

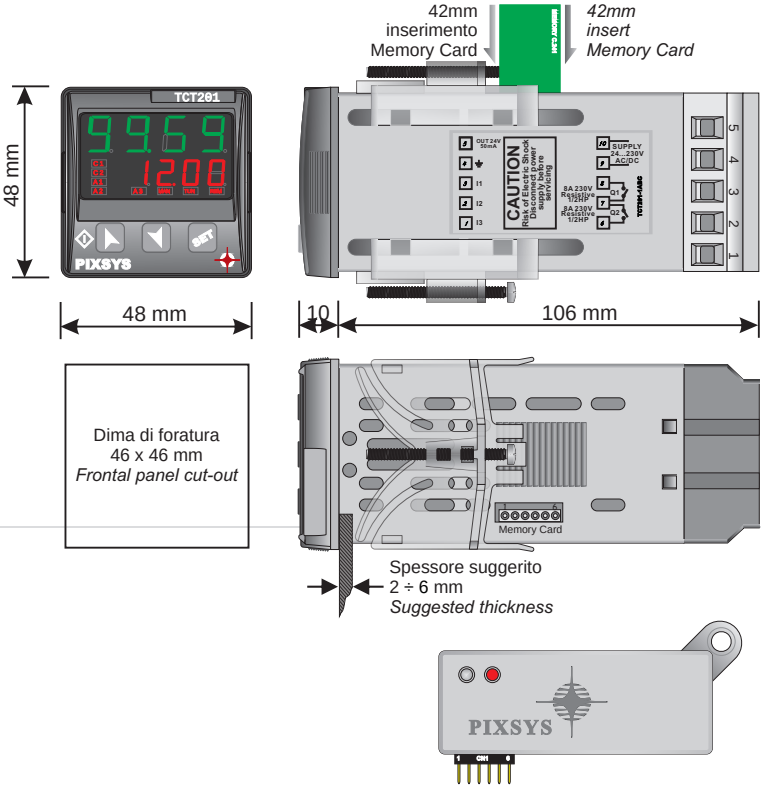


TCT201-1ABC USER MANUAL

PIXSYS www.pixsys.net
e-mail: sales@pixsys.net - support@pixsys.net
Software V 2.03
2300.10.137-RevA 130510



SIZE AND INSTALLATION



SETPOINT MODIFICATION		
	PRESS	DISPLAY
1		Visualizes SETPOINT 1 / 2
2	or	Modifies selector SET

TECHNICAL DATA

Operating temperature 0-40°C, humidity 35..95uR%

Sealing IP65 (with gasket) on front panel, Ip20 box and terminal bloks

Material PC ABS UL94V0 self-extinguishing

Digital Inputs 3PNP/NPN configurable as analogue for potentiometers.

