

# ATR144

## Blue line

Setting new standards for ATR range



Programmable by RFID /NFC  
No wiring required!



Powerful display, interactive text messages  
On-line programming Help  
Dynamic smart Tune

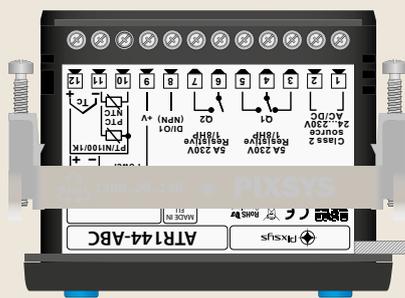
### Pixsys srl

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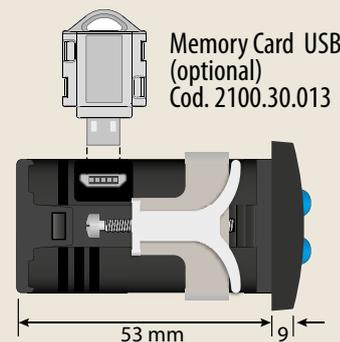
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Frontal panel cut-out  
Dima di foratura  
28.5 x 70.5 mm



Suggested thickness  
Spessore suggerito  
2 ÷ 8 mm



Memory Card USB  
(optional)  
Cod. 2100.30.013

## Main features

Box	32x74 (front panel) x 53 mm
Power supply	24..230 V AC / DC $\pm 15\%$ 50/60 Hz - galvanical isolation 2,5KV
Power consumption	5 W
Display	4 digits 0,38" white + 5 digits 0,28" red
Operating conditions	Temperature 0-45 °C, humidity 35..95 RH%
Material	Box: PC UL94V2 self-extinguishing, front panel: PC UL94V2
Weight	Approx. 120 g
Sealing	IP65 (front panel) IP20 (box and terminal bloks)
Quick set-up options	Memory Card, software LABSOFTVIEW, or EASY-UP codes
APP / NFC	Programming via <b>"MyPixsys"</b> App for Android Smartphone 

### Input

1 Configurable	Res. 16 bit, selectable for TC type K, S, R, J, T, N, B (automatic compensation of the cold junction -25..85°C, $\pm 0,2\%$ F.S. $\pm 1$ digit F.S.), thermoresistances PT100, PT500, PT1000, Ni100, PTC1K, NTC10K ( $\beta$ 3435K), process signals 0..10 V (50000 points), 0/4..20mA (40000 points), 0..60 mV (25000 points), potentiometer 1..150 K $\Omega$ (50000 points)
Sampling time	Programmable up to 2,1 ms (frequency up to 470 Hz)
1/2 digital inputs	Setpoint change, Hold, Run, Tuning launch, Start / Stop, Lock configuration

### Outputs

1/2 relays	Relay 5 A - 250 V AC resistive charge
1 digital output	12 V DC - 25 mA max
Serial communication	RS485 Modbus RTU - Slave (4800..115200 baud code-T)

### Software features

Control algorithms	ON - OFF with hysteresis, P, P.I., P.I.D., P.D. time proportioned
Tuning	Manual or automatic
Data protection	Lock of control / alarm setpoint / Access to parameters by password
Alarm modes	Absolute / Threshold, Band, High / Low deviation. Alarm with optional manual reset. Loop Break Alarm function
Auto / Manual function	Output percentage command also with automatic change in case of sensor failure
Double P.I.D.	Heating / Cooling P.I.D.
Soft-Start	Rising gradient expressed as Degrees / Hour or fixed output percentage
Open / Close logic	Open / Close logic for motorized valves

### Ordering codes

ATR144-ABC	1 analogue input + 2 relays 5 A + 1 DI/DO
ATR144-ABC-T	1 analogue input + 1 relay 5 A + 1 DI/DO + RS485

# ATR244

## Blue line

Setting new standards for ATR range



Programmable by RFID /NFC  
No wiring required!



