## Quicklub<sup>®</sup> Lubrication Systems Electric Grease Pumps—203 Series





#### **P203 Series Pump**

These pumps are electrically operated and are used in progressive-type automated lubrication systems. The proven and reliable P203 pump has been designed to develop high operating pressures allowing it to supply NLGI #2 grease in most ambient temperatures.

Versatile, compact and ecomomical, this pump can be enhanced with several options including an integrated controller, low-level monitoring and system monitoring. Special configurations are available upon request.

Note: Customer must furnish a 12- or 24-volt D.C. power source.

## Electric Grease Pumps with Integrated On/Off Controller

Output/Min Per Element**:	.171 cu. in. / 2.8 cc
Lubricant Outlet:	1/8" NPT (F)
Max. System Operating Pressure:	5000 psig / 350 bar
Enclosure Rating:	IP6K9K*
Operating Temperature Range:	Min13°F / -25°C / Max. 158°F / 70°C
Reservoir Capacity:	2-, 4-, 8- or 15-liter ***
Reservoir Fill Method:	By grease fitting
Pressure Relief Valve	4000 psi +/- 250 psi / 276 bar +/- 17 bar

Protected from water sprayed in all directions.

### **Model Specifications**

			Interval Timer Setting			Res	ervoir Capa	city
Model No.	Electrical Requirements	_	Γime* increments)	_	Off Time (1 hour increment)		kg.	liter
	[	Min	Max	Min	Max			
94012				4	1.8	2		
94412	12 VDC / 3.5 Amps			4 hour		8	3.6	4
94812		Amps  2 minutes 30 minutes 1 hour	20 minutes		15 hours	16	7.2	8
94412LDL						8	3.6	4
94812LDL						16	7.2	8
94024			i noui	15 Hours	4	1.8	2	
94424	]				8	3.6	4	
94824	24 VDC / 2 Amp				16	7.2	8	
94824LDL						16	7.2	8
644-46278-1						30	13.6	15

<sup>\*</sup> Can be set for either minutes or seconds.

# Electric Grease Pumps Without Integrated Controller Model Specifications

Madal Na	Floatrical Descrivements	Reservoir Capacity				
Model No.	Electrical Requirements	lb.	kg.	Liters		
94224	24 VDC - 2 Amps	Amps		2		
94212	12 VDC - 3.5 Amps	4	1.8	2		
644-46278-3	24 VDC - 2 Amps	30	13.6	15		

<sup>\*\*</sup> Single 6mm element standard; to increase pump output, add one or two additional element(s) #600-26876-2 and relief valve #270864.

<sup>\*\*\*</sup> Pressure relief valve included with these models.

## **Quicklub® Lubrication Systems** Electric Grease Pumps—203 Series





## **Electric Grease Pumps with Low-Level Sensor** and Integrated Controller for Feedback Monitoring

Supplies NLGI #2 grease (depending on temperature) to divider valves.

Input:	12 VDC @ 3.5 amps, 24 VDC @ 2 amps 94 - 265 VAC (50 to 60 Hz)					
Enclosure Rating:	IP6K9K *					
Interval Between Lube Cycles:	Min. 4 minutes / Max. 15 hours					
Pump Output:	0.171 cu. in./min. / 2.8 cc/min.					
Outlet Connection:	1/8" NPT (F)					
Reservoir Capacity:	2-, 4-, 8- or 15-liter **					
Maximum Recommended Operating	5000 nei / 350 har					

Pressure: Greases NLGI grade 2 (depending on operating **Lubricant:** 

5000 psi / 350 bar

temperature and type of lubricant) -13°F to 158°F / -25°C to 70°C **Temperature Range:** 

4000 psi, +/- 250 psi / 276 bar, +/- 17 bar **Pressure Relief Valve:** 

Note: Do not use pump without pressure relief valve.

**Electrical Requirements** 

#### \* Protected from water sprayed in all directions.

## **Model Specifications**

**SKF** 

		Co	Reservoir Capacity					
Model No.	Description	Power	Interval Between Lube Cycle Min.	Interval Between Lube Cycle Hrs.	Alarm Time Min.	Liters	ln³	Lbs.
94222	P203-2XL-1K6-24-2A6.15-M13-A+SV	24 VDC	4 - 60	1 -15	5 or 30	2	122	4
94422	P203-4XLBO-1K6-24-2A6.15-M13-A+SV	24 VDC	4 - 60	1 -15	5 or 30	4	244	8
94822	P203-8XLBO-1K6-24-2A6.15-M13-A+SV	24 VDC	4 - 60	1 -15	5 or 30	8	488	16
94822LDL	P203-8XL-1K6-24-2A6.15-M13-A+SV	24 VDC	4 - 60	1 - 15	5 or 30	8	488	16
644-40987-2	P203-15XL-1K6-24-2A6.15-M13-A+SV	24 VDC	4 - 60	1 -15	5 or 30	15	915	30
644-40821-6 *	P203-2XLBO-1K6-12-2A6.15-M08	12 VDC	4 - 60	1 -15	5 or 30	2	122	4
644-40843-8 *	P203-4XLBO-1K6-12-2A6.15-M08	12 VDC	4 - 60	1 -15	5 or 30	4	244	8
644-40822-8 *	P203-8XLBO-1K6-12-2A6.15-M16	12 VDC	4 - 60	1 -15	5 or 30	8	488	16
644-40873-1 *	P203-8XLBO-1K6-AC-3A6.15-M08	120 VAC	4 - 60	1 -15	5 or 30	8	488	16

<sup>\*</sup>These "644-" pumps do not come with the pressure relief valve. It must be ordered separately and is recommended. The 1/8" NPT adapter (304-19614-1) is also not included and must be ordered separately, if required. None of the above pumps come with the proximity switch. This must be ordered separately.

