# CLIMATE CONTROL



### Colling Cattle Farm System

### **Climate computers Cattle Farm**

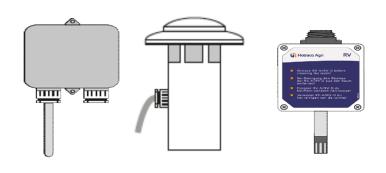
- TEMPERATURE (MEASURING)
- HUMIDITY (MEASURING)
- FANS (VENTILATION)
- SPARY COOLING
- ALARM
- COMMUNICATION



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#### **Input assumptions:**

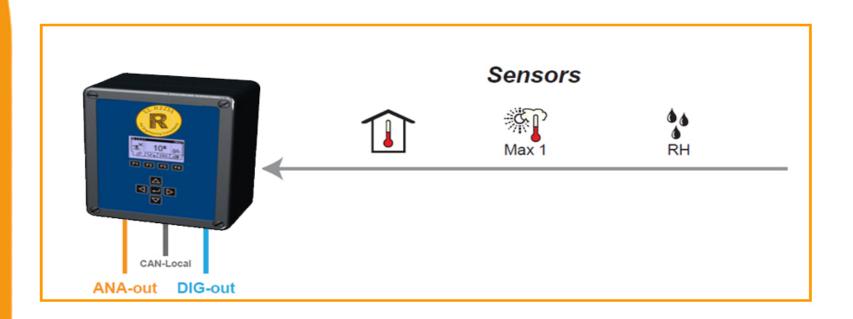
- ☐ Temp sensors (internal)
- ☐ Temp sensors (external)
- □ RH sensor

#### **Output assumptions:**

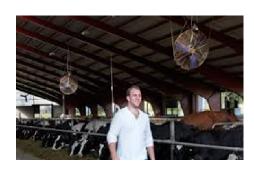
- □ Ventilation Fans Group A
- Ventilation Fans Group B
- □ PUMPS (Spray cooling)

## **Requirements for Cattle Cooling:**

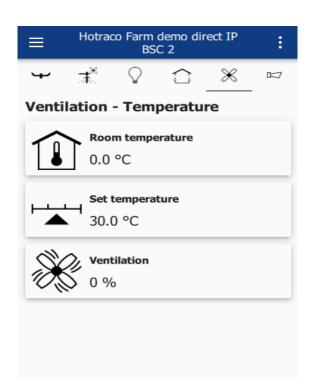
- ☐ Control climate based on temperature (T) & relative humidity (Rh)
- ☐ Use both values to control fans and spray cooling
- ☐ Add intelligence as time of day, seasonality etc.
- Connectivity via an app could be useful



## **Cattle Cooling (Ventilation):**



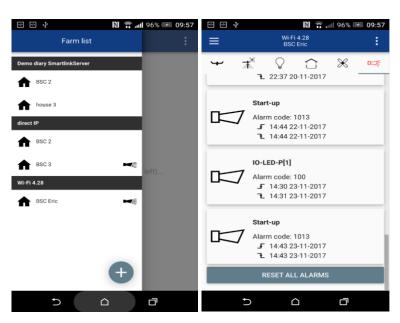
- One screen for the Spray cooling and Fan ventilation:
  (split Spray and Fans recommended)
- We can operate fans only without spray or part from fans only according to climate



### User profile:

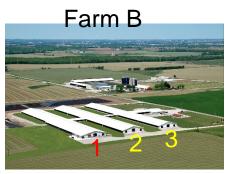
(It may be helpful to control barns remotely)

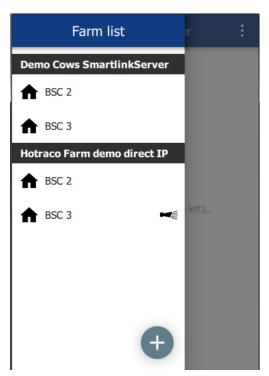
- As a customer I want to be able to check the status of the ventilation no matter where I am so I know that everything is OK.
- As a customer I want to recieve messages in case of alarms/warnings so I can determine the priority of the message and intervene when needed

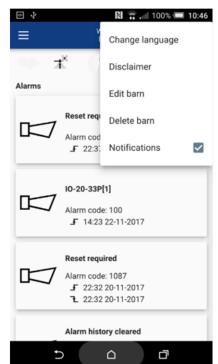


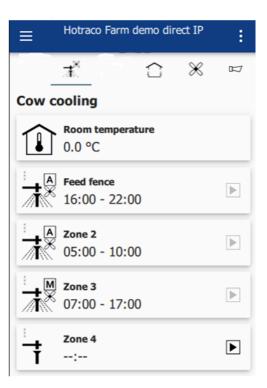
## **Cattle Cooling**











## **Cattle cooling:**



- One screen for the Cow cooling:
  - As a customer I want to be able to monitor the Temperature and/or THI and status of the Cow Cooling system so I know my animals are comfortable for an optimum performance
  - As a customer I want to recieve alarms/warnings so I can intervene and provide maximum animal comfort to maintain maximum performance.
  - As a customer I want to be able to label the "Cow cooling areas" so I instantly know the position of this Cow Cooling system for the optimum comfort during the daily routine (time slots) of the animals. (e.g. milking parlor, Cubicles, Feed fence, etc)