TEKTELIC HARMONY

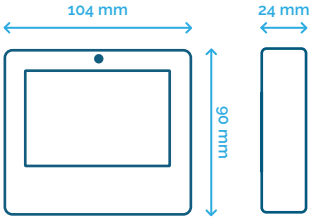
LoRaWAN® Smart HVAC Control and Energy Optimization

IP 30

The HARMONY is a user-friendly, intelligent LoRaWAN® thermostat designed for global hotel chains and small enterprises. HARMONY enables precise control of HVAC systems, enhances occupant comfort, and improves energy efficiency through integrated sensors, advanced scheduling, and automated logic.
With legacy system compatibility and intuitive on-device controls, HARMONY improves comfort, optimizes energy use, and simplifies facility management all while remaining intuitive for guests of any age or language. Its sleek design and minimal footprint allow for easy retrofit installation, reducing operational disruptions and minimizing installation costs.

Sensing Functions

- AMBIENT TEMPERATURE
- AMBIENT RELATIVE HUMIDITY
- AMBIENT LIGHT
- CO_2 CONCENTRATION
- 2 X EXTERNAL CONNECTORS (DIGITAL INPUT, ANALOG INPUT, OUTPUT CONTROL)
- REMOTE TEMPERATURE MONITORING
- OPEN/CLOSED STATE MONITORING
- ECM FAN CONTROL (0-10V)



Features

- ✓ **User-configurable parameters and thresholds** allow the device to be tailored to a wide range of monitoring applications
- ✓ **AUTO and ECO operating modes**, including scheduled transitions for comfort and energy-efficient operation
- ✓ **Quick and easy device onboarding & data viewing** using TEKTELIC **LeapX™** mobile application
- ✓ **Flexible fan control** supporting manual 3-speed operation or ECM fan control
- ✓ TEKTELIC **Kona Atlas™ support** for payload encoding and decoding
- ✓ **Automatic CO_2 sensor calibration** to maintain long-term accuracy and reduce maintenance
- ✓ TEKTELIC **Locus™ integration** for centralized device, data, and fleet management
- ✓ **Intuitive, language-agnostic display design** for universal readability across users and ages
- ✓ **Rapid deployment** for scalable commercial and enterprise installations
- ✓ **Remote access via cloud platforms or Building Management Systems (BMS)** for centralized monitoring and control
- ✓ AC-powered design enables **hassle-free installation, operation, and long-term maintenance**
- ✓ Supports **Firmware Updates Over-the-Air (FUOTA)** for easy feature enhancements and maintenance
- ✓ **Dual rear-access external connectors** provide multi-function sensing and control, including remote temperature sensing, versatile digital input monitoring, and ECM fan control
- ✓ **Comprehensive HVAC support** for diverse building environments
- ✓ **Integrated user interface with display and buttons** for environmental readings, configuration, and control
- ✓ **Compatible with standard LoRaWAN® gateways and network servers** for broad interoperability

Technical and Functional System Specifications

General System Parameters			
Operational Temperature	0°C to 50°C		
Storage Temperature	-30°C to 60°C		
Operational Relative Humidity	5% to 95%, non-condensing		
Ingress Protection	IP30		
Sensor Size	104 x 90 x 24 mm		
Display	3.5" LCD (Displays: Mode, Current Temperature and Humidity, Selected Temperature Setpoint, Mode of Operation, Fan Speed level, Date and Time)		
Physical Buttons	Power Button, Temperature Up, Temperature Down, Mode, Fan Speed		
Power Supply	100V – 220V AC		
Control Output	Relay (AC) & Analog (0–10V)		
Mounting	Wall-mount (Standard Thermostat Box)		
Wireless Parameters (LoRa)			
RF Power (Max)	23 dBm		
RF Sensitivity	-137 dBm (SF12, 125 kHz)		
Channel Plans	EU868, US915, AU915, AS923-1,-2,-3,-4, IN865, KR920		
Antenna	Internal		
LoRa Device Class	Class A and C		
Specification Version	1.0.4		
Sensor Specifications	**Range**	**Accuracy**	**Resolution**
CO_2	400-5000 ppm	+/- 100 ppm + 10%	1 ppm
Ambient Temperature	0°C to 50°C	+/- 0.2°C	0.5°C
Ambient Relative Humidity	0% - 100%	+/- 2%	0.5%
Ambient Light	5-1000 lux	N/A	N/A
Certifications & Compliance			
Regulatory	FCC, ISED, CE (RED)		
Product Safety	IEC 62368-1		
Environmental	RoHS		

TEKTELIC Communications is a premier supplier of complete LoRaWAN® IoT solutions. Our end-to-end systems combine network infrastructure, devices, and applications to enable easy, fast, and cost-effective deployment for the most demanding IoT challenges.

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