## Quicklub<sup>®</sup> Lubrication Systems Electric Grease Pumps—203 Series





## Electric Grease Pump with RemoteLinc™ Technology

- Easily interfaces with OEM and aftermarket telematics systems
- Allows users to:
- Remotely monitor and detect low lubricant levels and system faults.
- Reduce cost by receiving immediate, real-time alerts when lubricant is low or the system is in fault.

#### **Electrical Requirements**

Input:	12 VDC @ 3.5 amps, 24 VDC @ 2 amps 94-265 VAC (50 to 60 Hz)
Enclosure Rating:	IP6K9K*
Interval Between Lube Cycles:	Min. 4 minutes / Max. 15 hours
Pump Output:	0.171 cu. in./min. / 2.8 cc/min.
Outlet Connection:	1/8" NPT (F)
Reservoir Capacity:	2-, 4-, 8- or 15-liter**
Maximum Recommended Operating Pressure:	5000 psi / 350 bar
Lubricant:	Greases NLGI grade 2 (depending on operating temperature and type of lubricant)
Temperature Range:	-13°F to +158°F / -25°C to +70°C
Pressure Relief Valve:	4000 psi, ±250 psi / 276 bar, ±17 bar

## **Model Specifications**

Model No.	Voltage	Reservoir Capacity
94223-12	12VDC	2L
94423-12	12VDC	4L
94823-12	12VDC	8L
94223	24VDC	2L
94423	24VDC	4L
94423LDL	24VDC	4L (Lidless)
94823	24VDC	8L
94823LDL	24VDC	8L (Lidless)
94923	24VDC	15L
94223-AC	94-265VAC	2L
94423-AC	94-265VAC	4L
94823-AC	94-265VAC	8L

None of the above pumps come with a proximity switch. This must be ordered separately.

## **Quicklub® Lubrication Systems**

## **Electric Grease Pumps—203 Series**



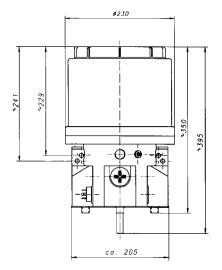


#### 203 AC Models

This VAC pump automatically adjusts to handle a variety of electrical supply voltages (between 94- and 265-volt, 50 to 60 Hz.)

Input Voltage:	94 - 265 VAC, 3 Amps
Operating Temperature:	-13° to 158°F / -25° to 70°C
Number and Element Size:	1 - 6mm
Reservoir Capacity:	2-, 4-, 8- or 15-liter *
Output per Minute:	Approx. 2.8 cc / 0.171 cu. in. per min.
Lubricant:	Greases up to NGLI #2/Oil with at least 40 cSt
Max. Operating Pressure:	5076 psi / 350 bar
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<sup>\*</sup> Contact Lincoln for 15-liter reservoir models.

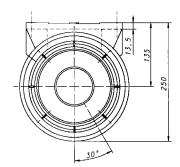


## **Model Specifications**

Model No.	Description		Grease or Oil	Low level control	Printed circuit board
644-46073-5	P203-2XNBO-1K6-AC-1A1.01-V10 (UL)-A+SV	2 liter	Grease	No	Yes
644-46173-4	P203-4XNBO-1K6-AC-1A1.01-V10 (UL)-A+SV	4 liter	Grease	No	Yes
644-46173-5	P203-4YLBO-1K6-AC-1A1.01-V10 UL)-A+SV	4 liter	Oil	Yes	Yes
644-46073-6	P203-2XNBO-1K6-AC-1A1.01 (UL)-A+SV	2 liter	Grease	No	No
644-46173-6	P203-4XLBO-1K6-AC-2A1.01 (UL)-A+SV	4 liter	Grease	Yes	No
644-46173-8	P203-4YLBO-1K6-AC-1A1.01 (UL)-A+SV	4 liter	Oil	Yes	No
644-46173-7	P203-4XNBO-1K6-AC-1A1.01 (UL)-A+SV	4 liter	Grease	No	No
644-46174-2	P203-8XLBO-1K6-AC-2A1.01-V10 (UL)-A+SV	8 liter	Grease	Yes	Yes
644-46174-4	P203-8XLBO-1K6-AC-2A1.01 (UL)-A+SV	8 liter	Grease	Yes	No

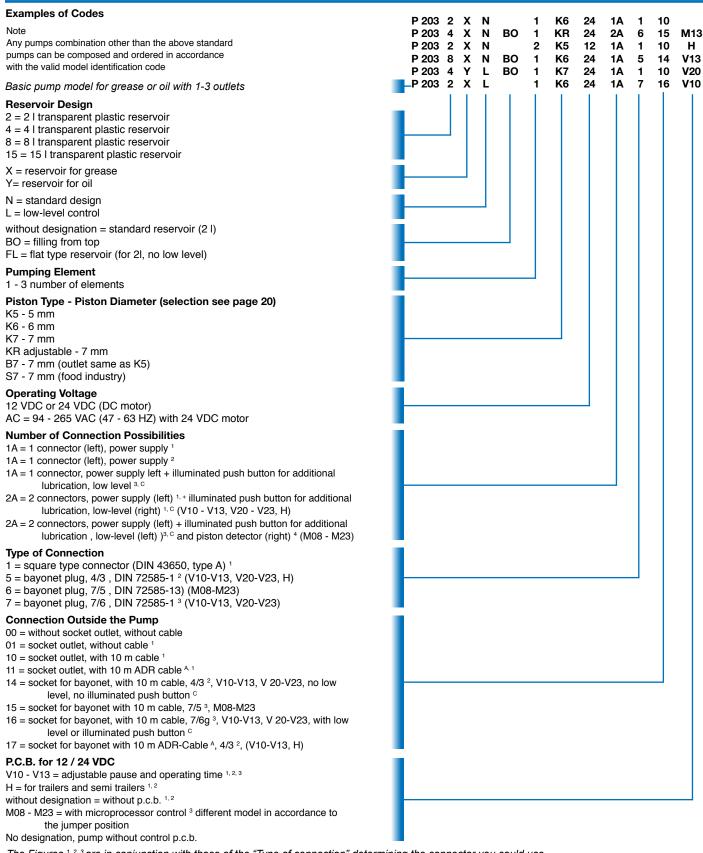
"(UL)" in the description refers to UL-approved, CSA-certified pumps.