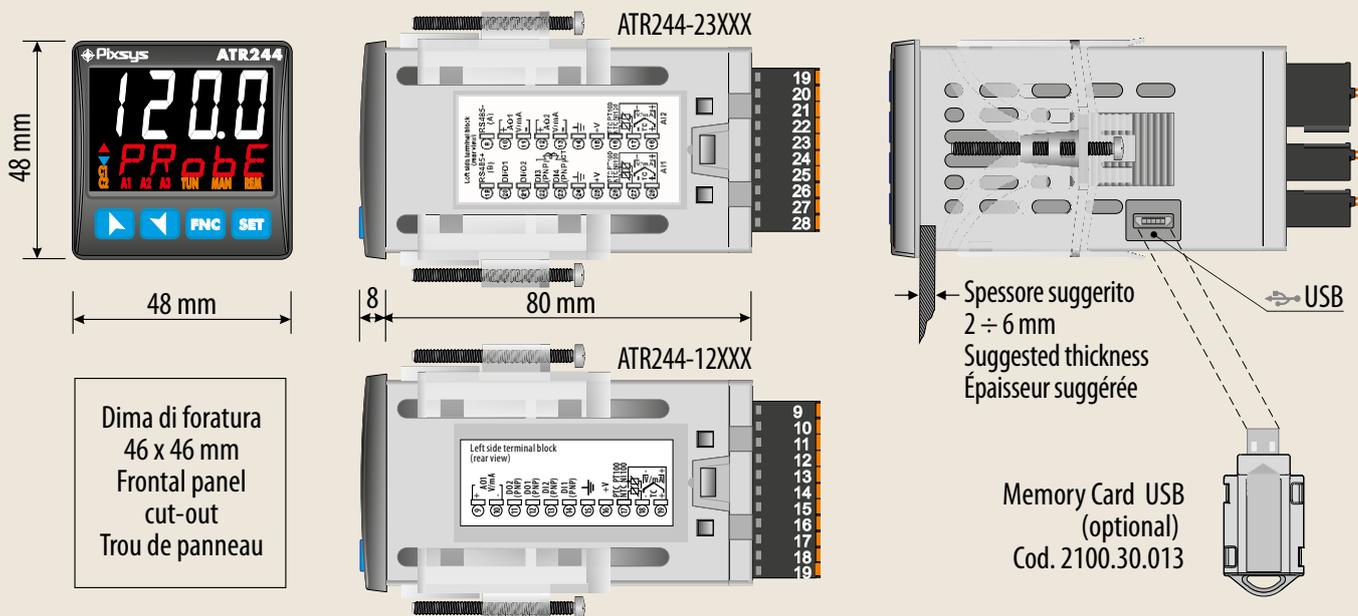
Powerful display, interactive text messages  
On-line programming Help  
Dynamic smart Tune

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## Main features

Box	48 x 48 (front panel) x 105 mm
Power supply	24..230 V AC / DC $\pm 15\%$ 50/60 Hz - galvanical isolation 2,5KV
Power consumption	8 W
Display	4 digits 0,5" white + 5 digits 0,3" red
Operating conditions	Temperature 0-45 °C, humidity 35..95 RH%
Material	Box: PC UL94V2 self-extinguishing, front panel: PC UL94V2
Weight	Approx. 185 g
Sealing	IP65 (front panel) IP20 (box and terminal bloks)
Quick set-up options	Memory Card, software LABSOFTVIEW, or EASY-UP codes
APP / NFC	Programming via App "MyPixsys" for Android Smartphone 

## Inputs

1/2 Configurable	Res. 16 bit, selectable for TC type K, S, R, J, T, N, B (automatic compensation of the cold junction -25..85°C, $\pm 0,2\%$ F.S. $\pm 1$ digit F.S.), thermoresistances PT100, PT500, PT1000, Ni100, PTC1K, NTC10K ( $\beta$ 3435K), process signals 0..10 V (50000 points), 0/4..20mA (40000 points), 0..60 mV (25000 points), potentiometer 1..150 K $\Omega$ (50000 points)
Sampling time	Programmable up to 2,1 ms (frequency up to 470 Hz)
2/4 digital input	Setpoint change, Hold, Run, Tuning launch, Start / Stop, Lock configuration
1 Current Transformer (C.T.) input	Selection C.T. 50 mA, 800 $\mu$ s - 4096 points

