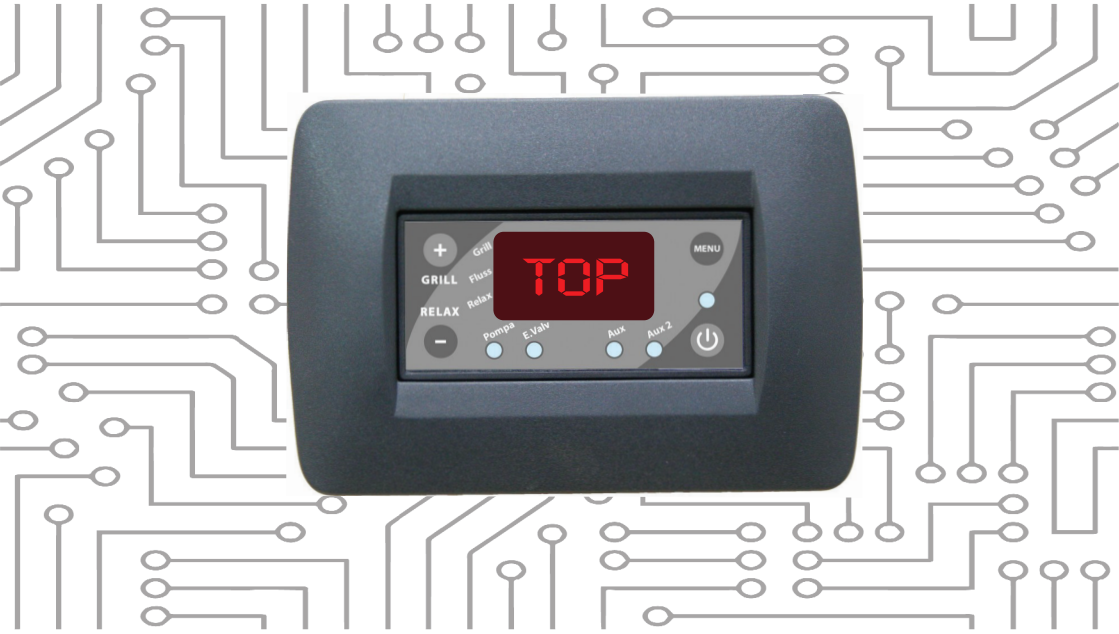
CO.EL.TE.

costruzioni elettroniche telesine

COELTOP RLX



User Manual and instructions for programming

IDRO
FIREPLACES

SOLAR
THERMIC

Manual COELTOP RLX
Code: 1630
Item: 201RLX

COELTE.NET

Made by: coelte.net

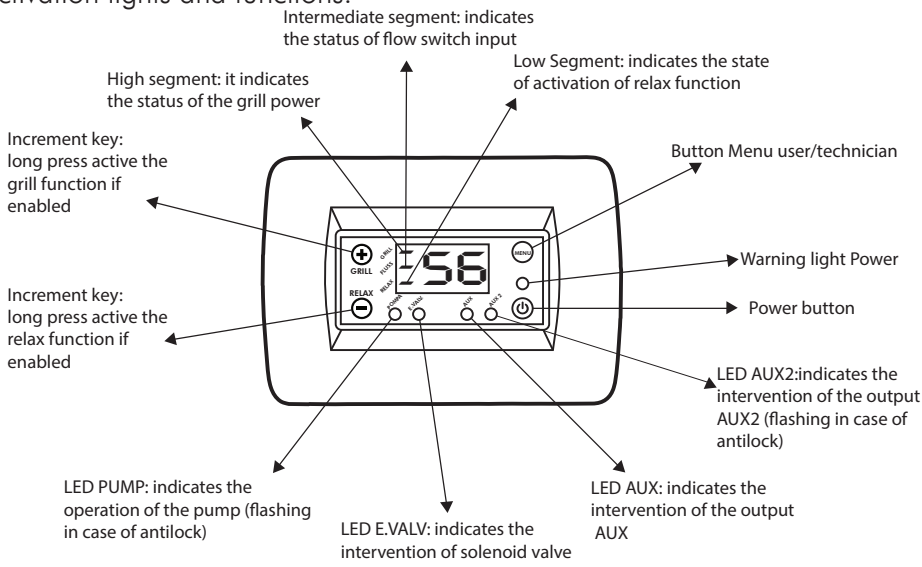
COELTOP RLX

The control unit **COELTOP RLX** comes up with simple design, and has a clear and intuitive controls. The control unit has a button **RELAX**, that allows to exclude the heating to promote the availability of sanitary hot water. **COELTOP RLX** has several operation programs to make the product applicable to different system types.

The control unit consists of 2 inputs and 4 relay output

	TERMINAL	DESCRIPTION
INPUT	S1	INPUT SONDE
	S2	INPUT SONDE OR SENSORS
	LINEA	INPUT 220VOLT
OUTPUT	CIRC	OUTPUT 220VOLT
	E.VALVOL	OUTPUT 220VOLT
	AUX	RELAY OUTPUT WITH CLEAN CONTACTS
	AUX2/CIRC2	OUTPUT 220 VOLT

Activation lights and functions:



Main Functions

Relax function

Relax function allows to momentarily turn off the heating by the pressure of the RELAX key, in this way it is possible to use all the hot water for the health. To activate the heating just press RELAX again otherwise the function will remain active until the water temperature is between the temperature values defined by the TRC e TRF parameters. The function is segnaled by the turn on of the display segment RELAX.

Stanby Function
The Standby function is activated by pressing the **Power** button, it has the effect of turning off outputs led and turning on **Power** led. To reactivate the control panel, press the **Power** button again. If you feed the fire without having rekindled the control unit, this will automatically activate when reaching the safety temperature (TSI). Standby status is maintained even after a power outage.