Pumps with "-A+SV" come complete with the 1/8" NPT adapter and pressure relief valve.



## Quicklub<sup>®</sup> Lubrication Systems Identification Code—Pump Models 203





The Figures 1, 2, 3 are in conjunction with those of the "Type of connection" determining the connector you could use

Special order Quicklub pumps require a delivery time of six to eight weeks.

A For hazardous material transport

<sup>&</sup>lt;sup>B</sup> C7 = for supply of chisel paste

<sup>&</sup>lt;sup>c</sup> low level for oil: the connection for low level is not taken into consideration

## Quicklub<sup>®</sup> Lubrication Systems Electric Grease Pumps—233 Series





### 233 Pumps with Data Logger QuickData

The 233 centralized lubrication pump is a powerful and robust compact multi-line pump that can drive up to three elements and is used in progressive (Quicklub or Modular Lube) automated lubrication systems. The 233 is ideal for mobile applications, rental machines and construction machines. Versatile, compact and economical, this pump is enhanced with low-level control, printed circuit board MDF01 with attached data logger module and a keypad with display.

#### QuickData Displays

- · Current status and operating data
- Malfunctions of the lubrication system with the time of occurrence
- Remedying of the malfunction with date, time and duration of malfunction
- · Low-level signal of reservoir and regular refilling
- · Modifications in the pause time programming
- Number of automatically and manually triggered lube cycles as well as the corresponding lubricant consumption
- · Power supply interruptions

The QuickData software is updated and all data can be read out by using an off-the-shelf, infared IrDa-to-USB adapter. All indications enable the users to draw their conclusions regarding the condition, function, reliability, usability and duration of service of the machine or the device. All information can be analyzed and documented and is then available as a written protocol. The family of 233 pumps includes 12 and 24 VDC and 120 VAC pumps. They are available with 1, 2 or 3 elements in 5, 6 or 7 mm or with an adjustable output element. Reservoir sizes are 2, 4 or 8 liters. Refer to the pump identification code for a complete listing of available pump configurations.

#### **Model Specifications**

**SKF** 

			Rese	rvoir Cap	acity		Low-Level	Printed
Model No.	Description	Power	Liters	ln³	Lbs.	Grease	Control	circuit board
644-40824-1	P233-2XL-1K6-24-2A5.10-MDF	24 VDC	2	122	4	Yes		
644-40824-2	P233-2XLBO-1K6-24-2A5.10-MDF	24 VDC	2	122	4	Yes		
644-40826-1	P233-4XLBO-1K6-24-2A5.10-MDF	24 VDC	4	244	8	Yes		
94434LDL	P233-4XL-1K6-24-2A5.10-MDF	24 VDC	4	244	8	Yes		
644-40827-1	P233-8XLBO-1K6-24-2A5.10-MDF	24 VDC	8	488	16	Yes		
94834LDL	P233-8XL-1k6-24-2A5.10-MDF	24 VDC	8	488	16	Yes	Yes	Yes
644-41040-1	P233-15XL-1K6-24-2A5.10-MDF	24 VDC	15	915	30	Yes		
644-40868-1	P233-2XL-1K6-12-2A5.10-MDF-A	12 VDC	2	122	4	Yes		
644-40869-1	P233-4XLBO-1K6-12-2A5.10-MDF-A	12 VDC	4	244	8	Yes		
644-40870-1	P233-8XLBO-1K6-12-2A5.10-MDF-A	12 VDC	8	488	16	Yes		
644-40867-1	P233-8XLBO-1K6-AC-3A6.15-MDF	120 VAC	8	488	16	Yes		

These pumps do not include a pressure relief valve or proximity switch which must be ordered separately. Other technical data and dimensions are identical to the P203.

## Quicklub<sup>®</sup> Lubrication Systems Electric Grease Pumps—Reservoir Field Upgrades





#### **Lidless Pump Upgrade Options**

Now available: Retrofit kits to field replace current 4L and 8L Model 203 reservoirs to ones without lids. The retrofit kit promotes good maintenance practice and improves system performance by eliminating grease contamination through the removable lid. For each field retrofit kit, two part numbers need to be ordered (see model numbers below):

- One part number for the reservoir
- · One part number for the fixed paddle

**Assembly is required.** The fixed paddle snaps in place and the new reservoir gasket replaces the old one.

Model No.	Description
544-32695-1	Reservoir 4XN/4YN
444-70490-1	Fixed Paddle assy, 4XNBO/4YNBO
544-32696-1	Reservoir 8XN/BYN
444-70491-1	Fixed Paddle assy, 8XNBO/8YNBO

### **Lidded Pump Upgrade Option**

These two kits are used to upgrade a 2-liter reservoir to either a 4- or 8-liter reservoir (with lid) pump. These upgrades are for pumps without low-level monitoring.

Model No.	Description
544-32022-1	4-Liter Conversion Kit
544-32023-1	8-Liter Conversion Kit

## **15-Liter Upgrade Kit**

Converts 4- and 8-liter model Quicklub pump to 15-liter reservoir with low level.

