

Operation & Maintenance

Fault and warning message Variomat and Reflexomat

 reflex+
experts No.

M10

Code	Message	Possible causes	Fault diagnostics and repair
01	Min. Pressure	<ul style="list-style-type: none"> System pressure has fallen below minimum operating pressure (p_0) Possible water loss from the system Error pump/compressor, e.g. motor protection pump/compressor tripped 	<ul style="list-style-type: none"> Remedy leakage Reset error (Quit-Button)
02.1	Min. Water-Level	<ul style="list-style-type: none"> Make-up water not connected Strainer in the make-up water line blocked 	<ul style="list-style-type: none"> Feed VG/RG basic vessel via hosepipe by hand Clean strainer
02.2	Only for Variomat 2-2/...	<ul style="list-style-type: none"> Make-up water solenoid valve not opening Make-up water feeding disturbed 	<ul style="list-style-type: none"> Check make-up water feeding via hand mode Ventilate system manually
03	Max. Water-Level	<ul style="list-style-type: none"> Solenoid valve for make-up water not tight Overfilling by hand mode External water entry e.g. through damaged heat exchanger Undersized VG/RG basic vessel selected 	<ul style="list-style-type: none"> Drain water off Check heat exchanger Check vessel design
04	Pump(s)/Compressor(s)	<ul style="list-style-type: none"> Pump(s)/Compressor do not start-up Motor winding damaged 	<ul style="list-style-type: none"> Turn motor shaft on via fan impeller by using screwdriver (maybe after a longer idle time necessary)
04.1	Error Pump/Compressor 1	<ul style="list-style-type: none"> Blown fuse/circuit breaker tripped 	<ul style="list-style-type: none"> Reset error (Quit-Button)
04.2	Error Pump/Compressor 2	<ul style="list-style-type: none"> Motor protection (Thermistor), if existing, has tripped 	<ul style="list-style-type: none"> Contact the Reflex-Service
05	Pump-/Compressor run-time Standard Variomat: 30 min Standard Reflexomat: 240 min	<ul style="list-style-type: none"> Water loss in the facility Cap valve suction side closed Discharge valve do not close Only for Variomat: Air inside the pump 	<ul style="list-style-type: none"> Remedy leakage Check shutoff device Stop pump and open bleed vent Check solenoid valve in hand mode
06	Make-up water time Standard Variomat: 20 min Standard Reflexomat: 30 min	<ul style="list-style-type: none"> Water loss in the facility Make-up water shut off or not connected Make-up water line size to small 	<ul style="list-style-type: none"> Remedy leakage Feed VG/RG basic vessel via hosepipe by hand Reset error (Quit-Button)
07	Make-up water cycles Standard Variomat: 3× each 2 h Standard Reflexomat: 6× each 2 h	<ul style="list-style-type: none"> Water loss from the system 	<ul style="list-style-type: none"> Remedy leakage Reset error (Quit-Button)
08	Error pressure sensor (alarm)	<ul style="list-style-type: none"> Sensor defect, wiring fault, cable break 	<ul style="list-style-type: none"> Check wiring Reset error (Quit-Button) Contact the Reflex-Service
09	Error filling degree measurement (alarm)	<ul style="list-style-type: none"> Load cell failure Wiring fault (cable break) 	<ul style="list-style-type: none"> Check wiring Reset error (Quit-Button) Contact the Reflex-Service
10	Maximum pressure exceeded. Max. pressure p_{max}	<ul style="list-style-type: none"> Water or air-side overflow or discharge devices do not open Overflow or discharge devices defective Strainer is dirty 	<ul style="list-style-type: none"> Clean strainer (sieve) Check solenoid valve(s)/ motor ball valve(s) in manual mode Contact Reflex Service
