Powerline-capable Pole Built-in Luminaire Controller iPC-HD (Powerline Broadband)

Powerline-capable built-in pole controller for controlling luminaires in street lighting and in the vicinity of buildings that are operated using a switched lighting cable or an unswitched mains cable in combination with a sensor or a control line as well as for transparent IP communication for IP/multimedia applications via 100Base-T interface.

Data transfer is undertaken in accordance with the standards ANSI/CTA (709.1, 709.8) and EN (14908-1, 14908-8). The controller communicates using the OLC-LonMark® profile. In line with the LON philosophy and the OLC LonMark® definition, the controller is equipped with the necessary applications to enable control as well as calculation of data and limit values.

The lighting control interface supports up to 4 EBs that have a 1-10 V / PWM or DALI control input. The pole controller features two switched outputs for switching a luminaire on and off up to 4 A in total. As a bus master in DALI operation, commands are transmitted to the electronic ballasts via in broadcast mode. The bidirectional LON powerline communication is carried out according to CENELEC 50561-1 / IEEE 1901 with a bandwidth of 2-28 MHz.

The strength of HD-PLC communication technology supports automatic configuration of up to 10 repeaters organised by primary and secondary master. Thus, communication distances can be bridged between controllers that would never be able to communicate with each other in a direct way.

Optionally (configured) individual electronic ballasts can also be addressed via an allocated short address. Synchronisable real-time clock, interoperable software interface, use of network variables and configuration parameters in acc. with LonMark®.

Control and monitoring parameters: switching on and off, power reduction/dimming, lighting hours, input voltage, current to the electronic ballast, phase shift cos(phi), calculated power uptake and energy consumption. Configuration and monitoring of limit values for voltage, current, power. Optionally extendable current measuring range via externally calibrated current converters in steps of 10 A to 100 A. The decline in luminous flux over the lamp's service life can be compensated. Start and end values as well lamp service life values can be freely configured. For new lamps, the entire superimposed dimming function can be switched off in a lamp- and lighting-hour-dependent manner.

When in operating mode, the controller can be connected to a switched lighting cable or an unswitched network cable in combination with a sensor or a control line. The 230 V AC control input can be used to influence the internally calculated switching and dimming function. Automatic calculation and tracking of the dimming level enables energy-optimised operation over the burning time of the light source as well as adaptation of oversized luminaires to the specific lighting task. Electrical specifications: mains voltage 85-305 V AC, mains frequency 50/60 Hz, nominal current max. 4 A, power consumption ~ 3 W, surge voltage protection 4 kV / 1.2 / 50 in acc. with EN 61547.

Measuring accuracy: voltage Ueff, current Ieff, output Peff, upwards of 1% in acc. with upper range value, energy kWh better than 1%, temperature, phase shift cos(phi) ≤ 0.02°.

Climatic conditions: operating temperature –25 °C to +70 °C, storage temperature –25 °C to +85 °C. Polycarbonate plastic casing, dimensions (W/H/D) 60 mm / 300 mm / 38 mm, weight 400 g, degree of protection IP65.

Brand:

- iCiti-iPC-HD-100 (Ref. No.: 200011) or equivalent.