Electronic mixing valve - Digital regulator

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Technical documentation:

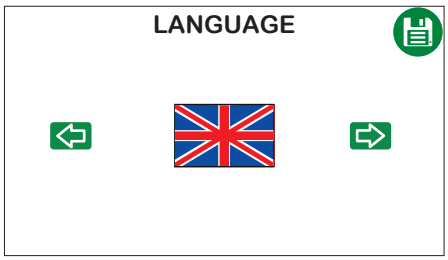
6003 series LEGIOMIXevo

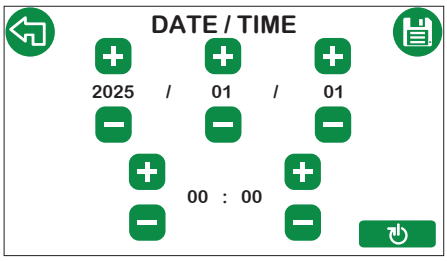
The full programming manual can be downloaded using the QR code

QUICK START GUIDE

1 Wizard

1.1 First start-up





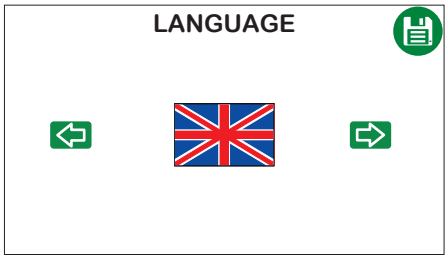
- Set the language and save;
- Click to move to the next screen.

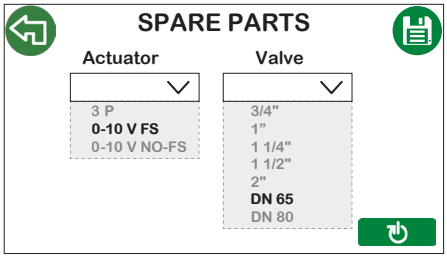
- Set the date/time and save;
- Restart the system to apply the settings.

After restarting, the **Initial loading** screen appears, followed by the **Home** screen.

1.2 Replacement regulator start-up

In the case of a replacement regulator, the procedure is launched, as it is required to identify the actuator used and the valve dimensions.



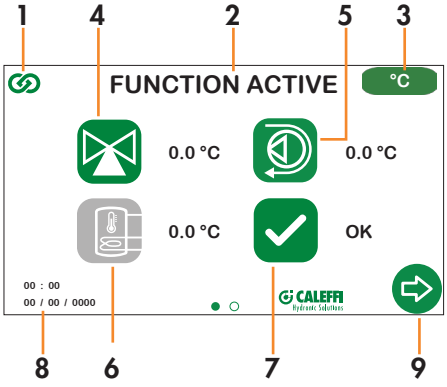


- Set the language and save;
- Click to move to the next screen.

- Select the actuator and the valve size (connections) and save. **N.B.:** 3-Point actuator (3 P), versions 230 V and 24 V, 0-10 V FS (Failsafe) actuator, 0-10 V NO-FS 24 V version only.
- Restart the system to apply the settings.

When this procedure is followed, the regulator is set to the valve and actuator, with all default parameters applied. At the end of this configuration procedure, the regulator restarts with the **First start-up** wizard.

2 Home



1. **Caleffi Cloud symbol:** this appears in colour when the device is connected to the Caleffi Cloud, and in grey when not connected;
2. **Status:** description of the function active at that moment (Mixing, Disinfection, Flushing, Anticlog, Shock, Safety valve);
3. **Unit of measurement:** touch the icon to change the unit of measurement for the temperature to degrees Centigrade (°C) or degrees Fahrenheit (°F);
4. **Temperature detected by the mixing probe:** the icon can turn the following colours:

The mixing valve is opening the cold line to decrease the mixed temperature.

The mixing valve is opening the hot line to increase the mixed temperature.

The mixing valve is remaining still in its position as the temperature is stable at the setpoint value.

The icon can be selected, and allows the mixing temperature to be set quickly. The setting procedure is described in the section **Setting the mixing temperature.**

5. **Temperature detected by the recirculation probe:** if the probe is connected and enabled, the icon will appear in green, otherwise it will be shown in grey;
6. **Temperature detected by the storage probe:** if the probe is connected and enabled, the icon will appear in green, otherwise it will be shown in grey;
7. **Alarm status:**

No alarm.

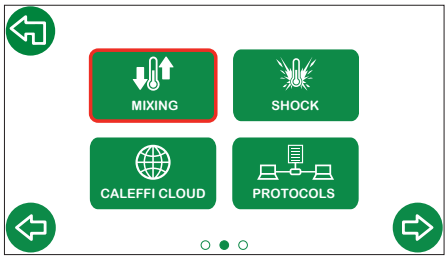
Alarms present (in this case the icon can be selected and can be used to access the **Alarms** screen quickly).