11*	Quantity of make-up water	<ul style="list-style-type: none"> Large loss of water from the system Insufficient quantity of make-up water for connected expansion vessel 	<ul style="list-style-type: none"> Remedy leakage; reset error Increase quantity of make-up water per cycle
15*	Make-up water solenoid valve Technical inspection	<ul style="list-style-type: none"> Pulse water meter indicating flow, even though no make-up water is required 	<ul style="list-style-type: none"> Isolate, strip and check solenoid valve for dirt on sealing faces
16	Voltage breakdown	<ul style="list-style-type: none"> The unit was de-energised Point in time when power was restored see error memory 	<ul style="list-style-type: none"> Check power supply
18	Parameter	<ul style="list-style-type: none"> Setting value of a parameter in the service menu not plausible compared to other setting values 	<ul style="list-style-type: none"> Parameter check Resetting the factory setting with Reset
19	Stop > 4 h	<ul style="list-style-type: none"> Variomat/ Reflexomat has had Stop selected for more than 4 hours 	<ul style="list-style-type: none"> Change selection to Auto if safe to do so
20*	Overrun of max. quantity of make-up water (accumulated)	<ul style="list-style-type: none"> The adjusted max. quantity of make-up water in the customer menu is exceeded 	<ul style="list-style-type: none"> Reset of internal counter Quit message
21	Maintenance recommended	<ul style="list-style-type: none"> Selected period exceeded 	<ul style="list-style-type: none"> Carry out the maintenance, then reset the maintenance counter
24	Water softening	<ul style="list-style-type: none"> Permissible volume of water through the softening cartridge(s) exceeded Set time for cartridge(s) change has been exceeded 	<ul style="list-style-type: none"> Change cartridge(s) then enter new capacity in the customer menu Accept the alarm and reset using the Quit-Button
30	Error EA-module (I/O-module)	<ul style="list-style-type: none"> Extension module selected in error, or there is a problem with wiring or activation 	<ul style="list-style-type: none"> Switch selection Off in the Service menu Check for power supply to module
32	Undervoltage	<ul style="list-style-type: none"> Power supply voltage has fallen below set limit 	<ul style="list-style-type: none"> Check power supply
35	Digital limit switch voltage fail	<ul style="list-style-type: none"> Short circuit of limit switch voltage 	<ul style="list-style-type: none"> Check wiring of all digital inputs (e.g. impuls water meter)
36	Analogue limit switch voltage fail	<ul style="list-style-type: none"> Short circuit of limit switch voltage 	<ul style="list-style-type: none"> Check wiring of analogue inputs (e.g. pressure/ level)
37	Limit switch voltage for motor ball valve 1 fail	<ul style="list-style-type: none"> Short circuit of limit switch voltage 	<ul style="list-style-type: none"> Check wiring of motor ball valve 1
38	Limit switch voltage for motor ball valve 2 fail	<ul style="list-style-type: none"> Short circuit of limit switch voltage 	<ul style="list-style-type: none"> Check wiring of motor ball valve 2
41	Exchange battery	<ul style="list-style-type: none"> Low battery voltage of buffer battery in the control unit 	<ul style="list-style-type: none"> Exchange battery (Typ LS 14250 1/2 AA 3,6V)
42	Bus module	<ul style="list-style-type: none"> Bus module activated but not existing or connection faulty 	<ul style="list-style-type: none"> Deactivate or retrofit bus module in control unit, check connection