## Outputs

2/3 relays	Relay 5 A - 250 V AC resistive change
2 SSR	12 / 24 V DC - 30 mA max
1/2 analogue	Selection 4..20 mA (40000 points $\pm 0,2\%$ F.S.) or 0..10 V DC (40000 points $\pm 0,2\%$ F.S.) for command or retransmission PV / SPV
Serial communication	RS485 Modbus RTU - Slave (4800..115200 baud code-T)

## Software features

Control algorithms	ON - OFF with hysteresis, P, P.I., P.I.D., P.D. time proportioned
Tuning	Manual or automatic
Data protection	Lock of control / alarm setpoint / Access to parameters by password
Alarm modes	Absolute / Threshold, Band, High / Low deviation. Alarm with optional manual reset. Loop Break Alarm function
Auto / Manual function	Output percentage command also with automatic change in case of sensor failure
Double P.I.D.	Heating / Cooling P.I.D.
Soft-Start	Rising gradient expressed as Degrees / Hour or fixed output percentage
Open / Close logic	Open / Close logic for motorized valves

## Ordering codes

ATR244-12ABC	1 analogue input + 2 relays 5 A + 2 SSR + 2 D.I. + 1 analogue output V / mA
ATR244-12ABC-T	1 analogue input + 2 relays 5 A + 2 SSR / D.I. + 1 analogue output V / mA + RS485
ATR244-13ABC	1 analogue input + 3 relays 5 A + 2 SSR + 2 D.I. + 1 analogue output V / mA
ATR244-23A-T	2 analogue inputs + 3 relays 5 A + 2 SSR + 2/4 D.I. + 2 A.O. V/mA + RS485 + CT - 24 V AC/DC
ATR244-23BC-T	2 analogue inputs + 3 relays 5 A + 2 SSR + 2/4 D.I. + 2 A.O. V/mA + RS485 + CT - 115..230 V AC

# ATR401 Overview



## PID Controller 48x96 mm

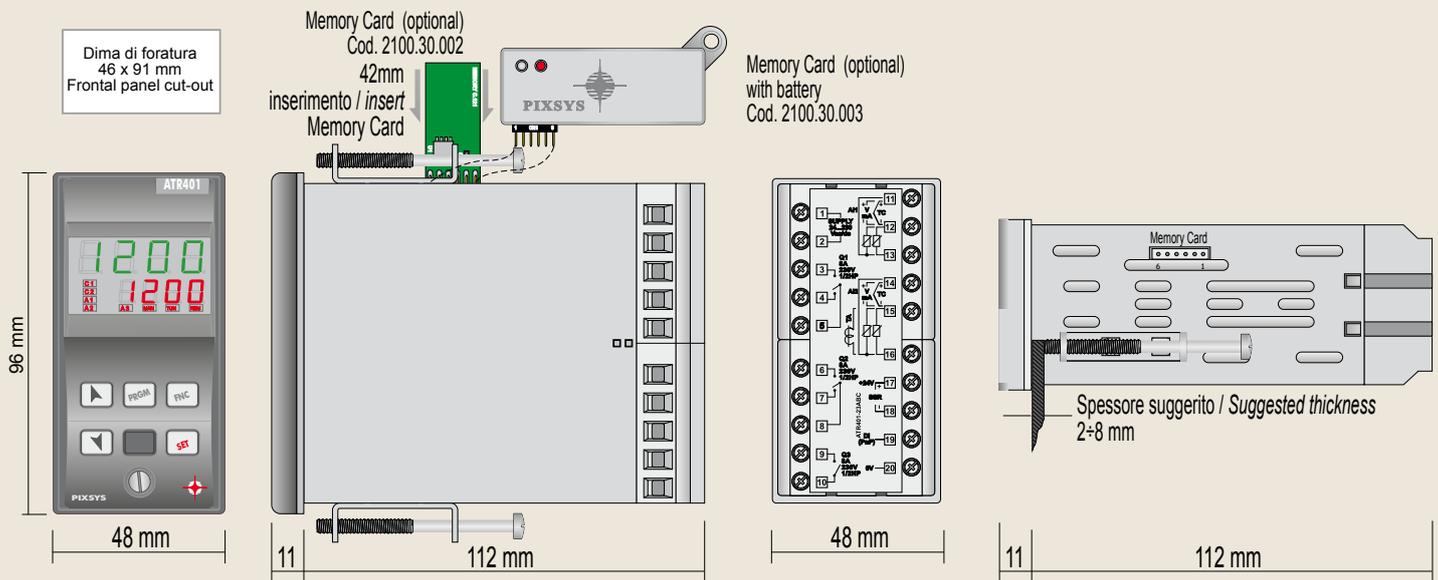
Control and alarm functions up to 4 setpoint  
Double analogue input  
Multi-voltage power supply  
Analogue output, RS485 serial