Outputs 2 relays 5A resistive charge

Back-UP Rechargeable battery, approx. 60days autonomy

Programming Software Labsoftview 2.0

Power Supply 24...230Vac/Vdc +/-15% 50/60Hz / 2W

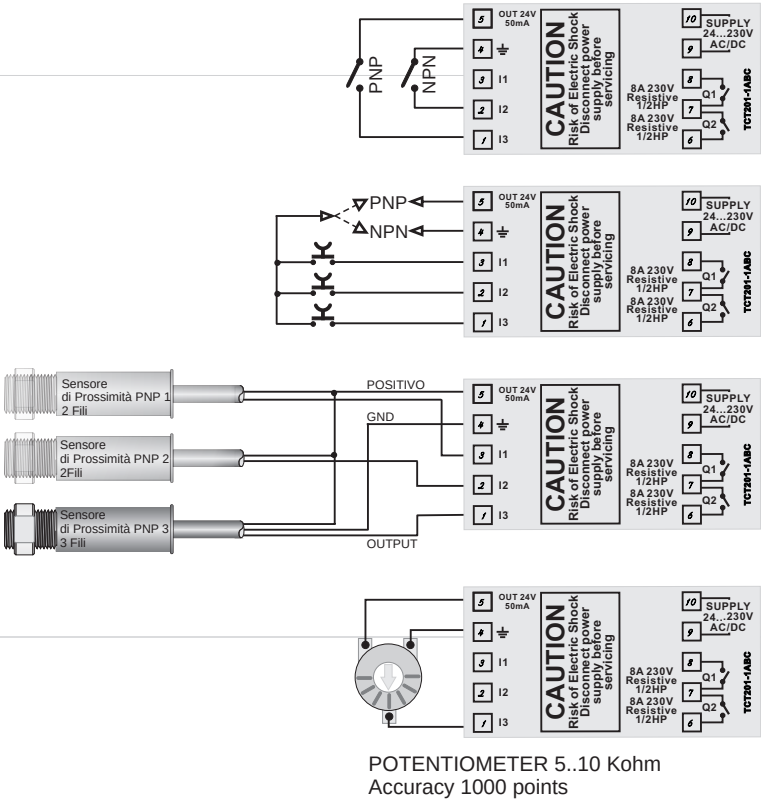
INTRODUCTION

Thanks for choosing a Pixsys device.

Timer TCT201 can be set in 5 different modes; Timer-ON, Timer-OFF, Pause-Work, Oscillator, PWM (time-proportioned output), all options with independent setting of ON-OFF time.
3 universal digital inputs are availables (NPN/PNP) for external commands like Start, Stop and Reset; one input is also analogue in order to allow the modification of working times by an external potentiometer.
5 different time bases (hundredths, tenths, seconds, minutes, hours).

Counting can be incremental or decremental.

WIRING DIAGRAM



Potentiometer:

To modify Set1 or Set2 by external potentiometer follow the steps below:
1- use potentiometers 5kOhm to 10kohm
2- connect cursor to pin I3; a wrong connection may damage the potentiometer and lead to lock of the device.
3- accuracy on input is max 1000 points, therefore set the parameters "Upper limit" and "Lower limit" with a max difference of 1000 units.
(Ex.: LoS1 to 50,0 and uPS1 to 150,0 to modify time value related to Set1 between 50 and 150 seconds with steps of one tenth). Greater differences would make unstable the less significant digit.
4- To calibrate the scale of potentiometer enter the configuration mode and select: Hin.3 as Pot
Fin.3 as Set1 or Set2
P.tAr as Enable
Exit configuration mode and place potentiometer at minimum level and press key, then place potentiometer at max level and press premere key: the device automatically exit the calibration procedure.
N.B.: A switch-off of the device would interrupt the calibration.

MEMORY CARD (optional)

Parameters and setpoint values can be copied from one device to another using the Memory car.

There are two methods:

> With the device connected to the power supply
insert the memory card **when the controller is off.**

On activation display 1 shows and display 2 shows----

(Only if the values stored on Mmemory Card are correct).

By pressing the key display 2 shows LoAR

Confirm using the key .

The device loads the new data and starts again.

> With the controller disconnected from the power supply:

The memory card is equipped with an internal battery with a life of about 1000 uses.

Insert the memory card and press the programming button.

When writing the parameters, the LED turns red and on completing the procedure it changes to green. It is possible to repeat the procedure.

⚠ UPDATING MEMORY CARD.

To *update* the memory card values, follow the procedure described in the first method, setting display 2 to ---- so as not to load the parameters on controller.

Enter configuration and **change at least one parameter.**
Exit configuration. Changes are saved automatically.

LOADING DEFAULT VALUES

This procedure restores the factory settings of the instrument.

CONFIGURATION PARAMETER MODIFICATION		
PRESS	DISPLAY	DO
1  SET for 3 seconds	On display 1 appears  with 1st digit blinking, while display 2 shows 	
2  or 	Modify blinking digit and pass to the next one pressing 	Enter Password 
3  to confirm	Display shows first parameter of configuration table 	
4  or 	Scroll parameters	
5  +  or 	Increase or decrease visualized value pressing  and an arrow key	Enter the new data that will be saved when releasing key
6  + 	End configuration, controller exits from configuration	

LOADING DEFAULT VALUES

	PRESS	DISPLAY	DO
1	 SET for 3 seconds	On display 1 appears  with 1st digit blinking, while display 2 shows PASS	
2	 or 	Modify blinking digit and pass to the next one pressing 	Enter Password 
3	 to confirm	Device loads default values	Switch the device off and restart it

