Air getting into the suction pipe. 4. Faulty flow sensor 	<ol style="list-style-type: none"> 1. Check the system, find and eliminate the leak. 2. Dismantle the system and remove the obstructions (assistance service). 3. Check the suction pipe, find and eliminate the cause of air getting in. 4. Contact the customer service center.
Insufficient delivery	Red: off White: on Blue: off	<ol style="list-style-type: none"> 1. Suction depth too high. 2. Suction pipe clogged or diameter insufficient. 3. Impeller or hydraulic part clogged. 	<ol style="list-style-type: none"> 1. As the suction depth increases the hydraulic performance of the product decreases (Description of the Electric pump). Check whether the suction depth can be reduced. Use a suction pipe with a larger diameter (but never smaller than 1"). 2. Check the suction pipe, find the cause of choking (obstruction, dry bend, counter slope, ...) and remove it. 3. Dismantle the system and remove the obstructions (assistance service).
The pump starts without utility request.	Red: off White: on Blue: off	<ol style="list-style-type: none"> 1. Leak in the system 2. Faulty non-return valve. 	<ol style="list-style-type: none"> 1. Check the system, find, and eliminate the leak. 2. Service the non-return valve as described in par. 10.3.
The water pressure when turning on the utility is not immediate.	Red: off White: on Blue: off	Expansion vessel empty (insufficient air pressure) or has broken diaphragm.	Check the air pressure through the valve in the technical compartment. If water comes out when checking it, the vessel is broken. Otherwise restore the air pressure according to the equation par. 1.2.
When the utility is turned on the flow falls to zero before the pump starts	Red: off White: on Blue: off	Air pressure in the expansion vessel higher than the system starting pressure.	Calibrate the expansion vessel pressure or configure the parameters SP and/or RP so as to satisfy the equation par.1.2.
The display shows BL	Red: on White: on Blue: off	<ol style="list-style-type: none"> 3. No water. 4. Pump not primed. Setpoint not reachable with the set RM value	<ol style="list-style-type: none"> 1-2. Prime the pump and check whether there is air in the pipe. Check whether the suction or any filters are blocked. 3. Set a RM value that allows the setpoint to be reached.
The display shows BP1	Red: on White: on Blue: off	1. Faulty pressure sensor.	1. Contact the customer service center.
The display shows BP2	Red: on White: on Blue: off	1. Faulty pressure sensor.	1. Contact the customer service center.
The display shows OC	Red: on White: on Blue: off	<ol style="list-style-type: none"> 1. Excessive absorption. 2. Pump blocked. 	<ol style="list-style-type: none"> 1. Fluid too dense. Do not use the pump for fluids other than water. 2. Contact the customer service center.
The display shows PB	Red: on White: on Blue: off	<ol style="list-style-type: none"> 1. Supply voltage too low. Excessive drop in voltage on the line.	<ol style="list-style-type: none"> 1. Check the presence of the correct supply voltage. Check the section of the power supply cables.

Alarm in the fault log	
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Blockage conditions	
Display indication	Description
PH	Cutout due to pump overheating
BL	Blockage due to water lack
BP1	Blockage due to reading error on the delivery pressure sensor
BP2	Blockage due to reading error on the suction pressure sensor
PB	Blockage due to supply voltage outside specifications
LP	Block for low DC voltage
HP	Block for high DC voltage
OT	Blockage due to overheating of the power stages
OC	Blockage due to motor overload
SC	Blockage due to short circuit between the motor phases
ESC	Blockage due to short circuit to earth
HL	Hot liquid
NC	Blockage due to motor disconnected
Ei	Blockage due to i-th internal error
Vi	Blockage due to i-th internal voltage out of tolerance
EY	Block for cyclical abnormal detected on the system

Automatic resets of error conditions		
Display indication	Description	Automatic reset sequence
BL	Blockage due to water lack	<ul style="list-style-type: none"> - One attempt every 10 minutes for a total of 6 attempts. - One attempt every hour for a total of 24 attempts - One attempt every 24 hours for a total of 30 attempts.
PB	Blockage due to line voltage outside specifications	<ul style="list-style-type: none"> - It is reset when it returns to a specific voltage.
OT	Blockage due to overheating of the power stages	<ul style="list-style-type: none"> - It is reset when the temperature of the power stages returns within the specifications.
OC	Blockage due to motor overload	<ul style="list-style-type: none"> - One attempt every 10 minutes for a total of 6 attempts. - One attempt every hour for a total of 24 attempts. - One attempt every 24 hours for a total of 30 attempts.