⚠**IMPORTANT**: In the technical menu there are 4 parameters available (P01, EV_, AU1, AU2) by means of which it defines the state of **ON / OFF** of each relay in the phase of **Standby**.

Antilock circulator function
In the case in which the circulators do not share over the days set in parameter DAB (7 days by default) they are activated for the seconds set in SAB parameter. The function is also active in standby. If you experience a power failure, whereby the unit is restarted, an anti-lock loop is done because it is not possible to know how long it had no power. When you enable this feature the **PUMP** led will light up intermittently.

Circulator pump test function
simultaneously pressing the **+** and **-** you make a circulators pump test, they will remain on for the time SAB.

Common functions
In any program where you see this symbol 👁 you can view the temperature of the second sonde by pressing the **-** (minus) for about 5 seconds.

User menu
To access the user programming, just press the **MENU** button.
The parameters displayed in the user menu can be different for each program, for which the details are shown in each of the following system boards, at the voice parameters.

ⓘ The **CO.EL.TE.** reserves the right to make changes both software and hardware to the control unit without the need for prior formal acceptance.

TECHNICAL MENU PROGRAMMING

⚠**CAUTION:** The access and modification of the following parameters is intended only to qualified personnel. To access the technical menu must hold for about 5 seconds the **MENU** button.

MENU	DEFAULT	RANGE	FUNCTION
TSI	70	65-99	IT CHANGES THE VALUE OF SAFETY THERMOSTAT
TEM	90	65-99	IT CHANGES THE VALUE OF EMERGENCY THERMOSTAT
IST	2	1-10	IT CHANGES THE HYSTERESIS THERMOSTATS
DEL	4	2-20	DIFFERENTIAL DELTA SONDES
TAS	4	1-6	IT CHANGES THE ANTIFREEZE THERMOSTAT
TAC	65	20-80	IT CHANGES THE HOT WATER THERMOSTAT (RELAX)
TAF	40	20-80	IT CHANGES THE COLD WATER THERMOSTAT (RELAX)
DAB	7	1-30	DAYS OF ANTILOCK CYCLE
SAB	20	0-59	SECONDS OF ANTILOCK
POI	OFF		SETTING OUTPUT STATE AT TURNED OFF CONTROL UNIT
OFF-EV	ON		SETTING OUTPUT STATE AT TURNED OFF CONTROL UNIT
OFF-AU1	ON		SETTING OUTPUT STATE AT TURNED OFF CONTROL UNIT
OFF-AU2	OFF		SETTING OUTPUT STATE AT TURNED OFF CONTROL UNIT
BEEP	ON		ENABLING BUTTONS BEEP
PRG	PR3		
		PR0	SUITABLE FOR 2 PUMPS PLANT AND INTERNAL AS COIL
		PR1	SUITABLE FOR 2 PUMPS PLANT AND EXTERNAL AS EXCHANGER
		PR2	SUITABLE FOR 1 PUMP PLANT AND INTERNAL AS COIL
		PR3	SUITABLE FOR 1 PUMP PLANT AND EXTERNAL AS EXCHANGER (SAME PREVIOUS COELTOP PROGRAM)
		PR4	SUITABLE FOR 2 SONDES PLANT WITH BOYLER FOR SANITARY WATER
		PR5	SUITABLE FOR SOLAR PLANT WITH INTEGRATED FORCED CIRCULATION
		PR6	SUITABLE FOR PLANT WITH FAN COIL (SEE LINKS IN PLANTS TABLES)
		PR7 PR8	SUITABLE FOR PLANT WITH FAN COIL CONTROLLED BY AMBIENT TEMPERATURE (DETAILS IN THE TABLES SYSTEMS, REQUIRES DOUBLE SONDE)
		PR9	SUITABLE FOR PLANT WITH HEATING MANAGEMENT WITHDRAWAL FROM PUFFER
		PR10	SYSTEM THAT PROVIDES THE DUAL PLANT MANAGEMENT (SEE TABLES SYSTEMS)
		PR11	WATER LEVEL SENSORS+CIRC+E.VALV (THERMOSTAT AUX2 OR GRILL)
OU4	GRL	GRL/TER	OUTPUT DEFINITION CIRC2/GRL AT THERMOSTAT CIRC 2 OR AT GRILL (available only if PRG= 2, 3, 4,10,11)
RES	OFF		RESTORING CONTROL SETTINGS FACTORY/RESET. TO COMMUTE ON PRESS THE BUTTON + 5 TIMES, THEN THE MENU BUTTON. YOU GET CONFIRMATION THROUGH THE WRITTEN **RDY.**

⚠ ALARMS

The alarm situations that may occur are the following:

ALARM	CAUSE	VISUALIZATION
1	SONDE IN SHORT CIRCUIT	ALL ALTERNATING THE WRITTEN **SCH**
2	OPEN SONDE OR NOT CONNECTED	ALL ALTERNATING THE WRITTEN **SAP**
3	EMERGENCY ALARM	ALL ALTERNATING THE VALUE OF READING TEMPERATURE

Each alarm is accompanied by beep that can be turned off by pressing any key. If the alarm condition persists for more than 4 minutes, the beep is reactivated again.