	Model No.	Description
ſ	544-32957-2	4- and 8-Liter Conversion Kit

## **Quicklub® Lubrication Systems** Electric Grease Pumps—QLS 401 Series









#### **QLS 401**

The QLS 401 features a newly enhanced stirring paddle in the reservoir to prevent grease separation—even with long refill intervals. All components including an internal pressure relief valve are part of the complete package. Standard features include a built-in controller with LED display and keypad for easy programming and monitoring, and a divider block with 6, 8, 12 or 18 outlets. The integrated, all-in-one system concept reduces installation time and costs. The 12 and 24 VDC models are available with bayonet, quarter-turn type plugs for improved protection in mobile applications (optional low-level control).

Operating Voltage:	12 and 24 VDC
	120 and 230 VAC, 50/60 Hz
Operating Current:	12 VDC / 2.0 A
. •	24 VDC / 1.0 A
	120 VAC / 1.0 A
	230 VAC / 0.5 A
Operating Temperature:	-13° to 158°F / -25° to 70°C
Number of Outlets:	6, 8, 12 or 18
Reservoir Capacity:	61 in³ / 1.0 L / 2.0 L
Protection:	NEMA 4
Lubrication Cycle Time:	AC: 20 min. to 60 hours
	DC: 4 min. to 6 hours
Number of Cycles:	For VDC: 1 to 5 cycles
rumber er eyeleel	For VAC – SSV6/SSV8: 1 to 3 cycles
	For SSV12/SSV18: 1 cycle
Timer Memory:	Indefinite
Max. Operating Pressure:	3000 psig / 205 bar
Output per Outlet & Cycle:	approx. 0.012 in³ / approx. 0.2 cm³
Lubricant:	NLGI 2 grease
Weight	12.5 lbs. / 5.7 kg

Model No.	Valve Type	Valve Mount	Volt	Cable
P401 31202574	SSV6	Back	12 VDC	30' / 10m
P401 31402574	SSV6	Back	24 VDC	30' / 10m
P401 42601114	SSV8	Bottom	120 VAC-UL	none
P401 42801114	SSV8	Bottom	230 VAC-UL	none
P401 61202574	SSV12	Back	12 VDC	30' / 10m
P401 61402574	SSV12	Back	24 VDC	30' / 10m
P401 62601114	SSV12	Bottom	120 VAC-UL	none
P401 62801114	SSV12	Bottom	230 VAC-UL	none
P401 91202574	SSV18	Back	12 VDC	30' / 10m
P401 91402574	SSV18	Back	24 VDC	30' / 10m
P401 92601114	SSV18	Bottom	120 VAC-UL	none
P401 92801114	SSV18	Bottom	230 VAC-UL	none

## Quicklub<sup>®</sup> Lubrication Systems Electric Grease Pumps—QLS 401 Series





#### **QLS 401 for Remote Control**

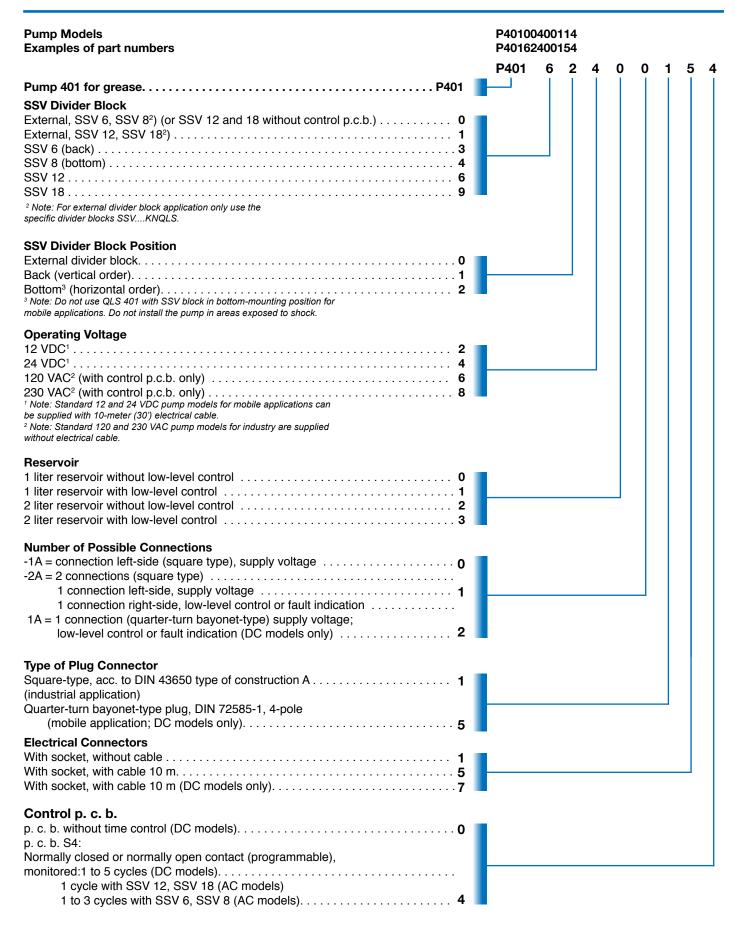
The QLS 401 for Remote Control allows customers to be in control of the lubrication process. The 24 VDC models monitor system cycling with a proximity switch. An external timer or PLC controls the interval between lube cycles. The 120 VAC models have no cycle monitoring and are on/off controlled by the user's external timer or PLC. The minimum pause time requirements should be followed when setting up the external controller. (Optional low-level control)

Operating Voltage:	24 VDC
	120 VAC, 50/60 Hz
Operating Current:	24 VDC / 1.0 A
	120 VAC / 1.0 A
Operating Temperature:	-10° to 158°F / -25° to 70°C
Number of Outlets:	6, 8, 12 or 18
Reservoir Capacity:	61 in <sup>3</sup> / 1.0 L
Protection:	NEMA 4
Minimum Pause Time:	4 min. DC models / 20 min. AC models
Maximum Operating Time:	25 min. DC models / 15 min. AC models
Timer Memory:	Indefinite
Maximum Operating Pressure:	3000 psig / 205 bar
Output per Outlet & Cycle:	approx. 0.012 in³ / approx. 0.2 cm³
Lubricant:	up to NLGI 2 grease
Weight	12.5 lbs. / 5.7 kg

