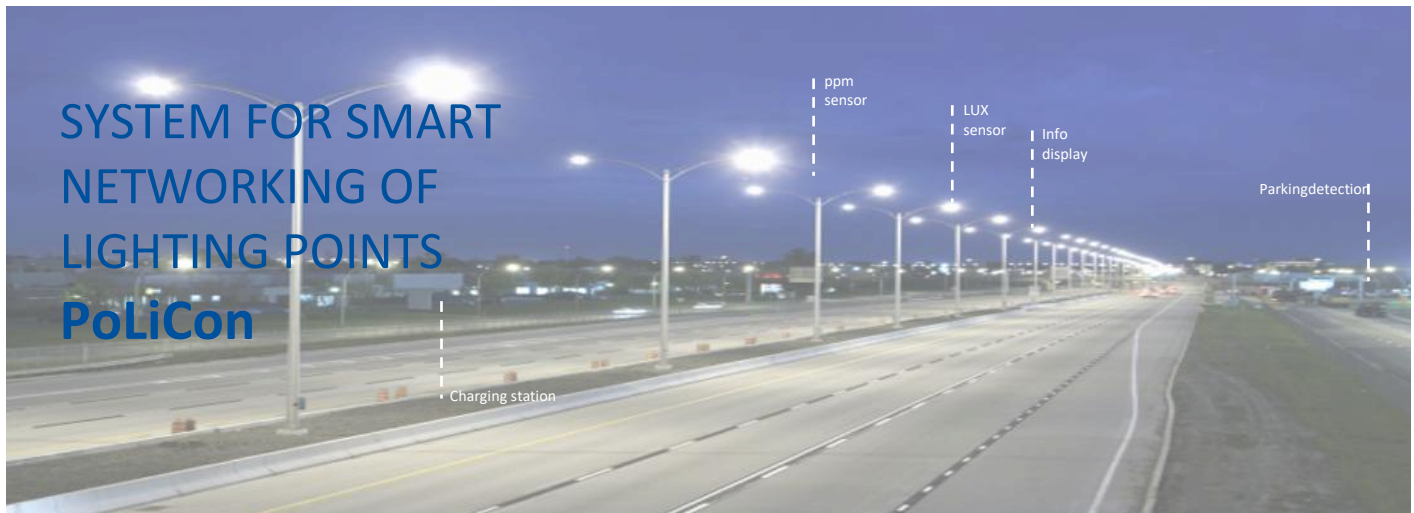


SYSTEM FOR SMART NETWORKING OF LIGHTING POINTS PoLiCon



With PoLiCon, conventional street and outdoor lighting systems - whether new installations or existing systems- can be equipped for "smart" use, regardless of the luminaire or pole manufacturer.

PoLiCon has a modular design and enables individual, multiple or all lighting points to be networked with higher-level control systems.

When a lighting point is equipped with PoLiCon, it offers a wide range of additional applications that go far beyond its primary or original lighting function, such as:

- Provision of EV charging infrastructure
- Use of sensors (e.g. environmental sensors)
- Transmission of video images (on request)
- Connection of information and display boards
- Management of parking guidance systems, etc.

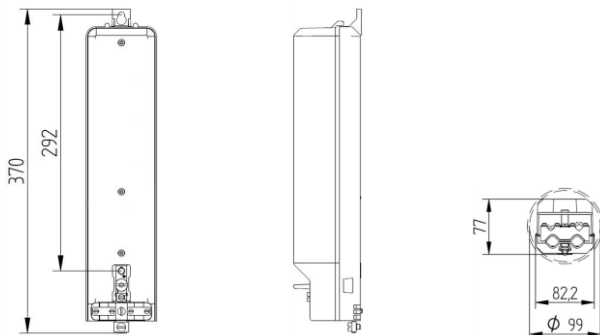


- Standardized system for networking lighting systems from different manufacturers
- Can be retrofitted into existing systems (manufacturer-independent), with switching, dimming and bus capabilities
- Modular design, providing high scalability
- Fully equipped, bidirectional systems consist of:
 - 1) Pole modules installed in the connection boxes
 - 2) Communication modules and the associated IIoT gateways installed in the control cabinets
 - 3) A visualization interface for managing all subsystems

Examples of additional benefits:

EV charging infrastructure: use of existing cable networks
Additional revenue from leasing infrastructure to third parties (e.g. sensors, information/display boards, etc.)