Manual **TOP RLX**

code: 1630

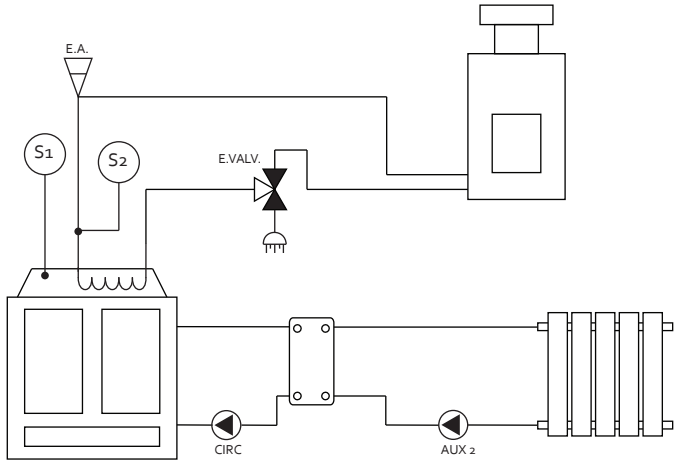
item: 201RLX

Made by: coelte.net

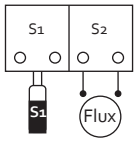
SYSTEM WITH INTERNAL WINDING AS AND ANTICONDENSATION CIRCUIT | **PROGRAM Pr0**

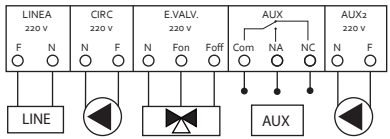
RLX Available

AUX



Initial	Name	Terminals
S1	Fireplace sonde	
S2	Flow switch (FLUSS)	
CIRC	Fireplace pump	
E.VALV.	Solenoid valve A.C.S.	
AUX	Thermostat with clean contacts	
AUX 2	Heating pump	





PARAMETERS

Display	Led	Description	Default	Range	Unit
TP1	CIRC	Chimney pump thermostat	50	20-85	°C
TEH	E.VALV.	Sanitary exchange solenoid valve thermostat	52	20-85	°C
TAU	AUX	Thermostat with clean contacts	54	20-85	°C
TP2	AUX 2	Heating pump thermostat	54	20-85	°C

PRINCIPLE OF OPERTION

IF the condition is true, the corresponding output is activated	**Logic state**	**Output**
IF**(** (RLX=ON) OR (FLUSS=CLOSED) **)**	RISC=OFF	
IF**(** (RLX=OFF) AND (FLUSS=OPENED) **)**	RISC=ON	
IF(S1>= TP1)		CIRC
IF(S1>= TEH)		E.VALV.
IF(S1>= TAU)		AUX
IF**(** (S1>= TP2) AND (RISC=ON) **)**		AUX 2

Manual **TOP RLX**

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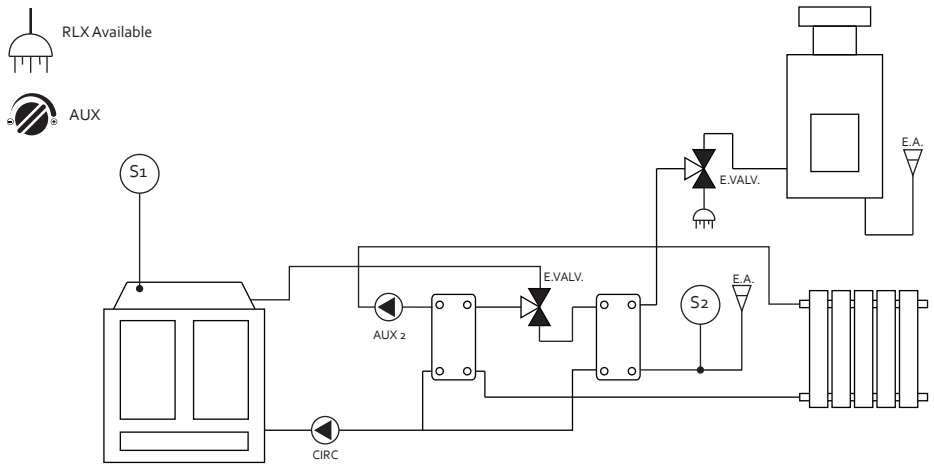
item: 201RLX

Made by: coelte.net

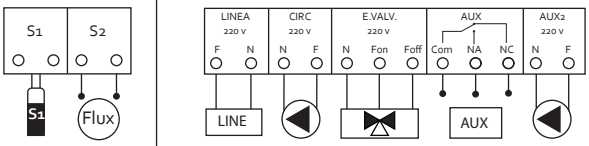
SYSTEM WITH EXTERNAL EXCHANGER AS WITH ANTICONDENSATION CIRCUIT AND EV OF HEATING CLOSURE

PROGRAM Pr1



Initial	Name
S1	Fireplace sonde
S2	Flow switch (FLUSS)
CIRC	Fireplace pump
E.VALV.	Solenoid valve A.C.S.
AUX	Thermostat with clean contacts
AUX 2	Heating pump

Terminals



PARAMETERS

Display	Led	Description	Default	Range	Unit
TP1	CIRC	Chimney pump thermostat	50	20-85	°C
TEH	E.VALV.	Sanitary exchange solenoid valve thermostat	52	20-85	°C
TAU	AUX	Auxiliary thermostat	54	20-85	°C
TP2	AUX 2	Heating pump thermostat	54	20-85	°C

PRINCIPLE OF OPERATION

IF the condition is true, the corresponding output is activated	**Logic state**	**Output**
IF**(** (RLX=ON) OR (FLUSS=CLOSED) **)**	RISC=OFF	
IF**(** (RLX=OFF) AND (FLUSS=OPENED) **)**	RISC=ON	
IF(S1>=TP1) OR E.VALV._active		CIRC
IF**(** (S1>= TEH) AND (RISC=ON))		E.VALV.
IF(S1>= TAU)		AUX
IF((S1>= TP2) AND (E. VALV. turned off) **)**		AUX 2

