

SKF

INTUITIVE LUBRICATION CONTROL

Compact lubrication pump series
CLS Touch



LINCOLN

Easy configuration and clear visibility of the operational status



The new Compact lubrication pump series for single-line lubrication systems (CLS) works in small and medium-sized lubrication systems for oil and fluid grease. CLS pumps are part of the SKF eLube family which sets a new standard in lubrication performance.

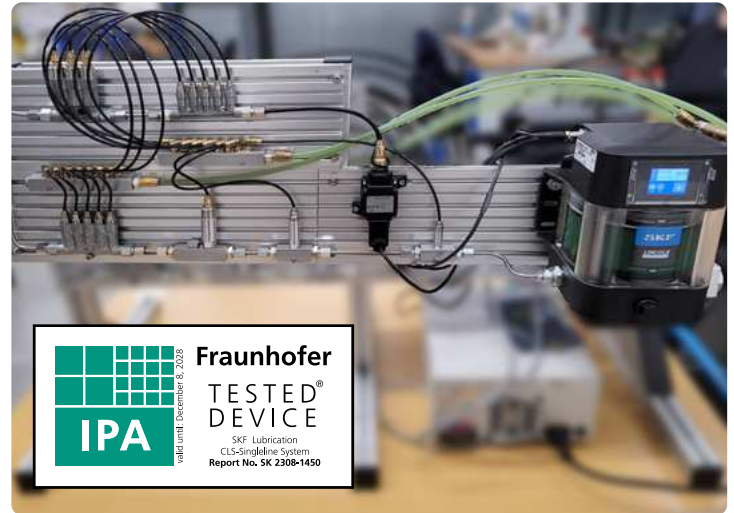
The pump allows an easy setup of parameters and intuitive monitoring of the function of the single-line lubrication system.

CLS pumps in the control variant Touch come with an integrated control board with datalogging functionality. Using the intuitive touch display makes it very easy to set pump parameters.

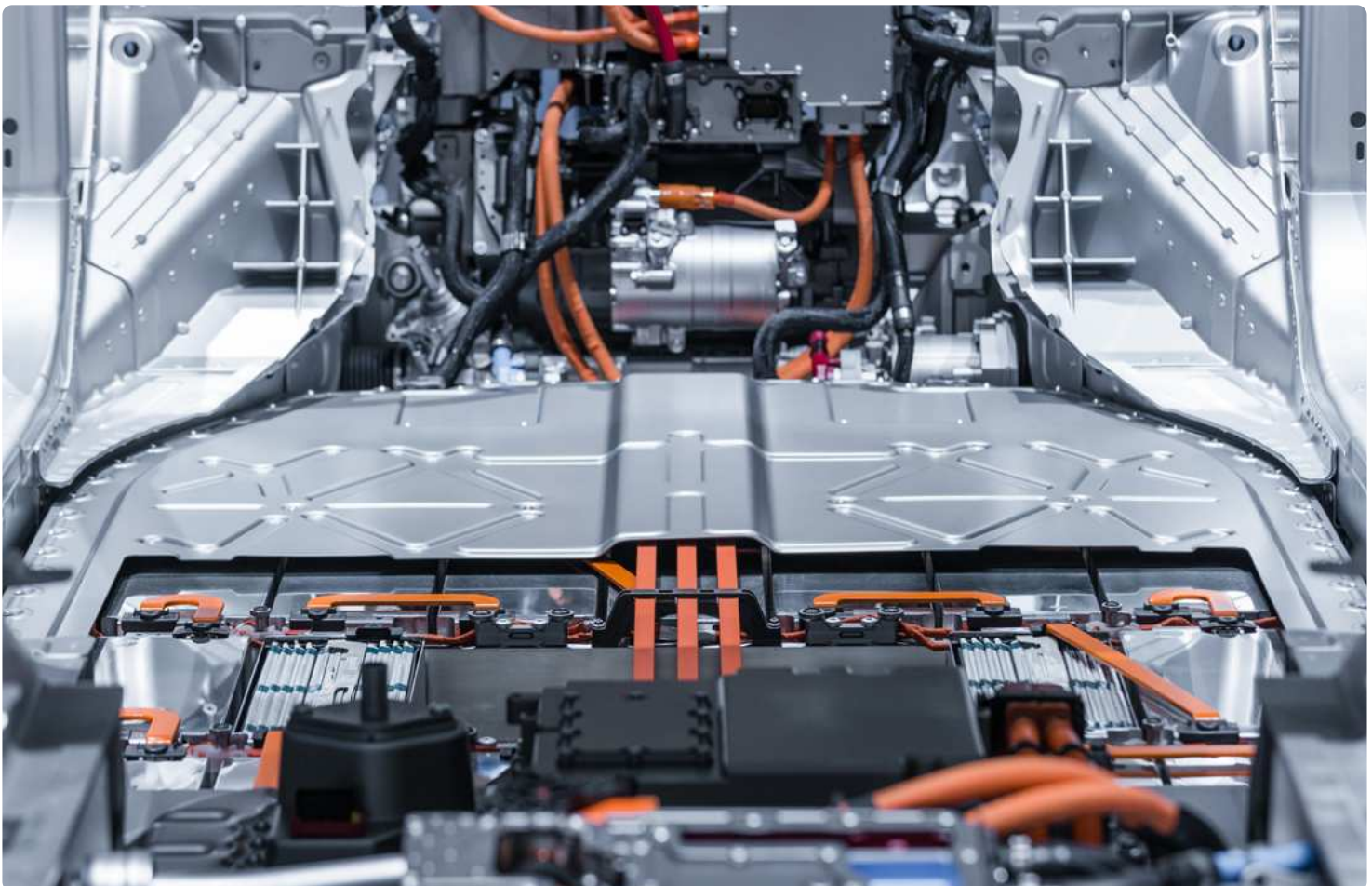
CLS lubrication system certified for use in clean and dry areas

