

LMC 301 controller

For reliable control of small, large or multi-system-type lubrication systems



Models
86500, 86501



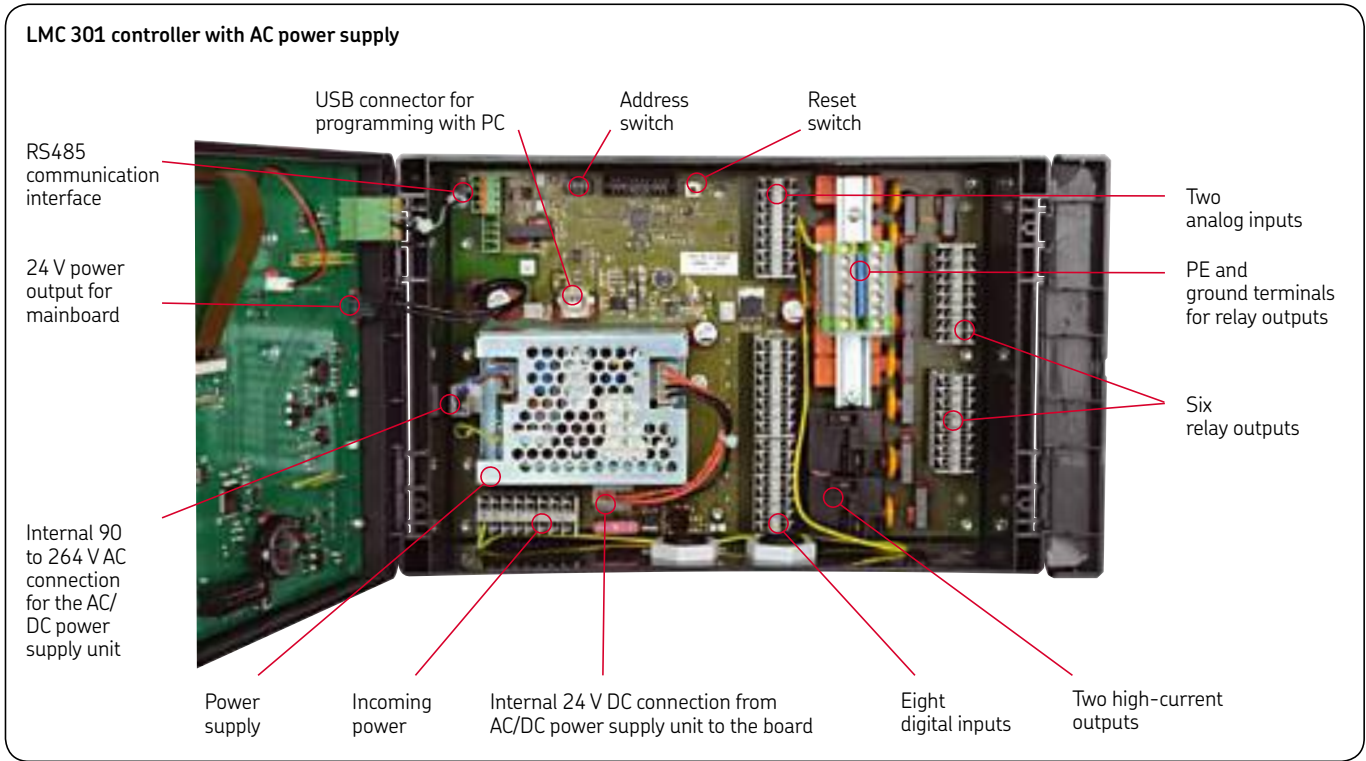
Models
86502, 86503

Model	Description
86500 86502	DC main unit DC I/O unit (same as 86500 minus display and control board on cover)
86501	AC main unit (same as 86500 plus power supply installed on board)
86503	AC I/O unit (same as 86502 plus same power supply used on 86501)

Designed for use with pumps that have no internal controller, the LMC 301 is suitable for applications where sophisticated control and feedback are required. This versatile controller can handle multiple configurations and diverse temperature ranges.

The LMC 301 works with multiple system types, including single-line, dual-line and progressive systems. One system can operate three different pumps, and each of those pumps can control up to three zones for a total of nine zones. Also, each pump can function as a different system type.

