

CSK Automatic Lubricator

Motor-Driven Grease Pump

General Description

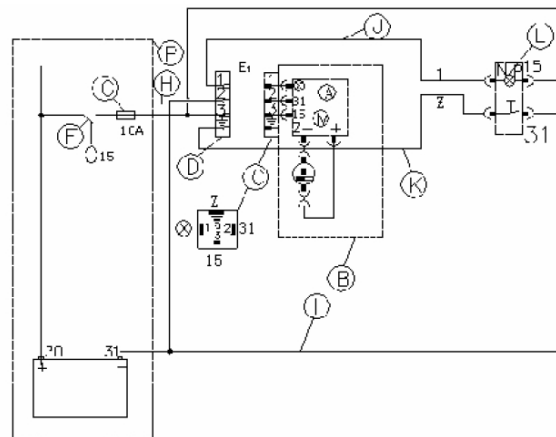
The Bijur Delimon CSK lubricator is designed for grease lubrication and is driven by a DC motor, it is ideal for single line systems. There is a built-in controller which controls the pump to deliver the rated amount of lubricant to the lubrication point at the right time. Each pump outlet has an over pressure protection valve and each outlet can support a lubrication system independently.

Operation

CSK grease pump is driven by a DC motor, it drives a worm and worm wheel which in turn rotates the an eccentric wheel which drives the piston back and forth, the lubricant is drawn into the pump body and is then discharged at the outlet.

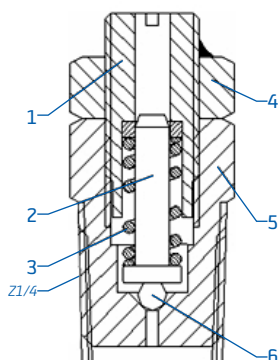



A	Controller
B	Pump housing
C	DIN connector
D	DIN connector
E1	Pump without illuminated push button
F	Driving switch
G	Fuse (10A)
H	Cable
I	Cable (option)
J	Cable (option)
K	Cable (option)
L	Illuminated push button (option)
P	User




Principle of Over Pressure Valve

The over pressure valve will open when the system pressure is over 25Mpa (factory setting). Adjusting screw (1) drives the spring (3) to press steel ball (6) through pole (2). When the system pressure goes up to 25Mpa, pressurized lubricant will push the steel ball (6) from the bottom of valve body (5), then the lubricant will exit through the hole in the adjusting screw. This can protect the pump internals from braking if the distribution system becomes clogged or is over pressurized.



 Before installing or operating this product, please read this manual carefully. Failure to follow instructions can result in damage to the product and/or serious bodily injury.

 Before performing service to product, always turn off and disconnect electrical power.

WARNING When connecting product, make sure that unit is securely and adequately grounded. Failure to ground properly may cause serious injury.

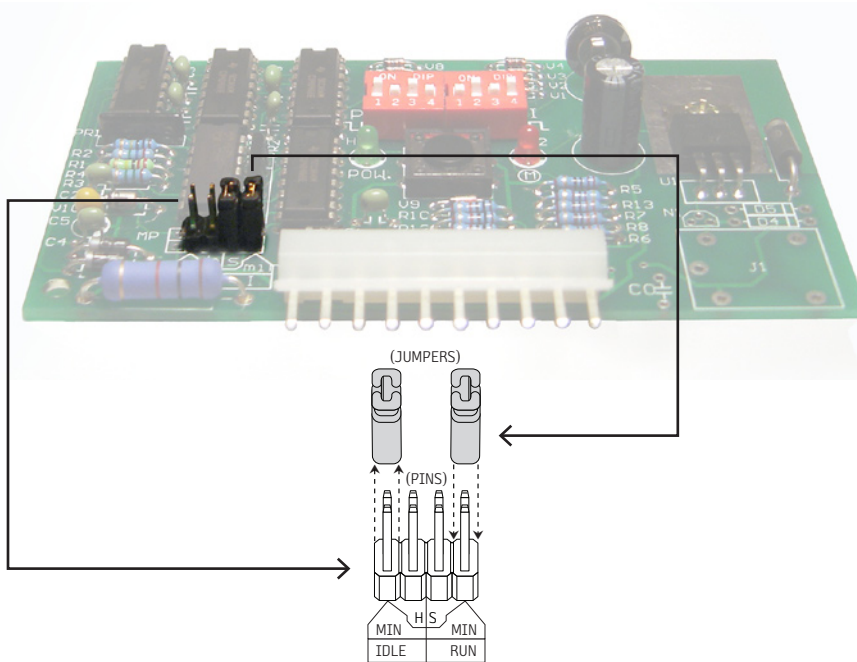
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(919) 465 4448 LOCAL
(800) 631 0168 TOLL-FREE
(919) 465 0516 FAX