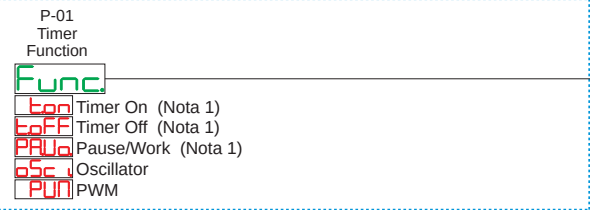
LIST OF PARAMETERS

FUNCTION CONFIGURATION		
Func	P-01 Timer Function	Timer functions
Timer On		Activates output at count end
Timer Off		Deactivates output at count end
Pause/Work		T1 and T2 start in sequency
Oscillator		T1 and T2 start in sequency repeatedly
PWM		Percentage output activation on fixed time base
BACKUP MEMORY CONFIGURATION		
PaNE	P-02 Power-off Memory	Power-off memory
Disable		Disabled
Only Timer		Only timer value in memory
Timer / State		Timer value and START/STOP status in memory
INPUT CONFIGURATION		
H.in.1	P-03 Hardware Input 1	Input 1 configuration
NPN		NPN
PNP		PNP
TTL		TTL
H.in.2	P-04 Hardware Input 2	Input 2 configuration
NPN		NPN
PNP		PNP
TTL		TTL

H.in.3	P-05 Hardware Input 3	Input 3 configuration	
PNP		PNP	Default
TTL		TTL	
Potent.		Potentiometer	
H.in.1	P-06 Active State Input 1	Input 1 activation	
High Level		High level	
Low Level		Low level	
Rising edge		Transitory in rising	Default
H.in.2	P-07 Active State Input 2	Input 2 activation	
High Level		High level	
Low Level		Low level	
Rising edge		Transitory in rising	Default
H.in.3	P-08 Active State Input 3	Input 3 activation	
High Level		High level	
Low Level		Low level	
Rising edge		Transitory in rising	Default
F.in.1	P-09 Function Input 1	Input 1 function	
Disable		Disabled	
Start / Stop		Start / Stop	Default
Start / Stop-Reset		Start / Stop-Reset	
Reset-Start / Stop		Reset-Start / Stop	
Reset / Start / Stop		Reset / Start / Stop	
F.in.2	P-10 Function Input 2	Input 2 function	
Disable		Disabled	
Reset		Reset	Default
F.in.3	P-11 Function Input 3	Input 3 function	
Disable		Disabled	
Wait		Wait (count lock)	
Hold		Hold (locks display but count continues)	Default
Potent. To SET1		Modify SET1 by potentiometer	
Potent. To SET2		Modify SET2 by potentiometer	
F.t.r.P	P-12 Function Key UP	Function of	
Disable		Disabled	Default
Start / Stop		Start / Stop	
Start / Stop-Reset		Start / Stop-Reset	
Reset-Start / Stop		Reset-Start / Stop	
Reset / Start / Stop		Reset / Start / Stop	
Reset		Reset	
Wait		Wait (count lock)	
Hold		Hold (locks display but count continues)	
OUTPUT CONFIGURATION			
out.1	P-13 Output Q1 Setup	Output Q1 selection	
Disable		Disabled	
Out Timer 1 n.o.		Timer output 1 n.o.	Default
Out Timer 1 n.c.		Timer output 1 n.c.	
Out Timer 2 n.o.		Timer output 2 n.o.	
Out Timer 2 n.c.		Timer output 2 n.c.	
Start		Start	
Stop		Stop	
out.2	P-14 Output Q2 Setup	Output Q2 selection	
Disable		Disabled	Default
Out Timer 1 n.o.		Timer output 1 n.o.	
Out Timer 1 n.c.		Timer output 1 n.c.	
Out Timer 2 n.o.		Timer output 2 n.c.	
Out Timer 2 n.c.		Timer output 2 n.c.	
Start		Start	
Stop		Stop	
DISPLAY CONFIGURATION			
TYPE	P-15 Type of Timer	Count mode	
Incremental		Incremental	Default
Decremental		Decremental	
SETPOINT CONFIGURATION			
Fo.S.1	P-16 Format Set 1	Count format	
Fo.S.2	P-17 Format Set 2	Count format	
Second.Cent		Seconds, Cents	
Second.Decimal		Seconds, Tenths	Default
Second		Seconds	
Minute.Second		Minutes, Seconds	
Hour.Minute		Hour, Minutes	
Hour		Hour	
d.S.1	P-18 Display Set 1	Set 1 visualization	
Disable		Disabled	
Visualized		Visualized	
Modifiable		Visualized and modifiable	Default
d.S.2	P-19 Display Set 2	Set 2 visualization	
Disable		Disabled	Default
Visualized		Visualized	
Modifiable		Visualized and modifiable	
Lo.S.1	P-20 Lower limit Set 1	Set 1 lower limit	0.0
U.PS.1	P-21 Upper limit Set 1	Set 1 upper limit	99.9
Lo.S.2	P-22 Lower limit Set 2	Set 2 lower limit	0.0
U.PS.2	P-23 Upper limit Set 2	Set 2 upper limit	99.9
P.tAr	P-24 Potent. tarature	Potentiometer calibration procedure	
Disable		Disabled	Default
Enable		Enabled	

