

Data sheet

# Telemetry device

## PR-SC4



The PR-SC4 device is one of the telemetry device that the Prosa Infrastructure uses in order to create an Internet Of Things. In this case, the "Things" are supposed to be the dispenser of beverages and cold room for goods storage. The primary goal of the PR-SC4 device is to communicate to the Prosa system diagnostic parameters and eventually alarms related to the temperatures of the storage equipment. To this aim, the PR-SC4 can work in conjunction with the electronic thermostat of the cooling equipment when available.

The PR-SC4 contains a modem and uses Bluetooth and a Machine to Machine (M2M) SIM in order to communicate with the Prosa Infrastructure through the mobile network. The network is also exploited by the PR-SC4 in order to compute a triangulation of the position of the cooling equipment.

### Specifications

| <i>Item</i>                   | <i>Value</i>                                                                                                                             |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Weight                        | 246 g                                                                                                                                    |
| Case material                 | Polymer materials                                                                                                                        |
| Temperature range for storing | 0 °C - 70 °C                                                                                                                             |
| Operating temperature         | 0 °C - 70 °C                                                                                                                             |
| Humidity                      | 60% +/- 25                                                                                                                               |
| Voltage                       | 100-240 VAC, 50/60 Hz                                                                                                                    |
| Current max                   | 0.6 A, avg. 0.25 A                                                                                                                       |
| Modem                         | LTE & 2G module for multi-regional use; Cat M1/NB1 deployed bands: 2, 3, 4, 5, 8, 12, 13, 20, 28; EGPRS quad-band, 850/900/1800/1900 MHz |
| Bluetooth                     | Bluetooth Low Energy (BLE) 4.2                                                                                                           |

**RED – Radio Equipment  
Directive (2014/53/EU)**

**Article 3.1a**

EN 60950-1: 2005/AMD1: 2009 information technology equipment – safety –  
Part 1: General requirements  
EN 62368-1: 2014 Audio/video, information and communication technology equipment –  
Part 1: Safety requirements  
EN 62311:2008

**Article 3.1b**

EN 61326-1:2013  
ETSI EN 301 489-1 V.2.1.1;  
ETSI EN 301 489-17 V.3.1.1  
ETSI EN 301 489-52 V.1.1.0

**Article 3.2**

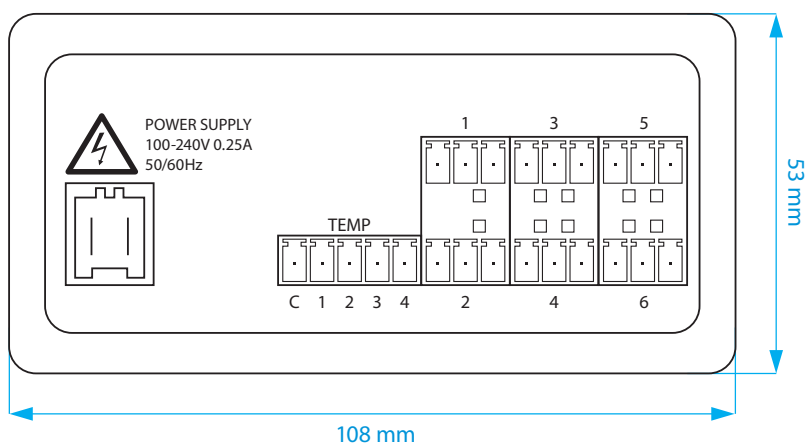
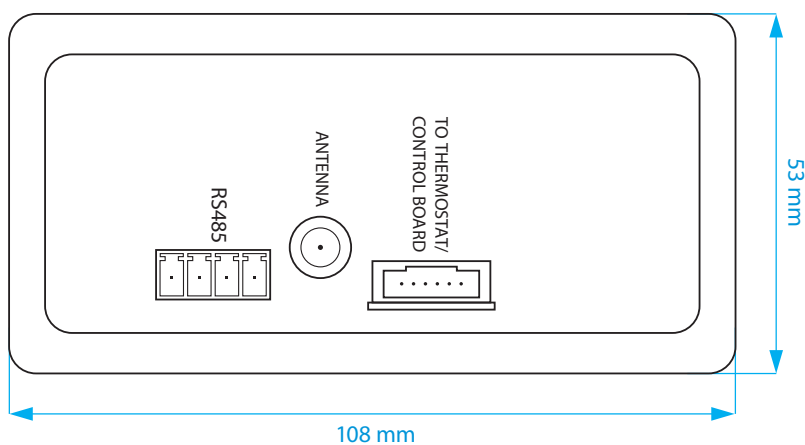
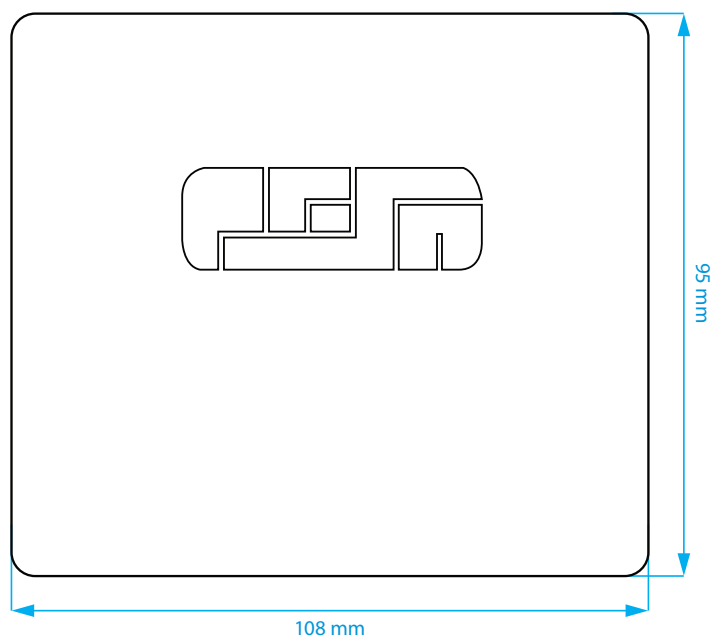
EN 301 511 V.12.5.1 par. 4.2.16, 4.2.17  
EN 300 328 V2.1.1 par. 4.3.2.9 and 4.3.2.10