WWW.BIJURDELIMON.COM

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Morrisville, NC 27560

Time Setting Jumper Switch

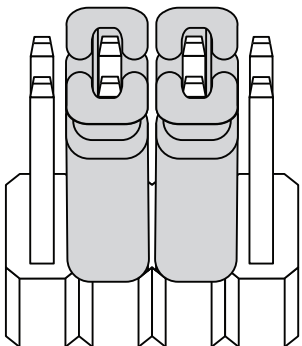


Setting the time controls on the CSK lubricator only requires a few simple steps. Users have the ability to set both the run time and the idle time. This is done by accessing the controller board and locating four jumper pins near the bottom left of the board, and by changing the settings on the dip switches.

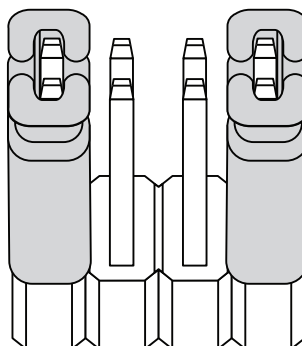
First, find the time pins with two jumpers preset at the factory. The two left pins are for setting the idle-time. The two right pins set the run-time. Use the chart on the following page to determine the time you want the lubricator to remain on, and how long you want the lubricator to stay idle. Set the jumpers in the appropriate position for minutes or hours (idle time) and seconds or minutes (run time).

Then, find the dip switches and use the chart on the following page to set both the idle-time and run-time to the time you select.

Examples:



This jumper position would set the idle time to hours and the run time to seconds.



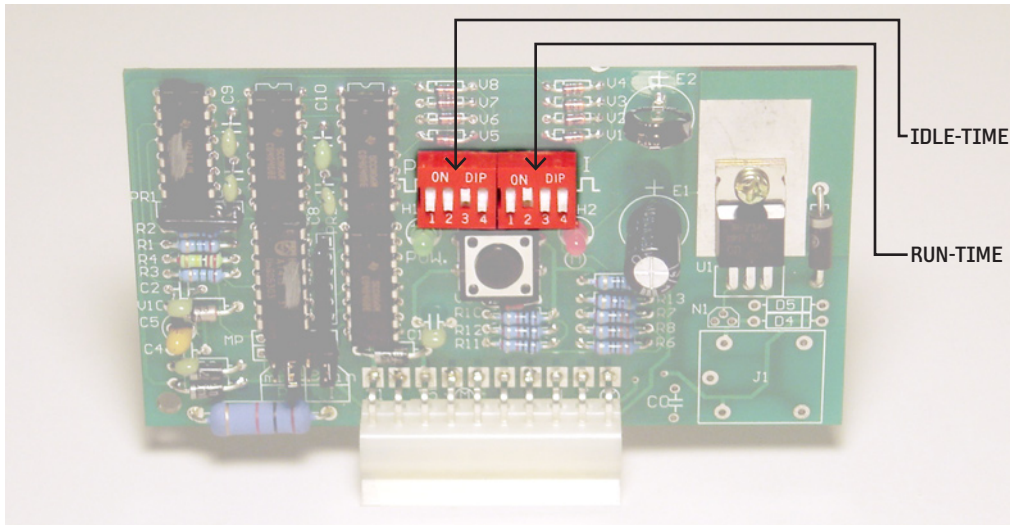
This jumper position would set the idle time to minutes and the run time to minutes.

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Idle-time Settings

Jumpswitch (min/hr)	Switch Positions			
	1	2	3	4
4 / 1	●	○	○	○
8 / 2	○	●	○	○
12 / 3	●	●	○	○
16 / 4	○	○	●	○
20 / 5	●	○	●	○
24 / 6	○	●	●	○
30 / 7	●	●	●	○
34 / 8	○	○	○	●
38 / 9	●	○	○	●
42 / 10	○	●	○	●
46 / 11	●	●	○	●
50 / 12	○	○	●	●
54 / 13	●	○	●	●
58 / 14	○	●	●	●
62 / 15	●	●	●	●

Run-time Settings

Jumpswitch (sec/min)	Switch Positions			
	1	2	3	4
8 / 2.5	●	○	○	○
16 / 5	○	●	○	○
24 / 7.5	●	●	○	○
32 / 10	○	○	●	○
40 / 12.5	●	○	●	○
48 / 15	○	●	●	○
56 / 17.5	●	●	●	○
64 / 20	○	○	○	●
72 / 22.5	●	○	○	●
81 / 25	○	●	○	●
89 / 27.5	●	●	○	●
97 / 30	○	○	●	●
105 / 32.5	●	○	●	●
113 / 35	○	●	●	●
121 / 37.5	●	●	●	●

