



# DLC CSCU Basic

for Datek Light Control System

The Datek CSCU Basic is a component in the comprehensive Datek control and management solution for outdoor public lighting. Configured and used as a circuit controller together with a cloud based server, optimization for energy use, maintenance, and light pollution is greatly simplified with substantial cost savings.

## Technical Description

The CSCU Basic circuit controller serves as a field installed segment switch and communications hub. With 4x built in relay switches, 4x digital inputs, and 4x analog inputs it controls local equipment and relays information between the central cloud based server and field locations. It is equipped with backhaul interfaces for 2G/3G GPRS and LAN.

Embedded with powerful Datek control software the unit surveys and manages all connected equipment, log data, detects errors and forward alarms. With fail-safe logic, locally stored astronomical tables and backup power, it will step in to prevent detrimental system disturbances.

The CSCU Basic features numerous options for locally installed 3rd party equipment. Its execution environment is fully programmable to manage any sensors, actuators and communicate with other controllers. MODBUS IO extenders are available with many configurations for expanded functionality.

Applications include; LUX meter, SO power metering, tunnel controller, motion detection, water level sensing and generic analog sensors. With a hardened IP enclosure, the CSCU Basic can be installed in open air or internally in a streetlight cabinet.

With field installed Datek CSCU Basic in an outdoor public lighting infrastructure, a state of the art Smart City backbone is already in place. With over-the-air (OTA) software upgrades the customer is always assured an up to date solution with the newest features and functionality and opportunities for future custom applications.

DLC CSCU Basic is upgradable to a DLC Gateway with the addition of a ZigBee radio concentrator if the RS232 port is not in use by other equipment. An enhanced functionality version with additional power configurations, interfaces and 3G radio is available in DLC CSCU Plus, order number 101354.

## Ordering information

### 101353 - DLC CSCU Basic

#### General

32-bit Arm 7 processor, 2112 KB fast execution RAM, 4532 KB flash. SD-CARD reader up to 32 GB  
GSM engine, Quad-band 850/900/1800/1900 Mhz, internal mini-SIM card reader, 1.8/3 Volt  
GPRS Multi.slot class 12, Max 85.6 kbs (up/down link), CSD with up to 14.4 Kbps, SMS / PDU.

#### Electrical specification

Power supply: 100 to 260 VAC Fused, 8-36 VDC reverse polarity protected.

On-board Li-Ion Battery: 1 Ah. GSM operation for minimum 6 hours. ZigBee communication and really functionality is disabled.

Unit Active: 6VA @220 VAC, 50 mA @12 VDC, All outputs are off.

Unit Active with GSM on: 7 VA @220VAC, 60 mA @12VDC, GSM idle @-67 dBm.

Unit Active while charging: 630 mA, @12VDC.  
24VDC out.

#### Interfaces

4 x relay outputs (SPST) 5 A @250 VAC / 30 VDC.

5 x digital inputs, logic high: 6 to 40 VDC, logic low: -5 to 3 VDC (4 x IEC62053-31 Class A, 1 x reserved).

2 x analog inputs, 0..10 VDC or 0..20 mA, 12 bit resolution, precision  $\pm 1.5\%$  @ 25°C.

All I/O's protected against transients and low-pass filtered.

Expandable I/O with standard MODBUS modules.

1 x RS232 channel (on demand RS485, shared).

1 x Antenna connector SMA Female (GSM 850-1900 Mhz).

Screw terminals (internal).

Cable glands: 3 x PG11, 2 x PG9 (blind).

#### Environmental specifications

Storage Temperature: 0 to +45°C.

Operating Temperature: -30 to +60°C (According to GSM 11.10 specification).

Battery charging range: -10 to +45°C (supervised and temperature throttled).

Humidity: (RH, non condensing): 5 to 90 %.

Ingress protection: IP 65 (ruggedized polycarbonate enclosure with cable glands).

Weight: 0.810 Kg.

External dimensions: W 130 x H 180 x D 60 mm (excluding SMA connector, and cable glands).

#### Approvals

Radio: EN 301 511 V12.5.1 & EN 301 908-1 V11.1.1 & EN 301 908-1 V11.1.1 & EN 301 511 V12.5.1

EMC: EN 301 489-1 V2.2.0 & EN 301 489-1 V2.1.1 & EN 301 489-52 V1.1.0

RF Safety: EN 62311:2008

Product Safety: EN 60950-1:2006+A11:2009

EN 61000-6-2:2001 & EN 301 511 V12.5.1

This product uses pre-approved radio modules from Quectel.