Manual **TOP RLX**

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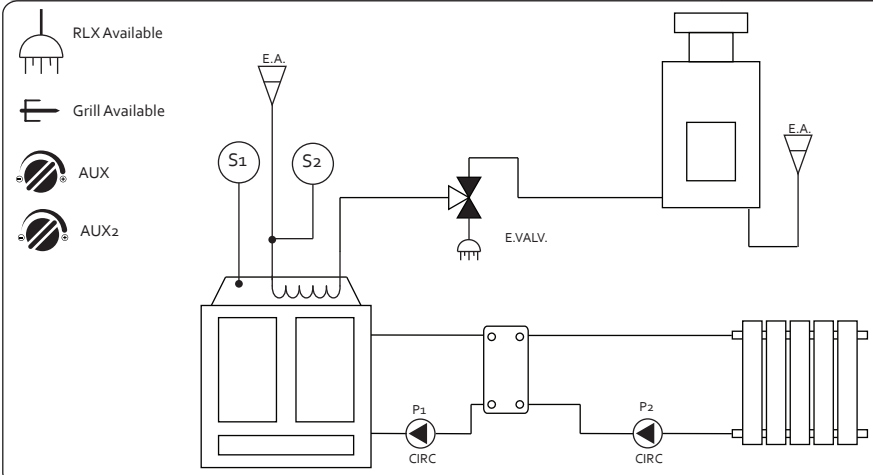
item: 201RLX

Made by: coelte.net

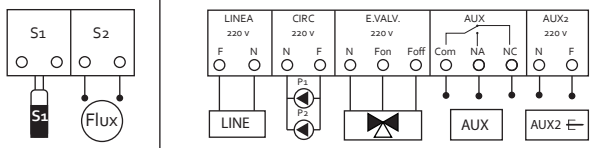
SYSTEM WITH INTERNAL WINDING AS AND OPTIONAL ENABLING GRILL FUNCTION

PROGRAM Pr2



Initial	Name
S1	Fireplace sonde
S2	Flow switch (FLUSS)
CIRC	Fireplace pump
E.VALV.	Solenoid valve A.C.S.
AUX	Thermostat with clean contacts
AUX 2	Heating pump

Terminals



PARAMETERS

Display	Led	Descrizione	Default	Range	Unit
TP1	CIRC	Chimney pump thermostat	50	20-85	°C
TEH	E.VALV.	Sanitary exchange solenoid valve thermostat	52	20-85	°C
TAU	AUX 1	Auxiliary thermostat	54	20-85	°C
TP2	AUX 2	Additional thermostat	54	20-85	°C
OU4=TER		Output function AUX 2 Thermostat	GRL	GRL-TER	
OU4=GRL		Output function AUX 2 Grill	GRL	GRL-TER	

PRICIPLE OF OPERATION

IF the condition is true, the corresponding output is activated	Logic state	Output
IF**(** (RLX=ON) OR (FLUSS=CLOSED) **)**	RISC=OFF	
IF**(** (RLX=OFF) AND (FLUSS=OPENED) **)**	RISC=ON	
IF**(** (S1>=TP1) AND (RISC=ON) **)**		CIRC
IF(S1>= TEH)		E.VALV.
IF(S1>= TAU)		AUX
IF**(** (S1>= TP2) AND (OU4=TER) **)**		AUX 2

Manual **TOP RLX**

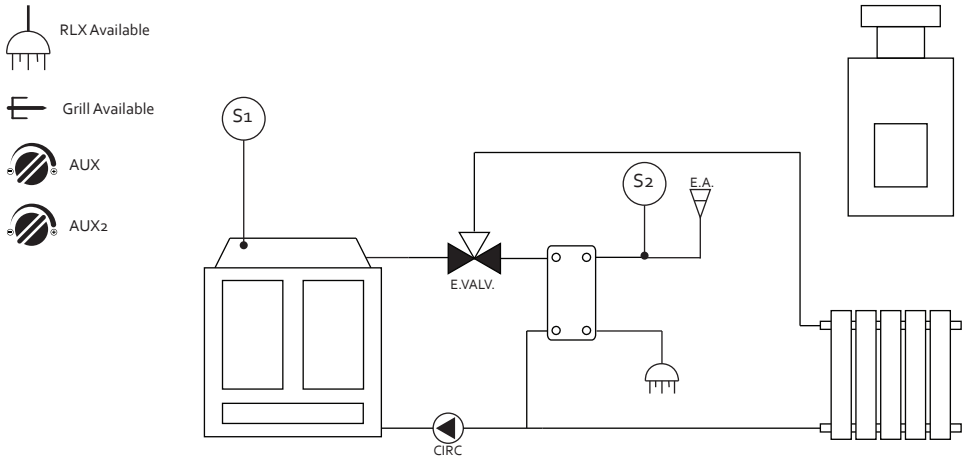
code: 1630

item: 201RLX

Made by: coelte.net

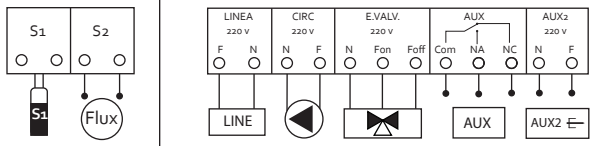
SYSTEM WITH EXTERNAL EXCHANGER AS AND OPTIONAL ENABLING GRILL FUNCTION

PROGRAM Pr3



Initial	Name
S1	Fireplace sonde
S2	Flow switch (FLUSS)
CIRC	Fireplace pump
E.VALV.	Diverter solenoid valve
AUX	Thermostat with clean contacts
AUX 2	Furnace integration

Terminals



PARAMETERS

Display	Led	Description	Default	Range	Unit
TP1	CIRC	Fireplace thermostat	50	20-85	°C
TEH	E.VALV.	Solenoid valve sanitary exchange thermostat	52	20-85	°C
TAU	AUX 1	thermostat with clean contacts	54	20-85	°C
TP2	AUX 2	Furnace integration thermostat	54	20-85	°C
OU4=TER		Output function AUX 2 Thermostat	GRU	GRU-TER	
OU4=GRU		Output function AUX 2 Grill	GRU	GRU-TER	