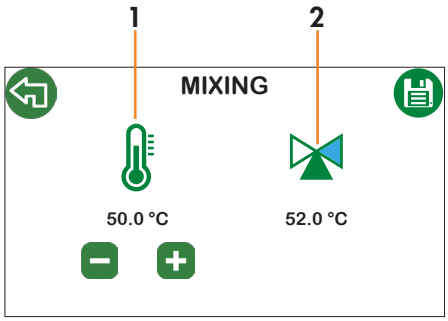
8. **Date and time:** shows the date and time set on the device;
9. **Scroll arrow:** can be used to move on to the next screen (**Menu**).

N.B.: the display has an automatic shutdown function. After 15 minutes of inactivity, it shuts down automatically. Simply touch it to reactivate.

3 Setting the mixing temperature

This function is accessed directly from the **Home** screen or from the **Settings menu**.





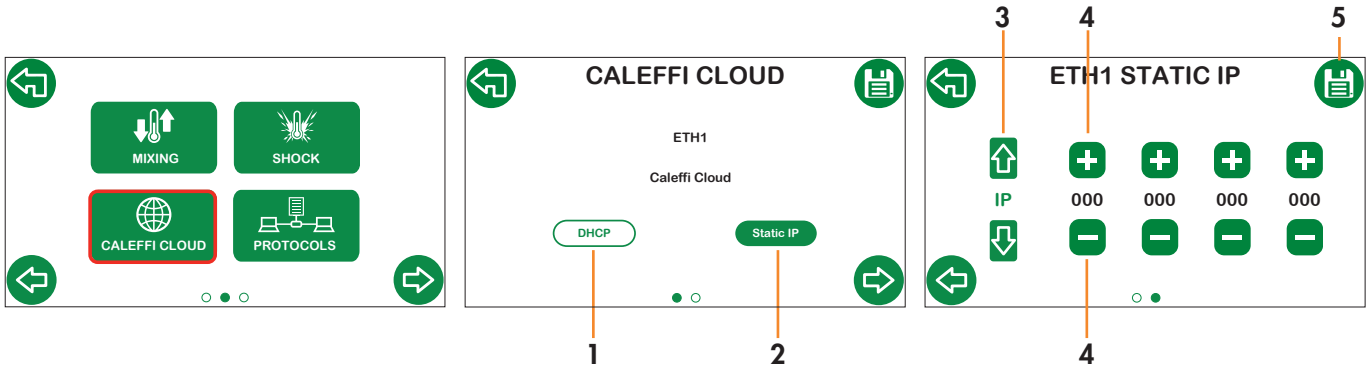
1. Mixing temperature setpoint;
2. Read mixing temperature and actuator direction indication.

4 Network settings - Caleffi Cloud

Procedures prior to regulator configuration

1. Make sure the wiring has been performed correctly;
2. Open ports **8883, 8443, 443, 80** on the Internet network access device (e.g. router, not supplied).

Configuration on the regulator display



Select the network IP address assignment type:

1. **DHCP:** the IP is assigned automatically by the DHCP server;
2. **Static IP:** manual IP assignment, enabling the next screen for the configuration of network parameters (IP, Gateway, Mask).
3. Select the **IP, Gateway, Mask** parameters using the vertical arrows;
4. Set the parameters using + and -;
5. Save.

Make sure that the Caleffi Cloud symbol appears in green on the Home screen (you may have to wait for a few minutes).

Caleffi Account access

1. Download the Caleffi View App from these stores: Scarica su App Store | DISPONIBILE SU Google Play
2. Follow the registration procedure. If you already have an account, log in with the credentials you usually use.
3. Follow the wizard on the app to create a building, users and branches and to add the LEGIOMIXevo(s).

At this point you will be able to access the Caleffi View App to view the regulator operating parameters.
The same credentials can be used to access the Dashboard via the following link:
https://cloud.caleffi.com
As well as showing the operating parameters, the Dashboard can also be used to view detailed charts and tables and to manage regulator settings.

IMPORTANT! For safety reasons, changing the operating parameters remotely requires supervision at the device site.