LMC 301-controlled systems can be configured to verify that lubricant is dispensed



The LMC 301 utilizes pressure switches and pressure transducers, and a grease monitor sensor can be placed before the lubrication point to verify that the system is working correctly. This is ideal for use on critical bearings where it is essential to know that they have been lubricated properly.

Because the unit manages up to nine separate zones, fewer controllers are needed, which saves you money. The unit is designed for systems that have lubrication points requiring different lubrication intervals or different types of grease.

Features:

- IP 65-rated container for water resistance
- Available in 24 V DC or 110 or 220 V AC
- Modular system with 10 inputs per unit minimizes hardware and installation costs
- Up to seven IO extensions can be added per controller
- USB connection mode
- Pump settings include time- or pressure-based lubrication, pump control and temperature monitoring
- Controller and PC software language: English and German (other languages coming soon)
- Can download new firmware for free from SKF website and update units via PC software
- Many high-end functions
 - prelubrication and post spray capability
 - ability to control auto-fill pump
 - temperature monitoring
- Ability to switch between a normal and heavy lubrication cycle via a remote switch

Benefits:

- Operates up to three different pumps for a total of nine zones
- Provides flexibility when varying lubrication intervals or different types of grease are required
- Functions effectively in diverse temperatures
- Controls large-capacity pumps with heavy amperage draw
- Works with new angular grease-detection sensor to verify proper lubrication
- Water-resistant container holds up to high-pressure wash downs
- UL/CSA/CE approved

Configure the LMC 301 controller to meet your specifications

The LMC 301 utilizes solenoids to control the zones and sensors to monitor the pressure. Because you can select the type of solenoids and sensors used, the unit can be customized to your specific needs and regional applications.

Suitable for all industries where small, large or complex lubrication applications are found, the LMC 301 controller is especially applicable for mobile, off-road, mining, construction and large process industries.

Typical items for inputs:

- Pressure switch
 - NO or NC
- Pressure transducers
 - 1 to 6 V
 - 0 to 10 V
 - 2 to 10 V
 - 0 to 20 mA
 - 4 to 20 mA
- Temperature sensors
- Grease flow detector
- Piston detectors
- Remote lubrication button
- Cycle counters
- Motor protection when using motor starters
- Lubrication load
 - normal or heavy
- Low level
- Auto filling

Typical items for outputs

- Pumps
- Vent valves
- Zoning valves
 - 3/2, 2/2 NC, 2/2 NO
- Audible or visible alarms

Technical data

Models	86500, 86502 (DC units) 86501, 86503 (AC units)
Mounting position	vertical
Dimensions	10.6 x 6.7 x 3.5 in. (270 x 170 x 90 mm)
Display	2.4 x 1.2 in. (60 x 30 mm); 128 x 64 pixels
Operating temperature AC	14 to 122 °F (-10 to +50 °C)
Operating temperature DC	-40 to +158 °F (-40 to +70 °C)
LCD display	-4 °F (-20 °C)
Storage temperature	-40 to +158 °F (-40 to +70 °C)
Inputs	10
Outputs	Six 8 A relay contacts and two 20 A
Residual ripple relative operating voltage	±5% acc. to DIN 417 55
Protection and monitoring	
Current limit sustained short-circuit-proof	
Overload-proof	yes
Open-circuit-proof	yes
Protection class	IP 65
Input AC	
Input voltage	90-264 V AC (47-63 Hz)
Fusing (slow)	4 A
Input DC	
Input voltage	24 V DC ±10%
Fusing (slow)	10 A
Safety per DIN EN 60204-1	
Safety class	Class I
EMC	
Interference suppression	VDE 0875 T 11, EN 55011 Class A
Emitted interference	acc. to EN 61000-6-3
Immunity	acc. to EN 61000-6-2

The emitted interference meets the requirements for industrial use; use in a residential area may cause interference under some circumstances