PRICIPLE OF OPERATION

IF the condition is true, the corresponding output is activated	Logic state	Output
IF**(** (RLX=ON) OR (FLUSS=CHIUSO) **)**	RISC=OFF	
IF**(** (RLX=OFF) AND (FLUSS=APERTO) **)**	RISC=ON	
IF**(** (S1>=TEH) AND (RISC=ON) **)**		CIRC
IF(S1>= TP1)		E.VALV.
IF(S1>= TAU)		AUX
IF**(** (S1>= TP2) AND (OU4=TER) **)**		AUX 2

Manual **TOP RLX**

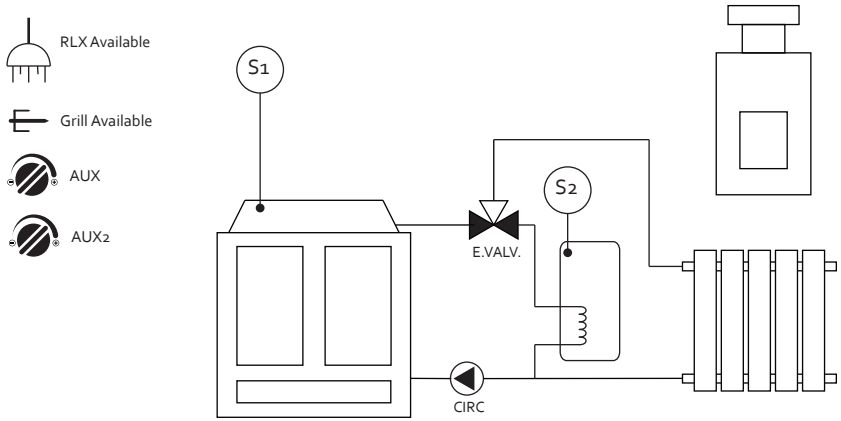
code: 1630

item: 201RLX

Made by: coelte.net

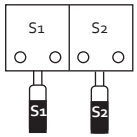
SYSTEM WITH EXTERNAL SANITARY WATER BOYLER AND OPTIONAL ENABLING GRILL FUNCTION

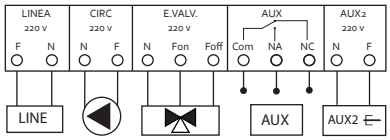
PROGRAM Pr4



Initial	Name
S1	Fireplace sonde
S2	Boyler sonde
CIRC	Fireplace pump
E.VALV.	Diverter solenoid valve
AUX	Thermostat with clean contacts
AUX 2	Grill or furnace integration

Terminals





PARAMETERS

Display	Led	Description	Default	Range	Unit
TP1	CIRC	Chimney pump thermostat	50	20-85	°C
TEH	E.VALV.	Max temperature boyler solenoid valve thermostat	54	20-85	°C
TEL	E.VALV.	Min temperature boyler thermostat	56	20-85	°C
TAU	AUX	Chimney integration thermostat	54	20-85	°C
TP2	AUX 2	Boyler or grill integration thermostat	54	20-85	°C
OU4=TER		Output function AUX 2 Thermostat	GRL	GRL-TER	
OU4=GRL		Output function AUX 2 Grill	GRL	GRL-TER	

PRINCIPLE OF OPERATION

IF the condition is true, the corresponding output is activated	Logic state	Output
IF**(** (RLX=ON) OR (FLUSS=CLOSED) **)**	RISC=OFF	
IF**(** (RLX=OFF) AND (FLUSS=OPENED) **)**	RISC=ON	
IF(S2<= TEL)	(CAR=1)	
IF(S2>=TEH)	(CAR=0)	
IF(CAR_1) AND (S1>S2) AND (S1>TEL)		CIRC
IF(S2<= TEL) ON OR (S2>= TEH) OFF		E.VALV.
IF(S1>= TAU)		AUX
IF(S2>= TP2) AND (OU4=TER)		AUX 2

Manual **TOP RLX**

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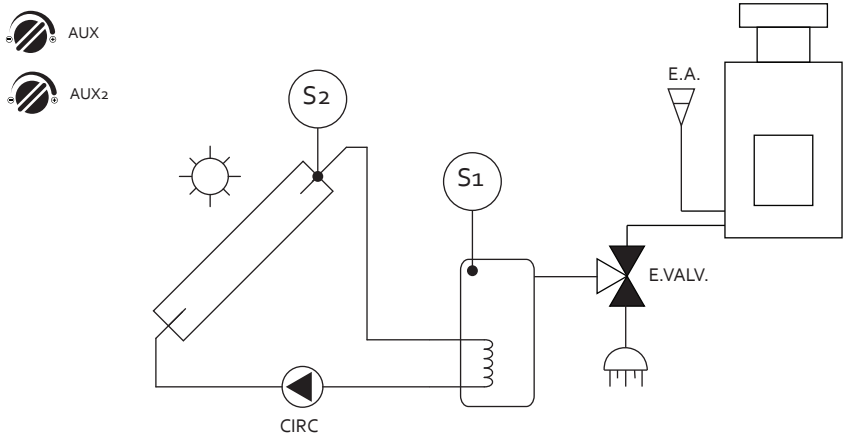
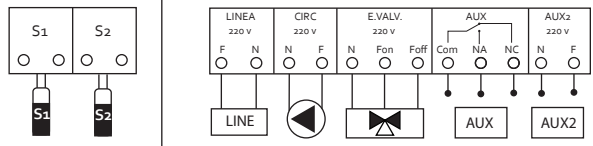
SYSTEM MANAGEMENT SOLAR GATHERER WITH FORCED CIRCULATION

PROGRAM Pr5



Initial	Name
S1	Boyler sonde
S2	Gatherer sonde
CIRC	Fireplace pump
E.VALV.	Solenoid valve A.C.S.
AUX	Auxiliary thermostat
AUX 2	Furnace integration