● ON/UP ○ OFF/DOWN

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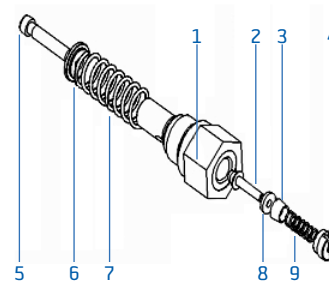
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Technical Data

Output/per element	5,5 ml/min
Max system operating pressure	25 MPa
Viscosity range	NLGI #000 through #2
Outlet thread	1/4 NPT (M12x1.5, 1/4 NPTF and Rp1/4 also available)
Motor power	50W
Motor voltage	24 VDC
Reservoir capacity	2 liter, plastic
Protection	IP56
Interval	4 minutes to 15 hours
Running time	8 seconds to 37.5 minutes
Current when loaded	3A

Installation

1. Operation pressure of the pump at the adjusted at the 25Mpa at the factory. The factory default setting for motor ON time is 5 minutes and the factory default setting for motor OFF (idle) time is 6 hours. Both can be adjusted by the operator.
2. Connect the cables of controller according to the wiring diagram, be sure the + pole and - pole are not reversed, it is correct if the green light shines and the pump runs. Otherwise the pump will turn in the wrong direction and the light will not shine. If this is the case, cut off the power and correct the cables.
3. Clean and dry the distribution system then connect all pipes, be sure there is no leakage at any junction.
4. Fill the reservoir with clean grease to the correct grease level.
5. Locate the pump and distributors where it is easy to install and maintain.
6. Fill the distribution system with grease to exhaust air before the distributors are mounted, then run the pump.



Maintenance

1. Fill the reservoir slowly with clean grease, within the approved viscosity range.
2. Let the pump run without load until it discharges and then connect the distribution system.
3. Do not disassemble the pump body if not necessary, as this can allow air to enter the pump.
4. Do not fill grease over the liquid level line.
5. Mount the pump vertically.
6. Check the overpressure valve periodically.

How to Clean the Piston

Disassemble the outlet assembly when the system pressure is 0MPa, disassemble part (4) with screw driver and take out part (9, 3, 8 and 2), then take out part (5, 6 and 7). Wash part (2, 8, and 1) with degreaser, then reassemble.

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Troubleshooting

Measurements shown in millimeters.

Symptom	Possible cause	Remedy
No discharge at outlet	1. Motor can't rotate	Check power and motor
	2. Motor rotates in the wrong direction	Connect the wires according to the wiring diagram
	3. Air at the bottom of reservoir	Exhaust air
Pressure can't build	1. Leakage at the junctions	Check the distribution system
	2. Pump body broken	Contact Bijur

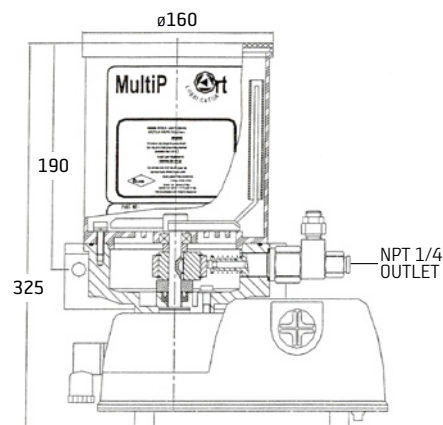
How To Order

Name	Voltage	Reservoir Capacity	Elements	Part #
CSK Lubricator	24 VDC	2 liter	1	50007-1E
			3	50007-3E

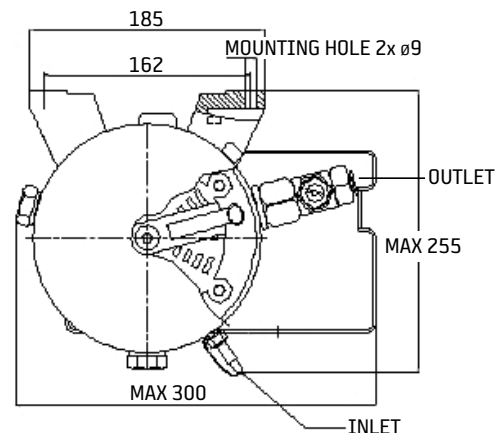
When ordering, specify by name, description and part number, e.g. CSK Lubricator, 24 VDC, 2 liter, 1 element, Part #50007-1E.

Dimensional Schematics

Front View



Top View



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