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## Main features

Box	48x96 (front panel) x 123 mm
Power supply	24..230V AC/DC $\pm 15\%$ 50/60 Hz (with Jumper 24 - 110..230VAC), galvanical isolation 2500V
Consumption	5,5 VA
Display	4 digits 0,4 " green + 4 digits 0,3 " red
Operating conditions	Temperature 0-45 °C, humidity 35..95 RU% (non condensing)
Material	Box: Noryl UL94V1 self-extinguishing, front panel: Silicon rubber V0
Weight	Approx. 350 g
Sealing	Front panel: IP54 (IP65 with gasket), Box and Terminal bloks: IP20
Quick set-up options	Memory Card with /without battery, software LABSOFTVIEW, EASY-UP codes

## Inputs

2 Analog	Res. 16 bit, selectable for TC type K, S, R, J, (automatic compensation of the cold junction 0..50 °C, $\pm 0,2\%$ F.S. $\pm 1$ Digit F.S.), thermoresistance PT100, PT500, PT1000, Ni100, PTC1K, NTC10K, ( $\beta$ 3435K), process signals 0..10V(54000 points), 0/4..20mA (40000points), 0..40mV (16000 points), potentiometer 6K $\Omega$ , 150 K $\Omega$ (50000 points)
Sampling time	4,1 ms (Frequency from 4,12 Hz to 242 Hz)
1 Digital	PNP, 1..4 setpoints selection, Hold, Run, Tuning launch, automatic / manual selection, pre programmed cycle start, heating / cooling regulation, local / remote setpoint switch
1 current transformer	T.A. 50 mA (acquisition time 100 ms - overlapped to AI2)

## Outputs

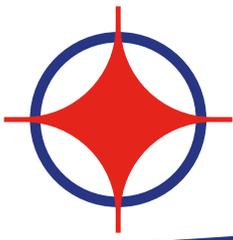
2..4 Relays	Relay 8 A - 250 Vac resistive charge
1 Digital	PNP 24 VDC - 25 mA max
1 Analog	Selection 4..20 mA or 0..10 VDC for command or retransmission PV/SPV
Serial communication	RS485 Modbus RTU - Slave (code-T)

## Software features

Control algorithms	ON - OFF with hysteresis, P, P.I., P.I.D., P.D. time proportioned
Tuning	Manual or automatic
Data protection	Lock of control / alarm setpoint, Access to parameters by password
Alarm modes	Absolute / Threshold, band, High / Low deviation. Alarm with optional manual reset. Loop Break Alarm function
Remote setpoint	Comman setpoint corresponding to AI2 (4..20 mA / 0..10 V)
Double P.I.D.	Heating / Cooling P.I.D.
Double input mode	AI1 and AI2 inputs correlation as mean, difference or addition of process values
Soft-Start	Rising gradient expressed as Degrees / Hour
Open / Close logic	Open / Close logic for motorized valves
Setpoint	Up to 4 setpoints

## Ordering codes

ATR401-22ABC	2 Analogue inputs + 2 Relays + 1 Digital PNP, Supp. 24...230 VAC/DC
ATR401-23ABC	2 Analogue inputs + 3 Relays + 1 Digital PNP, Supp. 24...230 VAC/DC
ATR401-24ABC	2 Analogue inputs + 4 Relays + 1 Digital PNP, Supp. 24...230 VAC/DC
ATR401-22ABC-T	2 Analogue inputs + 2 Relays + 1 Digital PNP Output V/mA + RS485, Supp. 24...230 VAC/DC
ATR401-22ABC-D	2 Analogue inputs + 2 Relays + 1 Digital PNP + 1 Output V/mA + 1 Digital input , Supp. 24..230 VAC/DC



