PreonCube Logistics Advanced

Measuring cube for recording temperature, rel. Humidity, relative Illuminance, air pressure, acceleration and position with wireless communication

Product attributes

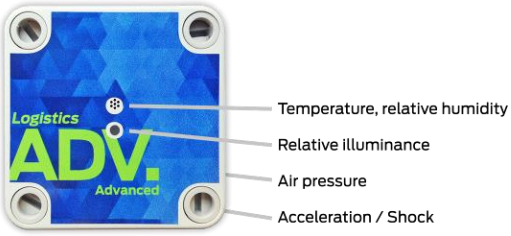
- Mobile, self-sufficient radio measuring spot with internal sensors
- Temperature, relative humidity, relative illuminance, air pressure, shock and position
- Measured value acquisition, buffering and radio transmission (min. 128 Bit AES encryption)
- Convenient measurement value analysis and data export in the PreonLive online portal my.virtenio.com[1]
- up to 3 years battery life with lithium-ion battery
- Modular compatibility with all Virtenio Cubes and Gateways
- Robust housing (IP65) with pressure compensation valve
- Compact dimensions of 65 x 65 x 57 mm (L x W x H)

Description

The PreonCube Logistics Advanced is a wireless radio monitoring point with internal sensors. Due to its handy and compact design without protruding sensors and the long battery life, the Cube is ideally suited for self-sufficient monitoring of buildings, warehouses, transport containers or hard-to-reach environments. With its sensors, it records data on temperature, relative humidity, relative illuminance, air pressure, shock and position at customer-specific intervals. Depending on requirements, it transmits these measured values wirelessly to other measuring points or directly to a radio gateway. From the optionally available gateways, the data is transferred to the PreonLive online portal where it can be analyzed and exported. This allows you to monitor your remote PreonCubes from any PC, smartphone or tablet with Internet access and always have an overview of their local environmental conditions.

Sensors

The integrated sensors register the environment around the PreonCube via three housing openings. The **PreonCube Logistics Advanced** system measures temperature, relative humidity, relative illuminance, air pressure and 3-axis acceleration. The sensor openings are protected according IP65 and are located on the upper side of the housing or above the USB socket from the side.



Applications

- Areas of application: Buildings, warehousing, transport
- Usage: Monitoring of buildings, halls, rooms or transport containers
- Monitoring, verification, control and alarming
- spot checks or long-term measurements

[1] Only available with PreonGate Gateway products

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VIRTENIO
smart wireless devices

PreonCube
Logistics Advanced

General		
Dimensions:		65 x 65 x 57 mm (L x W x H)
Weight:		180g
Housing:		Polycarbonate
Protection class:		IP65 with pressure compensation valve
Power supply:		Lithium-ion battery with 2350mAh capacity; USB power supply
Operating modes:		Battery; power supply with 5V@500mA
Operating life time:		up to 3 years without recharging (depending on configuration)
Memory:		Flash, non-volatile
Operating temperature:		-20°C to +50°C / 0°C to +40°C in power supply mode
Interaction:		Touchless Reed Switch, LED (two-color)
Interfaces:		Micro-USB connector for USB power supply
Radio communication		
Radio frequency		2.4 GHz, license-free ISM band
Radio standard		IEEE 802.15.4
Range (up to)		outdoor 300m / indoor 30m
Security		At least 128 Bit AES
Radio protocol		IEEE 802.15.4 (P2P); 6LoWPAN with Duty Cycling (via SW update)
Radio Channels		16
Transmission interval		15 min (standard, programmable)
Sensors		
Measuring interval		15 min (standard, programmable)
Temperature	**Measuring range**	-20°C to +50°C
	Resolution	16-Bit
	Accuracy	+/- 0.3°C
rel. Humidity	**Measuring range**	0-100% relative humidity (non-condensing)
	Resolution	12-Bit
	Accuracy	+/- 2% rH
rel. Illuminance	**Measuring range**	1rlx to 65355rlx
	Resolution	16-Bit
	Accuracy	+/- 15%, spectral unadjusted
Air pressure	**Measuring range**	260hPa to 1260hPa
	Resolution	24-Bit
	Accuracy	+/- 0.2hPa
Acceleration	**Measuring range**	+/- 16g, 3-axis
	Resolution	13 Bit per axis
	Accuracy	3.9mg/LSB
Norms and standards		CE
		EN 62368-1, EN 62311, EN 61326-1, EN 301489-1/-17, EN 300328, EN 50581, FCC Part 15

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