Model No.	Valve Type	Valve Mount	Volt
P401 31401110	SSV6	Back	24 VDC
650-40915-8	SSV8	Bottom	120 VAC-UL
P401 61401110	SSV12	Back	24 VDC
650-40915-9	SSV12	Bottom	120 VAC-UL
P401 91401110	SSV18	Back	24 VDC

## Quicklub<sup>®</sup> Lubrication Systems Selection Guide VDC and VAC-Pump Model 401





## **Quicklub® Lubrication Systems** *Electric Grease Pumps—QLS 301 Series*

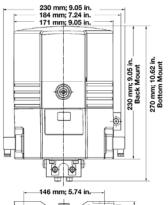


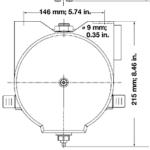


#### **QLS 301**

It's compact, rugged, easy to install and easy to use. It has a long list of standard features including built-in controller with LED display and keypad for easy programming, system cycle monitoring, a built-in low-level control and remote monitoring capability. For those who thought the reduced downtime and improved safety of automated lubrication were out of reach, and for those waiting for a cost-effective system for their smaller machinery, the reliable QLS 301 is the answer. It's automatic lubrication "made easy." Same as QLS 401 except has spring-loaded follower allowing for mounting pump horizontally.

Operating Voltage:	12 and 24 VDC 120 and 230 VAC, 50/60 Hz
Operating Current:	12 VDC / 2.0 A 24 VDC / 1.0 A 120 VAC / 1.0 A 230 VAC / 0.5 A
Operating Temperature:	-10° to 158°F / -25° to 70°C
Number of Outlets:	6, 8, 12 or 18
Reservoir Capacity:	61 in <sup>3</sup> / 1.0 L
Protection:	NEMA 4
Lubrication Cycle Time:	AC: 20 min. to 60 hours DC: 4 min. to 60 hours
Number of Cycles:	For VDC: 1 to 5 cycles For VAC – SSV6/SSV8: 1 to 3 cycles For SSV12/SSV18: 1 cycle
Timer Memory:	Indefinite
Maximum Operating Pressure:	3000 psig / 205 bar
Output per Outlet & Cycle:	approx. 0.012 in <sup>3</sup> / approx. 0.2 cm <sup>3</sup>
Lubricant:	NLGI 2 grease
Weight	12.5 lbs. / 5.7 kg





## **Model Specifications**

Model No.	Valve Type	Valve Mount	Volt	Cable
P301 31211154	SSV6	Back	12 DC	30' / 10m
P301 31411154	SSV6	Back	24 DC	30' / 10m
P301 42611114	SSV8	Bottom	120 AC	none
P301 42811114	SSV8	Bottom	230 AC	none
P301 61211154	SSV12	Back	12 DC	30' / 10m
P301 61411154	SSV12	Back	24 DC	30' / 10m
P301 62611114	SSV12	Bottom	120 AC	none
P301 62811114	SSV12	Bottom	230 AC	none
P301 91211154	SSV18	Back	12 DC	30' / 10m
P301 91411154	SSV18	Back	24 DC	30' / 10m
P301 92611114	SSV18	Bottom	120 AC	none
P301 92811114	SSV18	Bottom	230 AC	none

Note: All models include low-level.

## Quicklub<sup>®</sup> Lubrication Systems Electric Oil Pumps—QLS 311 Series

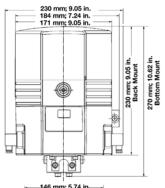


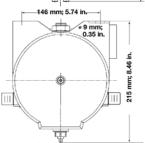


#### **QLS 311**

Unit includes pump, control monitor and metering valve and is ready to go "out of the box." Pump includes built-in controller with LED display and keypad for easy programming, system cycle monitoring, a built-in low-level control and remote monitoring capability. Unit offers the advantages of automated lubrication, including reduced downtime and improved safety, to machinery large and small.

Operating Voltage:	12 and 24 VDC 120 and 230 VAC; 50/60 Hz
Operating Current:	12 VDC / 2.0 A 24 VDC / 1.0 A 120 VAC / 1.0 A 230 VAC / 0.5 A
Operating Temperature:	-10° to 158°F / -25° to 70°C
Number of Outlets:	6, 8, 12 or 18
Reservoir Capacity:	61 in <sup>3</sup> / 1.0 L
Protection:	NEMA 4
Lubrication Cycle Time:	AC: 20 min. to 60 hours DC: 4 min. to 60 hours
Number of Cycles:	For VDC: 1 to 5 cycles For VAC – SSV6/SSV8: 1 to 3 cycles For SSV12/SSV18: 1 cycle
Timer Memory:	Indefinite
Max. Operating Pressure:	1160 psig / 80 bar
Output per Outlet & Cycle:	approx. 0.012 in <sup>3</sup> / approx. 0.2 cm <sup>3</sup>
Lubricant:	oil with at least 40cSt.
Weight	12.5 lbs. / 5.7 kg





## **Model Specifications**

Model No.	Valve Type	Valve Mount Volt		Cable
P311 31211154	SSV6	Back	12 DC	30' / 10m
P311 61211154	SSV12	Back	12 DC	30' / 10m
P311 91211154	SSV18	Back		30' / 10m
P311 31411154	SSV6	Back		30' / 10m
P311 61411154	SSV12	Back	24 DC	30' / 10m
P311 91411154	SSV18	Back	24 DC	30' / 10m
P311 42611114	SSV8	Bottom	120 AC	none
P311 42811114	SSV8	Bottom	230 AC	none
P311 62611114	SSV12	Bottom	120 AC	none
P311 92611114	SSV18	Bottom 12		none
P311 62811114	SSV12	Bottom 230 AC		none
P311 92811114	SSV18	Bottom	230 AC	none

Note: All models come with a low-level indicator.

