

PROJECT: _____	UNIT TAG: _____	QUANTITY: _____
REPRESENTATIVE: _____	TYPE OF SERVICE: _____	DATE: _____
ENGINEER: _____	SUBMITTED BY: _____	DATE: _____
CONTRACTOR: _____	APPROVED BY: _____	DATE: _____
	ORDER NO.: _____	DATE: _____

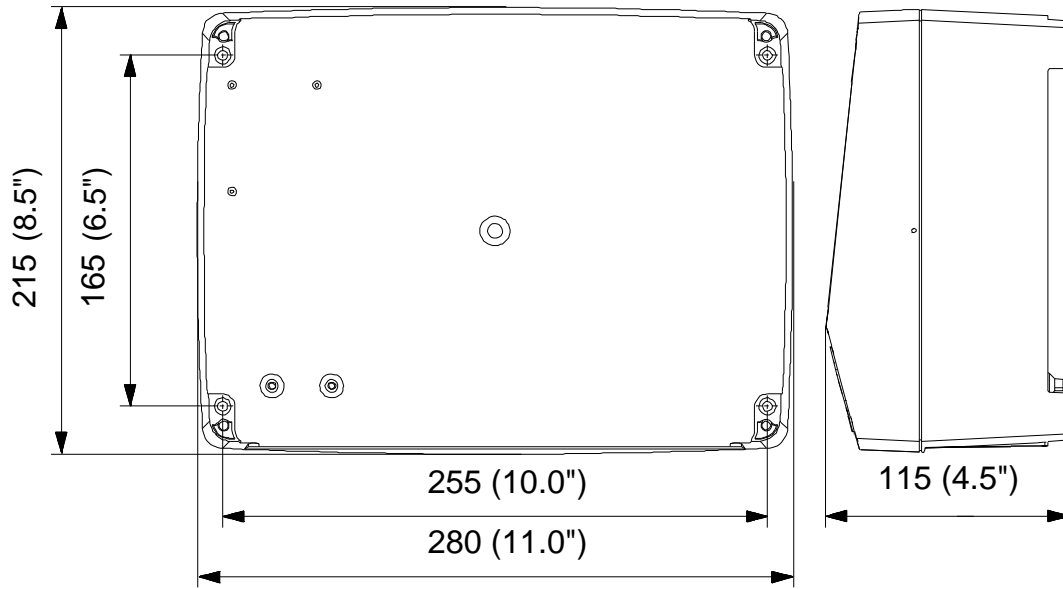


Product photo could vary from the actual product

### LC 231 1 x 1-9,6 DOL PI

LC 231 pump controllers are designed for level control, monitoring and protection of pumping systems, one or two pumps starting DOL up to 12 Amp. The LC 231 has a built-in motor protection and current measurement.

Conditions of Service	Pump Data	Motor Data
Flow: _____	Maximum ambient temperature: 113 °F	Rated voltage: 110-240 V
Head: _____	Product number: 99369651	Main frequency: 50 / 60 Hz
Efficiency: _____		Enclosure class: IP54
Liquid: _____		
Temperature: _____		
NPSH required: _____		
Viscosity: _____		
Specific Gravity: _____		



Count	Description
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1

LC 231



Product photo could vary from the actual product

Product No.: [99369651](#)

The LC 231 level controllers offer a comprehensive range of features for control and monitoring of pumps in wastewater, water supply and drainage systems.

The LC 231 pump controllers are designed for level control, monitoring and protection of Grundfos pumping systems one pumps or two pumps starting direct-on-line.

The LC 231 pump controllers can be used in various type of empty application e.g. waste water transport, drainage or tank filling in water supply.

The set-up of the control is easily done either by the predefined application settings or via the step-by-step

start-up wizard in the intuitive Grundfos GO app, using Bluetooth Smart technology.

With the Grundfos GO app, all detailed pump settings can be easily being configured, monitored and commissioned.

Even without using the app, you have the option directly from display to change the operation mode from auto

to manual start/stop and adjusting the level setting.