TECHNICAL DATA:



Pole module (fully equipped):

- Wired / wireless connection (powerline / radio)
- max. 6 switching outputs (luminaire, sensor, advertising)
- max. 2 dimming outputs (0(1)...10 VDC)
- max. 3 digital inputs (e.g. for access-cover limit switches)
- max. 2 V-/I-/P- measurements of loads (single-phase)
- Bus connection (e.g. for sensors) via MODBUS RTU

Communication module (in control cabinet):

- Provides communication with all pole modules

IIoT gateway (in control cabinet):

- 2 x Ethernet
- Standard communication protocols (e.g. MQTT)

Visualisation / billing:

- LuxAround web portal - individually configurable

SYSTEM SETUP:

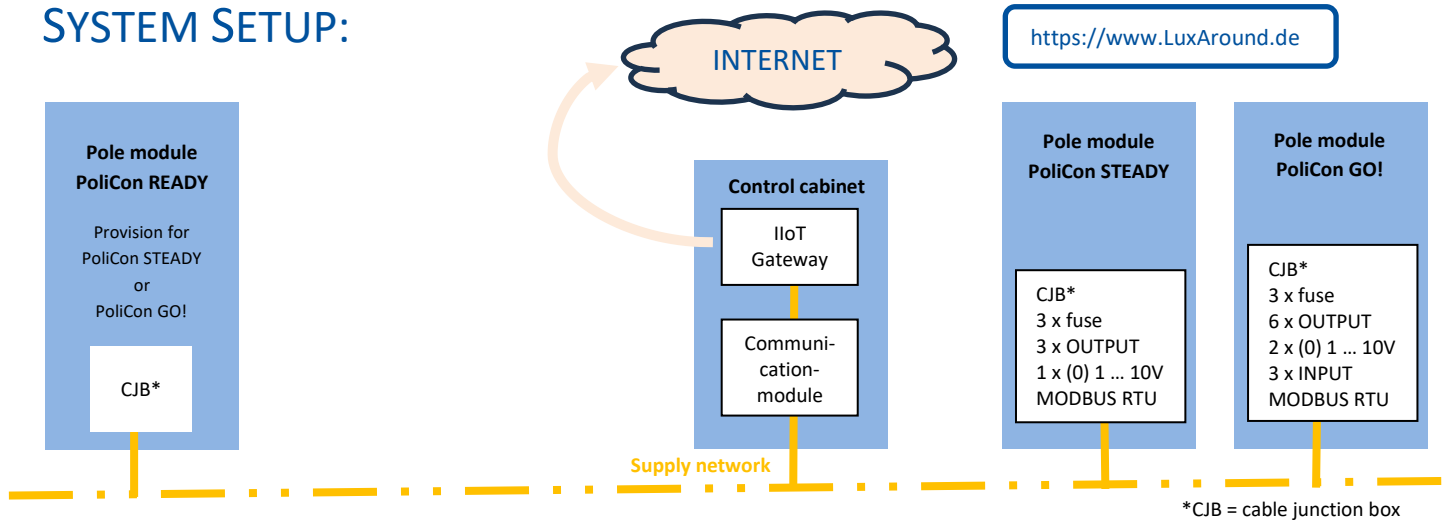


Figure 1: Example illustration showing all 3 possible equipment variants



Figure 2: Illustration of the communication paths of PoliCon GO!

The system can be implemented in existing infrastructures.

New installations become communication-enabled with **any pole-luminaire combination** through PoLiCon.

System updates can be performed remotely using endpoint management.

PoLiCon can be combined with our light-sensor-based network LuxAround (www.luxaround.de)

to fully leverage its strengths in demand-based control of street and property lighting.

Available PoLiCon pole modules:

https://www.electric-special.de/de/policon	PoLiCon READY	PoLiCon STEADY	PoLiCon GO!
Cable junction box (H/W/D 370/82.2/99 mm) with transparent cover and sheath clamps	X	X	X
Communication module for data transmission via powerline / radio incl. 3 pcs. fused outputs	-	X	X
Switching contact OUTPUT	-	3	6
Analogue signal OUTPUT (0)1...10 V	-	1	2
Switching contact INPUT	-	-	3
V/I/P measurement (1~) for feedback of current energy flows	-	-	2
MODBUS RTU interface for bidirectional connection of external devices (e.g. sensors, display boards, charging infrastructure, etc.)	-	X	X