TCT201-1ABC “TIMER”

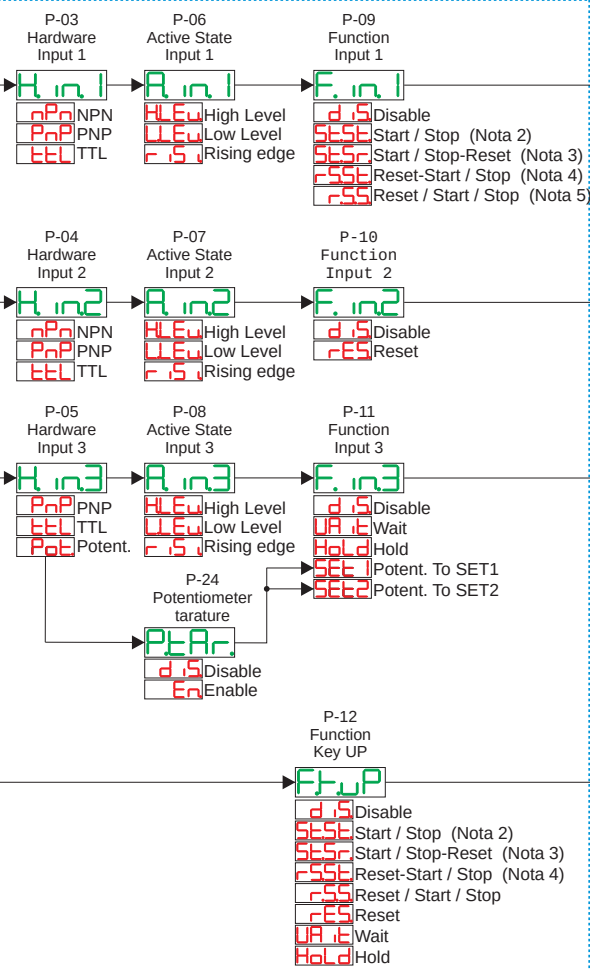
FUNCTION CONFIGURATION



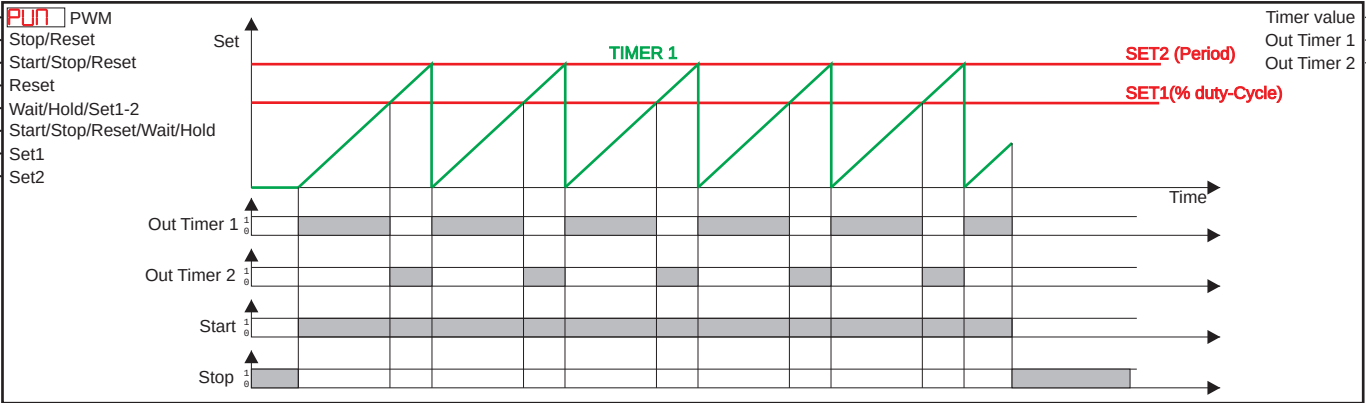