5 Default settings

Parameters	Description	Adjustment range	Factory settings
BASIC CONFIGURATION			
Unit of measurement		°C - °F	°C
Language		IT - EN - EN(US) - FR - DE - ES - PT - BR - EN(CA) - FR(CA)	Italian
DATE / TIME			
Date			25/02/2020
Time			00:00
Date format			dd/mm/yyyy
Daylight saving	Daylight saving settings	EU-USA-OFF	EU
TEMPERATURE PROBES			
Mixed		Enabled - Disabled	Enabled
Recirculation		Enabled - Disabled	Enabled
Storage		Enabled - Disabled	Disabled
DISINFECTION			
Program	Program	1- 2- 3	3
Frequency	Frequency	Daily - Weekly - Disabled	Daily
T mix	Selected setpoint temperature value during disinfection	+40 °C - 85 °C	60 °C
T check	Minimum temperature which should be maintained in order to achieve the correct disinfection level	+40 °C - 85 °C	57 °C
T max	Maximum temperature that can be reached during disinfection	+50 °C - 90 °C	65 °C
Start time	Disinfection scheduled start time (hh:mm)	00:00-23:59	02:00
Duration	Minimum duration of disinfection in order to consider it completed successfully	0 - 180 min	30 min
Max Duration	Maximum duration of the disinfection function	0 - 360 min	60 min
MIXING			
T set mix	Set mixing temperature	+20 °C - 85 °C	50 °C
SHOCK			
T mix	Shock temperature	+50 °C - 85 °C	65 °C
Duration	Shock duration	1-4320 min (3 days as per guidelines)	5 min
Countdown	Countdown to launch	0-120 s	60 s
ETHERNET 1			
Use		Caleffi Cloud	Caleffi Cloud
IP address assignment		Static DHCP-IP	DHCP
PROTOCOLS			
Active protocol		ModBus TCP-ModBus RTU	ModBus RTU
ETHERNET 2			
IP			192.168.89.22
Gateway			192.168.89.1
Mask			255. 255. 255.0
RS 485			
Address		1-247	1
Baudrate		9600 or 19200	9600
Data bits / Stop bits			8 / 1
Parity		O or E or N	N
PUMP SCHEDULING			
Activation		Enabled - Disabled	Enabled
Slot	Slot	1 - 3	1
Start time	Start time (hh:mm)	00:00 - 23:00	00:00
End time	End time (hh:mm)	00:00 - 24:00	24:00

Parameters	Description	Adjustment range	Factory settings
RELAYS			
RL1 - Rec. Pump	Recirculation pump	Enabled - Disabled	Enabled
	Status		OPEN
RL2 - Flux	Flushing	Enabled - Disabled	Enabled
	Status		OPEN
	Duration	0 - 30 min	2 min
RL3 - Safety valve	Safety valve	Enabled - Disabled	Disabled
	Status		OPEN
RL4 - Aux	Auxiliary contact	Enabled - Disabled	Enabled
	Status		OPEN
RL5 - Alarm	Alarms	Enabled - Disabled	Enabled
	Status		CLOSED
SAFETY VALVE			
T set	Activation temperature for relay opening	+50 °C - 90 °C	75 °C
Trigger delay	Relay activation/deactivation delay	0 - 60 s	5 s
ACTUATORS			
Default positions		Fully open cold side - hot side	Cold side
ADVANCED			
Anticlog	Activation	Enabled - Disabled	Enabled
	Start time (hh:mm)	-	Post disinfection / 03:00
T max system	Maximum limit temperature: system protection	Set (in all functions)	90 °C

6 Regulator alarms encoding

Codes	Short description	Description
001	Disinfection error	General error during the disinfection procedure
004	Flushing execution error	Cannot perform the flushing function
010	Mixing probe fault	Probe not connected or not working properly
011	System protection (mixing probe)	The mixing probe is reading a value higher than the maximum temperature of the system
020	Recirculation probe fault	Probe not connected or not working properly
021	System protection (recirculation probe)	The recirculation probe is reading a value higher than the maximum temperature of the system
030	Hot water storage probe fault	Probe not connected or not working properly
031	System protection (hot water storage probe)	The hot water storage probe is reading a value higher than the maximum temperature of the system
055	Shock function launched	The shock function is in progress
066	Safety valve	The safety valve relay is active (relay open)
101	Initialising error	General error during the initialising/loading procedure
102	Operating system error	General error in running the operating system
103	Memory error	Cannot manage memory due to parameters and logged data
104	Loading error	Error while loading operating parameters
105	Reset error	Error during actuator reset (both 3-point and 0-10 V)
106	Anticlog function error	General error during the anticlog function
110	Download error	Error while downloading data
201	Disinfection fault	Disinfection launched correctly, but failed due to the temperature not being maintained for the minimum time period set
204	Flush error	General error during the flushing function
205	Shock function error	General error during the shock function
301	Date and time lost	Date and time lost
401	OTA (Over The Air) fault	Error in updating firmware via OTA (Over The Air)

PACKAGING