

GDS Led Driver - Sentronic Connect

NightFluxReduction - MainsFluxReduction - FluxCompensation -
Constant current - Integrated point-to-point remote control.



APPLICATION AREAS

- Street and urban lighting
- Suitable for outdoor applications in devices with IP > 43
- For outdoor devices in insulation class I and II
- Integrated point-to-point remote control in the solution

Sentronic Connect integrates connection and power supply inside the lighting fixture, in a single intelligent component.

In this way, the luminaire can be directly connected to remote control platforms, without the need for additional devices.

KEY POINTS

Available with different powers: 40 W, 80 W, 130 W	Integrated point-to-point remote control
Input voltage: 220-240V	Light point management from the control center
Output current range: 90...1,200 mA	Stand-alone operating mode
Flexible current setting with a USB/DALI interface	Adaptive lighting mode
NFR (Night Flux Reduction) function with setting of up to 7 current levels during night-time switching on	Compatible with CAM profiles
Standby power consumption: < 0.5 W	OTA (Over the air) firmware update
Overtemperature protection via internal temperature sensor	Master clock function with GPS (Optional)

ADVANTAGES

1

Integrated point-to-point remote control

2

High surge protection: up to 10 kV

3

Low tolerance of luminous efficiency due to low current tolerance ($\pm 5\%$)

4

High flexibility thanks to the wide operating temperature range (-40 to 70 °C)

5

Protection by double insulation between mains input and LED output

REMOTE CONTROL FEATURES

Remote control	Complete remote management of the LED device
Interface	Luminous flux regulation, communication in Master mode
Supervision lamp	Monitored quantities: • Input voltage and on LED plate; • Power; • Power factor; • Current on LED plate; • Dimming value set; • Power supply alarm states

HARDWARE FEATURES

Main radio frequency	868 MHz
Transmission power	Adjustable up to +14 dBm
Reception sensitivity	-130 dBm
Communication standards	Star network
Mode of operation	Stand-alone light point based on daily calendar profile
Operating temperature	From -25°C to +75°C - H.R. 10 -90%
Options	GPS
Applicable regulations	Complies with the applicable legal regulations for the product type

ELECTRICAL CHARACTERISTICS

Code	Voltage nominal	Input voltage **	Rated current **	Frequency of network	Power factor λ **	Total harmonic distortion **
GDS6070	220 - 240 V	220 - 240 V (1)	0,25 A (2)	50 / 60 Hz	0,95 / 0,9 (3)	< 10 % (4)
GDS8070	220 - 240 V	220 - 240 V (1)	0,25 A (2)	50 / 60 Hz	0,95 / 0,9 (3)	< 10 % (4)
GDS12070	220 - 240 V	220 - 240 V (1)	0,25 A (2)	50 / 60 Hz	0,95 / 0,9 (3)	< 10 % (4)

Code	Loss of power **	Trigger current **	No. max of ECG with autonom. 10 A	No. max of ECG autonom. 16 A**	No. max of ECG autonom. from 25 A (B) **
GDS6070	4,1 W (5)	25 A (6)	18	28 (7)	28 (7)
GDS8070	4,1 W (5)	25 A (6)	15	24 (7)	20 (7)
GDS12070	4,1 W (5)	25 A (6)	18	12 (7)	20 (7)

Code	Transient resistance (L/N - ground) **	Transient resistance (L/N) **	Outgoing Power **	Efficiency ECG**	Voltage in exit
GDS6070	10 kV (8)	10 kV (9)	49,5 W (10)	91 % (11)	70 - 108 Vdc
GDS8070	10 kV (8)	10 kV (9)	77 W (13)	92 % (11)	70 - 108 Vdc
GDS12070	10 kV (8)	10 kV (9)	132 W (14)	93 % (11)	70 - 108 Vdc

Code	Output current	Output current 1-10V open (ECG in 1-10V mode)	Output current 1-10V shorted (ECG in 1-10V mode)
GDS6070	45 - 450 mA	450 mA	120 mA
GDS8070	45 - 450 mA	700 mA	120 mA
GDS12070	45 - 450 mA	1200 mA	120 mA

Code	Default output current	Output current tolerance **	Output ripple current (100 Hz)
GDS6070	450 mA	± 5 % (12)	25 %
GDS8070	700 mA	± 5 % (12)	25 %
GDS12070	1200 mA	± 5 % (12)	25 %

Code	Minimum output current	Galvanic isolation	U-OUT
GDS6070	45 mA	SELV	120 V
GDS8070	70 mA	SELV	120 V
GDS12070	120 mA	SELV	120 V

**** NOTES (Electrical data)**

- (1) Allowable voltage range
- (2) A 230 V/0.41 A for 120 VAC
- (3) Full load at 230V / Half load at 230V
- (4) Max. output power at 230 VAC
- (5) Maximum
- (6) T = 60 μ s (measured at an intensity of 100% I)
- (7) B Type
- (8) 5 pulses per angle 0° - 90° - 180° - 270°, 12kV / 12Ohm (1.2/50 μ s)
- (9) @ 20hm, acc. to EN61547
- (10) Partial load 4 - 49,5 W / Dimmable
- (11) At full load and 230 V
- (12) Within nominal output current range
- (13) Partial load 5 - 77 W / Dimmable
- (14) Partial load 8,5 - 132 W / Dimmable

DURATION (A Ta = 60°C / Failure rate del 0,10% for 1.000 h)

	GDS6070 GDS6070 / 1-10V	GDS8070 GDS8070 / 1-10V	GDS12070
Duration ECG	100.000 h	100.000 h	100.000 h
ECG ambient temperature Ta [°C]	65 / 50 / 40	65 / 50 / 40	65 / 50 / 40
Temperature point Tc [°C]	90 / 70 / 60	90 / 70 / 60	90 / 70 / 60
Duration [h]	85.000 / 100.000 / 100.000	85.000 / 100.000 / 100.000	85.000 / 100.000 / 100.000

NORMS

Secondo EN 61347-1 / Secondo EN 61347-2- 13 / Secondo EN 62384 / Secondo EN 55015:2006 + A1:2007 + A2:2009 / Secondo EN 61547 / Secondo FCC 47 part 15 class B / Secondo IEC 61000-3-2 / Secondo IEC 61000-3-3 / Secondo IEC 62386-10 / Secondo IEC 62386-102 / Secondo IEC 62386-218