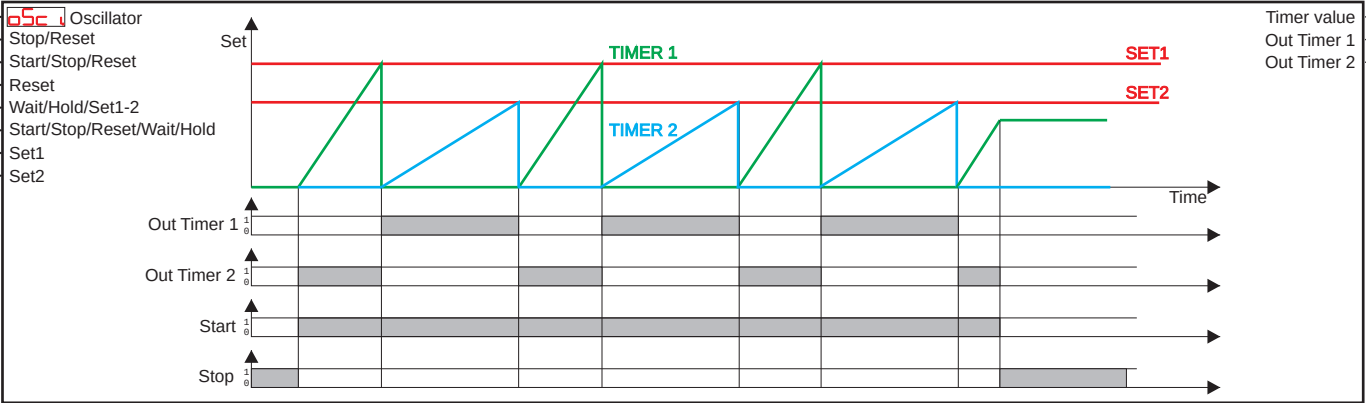
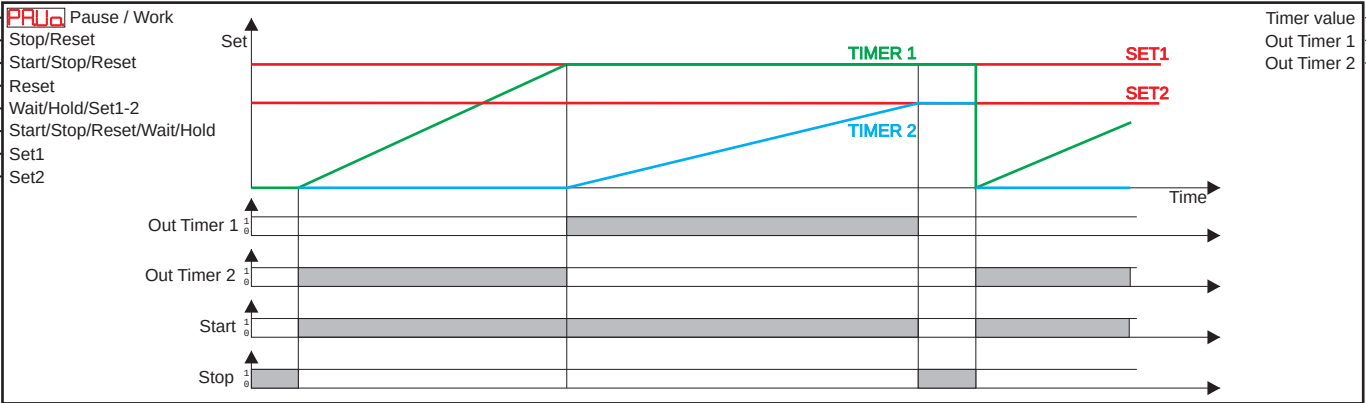
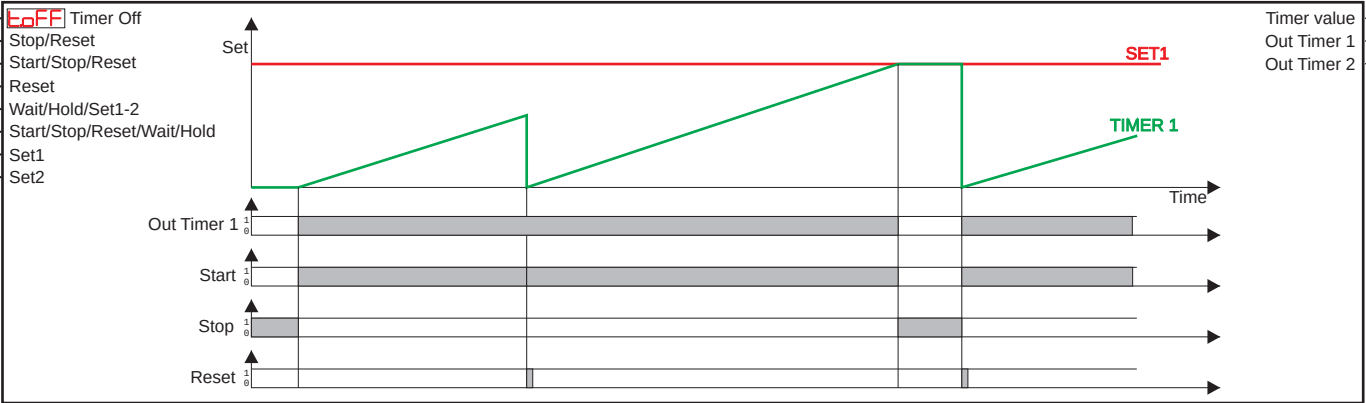