* Only if a impuls water meter is connected and activated in control unit

For unlisted fault or warning messages, please check in the information system on the control unit (e.g. info menu with control touch), or consult the Reflex operating menu.

Basics

Function

Operation & Maintenance

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Fault and warning message

Servitec & Fillcontrol (Auto, Auto Compact, Plus)

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experts No.

M11

Exclusiveness for 1) Servitec, 2) Fillcontrol Auto, Auto Compact, 3) Fillcontrol Plus

Basics

Function

Operation & Maintenance

Code	Message	Possible causes	Fault diagnostics and repair
01	Min. Pressure (only in operating mode magcontrol)	<ul style="list-style-type: none"> System pressure has fallen below min. operating pressure (p_0) Water loss from the system Expansion vessel fault Pump failure 	<ul style="list-style-type: none"> Checked pumped system for leakage Check expansion vessel and exchange if needed Test function of pump in hand mode
02.1	1) 2) Low water	<ul style="list-style-type: none"> Low water switch in 1) vacuum spray tube or 2) break tank has been triggered for too long Valves to the Servitec or make-up water tank are closed Inline strainer(s) are blocked Fault in low-water cut-off switch 	<ul style="list-style-type: none"> Open piping connection or make-up water line Clean strainer Replace low-water cut-off switch
02.2	1) 2) Water shortage	<ul style="list-style-type: none"> Low water switch in 1) vacuum spray tube or 2) break tank has been triggered too often Strainer blocked Check-valve on Air vent failing to seal 	<ul style="list-style-type: none"> Clean strainer Test check valve on AAV, replace if required Carry out vacuum test
04.1	1) 2) Pump	<ul style="list-style-type: none"> Fuse of the pump defective Pump motor protection triggered Pump does not start Pump blocked Pump motor defective 	<ul style="list-style-type: none"> Turn motor shaft by hand Replace fuse Check pump motor mechanical and electrical Replace pump
06	Make-up water time	<ul style="list-style-type: none"> Set value of water make-up time exceeded Heavy water loss from the system Make-up water supply isolated, or not connected Flow-rate or pressure of make-up water line too low Band of cut-in/ cut-out levels for water make-up in vessels too wide 	<ul style="list-style-type: none"> Check system for leakage Connect or respectively open make-up water line Check pressure and flow-rate of make-up water line Check band of cut-in/ cut-out level for water make-up
07	Make-up water cycles	<ul style="list-style-type: none"> Replenishment or make-up water cycles exceeded Heavy water loss from the system Water displacing air during system venting 	<ul style="list-style-type: none"> Check system for leakage
08	Pressure measurement (only in operating mode magcontrol)	<ul style="list-style-type: none"> Control unit receive incorrect signal Plug of pressure sensor is not put on Control unit is not receiving correct 4–20 mA signal Fault pressure sensor 	<ul style="list-style-type: none"> Put on plug of pressure sensor Exchange cable of pressure sensor Exchange pressure sensor "PIS"
10	Maximum pressure (only in operating mode magcontrol)	<ul style="list-style-type: none"> Maximum pressure setpoint exceeded Value for safety valve lifting, set too low in the menu Vessel selection to small, in relation to system volume 	<ul style="list-style-type: none"> Check safety valve pressure setting Exchange safety valve Exchange the dimension of piping according to the system
11	Quantity of make-up water (only if "with water meter" is activated in the customer menu)	<ul style="list-style-type: none"> Water meter set value exceeded Water loss from the pressurised system Volume of water per contact of the pulse meter, incorrectly set in the Service Menu 	<ul style="list-style-type: none"> Check system for leakage Check setpoint and if necessary correct it
12	3) Fill time	<ul style="list-style-type: none"> Maximum set time for filling exceeded System volume too large (> 3,000 litres) 	<ul style="list-style-type: none"> Start up filling cycle again
13	3) Fill-up quantity	<ul style="list-style-type: none"> System volume too large (> 3,000 litres) Volume of water per contact of the pulse meter incorrectly set in the Service Menu 	<ul style="list-style-type: none"> Start up filling cycle again if necessary Adjust water quantity per contact pulse in the service menu
14	1) Exhaust time	<ul style="list-style-type: none"> Setpoint for exhaust time exceeded Vent line closed Strainer blocked 	<ul style="list-style-type: none"> Open vent line Clean strainer Adjust exhaust time if required
15	Feeding valve	<ul style="list-style-type: none"> Contact water meter counts even though the make-up water is not requested 	<ul style="list-style-type: none"> Check 1) Motor ball valve respectively 2) solenoid valve for leakage in make-up waterline
16	Voltage breakdown	<ul style="list-style-type: none"> Power supply lost See error memory entry 	<ul style="list-style-type: none"> Time noted, is point at which power supply was restored
18	Parameters	<ul style="list-style-type: none"> Setting value of a parameter in the service menu not plausible compared to other setting values 	<ul style="list-style-type: none"> Parameter check Resetting the factory settings with Reset
19	Stop > 4 h	<ul style="list-style-type: none"> Stop mode has been selected for more than 4-hours 	<ul style="list-style-type: none"> Select Auto mode
20	Max. make-up water quantity	<ul style="list-style-type: none"> Make-up water volume exceeded (Accumulated) 	<ul style="list-style-type: none"> Reset Make-up water volume in Customer Menu
21	Maintenance recommended	<ul style="list-style-type: none"> Service interval elapsed 	<ul style="list-style-type: none"> Carry out recommended service actions Reset Maintenance counter
24	Water softening	<ul style="list-style-type: none"> Capacity of water softening cartridge(s) exceeded Time limit for water softening cartridge(s) exceeded 	<ul style="list-style-type: none"> Replace water softening cartridge(s) with new Enter new capacity in the Customer Menu Reset error (Quit-Button)
30	Error I/O-module	<ul style="list-style-type: none"> Extension module activated but not installed or faulty connection 	<ul style="list-style-type: none"> Deactivate or retrofit I-O module in control unit, check connection
32	Undervoltage	<ul style="list-style-type: none"> Power supply has fallen below preset limit 	<ul style="list-style-type: none"> Check power supply
41	Exchange buffer battery	<ul style="list-style-type: none"> Voltage of buffer battery in the control unit too low 	<ul style="list-style-type: none"> Exchange buffer battery (Type LS 14250 1/2 AA 3.6V)
42	Bus module	<ul style="list-style-type: none"> Bus module activated but not installed or faulty connection 	<ul style="list-style-type: none"> Deactivate or refit bus module in the control unit, check connection
43	Working range exceeded	<ul style="list-style-type: none"> System pressure is higher than maximum working pressure of the Servitec system 	<ul style="list-style-type: none"> Reduce system pressure and bring it into the maximum working pressure range

■ Maximum working pressures: **Servitec 35:** < 2.5 bar | **Servitec 60:** < 4.5 bar | **Servitec 75:** < 5.4 bar | **Servitec 95:** < 9.2 bar
 ■ Note: Error is automatically cancelled if parameters are complied within.

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