The controller is equipped with configurable input/output terminals, giving full flexibility for all applications.

Daily control, supervision and commissioning is straightforward with the intuitive and easy- to-use user interface.

This saves you valuable time when getting started, and in your daily interaction with pumps and the controller.

The controller integrates seamlessly into the Grundfos range of communication modules, ensuring an easy fit into any supervisory system such as SCADA or Grundfos CLOUD.

With the built-in certified motor protection, and the current measurement, the LC 231 pump controller provide a service indicator function hat helps keep track of when service is needed.

The controller maintains a detailed alarm and warning log with the last 20 alerts.

The alarm log can be accessed remotely via SCADA or Grundfos CLOUD. You can also use Grundfos GO to inspect the logs in localized, translated text for easy troubleshooting and remedial measures at the pumping station.



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Count	Description
	<p>The LC 231 controller enable:</p> <ul style="list-style-type: none"><li>• Control of 1 or 2 pumps based on signals from sensor input (analog, 0-5 V, 0.5-3.5V, 0-10 V, 0-20 mA, 4-20 mA or digital, float switch)</li><li>• Support up to five control levels for both analogue level transmitter or float switch operation</li><li>• Supports simple application where only one float switch is present - single float switch operation.</li><li>• Configurable input/output terminals that can be used as digital input/output, analogue input and Pt 100/1000 inputs for flexible use in the actual application</li><li>• Prevent the pumps with anti-seizing from choking or seizing due to limestone build-up or other deposits</li><li>• Prevent the mains load when several pumping stations are started up at the same time with power-on delay.</li><li>• Protection against water hammer as quick restart/simultaneous start is blocked and delayed</li><li>• Selection of automatic alarm resetting</li><li>• Setting of stop delays matching the actual operating conditions</li><li>• Shows the actual liquid level</li><li>• Alarm indication via a build in buzzer</li></ul> <p>Alarm indication of:</p> <ul style="list-style-type: none"><li>• Power/current overload</li><li>• Dry running</li><li>• High water level</li><li>• Incorrect phase sequences or missing phase</li><li>• Sensor inconsistency or failure</li><li>• Intrusion detection</li><li>• Water on floor</li><li>• Too many restarts</li><li>• Pump overheating and moisture detection</li></ul> <p>As standard, the LC 231 controller has two alarm relays that can be configured using Grundfos GO to show a variety of status information on a supervisory system or PLC.</p> <p><b>Controls:</b> Current measurement (Yes/No): Y</p> <p><b>Technical:</b> Approvals: CULUS Number of pumps: 1</p> <p><b>Materials:</b> Cabinet: Plastic</p> <p><b>Installation:</b> Range of ambient temperature: -13 .. 113 °F Cabinet mounting: Wall mounting Earth connection: N, PE</p>



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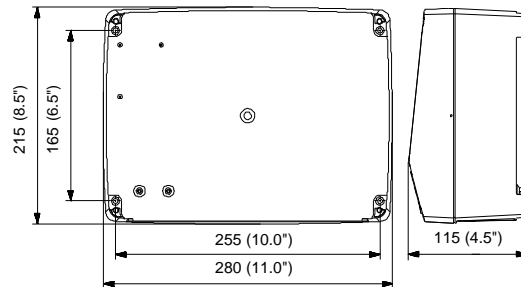
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Count	Description
	<p><b>Electrical data:</b></p> <p>Main frequency: 50 / 60 Hz Rated voltage: 1 x 110-240 V [3 x 200-460 V] Rated current: 1-9.6 A Capacitor size - run capacitor: N/A µF Capacitor size - starting capacitor: N/A µF Start. method: Direct-on-line (DOL) Enclosure class (IEC 34-5): IP54 Back-up fuse required: 16 A</p> <p><b>Others:</b></p> <p>Net weight: 3.98 lb Gross weight: 5.4 lb Shipping volume: 0.53 ft<sup>3</sup> Country of origin: DK Custom tariff no.: 8537.10.6000</p>

