



Type(s)
Project
Date
Notes

GENERAL INFORMATION

The TAP-31 (Task Ambient Photo) sensor is designed to provide a reliable and simple method of increasing energy savings by adding daylight harvesting to your Echoflex lighting control system.

Using standard EnOcean profiles, the popular TAP-31 sensor adds exterior light level monitoring up to 65,535 lux (6,090 fc), making the sensor suitable for both closed and open loop daylighting applications.

Batteries are not required for everyday operation due to the advanced solar energy harvesting and power management features. After installation, the sensor will operate with exposure to light as low as 50 lux (5 fc) for 5 minutes. The TAP sensor is capable of operating over 70 hours in darkness from a maximum charged level.

The sensor incorporates diagnostic and configuration features to ensure reliable performance and solar harvesting capability. Solar energy harvesting under existing light levels is provided on demand through LED indication. An accelerated transmission mode is available when energy code compliance inspectors need to verify system operation. And Echoflex's Simple Tap configuration feature makes it easy to set operational parameters at the sensor after installation. All these built-in options allow installers to make changes without any special tools or apps.

APPLICATIONS

- Educational Facilities: administration offices, classrooms
- Hospitality: Atriums, foyers, general assembly
- Healthcare: Clinics, administrative offices, general assembly
- Commercial Office Spaces: open areas, private offices, general assembly
- Retail: Malls, concourses, open spaces, administration offices

ORDERING INFORMATION

Wireless Photo Sensor

MODEL	DESCRIPTION
TAP-31U	Wireless Photo Sensor, 0–1020 lux / 0–65,535 lux, 902 MHz
TAP-31Y	Wireless Photo Sensor, 0–1020 lux / 0–65,535 lux, 868 MHz

FEATURES

- Solar powered wireless photo sensor for daylight harvesting applications
- Two light intensity ranges: 0–1,020 lux (95 fc) and 0–65,535 lux (0–6,090 fc)
- Available in white and black finishes
- Solar harvesting light level indicated via tricolored LEDs
- Reliable radio reception range of 24 m (80 ft) - commercial office spaces (typical), up to 100 m (330 ft) line of sight
- Simple Tap configuration of daylighting settings
- Up to 72 hours operation in complete darkness
- Batteries not required, assisted start option available
- Mounting options include integrated magnets for T-Bar or wire strap for ceiling tile. Provisions for screw mounting and double sided tape (not included)
- Energy code compliance test mode
- Quick start operation at low light level with minimal charging time

SPECIFICATIONS

HARDWARE

- Power supply: Integrated solar cell
- Range: 0–65,535 lux (0–6,090 fc), resolution 1 lux, accuracy +/- 10%
- Operational light level: 50 lux (5 fc), minimum
- Minimum charge time to begin operation: 5 minutes in 50 lux (5 fc)
- Maintain charge time: 3 hours per 24 hours at 480 lux (45 fc)
- Maximum charge time: 7.5 hours at 960 lux (90 fc)
- Operating life at full charge: 72 hours at 0 lux
- Battery for start assist: CR1632 (not included)
- Inputs: Teach button for assignment to receiver, tests, and settings
- Outputs: LEDs - red, green, and blue

EQUIPMENT PROFILE

- A5-06-02: Light Sensor Range
 - DB_1: 0–1,020 lux (0–95 fc)
 - DB_3: Supply voltage: 0–5.1 V. linear n=0–255
- A5-06-04: Curtain Wall Brightness Sensor
 - DB0.4-DB0.7: Battery level 0–100%
 - DB_1: 0–65,535 lux (0–6,090 fc)
 - DB_3: Not used

COMMUNICATIONS

- 902 MHz (U) or 868 MHz (Y) radio frequencies
- Wireless range of up to 24 m (80 ft) - commercial office spaces (typical), up to 100 m (330 ft) line of sight
- Integrated whip antenna
- Telegram heartbeat:

Light Level	Sample Rate	Update Rate
< 10 lux (1 fc)	128 seconds	21 minutes
< 50 lux (5 fc)	64 seconds	10 minutes
50–100 lux (5–9 fc)	32 seconds	320 seconds
> 100 lux (9 fc)	16 seconds	160 seconds

ENVIRONMENTAL

- Operating temperature: -25°C to 65°C (-13°F to 149°F) ambient
- Relative humidity: 5–92% non-condensing, indoor use only

REGULATORY AND COMPLIANCE

- FCC Part 15.231 - Remote Control Transmitter
- Industry Canada RSS-210

PHYSICAL

Wireless Photo Sensor Weight and Dimensions†

MODEL	HEIGHT		WIDTH		DEPTH		WEIGHT	
	mm	in	mm	in	mm	in	g	oz
TAP-31	98.0	3.86	98.0	3.86	20.5	0.81	70	2.4

†Note: Mounts with integrated magnets, wire bracket, screws (not included), double-sided tape (not included)