Terminals



PARAMETERS

Display	Led	Description	Default	Range	Unit
TEH	E.VALV.	Solenoid valve sanitary exchange thermostat	52	20-85	°C
TAU	AUX	Thermostat with clean contacts	54	20-85	°C
TP2	AUX2	Furnace integration thermostat	54	20-85	°C
DEL		Sondes Delta Differential (Technical Menu)	4	2-20	°C

PRINCIPLE OF OPERATION

IF the condition is true, the corresponding output is activated	**Logic state**	**Output**
IF((S2>=(S1+DEL))		CIRC
IF(S1>= TEH)		E.VALV.
IF(S1>= TAU)		AUX
IF(S1>= TP2)		AUX 2

Manual **TOP RLX**

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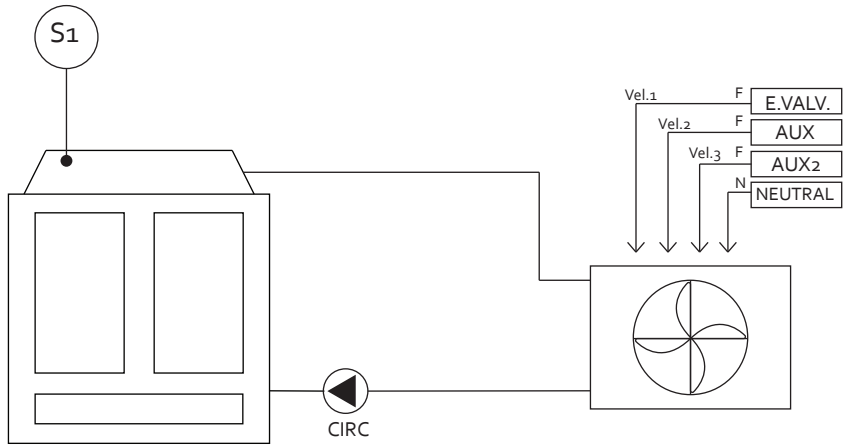
item: 201RLX

Made by: coelte.net

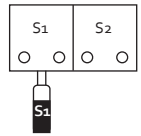
SYSTEM WITH RADIATOR FANCOIL

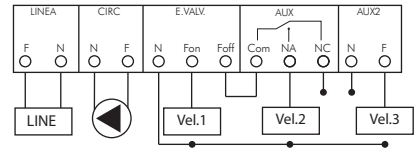
PROGRAM Pr6



Initial	Name
S1	Fireplace sonde
CIRC	Fireplace pump
E.VALV.	Fase 1 speed
AUX	Fase 2 speed
AUX 2	Fase 3 speed

Ventilator fancoil terminals





PARAMETERS

Display	Led	Description	Default	Range	Unit
TPO	CIRC	Chimney pump thermostat	50	20-85	°C
TV1		Speed temperature 1		20-85	°C
TV2		Speed temperature 2		TV1-85	°C
TV3		Speed temperature 3		TV2-85	°C

PRINCIPLE OF OPERATION

IF the condition is true, the corresponding output is activated	**Logic state**	**Output**
IF(S1>=TPo)		CIRC
IF(S1>= TV1)		E.VALV.
IF(S1>= TV2)		AUX
IF(S1>= TV3)		AUX 2

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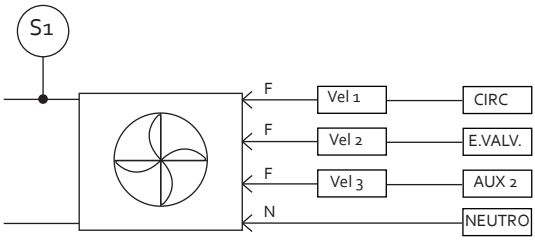
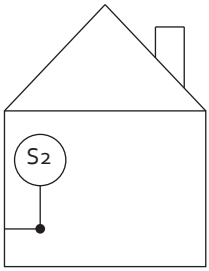
CONTROLLER FANCOIL THERMOSTAT

PROGRAM Pr7

AUX

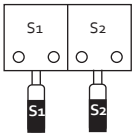
the fan coil speed are determined by supply water temperature through sonde S1.

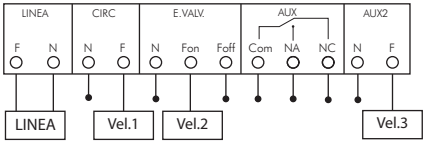




Initial	Name
S1	Supply temperature sonde
S2	Ambient temperature sonde
CIRC	Fase 1 speed
E.VALV.	Fase 2 speed
AUX	Auxiliary thermostat
AUX 2	Fase 3 speed

Ventilator fancoil terminals





PARAMETERS

Display	Led	Description	Default	Range	Unit
TAH		Ambient thermostat	21	5-45	°C
TV1		Speed thermostat 1	50	20-85	°C
TV2		Speed thermostat 2	54	TV1-85	°C
TV3		Speed thermostat 3	56	TV2-85	°C

PRINCIPLE OF OPERATION

IF the condition is true, the corresponding output is activated	**Logic state**	**Output**
IF(S2<TAH) AND (S1>=TV1)		CIRC
IF(S2<TAH) AND (S1>=TV2)		E.VALV.
IF(S2<TAH) AND (S1>=TV3)		AUX 2
IF(S2>=TAU)		AUX

Manual **TOP RLX**

code: 1630
item: 201RLX

Made by: coelte.net

CONTROLLER FANCOIL THERMOSTAT

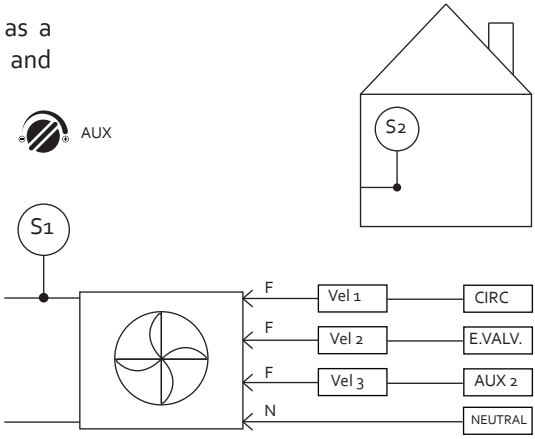
PROGRAM Pr8

the fancoil speed are established as a function of ambient temperature and applied delta.

