



FRE-220-M-S embedded Sigfox COMPATIBLE LUMINAIRE CONTROLLER

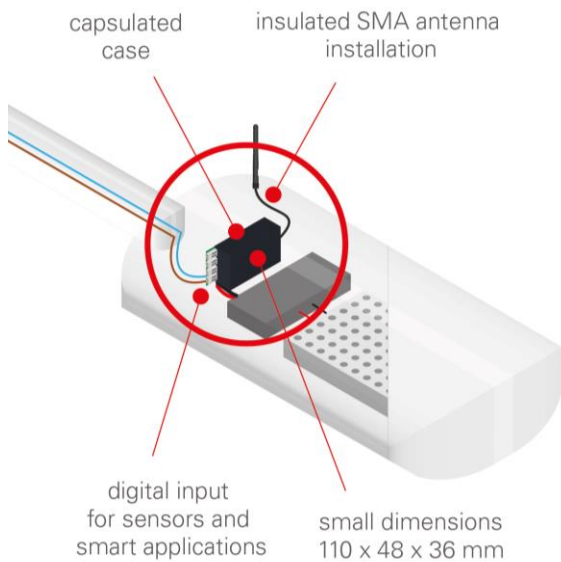
Upgrade your lamps for smart control and monitoring

Unprecedented intelligence for any street lighting fixture, right from the production line. Designed to minimize occupied space, the new inteliLIGHT® Sigfox compatible FRE-220S-M long range RF controller can be embedded into most luminaire designs, allowing any producer to offer Sigfox ready smart lighting fixtures.

- › Enables **individual remote management** of streetlight lamps with electronic driver up to 400W (ON/ OFF/ Dimming).
- › Specially designed and **optimized for LPWA networks**.
- › **Autonomous operation** based on predefined schedules and digital input (light level sensor and adaptive lighting).
- › **Adaptive lighting** capabilities based on digital input for motion sensing.
- › **Bandwidth efficient** with minimal communication requirements.
- › **Dedicated high-security memory** for encryption keys storage.
- › Wide range of **electrical parameters monitoring**: V, W, A, VAR, Wh, VARh, PF and frequency.
- › **Advanced data synchronization** and notification mechanism.
- › **Battery operated RTC**, protected against unforeseen communication failure.
- › **Local infrared interface** for local configuration.
- › Integrated **digital input**.
- › Designed **lifetime: 10+** years.

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OPTIONAL ANTENNAS



FRE-220-M-S embedded	
Lamp Type	LED, CF, HID with electronic driver
Maximum lamp power	400W
Functions / Operation mode	ON/ OFF / Dimming
Dimming range	30%-100%
Dimming steps	stepless
Control interface	0-10V/ 1-10V, DALI
Local interface	infrared
Network interface	Sigfox
Supported frequencies	RCZ1 Europe , RCZ2 US, RCZ4 AU/NZ/Taiwan/Singapore
Security	encrypted communication based on security keys
Power supply	85 - 260VAC / 50Hz-60Hz
Surge protection	10kA
Internal scheduling memory	16 events / day
Power consumption	1W
Precision Real Time Clock (RTC)	Battery operated
IP rating	IP42
Operating temperature range	-25°C to +65°C
Dimensions (length x width x height)	110 x 48 x 36 mm
Compliant standards	RoHS, EN 61000-3-2(2014), EN 61547(2009), EN 60068-2-1(2007), EN 60068-2-2(2007), Prequalified according to ETSI EN 300 220
Certifications	CE FCC (in progress)

MEASURED PARAMETERS:

- › Lamp power
- › Line voltage
- › Current
- › Active power
- › Reactive power
- › Apparent power
- › Power factor
- › Energy consumption (active/ reactive)
- › Lamp / controller - running hours counter
- › Lamp On / Off cycles counter

CONFIGURABLE PARAMETERS:

- › Astronomical calendar scheduler
- › Predefined scheduler
- › Start state (Input / Schedule / Manual)
- › ON/OFF power threshold
- › Over/ under voltage threshold
- › Over/ under current threshold
- › Strike retry count
- › Fade time
- › Lamp warming time
- › Lamp cooldown time
- › Data transmission setup
- › Alert priority setup

ALARMS MONITORED:

- › Over/ under voltage detection
- › Over/ under current detection
- › Lamp or driver fault detection
- › Device failure