RTX TREND Operational Description

Date: 2011-10-28 **R1**

REV.	DATE	DESCRIPTION	AUTHOR	APPROVED
R1	2011-10-28	First issues	SB	

1. Overview

The RTX TREND handheld is a professional remote control suitable for industrial and/or vehicle applications. Its main features are:

- Supply voltage: 3Vdc, 2xAA Alkaline batteries
- Up to 14 function keys other than + START e STOP
- Current consumption: < 10 uA in stand-by status
- Backlighted keyboard
- Passive Safety-Point
- Active Safety-Point (RFID integrated Tag-Reader)
- Tilting Hand capability through 3 axis accelerometer
- Emergency STOP mushroom
- Buzzer or vibration as user feedback
- Battery indication LED
- Transmission indication LED
- Operating distance: up to 150m in line of sight and free field conditions
- Operating temperature: -20 ÷ +70 °C
- Enclosure protection: IP67
- Shock proof
- Operating frequency: 915 MHz

2. Operational description

The RTX TREND remote control is used in conjunction with Sistematica S.p.A CONTROLLER devices that acts the command sent by the user with the RTX TREND.
Each RTX TREND is produced with a unique 32 bit identification number lasered into the device memory. This number allow a pairing function between the remote control and the receiver which will accept commands only from the paired remote control.
The remote control has two main buttons, START and STOP allowing the user to start a new working session. The session normally will ends when the user push the STOP button or automatically at a timeout expiration from the last command sent (button 1 to 14).
The START command is always need before start working using the function button 1 to 14. This command is used to establish the radio link with the receiver.
The STOP button close the working session and produce the switch off of all the active outputs on the receiver side.
The integrity of the transmitted commands (START, STOP or function commands) is achieved through e 32 bit polynomial CRC.
Feedback of the right transmission and reception of the command is given to the user through specific green LED, buzzer beep or vibration.
A red LED warn the user about the status of the battery charge when it became too low for a proper function of the device.