Ex:

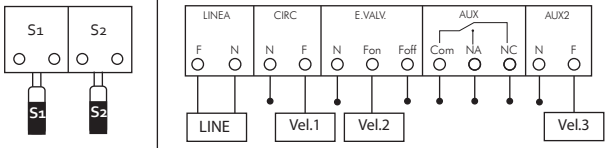
TAH=20 DEL=2

S2=20 vel 0
S2=19 vel 1
S2=18 vel 1
S2=17 vel 2
S2=16 vel 2
S2=15 vel 3
S2=14 vel 3
S2=13 vel 3



Initial	Name
S1	Sent temperature sonde
S2	Ambient temperature sonde
CIRC	Fase 1 speed
E.VALV.	Fase 2 speed
AUX	Auxiliary thermostat
AUX 2	Fase 3 speed

Ventilator fancoil terminals



PARAMETERS

Display	Led	Description	Default	Range	Unit
TAH		Ambient thermostat	21	5-45	°C
TST		Start fancoil thermostat	50	20-85	°C
DEL		thermostat	4	TV1-85	°C
TAU		Auxiliary thermostat with clean contacts	56	TV2-85	°C

PRINCIPLE OF OPERATION

IF the condition is true, the corresponding output is activated	Logic state	Output
IF(S2<TAH) AND (S2>=(TAH-DEL))		CIRC
IF(S2<TAH-DEL) AND (S2>=(TAH-DEL*2))		E.VALV.
IF(S2<(TAH-DEL*2))		AUX 2
IF(S2>=TAU)		AUX

Manual **TOP RLX**

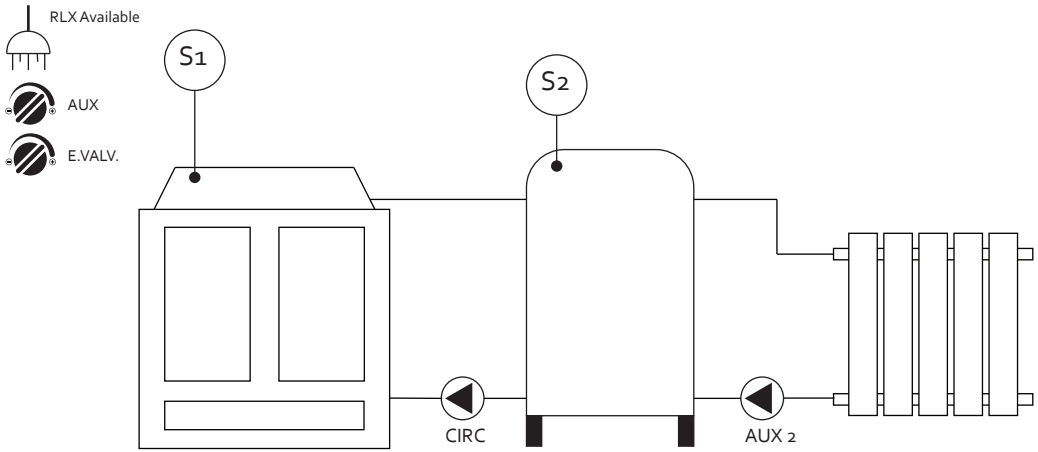
code: 1630

item: 201RLX

Made by: coelte.net

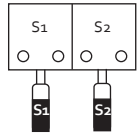
HEATING SYSTEM MANAGEMENT WITH LEVY PUFFER

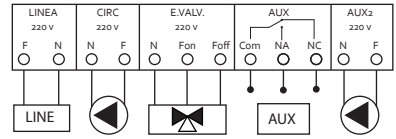
PROGRAM Pr9



Initial	Name
S1	Fireplace sonde
S2	Puffer sonde
CIRC	Fireplace pump
E.VALV.	Puffer integration solenoid valve
AUX	Puffer auxiliary thermostat
AUX 2	Heating pump

Terminals





PARAMETERS

Display	Led	Description	Default	Range	Unit
TP1	CIRC	Chimney pump thermostat	50	20-85	°C
TEH	E.VALV.	Sanitary exchange solenoid valve thermostat	52	20-85	°C
TAU	AUX	Thermostat with clean contacts	56	20-85	°C
TP2	AUX 2	Heating pump thermostat	52	20-85	°C

PRINCIPLE OF OPERATION

IF the condition is true, the corresponding output is activated	**Logic state**	**Output**
IF**(** (RLX=ON) OR (FLUSS=CHIUSO) **)**	RISC=OFF	
IF**(** (RLX=OFF) AND (FLUSS=APERTO) **)**	RISC=ON	
IF((S1>=TP1) AND (S1>S2))		CIRC
IF(S2>= TEH)		E.VALV.
IF(S2>= TAU)		AUX
IF((S2>= TP2) AND (RISC=ON))		AUX 2