RoHS – Restriction of the use of certain hazardous substances directive (2011/65/EU)  
EN 50581: 2012 Technical documentation for the assessment of electrical and electronic products  
with respect to the restriction of hazardous substances.

**UL approval files**

E488917-A2-UL  
E500508-A6001-UL

Dimensions



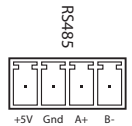
## Electric connections

The front side of the PR-SC4 exposes two connectors:

1. The external antenna connector suitable for an antenna (cable) with a SMA male standard. The antenna with the proper cable is provided with the kit.
2. The RS485 communication connector suitable for a cable mount terminal plug connector from Wurth Elektronik code 691361300004. A suitable connector is provided with the kit.

The RS485 connector pinout is the following:

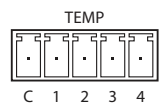
- +5V DC out (max 500 mA)
- Gnd
- RS485 A+ signal
- RS485 B- signal



The rear side of the PR-SC4 exposes the input for four NTC sensors and the inputs for 6 switches.

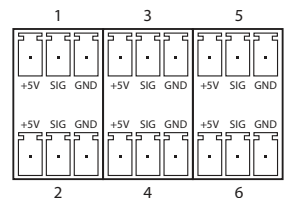
For the sensors the connector pinout is the following:

- Common
- Sensor 1
- Sensor 2
- Sensor 3
- Sensor 4

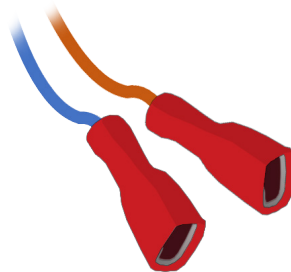


For the digital inputs the connectors pinout is the following:

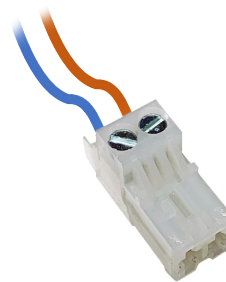
- +5V DC
- Signal
- Gnd



The rear side expose the power connector. The power connector is suitable to be connected with 2 fastons or a Lumberg 3611 02 K1 connector



**Standard fast-on**



**Easy plug double fast-on**  
(for indirect mating)

## Warnings



The installation of the PR-SC4 has to be performed only and exclusively by qualified and skilled technicians.



Inside the device there is a GPRS antenna. For this reason, while the PR-SC4 is working it must be at the minimum distance of 20 cm (8") from the people. The installation must be done to ensure this distance.



If the power supply cable of the PR-SC4 is not double insulated, it has to be physically separated from the comm cable (the communication cable with the machine).



The PR-SC4 has to be installed in a protected position and not accessible.



This equipment is not suitable for use in locations where children are likely to be present.



Any document related to the conformity declaration of the PR-SC4 can be downloaded from [www.danfoss.com](http://www.danfoss.com).