Description	Value
<b>General information:</b>	
Product name:	LC 231 1 x 1-9,6 DOL PI
Product No.:	99369651
EAN:	5713827986703
	5713827986703
<b>Technical:</b>	
Approvals:	CULUS
Number of pumps:	1
<b>Materials:</b>	
Cabinet:	Plastic
<b>Installation:</b>	
Range of ambient temperature:	-13 .. 113 °F
Cabinet mounting:	Wall mounting
Earth connection:	N, PE
<b>Electrical data:</b>	
Main frequency:	50 / 60 Hz
Rated voltage:	1 x 110-240 V [3 x 200-460 V]
Rated current:	1-9.6 A
Capacitor size - run capacitor:	N/A µF
Capacitor size - starting capacitor:	N/A µF
Start. method:	Direct-on-line (DOL)
Enclosure class (IEC 34-5):	IP54
Back-up fuse required:	16 A
<b>Controls:</b>	
Current measurement (Yes/No):	Y
<b>Others:</b>	
Net weight:	3.98 lb
Gross weight:	5.4 lb
Shipping volume:	0.53 ft³
Sales region:	Namreg
Country of origin:	DK
Custom tariff no.:	8537.10.6000

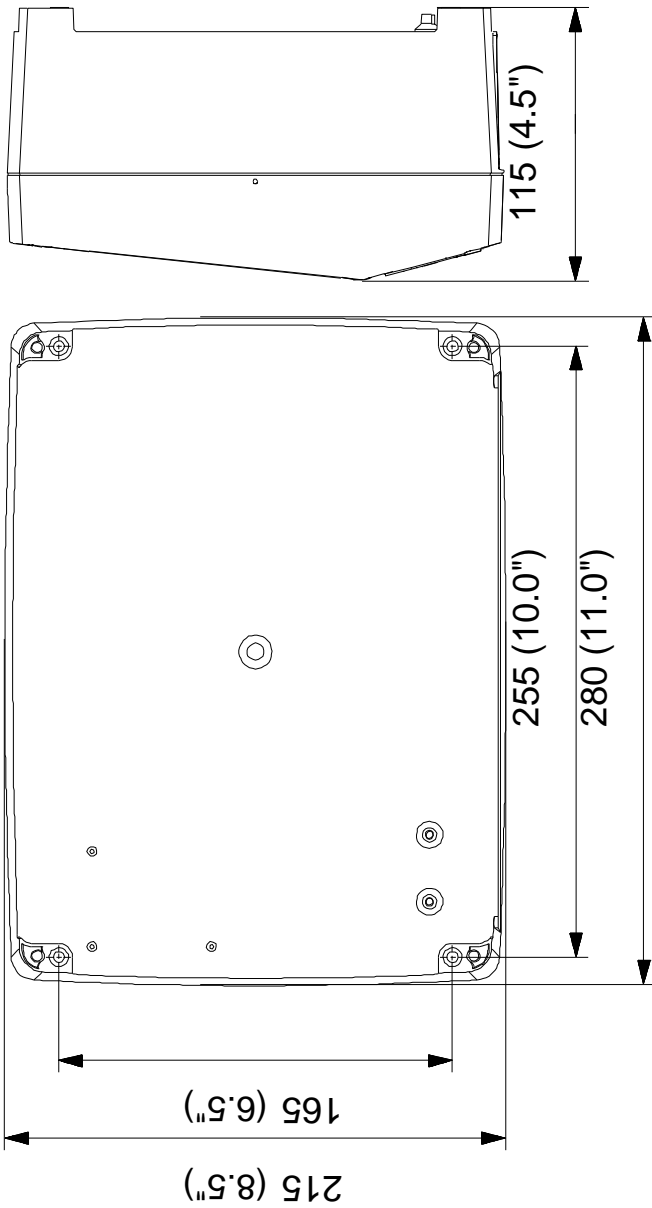




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### 99369651 LC 231 1 x 1-9,6 DOL PI



Note! All units are in [in] unless otherwise stated.  
Disclaimer: This simplified dimensional drawing does not show all details.