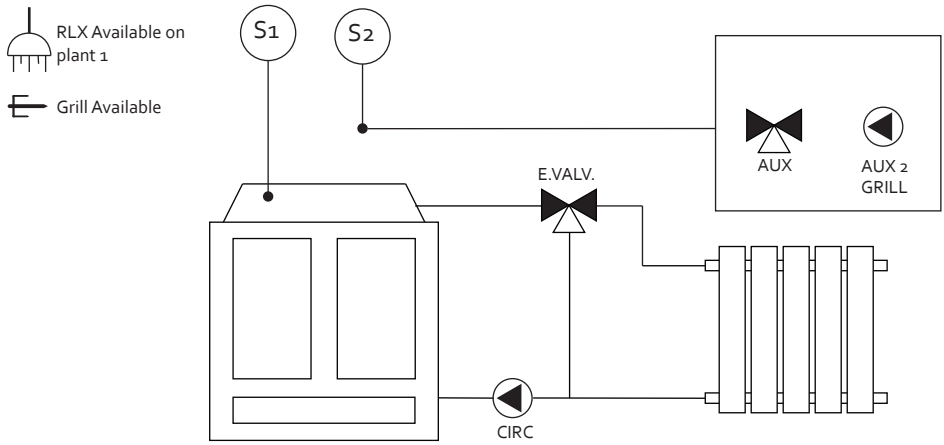
Manual **TOP RLX**

code: 1630

item: 201RLX

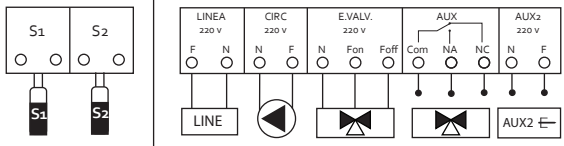
Made by: coelte.net

SYSTEM DUAL PLANT WORKING WITH 2 THERMOSTATS FOR SONDE | **PROGRAM Pr10**



Initial	Name
S1	Fireplace sonde
S2	2° plant sonde
CIRC	Fireplace pump
E.VALV.	Diverter or integration solenoid valve
AUX	2° plant auxiliary thermostat
AUX 2	2° plant or Grill pump (OU4)

Terminals



PARAMETERS

Display	Led	Description		Default	Range	Unit
TP1	CIRC	Chimney pump thermostat	(Imp.1)	50	20-85	°C
TEH	E.VALV.	Solenoid valve thermostat	(Imp.1)	52	20-85	°C
TAU	AUX	Thermostat with clean contacts	(Imp.2)	56	20-85	°C
TP2	AUX 2	Thermostat	(Imp.2)	52	20-85	°C
OU4=TER		Output function AUX 2 thermostat		GRL	GRL-TER	
OU4=GRL		Output function AUX 2 Grill		GRL	GRL-TER	

PRINCIPLE OF OPERATION

IF the condition is true, the corresponding output is activated	Logic state	Output
IF**(** (RLX=ON) OR (FLUSS=CHIUSO) **)**	RISC=OFF	
IF**(** (RLX=OFF) AND (FLUSS=APERTO) **)**	RISC=ON	
IF(S1>=TP1)		CIRC
IF(S1>= TEH)		E.VALV.
IF(S2>= TAU)		AUX
IF((S2>= TP2) AND (OU4=TER))		AU X 2

Manual **TOP RLX**

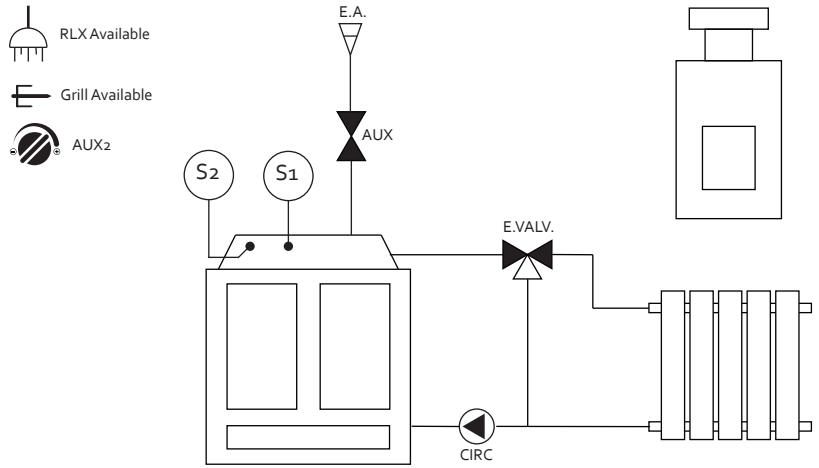
code: 1630

item: 201RLX

Made by: coelte.net

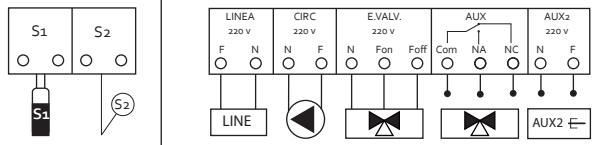
SIMPLE SYSTEM 1 PUMP+ 1 EV + THERMOSTAT AUX 2 (OR GRILL) WITH CLOSED LOOP AUTOMATIC FILLING SYSTEM

PROGRAM Pr11



Initial	Name
S1	Fireplace sonde
S2	Level sonde
CIRC	Fireplace pump
E.VALV.	Diverter solenoid valve
AUX	Filling solenoid valve
AUX 2	Integration or grill thermostat

Terminals



PARAMETERS

Display	Led	Description	Default	Range	Unit
TP1	CIRC	Chimney pump thermostat	50	20-85	°C
TEH	E.VALV.	Sanitary exchange solenoid valve thermostat	52	20-85	°C
	AUX	Filling water solenoid valve thermostat			
TP2	AUX 2	Heating pump thermostat	52	20-85	°C
OU4=TER		Output function AUX 2 thermostat	GRL	GRL-TER	
OU4=GRL		Output function AUX 2 grill	GRL	GRL-TER	

PRINCIPLE OF OPERATION

IF the condition is true, the corresponding output is activated	**Logic state**	**Output**
IF**(** (RLX=ON) OR (FLUSS=CHIUSO) **)**	RISC=OFF	
IF**(** (RLX=OFF) AND (FLUSS=APERTO) **)**	RISC=ON	
IF(S1>=TP1)		CIRC
IF(S1>= TEH)		E.VALV.
IF Level sensor out of the water		AUX
IF[(S1>= TP2) AND (OU4=TER)		AUX 2