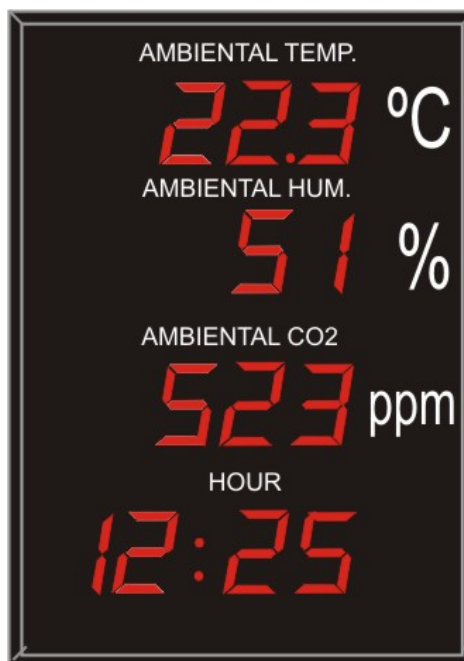# A.S.P. Electronic

Features

• Digital display of temperature, humidity, time and CO2 in a single device.

• High brightness and luminosity characters

• It has an external temperature, humidity and CO2 probe

• Can receive data through communication bus (optional): Modbus RTU RS485 or ModBus TCP

• Complies with Royal Decree 1826/2009 (RITE RD 1826/2009) as well as Royal Decree 742/2013.

• IP41 degree of protection for commercial environments and IP64 version for outdoor

• Time programming on and off, with automatic summer-winter time change.

• Configurable sampling times.

Applications

• Supermarkets and department stores.
• Industrial ships.
• Angares aviation.
• Sports facilities.
• Auditoriums and exhibition halls.
• Stations and airports.
• Data processing centers

Description

The DTH is a digital indicator of segment displays that visualizes the temperature and relative humidity captured through the STH-I probe, the CO2 captured through the sensor embedded in the equipment or transmitted through the MODBUS RTU RS485 communications bus or MODBUS TCP along with the time.

It complies with the specifications established in the new Royal Decree 1826/2009 of November 27 (RITE RD 1826/2009) as well as Royal Decree 742/2013.

There is a model with IP64 for outdoor environments with a temperature and humidity sensor built into the device itself.

It has high-brightness segment displays, which allow the visualization of bright characters with a wide viewing angle. You can also set the screen on and off time automatically and the sampling intervals.
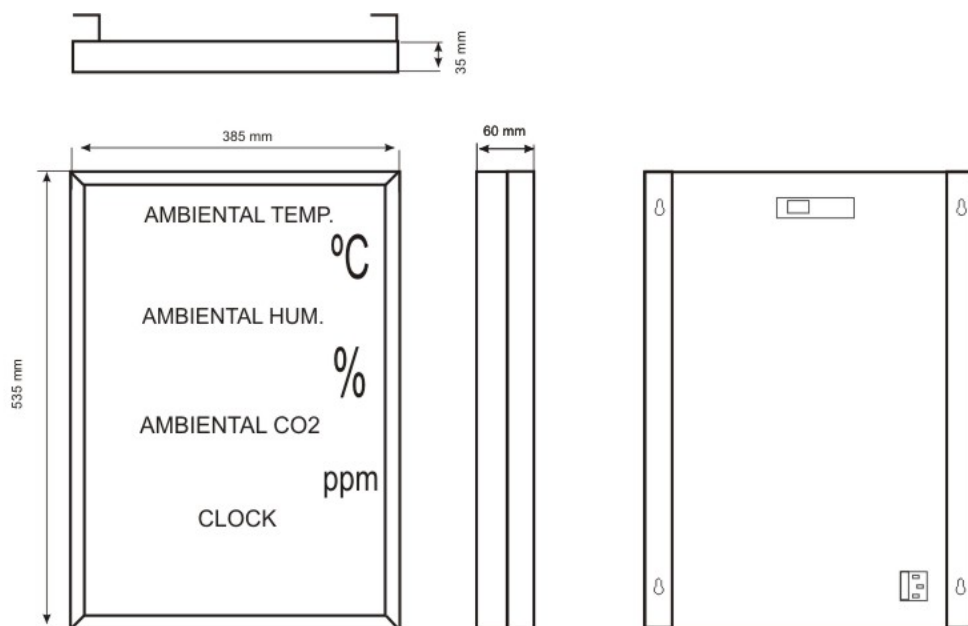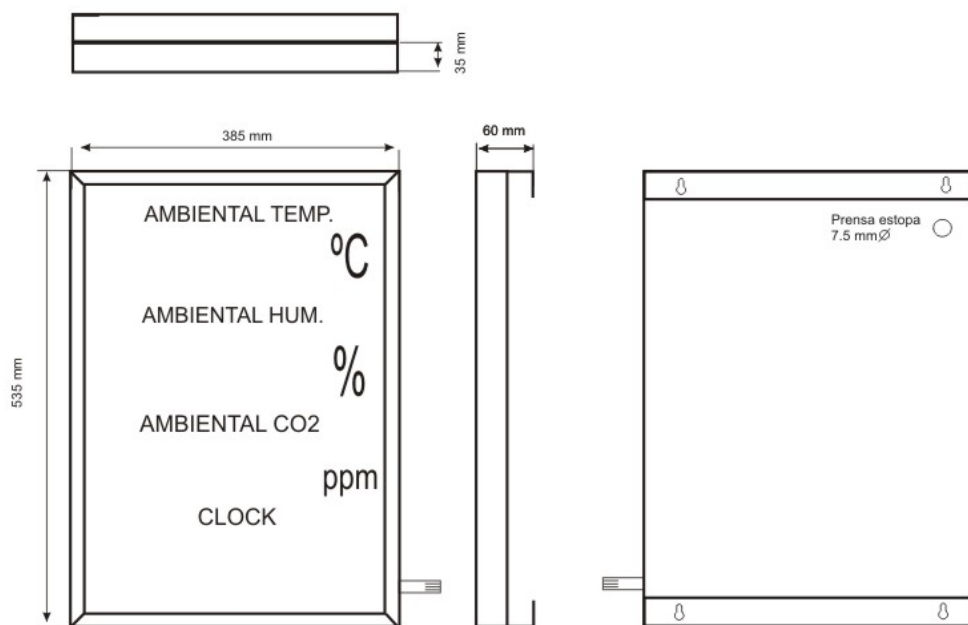
Technical specifications

