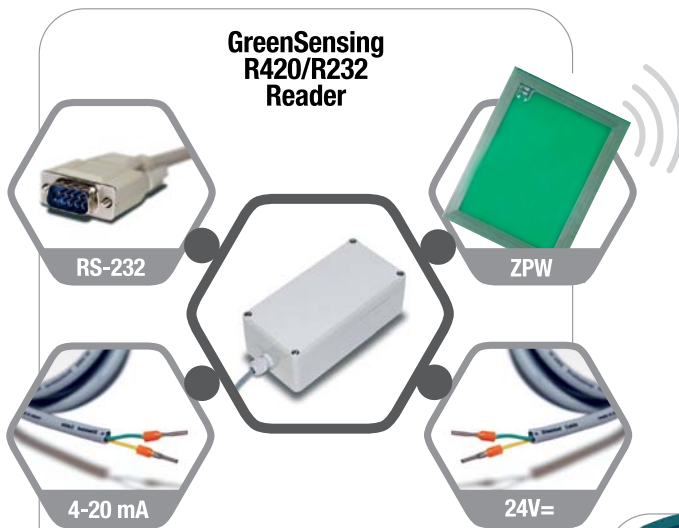# GREENSENSING

PT100 and R420/R232

Systems for reading sensors without contact

GreenSensing systems are based on the ZeroPowerWireless technology which enables data communication by radio (short ray - 20 cm capacity) among couples of devices, a transponder and a reader. Peculiar is that first one does not require source of conventional supply (since it exploits the energy received by radio waves).

The absence of batteries on the transponders makes possible the easy disposition of the GreenSensing. This makes the product environment-friendly.
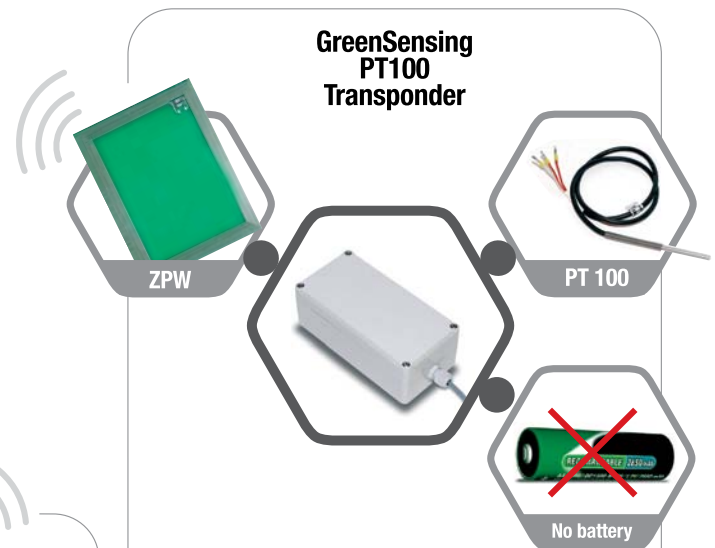
The **GreenSensing PT100** transponders allows the reading of a temperature probe without this physically be wired to the measuring system. These items are particularly suitable to survey the temperature from parts of machine in movement.

GreenSensing R420/R232 Reader

RS-232

ZPW

4-20 mA

24V=

GreenSensing R420/R232 Reader receives temperature data from the transponder that is re-conveyed to the 4-20 mA output and to the RS-232 serial port. Upon lighting, or if after a determined interval no data is received from the transponder, the value 0°C is set on the outputs.

As an alternative, to collect datas manually from **Green-Sensing** transponders, it is possible to use a **BluePalm** palmtop terminal series M equipped with ZeroPowe-rWireless reader.

GreenSensing PT100 Transponder

ZPW

PT 100

No battery

GreenSensing PT100 Transponder devices operates when lighted by the reader. They are able to read and transmit without interruption a temperature probe connected to them.

TECHNICAL CHARACTERISTICS

GreenSensing PT100 Transponder

SENSORS	PT100 2 or 3 wires, digital 5 wires
MEASURED TEMPERATURE	0 - 100 °C, 0.33°C resolution, absolute error ± 1°C
RADIO	HF 6.78 MHz (world-wide usable frequency for industrial RFID)
PROTOCOL	Proprietary
COMMUNICATION DISTANCE	Max 10 cm
CYCLE TIME	Acquisition and transmission of the temperature data every 5 mS
RELATIVE SPEED	Between transponder and reader max 3 m/S
POWER SUPPLY	From radio waves sent forth by the reader
WORKING TEMPERATURE	-20 - 80 °C
DIMENSIONS	Width 8 cm, height 16 cm, depth 5.8 cm
WEIGHT	200 g
PROTECTION DEGREE	IP65

GreenSensing R420 Reader

INTERFACES	4-20 mA (4 mA = 0°C. 20 mA = 100 °Cs)
	RS-232 (*)
	PS2 (*)
	USB (*)
RADIO	HF 6.78 MHz (world-wide usable frequency for industrial RFID)
PROTOCOL	Proprietary
COMMUNICATION DISTANCE	Max 10 cm
POWER SUPPLY	24Vdc, absorption 50 mA
WORKING TEMPERATURE	-20 - 80 °C
DIMENSIONS	Width 8 cm, height 16 cm, depth 5.8 cm
WEIGHT	200 g
PROTECTION DEGREE	IP65

(*) Configurable interfaces upon request in factory.