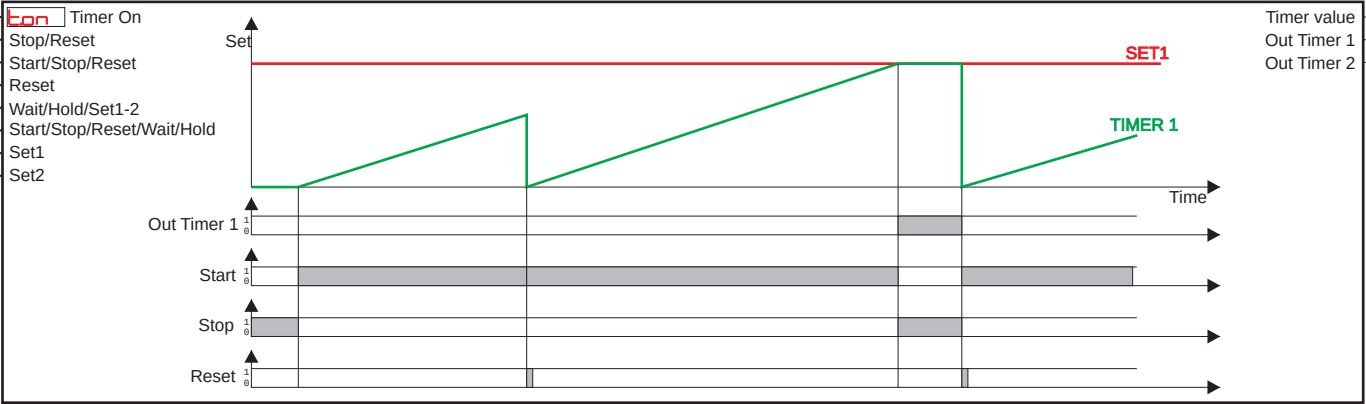
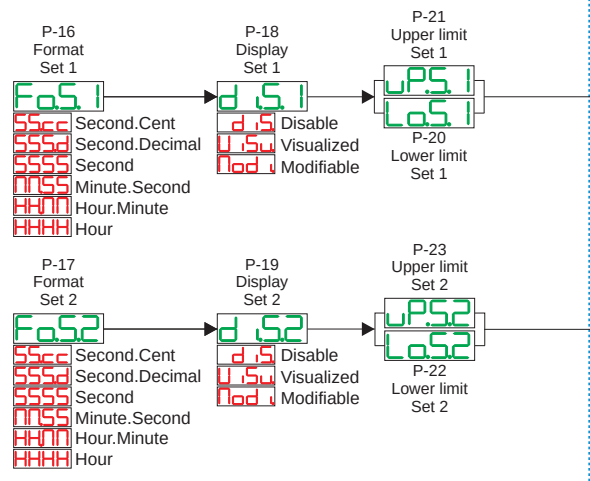
BACKUP MEMORY CONFIGURATION