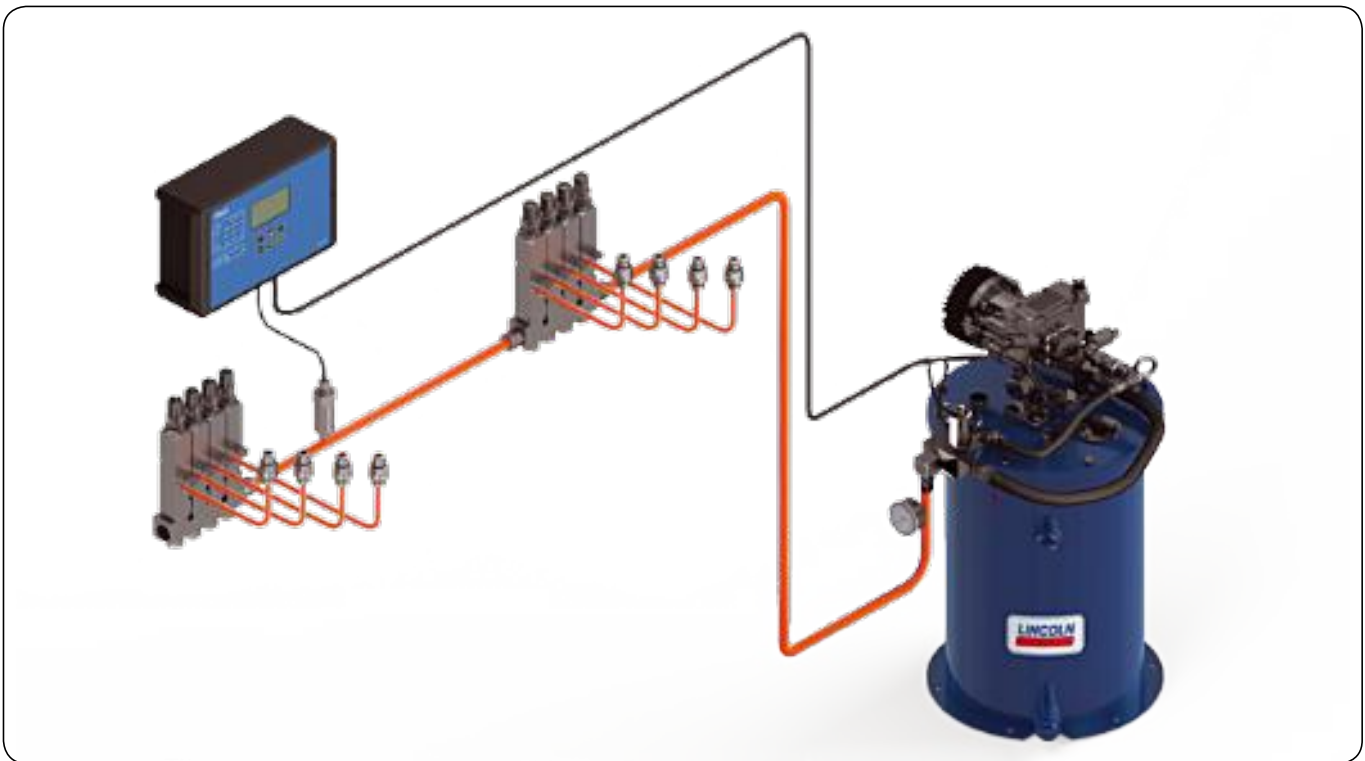
Single-line lubrication system overview

Regardless of the application, the principle of single-line lubrication remains the same: a central pump station automatically delivers lubricant through a single supply line to the lubricant metering device. Each metering device serves only one lubrication point and may be adjusted to deliver the precise amount of grease or oil required. Systems can service one machine, different zones on one machine or even several separate machines.

Advantages of a single-line lubrication system:

- Easy to understand, install and maintain
- Available in both preset and adjustable models
- Suitable for almost all lubricants
- Simple system expansion
- System continues to operate if one point becomes blocked
- Integrated system control and monitoring
- Able to pump long distances within a wide temperature range

In addition to the LMC 301 controller, the SKF portfolio includes both SKF MonoFlex and Lincoln Centro-Matic system components, including pumps, metering units, control and monitoring devices and accessories.



Please contact:

SKF USA, Inc.

One Lincoln Way

St. Louis, MO 63120 USA

Tel. +1 (314) 679-4200

© SKF is a registered trademark of the SKF Group.

© SKF Group 2015

The contents of this publication are the copyright of the publisher and may not be reproduced (even extracts) unless prior written permission is granted. Every care has been taken to ensure the accuracy of the information contained in this publication but no liability can be accepted for any loss or damage whether direct, indirect or consequential arising out of the use of the information contained herein.

PUB LS/P2 15967 EN · August 2015