## **Quicklub® Lubrication Systems** Electric Grease/Oil Pumps—QLS 301/311 Series







The QLS 301/311 for Remote Control allows customers to be in control of the lubrication process. The 24 VDC models monitor system cycling with a proximity switch. An external timer or PLC controls the interval between lube cycles. The 120 VAC models have no cycle monitoring and are on/off controlled by the user's external timer or PLC. The minimum pause time requirements should be followed when setting up the external controller.

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	7
3 6	

Operating Voltage:	24 VDC		
	120 VAC, 50/60 Hz		
Operating Current:	24 VDC / 1.0 A		
	120 VAC / 1.0 A		
Operating Temperature:	-10° to 158°F / -25° to 70°C		
Number of Outlets:	6, 8, 12 or 18		
Reservoir Capacity:	61 in <sup>3</sup> / 1.0 L		
Protection:	NEMA 4		
Minimum Pause Time:	4 min. DC models / 20 min. AC models		
Maximum Operating Time:	25 min. DC models / 15 min. AC models		
Timer Memory:	Indefinite		
Maximum Operating Pressure:	<b>Grease:</b> 3000 psig / 205 bar <b>Oil:</b> 1160 psi / 80 bar		
Output per Outlet & Cycle:	approx. 0.012 in³ / approx. 0.2 cm³		
Lubricant:	up to NLGI 2 grease or oil with at least 40cSt.		
Weight	12.5 lbs. / 5.7 kg		

		1	-	9.05 in. 7.24 in. 9.05 in.	184 mn 171 mn	=	•
Back Mount	230 mm; 9.05 in.	•	5	<b>)</b>			
		Н	mm;	5.74 in.	146 mn		
215 mm; 8.46 in.	215 mm: 8.46 in.		35 in.	0	-		-
215 mm; 8.46 in.	215 mm: 8.46 in.		mm; 35 in.	1 · 9	To the state of th		

Model No.	Valve Type	Valve Mount	Volt	Lubricant
P301 31411110	SSV6	Back	24 VDC	Grease
P311 31411110	SSV6	Back	24 VDC	Oil
P311 61411110	SSV12	Back	24 VDC	Oil
650-40768-3	SSV8	Bottom	120 VAC	Grease
650-40768-4	SSV12	Bottom	120 VAC	Grease
650-40768-5	SSV18	Bottom	120 VAC	Grease
650-40765-4	SSV8	Bottom	120 VAC	Oil

## Quicklub<sup>®</sup> Lubrication Systems Electric Grease Pumps—QLS 421 Series



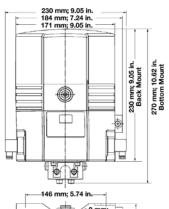


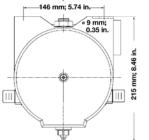
#### **QLS 421**

Accurate lubrication without the need for continuous power—that's what over-theroad trailers need. That's exactly what Lincoln's QLS 421 supplies. With a unique controller card that keeps track of the time a trailer is in use by monitoring its vibration, the QLS 421 delivers the precise lubrication an OTR trailer requires exactly when it's needed—by using the power of the trailer's brake lights.

Because it doesn't need power to monitor the time between lubrication events, the QLS 421 is ready when its controller card says "go." And the QLS 421 keeps lubricating each time the trailer's brakes are applied until its controller card adds up the "on times" and determines that the pre-set time for a complete lubrication cycle has been reached. The QLS 421 features an enhanced stirring paddle to help prevent grease separation in applications with long refill intervals.

Operating Voltage:	12 and 24 VDC
Operating Current:	12 VDC / 2.0 A 24 VDC / 1.0 A
Operating Temperature:	-10° to 158°F / -25° to 70°C
Number of Outlets:	6, 12 or 18
Reservoir Capacity:	61 in³ / 1.0 L
Protection:	NEMA 4
Time Between Cycles:	1 hour to 16 hours
On Time Range:	1 to 32 min.
Timer Memory:	Indefinite
Maximum Operating Pressure:	3000 psig / 205 bar
Output per Outlet per Valve Cycle:	approx. 0.012 in <sup>3</sup> / approx. 0.2 cm <sup>3</sup>
Lubricant:	up to NLGI 2 grease
Weight	12.5 lbs. / 5.7 kg





Model No.	Voltage	Valve Type	Reservoir Size (L)	Valve Mount	Cable
P421 91402531	24 VDC	SSV18			
P421 61202531		SSV12	1 liter	Daal	19 feet
P421 91202531	12 VDC	SSV18		Back	6 meters
P421 61222531		SSV12	2 liter		

## Quicklub<sup>®</sup> Lubrication Systems

### Hammer Pumps





#### **HTL Hydraulic Lubricator Pump for Hammers**

- · Delivers precise lubrication every time the hammer cycles
- · Increase productivity—no work interruption
- Reduces machine repairs and replacement costs

Arms and breakers move constantly and exert enough force to demolish a building or repair roads in a tough environment filled with grit and debris. OEMs recommend bearing lubrication of that hammer every two hours to achieve optimal performance and to hold down maintenance and repair costs. However, deadline-driven operators rarely halt work to grease the hammer, which can lead to breakdowns that grind down productivity and inflate repair expenses. Lincoln's HTL Pumps make precise, consistent lubrication a reality. Now your operator can lubricate the hammer without leaving the cab. The pumps attach directly to the hammer, and your operator, with the push of a pedal, automatically sends a single shot of hydraulic fluid to the pump. Then the pump gives one shot of grease to lubricate the bearing points. When the operator's foot comes off the pedal, pressure releases the spring in the pump so it's ready to lubricate again.