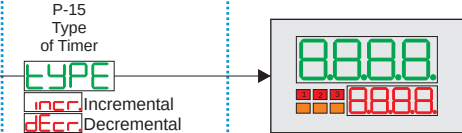
INPUT CONFIGURATION



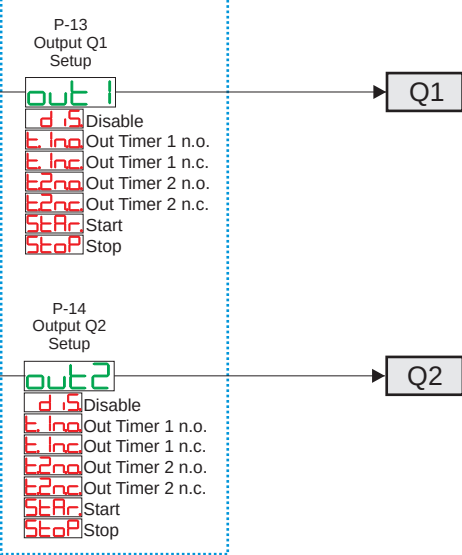
SETPOINT CONFIGURATION



DISPLAY CONFIGURATION



OUTPUT CONFIGURATION



Input Type	NPN Input	PNP Input	TTL Input
H	< 9,0 v	>10,5 v (I1, I2) >12,3 v (I3)	>2,9 v
L	> 10,5 v	< 9,0 v (I1, I2) < 11,0 v (I3)	< 2,4 v

TABLE of ERROR MESSAGES

- E-01** ERROR in WRITING of EEPROM Memory
E-02 ERROR in READING of EEPROM Memory
E-03 Incorrect parameters (Nota 1)
E-04 Incorrect calibration data (Nota 1)
E-05 Incorrect status data (Nota 1)
E-06 Incorrect BACKUP registers! (Nota 2)

Nota 1: Switch the device off and restart it; if error is still notified, contact technical service
Nota 2: Discharged battery: keep the device connected to power supply in order to recharge the battery.

⚠ In PWM mode, the only option available on parameters 16 **Fa.S.1** and 17 **Fa.S.2** for format of SET1 and SET2 is **SS.SS** (seconds). Low and upper limits for SET1 (related to percentage of work or Duty Cycle) are allowed in the range 0 ... 100 (%). da 0 a 100 (%).

Nota 1: In this timer functioning, if P-06 Active State Input 1 = Rising Edge or P-09 Function Input 1 = Disable, at count end (reaching setpoint), timer will switch automatically to STOP.
Nota 2: This function not reset timer value, and so it requires an input for the reset.
Nota 3: This function reset timer at STOP.
Nota 4: This function reset timer at START.
Nota 5: This function è attiva solo se P-06 Active State Input 1 = Rising Edge