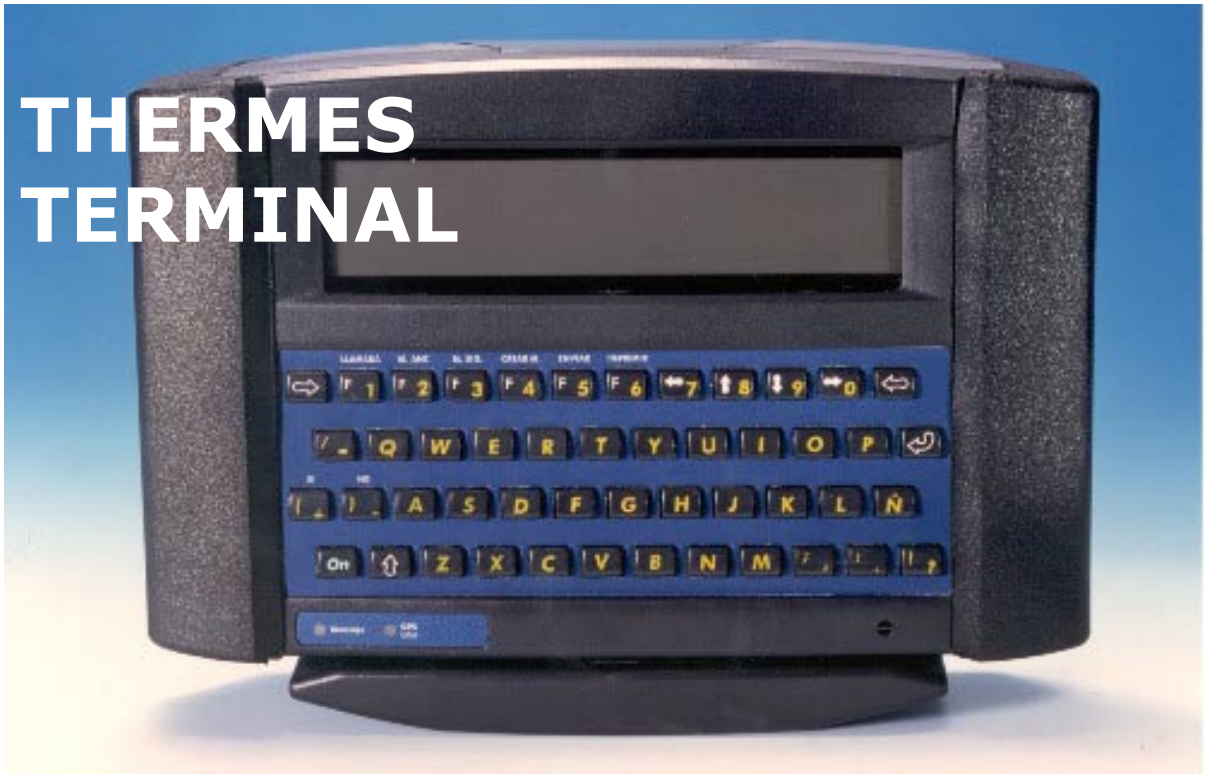
THERMES TERMINAL



GPS TERMINAL

The **THERMES** GPS location terminal is a modular equipment for the location of mobile platforms using the constellation of GPS satellites. It may be adapted to any keyboard configuration, with the purpose of sending and receiving messages and information to and from the mobile units.

This Terminal is for installation on any type of mobile and is designed for use by location system integrators that may adapt it to other external elements as well as to any type of GIS systems or to Intelligent Transport Systems (ITS) with external operating software.

The terminal includes an alphanumeric screen, a QUERTY keyboard, a printer, magnetic card readers and a chip card readers.

Apart from its main location function, the **THERMES** terminal includes the capacity to survey the signals in its environment, treating them as sensor inputs and can also send signals to activate actuators, such as motor blockers, received from the Management Centre.
Besides, the **THERMES** terminal can send and receive messages, with the possibility of customising them to have application tailor-made functions, which allows for their fine-tuning to comply with the management needs of the different vehicle fleets: police, ambulances, transportation...

INTERFACE

Discreet Inputs:	maximum 10.
Analog Inputs:	maximum 2.
Discreet outputs:	maximum 5.
Serial Ports:	maximum 2.

FUNCTIONS

Position Report
Formats: LLA, UTM, RAW.

Reasons for transmission:
On request
Auto-response Cycles.
Mobile radius.
On entering or exiting an area.
Limit time.

Alarm Report
Discreet Inputs.
Arrival of an unauthorised frame.
Remote de-activation of cyclical submission.
Geographical (Routes Control).

Data Recording
Configurable.

Downloading Recorded Data
Total or partial, via SMS or trafficdata format.

Messaging
Sending and receiving pre-recorded and free messages.

Data Uploading
Management Centres.
Auto-response Cycles.
Sleep / Wake up Cycle.
Time Stop.
Agenda.

Remote control
Enables actuators.

Shutdown Functions
Sleep / Wake up.
Off for stopped time.(Time Stop).

Voice Transmission

Distance metering
Either by odometer or estimation:
Total and Partial.

Traffic Data

Transparent Channel

ELECTRIC CHARACTERISTICS

Power consumption:	360 mA.
While transmitting:	450 mA.
On Standby:	8 mA.
Sleep mode:	0.26 mA.
Power Supply Voltage:	From 9 to 30 Vdc.
Voltage Ripple:	10 mV_{p-p} max.
Antenna Supply Voltage:	5 Vdc supplied by the GPS receiver.
Data Retention Time:	Min. 20 days.

ENVIRONMENTAL CHARACTERISTICS

Operating temperature:	-10°C to +55°C
Storage temperature:	-20°C to +70°C
Humidity:	5% to 95% R.H, non-cond.
Shock:	20g
Vibration:	10 - 12 Hz 0.96 m^2/s^3 12 - 150 Hz -3dB/Oct.

PHYSICAL CHARACTERISTICS

Dimensions without printer:	240 W x 172 L x 63 H mm.
Dimensions with printer:	240 W x 172 L x 83 H mm.
Weight without printer:	1125 grams.
Weight with printer:	1280 grams.
Volume:	3426 cm^3.
Housing:	ABS plastic box.

Proteus GPS Receiver

C/A code, L1, 12 channels, 1 position per second.

Satellite Reacquisition Time:	300mS.
Snap Start:	< 2 sec. (90%)
Hot Start:	< 11 - 15 sec.
Warm Start:	< 60 sec.
Cold Start:	< 105 – 165 sec.
Maximum altitude:	40,000 feet.
Maximum velocity:	500 m/sg.
Acceleration:	4 g.
Position Accuracy:	25 m (SEP) 100 m (2D RMS) with S/A on. 5 m SEP with DGPS and S/A on.
Velocity Accuracy:	0.1 m/sg.
Time Accuracy:	1 microsecond.

Communication protocols: NMEA 0183 v2.1, RTCM 104 V2.1 Messages type 1, 2 and 9, ICD-GPS-004-SN (SENA GPS Proprietary).

INFORMATION ON PRODUCTS

THERMES-GSM	Includes a GSM modem (SMS and traffic data)
THERMES-TRK	Communicates via radio Trunking
THERMES-PMR	Includes a 1200 Bd modem for PMR radio.
THERMES-GSMTRK	Communicates via GSM and Trunking

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