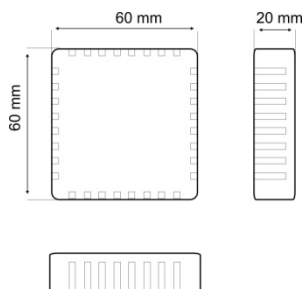| Parameters		
Power supply		240 -110Vac , 50/60 Hz with 1A fuse
Temperature measure		
	Range	-20ºC to 50º
	Precision	+/- 0.35ºC
	Resolution	0.1ºC
	Nº inputs	1
	Response time	<10s
	Input	Temperature probe (I), configurable analog input in voltage (EA-V) 0-10V, 2-10V, 0-5V or in current 4-20mA (EA-420)
Humidity measure		
	Range	0% to 99% HR
	Precision	+/- 3.5 % HR
	Resolution	1% HR
	Nº inputs	1
	Response time	<10s
	Input	Hygrometer (I), configurable analog input in voltage (EA-V) 0-10V, 2-10V, 0-5V or in current 4-20mA (EA-420)
CO2 measure		
	Range	400 to 2000 ppm
	Precision	±30 ppm +5% final value
	Resolution	1 ppm
	Nº inputs	1

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	Response time	< 90 s, Heating time <5 min
	Input	NDIR sensor CO2 compensated in temperature ,configurable analog input in voltage (EA-V) 0-10V, 2-10V, 0-5V or in current 4-20mA (EA-420)
Time measure		
	Hour range	0 to 23h
	Minute range	0-59 min.
	Precision	1 min.
	Configuration	Manual through menu or remote control, automatic synchronization through RJ45 ethernet connection to the internet (SNMP server) and automatic synchronization through MODBUS (only in DTH-H-CO2-C or DTH- H-CO2-C-TCP)
Segments display		
	Vision angle	180 º
	Luminosity	> 35 mcd per segment
	Character dimensions	101 x 60 mm
Communications Bus	**DTH-H-CO2-C**	ModBus RTU RS485 (Half Duplex)
	Slave	Configurable 0 to 63 (2 by default)
	Speed	Configurable 300 ,600,1200,2400,4800,9600 y 19200 bauds
	Parity	Configurable N,P,I (N by default)
	Funtions	1 to 17
Communications Bus	**DTH-H -CO2-C-TCP**	ModBus TCP (RJ45)
	IP	Configurable 0-0-0-0 to 255-255-255-255
	Speed	10M Max.
	Functions	1, 3,5,6,15,16
Housing material		Black painted Iron sheet
Working temperature		-10ºC - 50ºC
Working humidity		10% to 80% HR without condensation
Storage temperature		- 20ºC, +45 ºC
Storage humidity		5% to 95% HR without condensation
Protection degree		IP41
Soporte		Tethering wall via screws
Programmable on-off time		Via pushbutton
Sample time		Via pushbutton
Adittional options		
Option -R		Two relays that are activated according to the T and H set points set in the configuration menu. Relays with one NO contact and 250mA.
Option -TR		Application of an anti-humidity treatment (tropicalized) to the electronic boards that allows their operation in environments with a high degree of humidity such as swimming pools.
Option -L		Customizable logo on the front of the equipment
Option -N		Without RITE logos RD 1826/2009 / RD742-2013
Dimensions		

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35 mm

385 mm   60 mm

535 mm

AMBIENTAL TEMP.
ºC

AMBIENTAL HUM.
%

AMBIENTAL CO2
ppm

CLOCK

Option -IP (embedded sensor)

35 mm

385 mm   60 mm

535 mm

AMBIENTAL TEMP.
ºC

AMBIENTAL HUM.
%

AMBIENTAL CO2
ppm

CLOCK

Prensa estopa
7.5 mmØ

Dimensions STH-I Sensor

60 mm   20 mm

60 mm

Weight

5.0 Kg