TROUBLESHOOTING ESYBOX MAX



Before starting to look for faults it is necessary to disconnect the power supply to the pump (take the plug out of the socket).

Solving typical problems

Fault	LED	Probable Causes	Remedies
The pump does not start.	Red: off White: off Blue: off	No electric power.	Check whether there is voltage in the socket and insert the plug again.
The pump does not start.	Red: on White: on Blue: off	Shaft blocked.	See paragraph motor shaft maintenance.
The pump does not start.	Red: off White: on Blue: off	Utility at a level higher than the system restarting pressure level (par. 3.2).	Increase the system restarting pressure level by increasing SP or decreasing RP.
The pump does not stop.	Red: off White: on Blue: off	<ol style="list-style-type: none"> 1. Leak in the system. 2. Impeller or hydraulic part clogged. 3. Air getting into the suction pipe. 4. Faulty flow sensor 	<ol style="list-style-type: none"> 1. Check the system, find and eliminate the leak. 2. Dismantle the system and remove the obstructions (assistance service). 3. Check the suction pipe, find and eliminate the cause of air getting in. 4. Contact the customer service center.
Insufficient delivery	Red: off White: on Blue: off	<ol style="list-style-type: none"> 1. Suction depth too high. 2. Suction pipe clogged or diameter insufficient. 3. Impeller or hydraulic part clogged. 	<ol style="list-style-type: none"> 1. As the suction depth increases the hydraulic performance of the product decreases (Description of the Electric pump). Check whether the suction depth can be reduced. Use a suction pipe with a larger diameter (but never smaller than 1"). 2. Check the suction pipe, find the cause of choking (obstruction, dry bend, counter slope, ...) and remove it. 3. Dismantle the system and remove the obstructions (assistance service).
The pump starts without utility request.	Red: off White: on Blue: off	<ol style="list-style-type: none"> 1. Leak in the system 2. Faulty non-return valve. 	<ol style="list-style-type: none"> 1. Check the system, find, and eliminate the leak. 2. Service the non-return valve as described in par. 12.3.
The water pressure when turning on the utility is not immediate.	Red: off White: on Blue: off	Expansion vessel empty (insufficient air pressure) or has broken diaphragm.	Check the air pressure through the valve in the technical compartment. If water comes out when checking it, the vessel is broken. Otherwise restore the air pressure according to the equation par. 1.2.
When the utility is turned on the flow falls to zero before the pump starts	Red: off White: on Blue: off	Air pressure in the expansion vessel higher than the system starting pressure.	Calibrate the expansion vessel pressure or configure the parameters SP and/or RP so as to satisfy the equation par.1.2.
The display shows BL	Red: on White: on Blue: off	<ol style="list-style-type: none"> 5. No water. 6. Pump not primed. Setpoint not reachable with the set RM value	<ol style="list-style-type: none"> 1-2. Prime the pump and check whether there is air in the pipe. Check whether the suction or any filters are blocked. 3. Set a RM value that allows the setpoint to be reached.
The display shows BP1	Red: on White: on Blue: off	1. Faulty pressure sensor.	1. Contact the customer service center.
The display shows OC	Red: on White: on Blue: off	<ol style="list-style-type: none"> 2. Excessive absorption. 3. Pump blocked. 	<ol style="list-style-type: none"> 1. Fluid too dense. Do not use the pump for fluids other than water. 2. Contact the customer service center.
The display shows PB	Red: on White: on Blue: off	<ol style="list-style-type: none"> 1. Supply voltage too low. 2. Excessive drop in voltage on the line. 	<ol style="list-style-type: none"> 1. Check the presence of the correct supply voltage. 2. Check the section of the power supply cables.
The display shows: Press ^ to propagate this config	Red: off White: on Blue: off	One or more devices have sensitive parameters not aligned.	Press the ^ key on the device which we are sure has the most recent and correct configuration of the parameters.