

SMART NEMA LIGHT POINT MODULE



THE INTELLIGENT CONTROL INTERFACE FOR SMART CITY LIGHTING

The MNPL module is a universal NEMA-based controller designed for street lighting fixtures equipped with a NEMA socket. It enables real-time remote control, monitoring, dimming, and diagnostics of each lighting point, using multiple communication technologies for maximum coverage and flexibility.

FEATURES & BENEFITS



REAL-TIME LIGHTING ADJUSTMENT	ADVANCED MONITORING & DIAGNOSTICS	URBAN & RURAL PROVEN RELIABILITY
• Programmable switching & dimming schedules • Dimming range 0-100% through 0(1)-10V, PWM, DALI, DALI-2, D4i • Automatic on/off and adaptive regulation based on environmental inputs • Integrated sensors (temperature, light, tilt, speed) enabling advanced automation	• Real-time remote diagnostics of lighting status • Live monitoring of electrical parameters • Secure, encrypted communication (AES 128-bit) • Flexible connectivity: GSM, NB-IoT, LTE-M, RF 2.4 GHz, PLC	• Extended operating temperature range: -40 °C to +90 °C • Resistant to dust, water, impact, and harsh urban environments • IP66 ingress protection and IK10 mechanical protection • 24/7 continuous-duty operation (100% duty cycle)



USE CASES

- Smart public lighting
- Areas with operational risk
- Roads with fluctuating traffic levels
- High-safety pedestrian and road areas
- Municipalities with remote lighting control

IMPACT METRICS

 SAFETY BOOST optimized visibility in all conditions	 ENERGY OPTIMIZATION reduced energy usage through dimming and automation	 OPERATIONAL EFFICIENCY remote diagnostics reduce maintenance costs	 COVERAGE multi-communication compatibility ensures reliability	 LONG-TERM RELIABILITY robust mechanical and environmental protection
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MECHANICAL & ELECTRICAL SPECIFICATIONS

CERTIFICATIONS & COMPLIANCE

MECHANICAL CHARACTERISTICS

Dimensions	84 × 75 × 100 mm
Housing material	UV-treated polycarbonate
Mounting type	NEMA socket

ELECTRICAL CHARACTERISTICS

Voltage	220–240 VAC
Frequency	50–60 Hz
Operating current	22 mA
Power consumption	5 W

INTEGRATED SENSORS

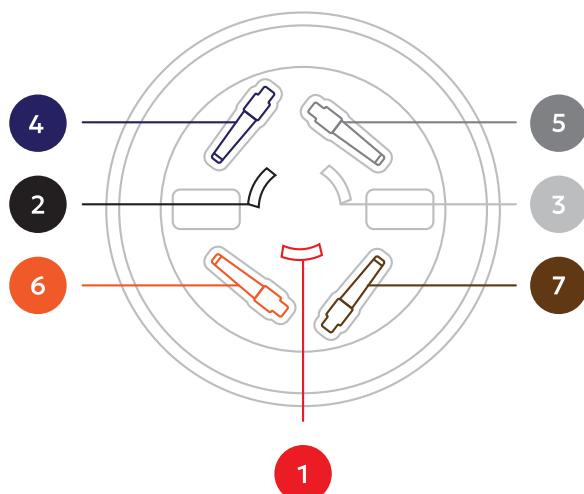
Temperature sensor	–30 °C to +70 °C
Light sensor	1–4000 lux, ±10 lux precision
Speed sensor	1–100 km/h
Tilt sensor	±90° on 3 axes (±2° tolerance)

ENVIRONMENTAL CONDITIONS

Max humidity	95%
Pollution degree	2
Chemical-free, dust-free operating environment	

PROTECTION

IP66 enclosure
IK10 impact resistance
Electrical protection class II



SR EN IEC 62368-1:2020 + A11:2020 + AC:2020

SR EN 61000-6-3:2007 + A1:2011 + AC: 2012

SR EN 55032:2015 + AC:2016

SR EN IEC 55015:2019 + A11:2020

SR EN IEC 61000-3-2:2019

SR EN IEC 61000-3-3:2014 + A1:2019

SR EN IEC 61000-6-1:2019

SR EN 55035:2017

SR EN 61000-4-2:2009

SR EN IEC 61000-4-3:2020

SR EN 61000-4-4:2013

SR EN 61000-4-5:2015 + A1:2018

SR EN 61000-4-6:2014

SR EN 61000-4-8:2010

SR EN IEC 610004-11:2005 + A1:2018+AC:2020

SR EN 60068-2-1:2007

SR EN 60068-2-2 2008

SR EN 62262:2004

SR EN 60529:1995 + A1:2003+A2:2015 + AC:2017 + AC:2019

NEMA PINOUT

- 1 Load
- 2 Phase
- 3 Neutral
- 4 Dimming +
- 5 Dimming –
- 6 Auxiliary +
- 7 Auxiliary –