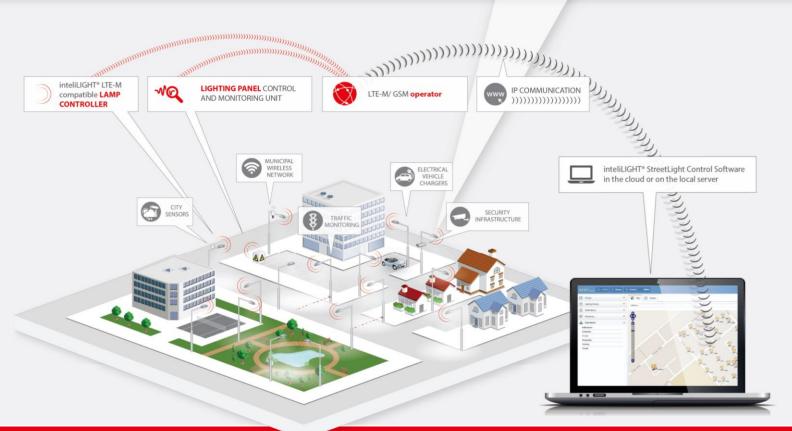# FRE-220-NEMA-M1 LTE-M COMPATIBLE LUMINAIRE CONTROLLER

› **NEMA socket** connected (ANSI C136.41).
› 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, 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.
› **External infrared interface** for local configuration.
› Integrated **light level sensor**.
› **Over The Air** (OTA) firmware update.
› Designed **lifetime: 10+** years.

LTE-M Compatible

inteliLIGHT® LTE-M compatible **LAMP CONTROLLER**

LIGHTING PANEL CONTROL AND MONITORING UNIT

LTE-M/ GSM **operator**

IP COMMUNICATION

MUNICIPAL WIRELESS NETWORK

ELECTRICAL VEHICLE CHARGERS

inteliLIGHT® StreetLight Control Software in the cloud or on the local server

CITY SENSORS

TRAFFIC MONITORING

SECURITY INFRASTRUCTURE

FLASHNET

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inteli LIGHT®

PLUG & PLAY
ADAPTABLE
to EXISTING
STREET LIGHTING
INFRASTRUCTURE

SCALABLE &
IMMEDIATELY
OPERABLE

up to
35%
ENERGY
SAVINGS

up to
42%
MAINTENANCE
COST REDUCTION

FRE-220-NEMA-M1

Lamp Type	LED, CF, HID with electronic driver
Connection	7pin NEMA socket (ANSI C136.41)
Maximum lamp power	400W
Functions / Operation mode	ON/ OFF / Dimming
Dimming range	30%-100%
Dimming steps	stepless
Control interface	0-10V/ 1-10V, DALI
External interface	infrared
Network interface	LTE-M
LTE supported frequencies	worldwide
Firmware update	IR (infrared) / OTA (over the air)
GPS	optional
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	IP66
Operating temperature range	-25°C to +65°C
Dimensions (diameter x height)	76 x 96 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 (Photocell / 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
› Light level threshold
› Data transmission setup
› Alert priority setup

ALARMS MONITORED:

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

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