**Pixsys**<sup>®</sup>  
ELECTRONICS

# DRR450

Temperature Controller  
integrating power Solid  
State Relay

- PID temperature regulation
- Current monitoring + diagnostic options
- Serial communication

The latest measuring and control technology plugged into a 22,5mm SSR module to **reduce space, wirings and cost**



Monitoring & supervisory  
software on Pixsys  
Panel-PC / HMIs



The most compact solution available now on the market for control requirements in the most diverse application fields:

- Plastic extrusion
- Hot-Runner systems
- Packaging machines
- Textile plants
- Firing and drying lines
- Multi-zone heat treatment systems

## Some essential data at a glance:

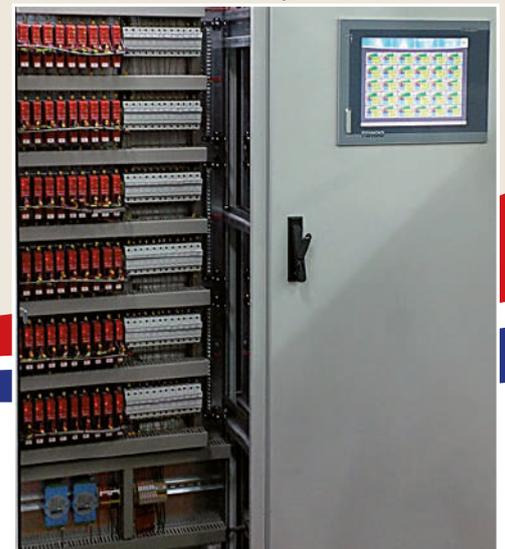
- Ultra - compact housing - 22.5mm (max 49.5mm for higher power units)
- Integrated Current transformer 50A for load monitoring
- Serial communication RS485, Modbus RTU / Slave, 115000 Baud, Modbus TCP/IP Slave (Process, Setpoint, Current)
- Alarm and/or diagnostic functions available (Loop break alarm/ Heater break alarm) via serial communication and/or auxiliary output
- Selection AUTOMATIC/MANUAL control of single zones, modification of output %
- Plug-in terminal block for straight connection to SSR units 25A to 50A

## Monitoring & supervisory software on Pixsys Panel/PC or HMI up to 150 zones

- Network configuration, general set-up, test functions
- Receipts for regulation parameters and system configurations
- Graphic visualization and recording of temperature & current values



Control cabinet for textile plant / 144 zones.



## About Pixsys

A manufacturing company and a registered trademark, over 20 years of experience in designing of instrumentation for process control and industrial automation. Browse the website for further information.



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# DRR460 Overview



## DIN Rail multiple setpoints controller

Integrated P.I.D. algorithms control

Autotuning function

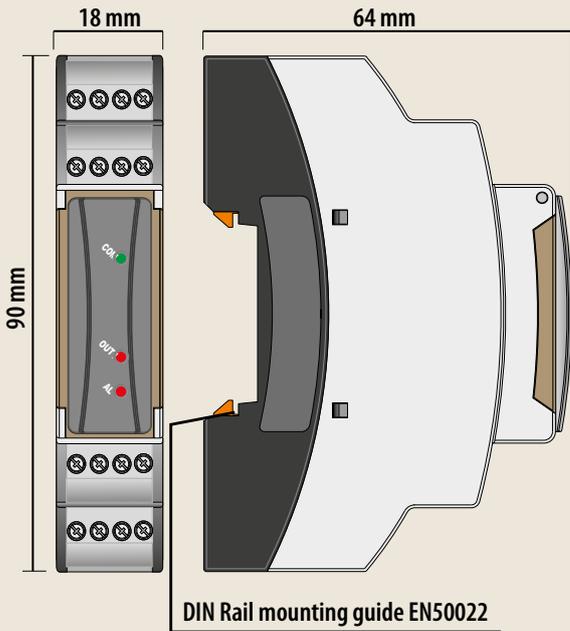
Modbus RTU or CANopen communication protocols

