



## Mod. SFL

IoT radio interface for analog  
and digital sensors

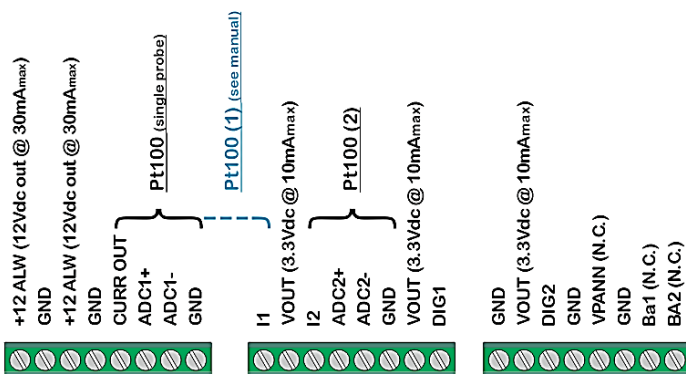
## Highlighted specs

- Suitable for a wide range of sensors with different output signals
- 18bit DAC acquisition system
- Latest generation narrow-band technology
- Battery powered and long autonomy
- Four different ways of sending data
- IP65 enclosure
- According to **CE** norms

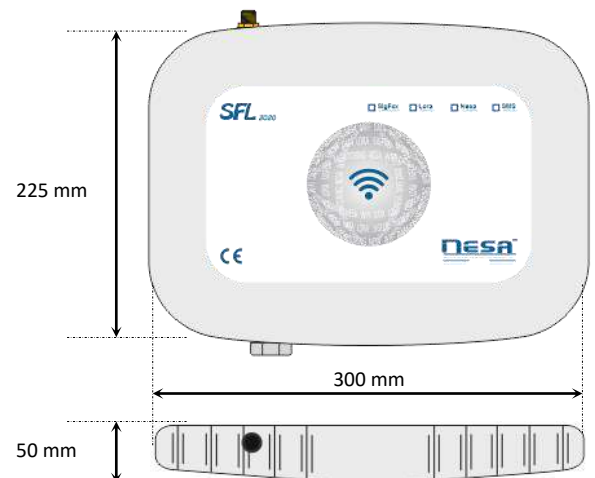
Radio module, for data acquisition and transmission with **Narrow-Band technology** at **programmable frequency** (868MHz in Europe), or 3-4G, or SMS (GSM/GPRS), able to read digital and analogue electrical signals, at very high resolution. **Data** are then **processed**, and can be **sent directly to a cloud platform**, or through **point-to-point connections**, or networks with specific protocol (SigFox, LoRa, Socket, MQTT etc.) be forwarded to **gateways** up to a distance of **several kilometres** between transmitters and receiver (gateway). The device is **configurable to send data at specific intervals** and reads **signals in current, voltage, Pt100, status and frequency**.

<b>Input signals</b>	Differential input with current generator for Pt100 Pt100 – Thermopile; Voltage 0 ÷ 2Vdc; Current 0 ÷ 20mA or 4 ÷ 20mA; Frequency up to 3KHz; Pulse counter (min 1ms)
<b>Maximum possible configuration</b>	2 x Analogic or Pt100; 1 x digital (3000Hz); 1 x digital (frequency or counter)
<b>Resolution</b>	18bit with over 262,000 measurement points in the range chosen for analog inputs, 25Hz for frequencies
<b>Average accuracy</b>	<20µV full scale
<b>Transmission frequency</b>	860 ÷ 920MHz– programmable or quadi band (GSM/GPRS)
<b>Coverage</b>	SigFox up to 15Km, Lora/NESA up to 8Km, GSM/GPRS based on availability of operator in area
<b>Transmission protocols</b>	SigFox, LoRa/Lora-Wan, property, SMS, Socket TCP-Ip, MQTT
<b>Working temperature</b>	-40 ÷ +60°C
<b>Power and consumption</b>	1 x Non-rechargeable 3.3V 8000mA type C2 lithium battery; Rechargeable battery from power bank, network or mini external solar panel (2000mA)
<b>Sensor power supply capacity</b>	+ 12Vdc (max consumption allowed 30mA (warm-up <4sec @ 12Vdc)
<b>Enclosure</b>	Die-cast aluminum for outdoor IP65
<b>Weight</b>	1.450g


## Size and connections



Internal connections: for more details see the manual



## Order Code

<b>Radio module</b>	SFL.SigFox: radio module with SigFox protocol SFL.LoRa: radio module with Lora/LoraWan protocol SFL.NESA: radio module with NESAS protocol SFL.SMS: radio module with GPRS protocol	SFL.SigFox SFL.LoRa SFL.NESA SFL.SMS	 <b>-P version</b> Gateway Ant.1
<b>Power Supply</b>	Lithium battery 8000mA tipo C2 Rechargeable battery 2000mA Solar panel 5W	N R P	
<b>Accessories</b>	Gateway concentrator for SFL.NESA (up to 100 devices) with USB interface Enhanced antenna (amplified)		

example of order code

SFL.SMS

P

Gateway