Applications: construction OEMs, hydraulic hammer retrofits, demolition attachments and medium to larger breakers/hammers

- · Withstands vibrations of an operating hammer
- Travels with hammer, perfect for rental equipment or hammers used on various machines
- Hydraulic power supply
- Pedal-actuated
- Attached grease fitting allows for manual filling and fast priming of pump
- Uses standard 14.5-ounce grease cartridges and handles chisel paste
- To adjust output, metering plugs are available (0.006 in³ [0.1cm³] to 0.031 in³ [0.5cm³])
- Convenient visual low level indicator

Operating Temperature:	-10°F to +180°F / -23°C to +80°C
Hydraulic Port:	SAE #4 ( 1/16-20 UNF) O-ring
Pump Outlet:	SAE #4 ( 1/16-20 UNF) O-ring
Weight (Empty):	16.3 lbs. / 7.4 kg
Weight (Full):	17.3 lbs. / 7.8 kg

## **Specifications**

Model No.	85429	85425	85424	85414	
Hydraulic Ratio at Max. Output and Pressure*	2.4:1	0.7:1			
Max. Hydraulic Operating Pressure:	2600 psig (112 bar)	5000 psig (345 bar)			
Max. Recharge (or Vent) Pressure:	400 psig (28 bar)	1100 psig 600 psig (75 bar) (41 bar)		1100 psig (75 bar)	
Max. Lube Outlet Pressure:	6500 psig (450 bar)				
Output per Stroke (Std. Metering Plug)	.018 cu. in. (0.3 cc) Std.			.031 cu. in. (0.5 cc) Std. .006031 cu. in. (0.15 cc) Optional*	
Grease Reservoir Volume:	14.5 oz.				

<sup>\*</sup>Optional metering plugs are available for different output volume. See Pump Output Adjustment chart below.

## **Pump Output Adjustment Metering Plug**

Model No.	Output per Stroke			
271924	0.006 in <sup>3</sup> / 0.1 cm <sup>3</sup>			
271925	0.012 in <sup>3</sup> / 0.2 cm <sup>3</sup>			
271926 *	0.018 in <sup>3</sup> / 0.3 cm <sup>3</sup>			
271927	0.031 in <sup>3</sup> / 0.5 cm <sup>3</sup>			

\*Note: Standard plug included with pump

## **Quicklub<sup>®</sup> Lubrication Systems** *Hammer Pumps and Pump Accessories*



### 203 Pumps Designed for Hammer Applications\*

Model No.	Model No. Description		Timer	Element	Reservoir	Voltage	Pressure Relief Valve
271374	P203-4XNBO-1C7-24-1A1.10	No	No	7mm Chisel	4L	24	Yes
272633	P203-4XLBO-1C7-24-2A1.10	Yes	No	7mm Chisel	4L	24	Yes
272643	P203-4XLBO-1C7-12-2A1.10	Yes	No	7mm Chisel	4L	12	Yes
273426	P203-4XLBO-1K5-24-2A1.10	Yes	No	5mm Std.	4L	24	Yes
272632	P203-8XLBO-1C7-24-2A1.10	Yes	No	7mm Chisel	8L	24	Yes
273422 **	P203-8XLBO-2K7-24-2A1.10	Yes	No	2 x 7mm Std.	8L	24	Yes
273425	P203-8XLBO-1K7-24-2A1.10	Yes	No	7mm Std.	8L	24	Yes

<sup>\*</sup> Chisel paste compatibility must be confirmed by Lincoln technical.





## **203 Hammer Pump Accessories**

Model No.	Description
272634	Double output kit (front and side)
274149	Triple output kit
600-28750-1	7mm chisel paste element
274847	Double output kit (side to side)





Model No.	Description	Color	Voltage
664-36070-5	Illuminated Manual Switch	Green	12 VDC
664-36070-6	Illuminated Manual Switch	Green	24 VDC
664-34005-5	Illuminated Manual Switch	Red	12VDC
664-34005-6	Illuminated Manual Switch	Red	24 VDC
237-13381-2	Replacement Bulb		12 VDC
237-13381-3	Replacement Bulb		24 VDC
236-10580-1	Replacement Lens	Green	
236-14261-9	Replacement Lens	Red	

#### **Pressure Relief Valves**



Model No. Pressure Relief Setting		Supply Line Connection	
270864	4000 psi / 270 bar	1/8" NPT (female)	
624-28894-1 5076 psi / 350 bar		6 mm Compression Nut*	
624-28895-1	5076 psi / 350 bar	8 mm Compression Nut	
624-28931-1**	5076 psi / 350 bar	6 mm Quicklinc*	
304-19614-1 Adapter		6 mm Stem x 1/8" NPT (female)	

<sup>\* 6</sup> mm x 1/8" NPT supply line adapter (Model 304-19614-1) can be used to convert supply line connection to 1/8" NPT for these models.

Note: Model 226-14105-5 (psi relief adapter) is required for 4-, 8- and 15-liter pump models



## **Proximity Switches**

Electric grease pumps with Feedback Monitoring require purchase of one of the following proximity switches:

	Model No.	Description	Use with Corresponding Pump Connection
	519-34339-3 Bayonet 3 m (9.8') cable length		4 - bayonet quarter turn
	519-34339-4	Bayonet 7 m (23.0') cable length	4 - bayonet quarter turn
	519-34271-2 3 m (9.8') with open end		
ĺ	519-34271-7	AMP 3 m (9.8') cable length	4 - AMP (existing field models)
	519-34271-8 AMP 7 m (23.0') cable length		4 - AMP (existing field models)