**Pixsys srl**

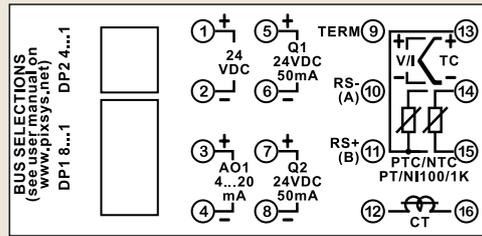
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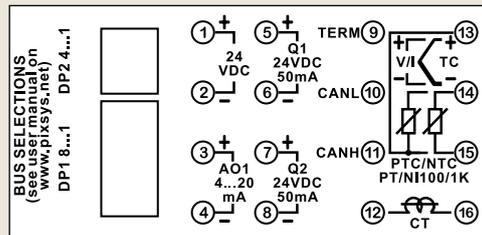
  



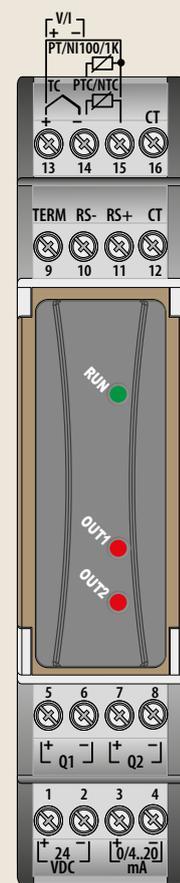
### DRR460-12A-T128



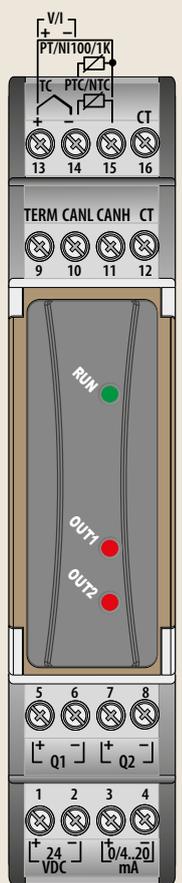
### DRR460-12A-CAN



### -T128



### -CAN



## Main features

Box	DIN43880, 18 x 90 x 64 mm
Power supply	24 VDC ±15% - galvanical isolation 1,5KV
Power consumption	Max 3 W
Operating conditions	Temperature 0-45 °C, humidity 35..95 RH%
Material	Box: PC UL94V0 self-extinguishing, front panel: PC UL94V0 self-extinguishing
Weight	Approx. 30 g
Sealing	IP20 (box and terminal bloks)
Quick set-up options	Memory Card, software LABSOFTVIEW

## Inputs

1 Configurable	Res. 16 bit, selectable for TC type K, S, R, J, T, E, N, B (automatic compensation of the cold junction 0..50°C, ±0,2% F.S. ±1 digit F.S.), thermoresistances PT100, PT500, PT1000, Ni100, PTC1K, NTC10K (β 3435K), process signals 0..10 V (23000 points), 0/4..20mA (26000 points), 0..60 mV (24000 points), potentiometer 1..150 KΩ (50000 points)
Sampling time	100 ms (10 Hz)
1 Current Transformer (T.A.) input	C.T. 50 mAac, 50/60Hz - 100 μs - 4096 points

## Outputs

2 SSR	24 VDC - 50 mA max
1 analogue	0/4..20 mA (34000 points ± 0,2% F.S.) for command or retransmission PV/SPV
Serial communication	RS485 Modbus RTU - Slave (4800..115200 bit/s) - CANopen slave (50K..1M Bit/s)

## Software features

Control algorithms	ON - OFF with hysteresis, P., P.I., P.I.D., P.D. time proportioned
Tuning	Manual or automatic
Alarm modes	Absolute / Threshold, Band, High / Low deviation. Alarm with optional manual reset. Heater Break Alarm function
Auto / Manual function	Output percentage command also with automatic change in case of sensor failure
Double P.I.D.	Heating / Cooling P.I.D.
Soft-Start	Rising gradient expressed as Degrees / Hour or fixed output percentage
Open / Close logic	Open / Close logic for motorized valves

## Ordering codes

DRR460-12A-T128	1 analogue input + 2 out 24 Vdc / 50 mA + 1 OUT mA + RS485 + C.T.
DRR460-12A-CAN	1 analogue input + 2 out 24 Vdc / 50 mA + 1 OUT mA + CAN + C.T.