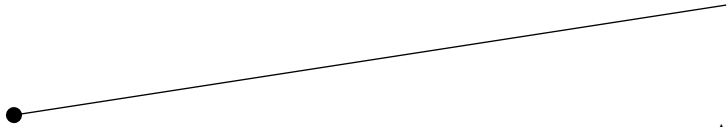


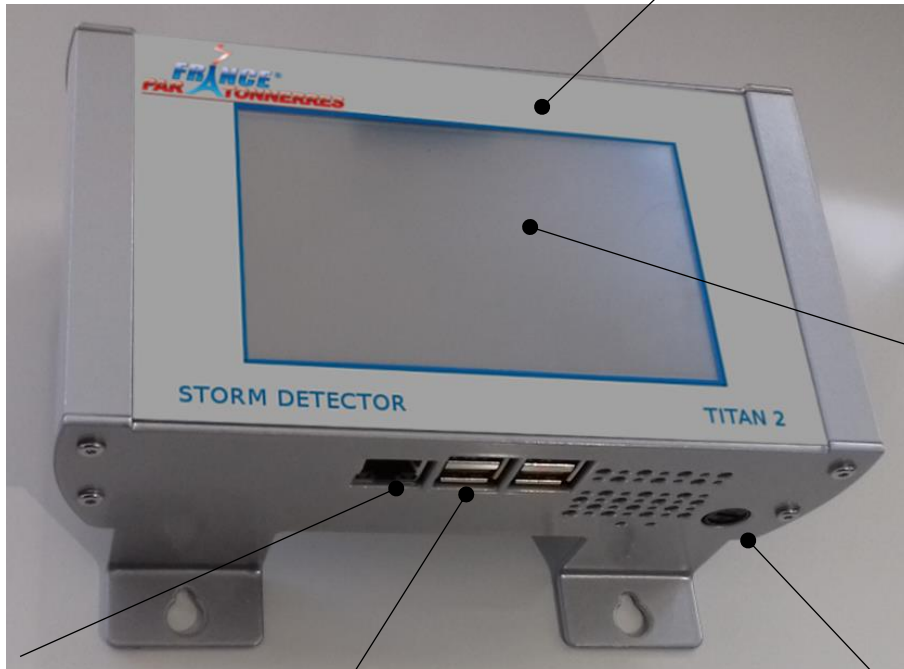
Ref. 80 333 – TITAN 2
THUNDERSTORM DETECTOR
In accordance with IEC 62793:2016 standard



Field mill



Acquisition unit



5" touch-screen

**Ethernet port
10/100**

**4 USB ports
1 port for 32 GB USB stick
3 other ports for keyboard and/or mouse**



Fuse 1,25A

TITAN 2 is class 1 thunderstorm detector, based on the physical principle of the measurement and the analysis of the electric field at ground level.

This parameter is known as the most representative of the risky situations involving a thunderstorm cell. The electric field evolution can be divided into several phases:

- Approach
- Development
- Maturity
- Extinction of the thunderstorm cell

■ CHARACTERISTICS

<u>Reference</u>	<u>80 333</u>	
	 Acquisition unit	 Field mill
Dimensions (mm)	144 x 187 x 82	130 x 170 x 190
Weight (g)	800	2000
Connection / Power supply	24Vcc, 20 à 36 Vcc (Cable not included)	Shielded cable 15m Pluggable connector RS 485 Modbus
Power consumption	1000 mA to 24Vdc	
Detection range	> 20 km	
Operating temperature	0°C to +50°C	-20°C to +55°C
Device class	Class I	
Implementation standards	IEC 62793 : 2016	



The electric field generated by a thunderstorm evolves continuously by passing through slow or fast variation stages with polarity changes. The fast stages are associated with intra-cloud, inter-cloud or cloud-to-ground discharges.

TITAN 2 identifies these stages. Therefore the relevant information regarding thunderstorm cell development are taken into account. The detection range of TITAN 2 covers a circle of 20 km in diameter.

The measurement principle is based on a rotating electrometer known as Field Mill:

- Two electrodes are placed facing each other; one of them is mobile and driven by an electric motor, the other is fixed and referred as active.
- The mobile electrode is a rotating shutter, which allows the active electrode to be cyclically hidden. The active electrode is subjected to the ambient electric field, which is cancelled at the passage of the moving shutter.
- The periodic signal thus obtained is proportional to the atmospheric electric field.
- After filtering and processing the signal, TITAN 2 enables to observe the static field and the fast field variations specific to lightning.