<sup>\*\*</sup> Pump comes with 272634 kit installed for double output

<sup>\*\*</sup> Deturn to tank

## **Quicklub® Lubrication Systems Pump Accessories**



### **Pump Elements\***



Model No.	Piston Diameter	Lubricant Output	Lubricant	Max. Operating Pressure	Connection Thread
600-26875-2	5 mm (5K)	.122 in³/min / 2 cm³/min	Oil or Grease		
600-26876-2	6 mm (6K)		Oil or Grease		0.4/41
600-29304-1	6 mm	.171 in³/min / 2.8 cm³/min	Beverage Industry Grease or Oil **	5000 psi /	
600-26877-2	7 mm (7K)		Oil or Grease		
600-28750-1	7 mm (7C)	.244 in³/min / 4 cm³/min	Hammer Chisel Paste ***	350 bar	G 1/4"
600-29110-1	7 mm (S7)	.244 in³/min / 4 cm³/min	Silicon Based Grease		
600-29185-1	7 mm (B7)		Silicon Based Grease ****		
655-28716-1	7 mm (KR)	.04 in³/min to .18 in³/min .7 cm³/min to 3 cm³/min	Oil or Grease ****		

- \* Grease and chisel paste compatibility should be confirmed with Lincoln Technical
- \*\* Galvanized pump elements to withstand corrosion
- \*\*\* Special element designed to be used for applications on hydraulic hammers
- \*\*\*\* With bypass check valve
- \*\*\*\*\* Adjustable lubricant output pump element.

### **Model 85830 ALS Fill Pump**

Air-operated grease pump designed to fill pump reservoirs from drums. Includes pump, drum cover, high pressure hose, outlet swivel, control valve and universal swivel, whip hose, coupler and universal follower. For use with 120 lb. drums (not included). Fill nipple is not included and must be ordered separately.

Model No.	Bare Pump	Pump Ratio	Max. Working Pressure	Max. Air Pressure	Air Inlet	Lube Outlet	Hose
85830	V325120000	25:1	3750 psi 258 bar	150 psi 10.3 bar	3/8" NPT (female)	1/4" NPT (female)	3/8" ID x 10' SAE 100R2 high pressure hose (4000 psi/275 bar working pressure)



85830 shown with drum (not included)

## **ALS Fill Pump Accessories**

Model No.	Description			
277059	Fill nipple (long) for 203 pump			
277057	Grease coupler, 3/8" NPTF (female) inlet			
674	Two wheel hand cart (to make package portable)			
80895	Caster base (to make package portable)			

## **Quicklub Pump Accessories**



Model No.	Description		
638-37549-1	Manual grease filler pump—2-liter		
638-37549-2	Manual grease filler pump—4- and 8-liter and 2-liter flat type		
246322	Remote push-button manual lube upgrade kit for pumps with square DIN connectors (field replacement only)		
256276	Remote push-button manual lube kit for pumps with bayonet round connector (6 wire cord)		
273921	Universal quickfill adapter for 2-, 4- and 8-liter pumps		
538-36763-5	Fill adapter for 4- and 8-liter pumps		
538-36763-4	90° fill adapter for 4- and 8-liter pumps		
538-36763-1	Fill adapter for 2-liter pumps		
241052	52 7.5 Amp fuse		
241053	Standard fuse holder		
276409	Heavy duty fuse holder		
664-34195-9	664-34195-9 45' 5 wire power cord (round bayonet)		

273921

## Quicklub<sup>®</sup> Lubrication Systems

### **Installation Components**



Lubricant flows through supply lines between the pump and divider valves, then through feed lines between the divider valves and the bearing. Tubing and/or pipe sizes are determined after considering both the length of the line and the specific lubricant intended for use in the system.

Your Lincoln representative can assist you in the proper selection of supply and feed line material to optimize your application.

Listed below is a simplified outline of the installation components offered. For a complete listing of products, please refer to the pages in this catalog entitled Fittings, Adapters and Accessories. Additional installation componentry can be found in the Installation Components Catalog.

#### **TUBING**

Hydraulic, Steel, Stainless Steel

and Nylon

Single and Multiple Tube Clamps

Heavy-Duty, Standard-Duty, Threaded Sleeve and Snap-On Coupler Tube Fittings

Quicklinc™ Tubing Adapter

Zerk-Lock™ Grease Fitting Adapters

Non-Metallic

#### **PIPING**

Seamless

Continuous Welded

Forged Fittings

Malleable Iron Fittings

316 Stainless Steel Pipe and Fittings

Stainless Steel Fittings

Galvanized Pipe, Threaded Plug

and Fittings

#### **ACCESSORIES**

Supply, Feed and Bulk Feed

Line Hose Air Hose

Kits for Hose Repair

Heavy-Duty Air Line Quick

Disconnects

#### **AIR CONTROL AND ACCESSORIES**

Manual Shut-Off Valves

Pressure Gauges

Lubricant Filters and Strainers

## AIRCARE™ AIR PREPARATION SYSTEMS

Modular Air Line Filters, Regulators

and Lubricators

Integrated/Modular Filter/Regulator

with Gauge

Modular Air Line Combination Units

High-Capacity Air Line Filters, Regulators and Lubricators

High-Capacity Air Line Combination

Units

Miniature Air Line Components—Air Line Filter, Regulator and Lubricator

Miniature Air Line Combination Units

Modular Air Line Equipment

Accessories:

Lockout Valve, Quick Clamp,

Quick Clamp Wall Mounting Bracket, Porting Block, Quick Mount Pipe Adaptors, Manifold Block, Pressure Switch, Panel Nut, Wall Mount Bracket, Tamper esistant Cover

and Seal Wire

Air Line Equipment Accessories: Wall Mount Bracket, High Capacity; Mounting Bracket and Nut, Miniature;

Pressure Gauges

#### PIPE FITTINGS

Reducing Bushings

**Nipples** 

Couplings

Reducing Couplings

Street Ells

Tees

Crosses

Adapter Unions

Elbows

Pipe Fitting Adapters

Supply Line Swivels

Feed Line Swivels

Anchor and Junction Blocks