The automotive industry consistently pushes forward e-mobility. Numerous automotive components now have to be manufactured according to stringent cleanliness regulations. Battery production for EVs, for instance, requires ISO class 7.

The CLS System “7311-50000069” has been certified when operated under the specified test conditions, being suitable for use in cleanrooms fulfilling the specifications of the Air Cleanliness Class 4 according to ISO 14644-1.



Read more about the certification
→ [PUB LS/P2 19876 EN](#)



Easy set-up of pump parameters and intuitive monitoring with datalogging

In addition to the features of the CLS pump in its Basic variant, the Touch versions provide an integrated control board with a touch display that allows users to configure the pump easily and intuitively.

The user is guided through the parameter settings. In case of pump or system failures, the display provides full-text messages in many languages. Users can easily monitor the operational status thanks to the visual red/green indication.

An integrated datalogger provides a performance and failure log, which allows for checking if the machine is appropriately lubricated and makes it easier for users to plan the next refill of the pump.

Benefits

- Easy and intuitive setting of pump configuration
- Guided set up of pump parameters
- Prevents misuse or unintended changes by password protection on different levels
- Greater visibility to track machine health data
- Early warning of potential failures to take preventive action
- Full text display of failures and other events
- Visual indication of operational status

Easy and intuitive setting of pump configuration*



Setting of operation mode



Setting of lubrication time



Password protection to prevent misuse or unintended changes



The log-book gives access to performance and failure message history as well as time stamps

Clear visual indication of operational status*



Lubrication time, shown in screen-saver mode. By swiping "Home" to the right, users can access the active mode



Monitoring time, shown in active mode, when user can interact with the pump



Early warning of potential failures with full text display provides possibility to take preventive action



Error message of failures with full text display and access to log-book

* Examples

CLS Touch in detail

The lightweight, simple and easy-to-use pump stands out with its compact design and reliable functionality in mobile and industrial applications. To fit the specific needs of the applications, several electrical and monitoring features have been tailored.

All CLS models can be ordered with several easy-to-access filling options. An optional follower plate supports a continuous lubricant flow.

The touch panel is protected against dirt and unintended operation.

By offering three operation modes (automatic, advanced and time controlled), CLS Touch pumps provide need-based lubrication for any application.

Features

- Integrated control board with touch display and datalogger
- Electrical empty-level monitoring
- Lubricant:
 - oils with 20–1500 mm²/s
 - fluid greases NLGI 00, 000
- 1-liter reservoir
- Signal input: Extra lubrication or external pressure switch*
- Signal output: Error low-level and/or functioning control*
- Visual level monitoring
- Standard gear pump provides up to 50 cm³ lubricant per minute
- Power supply 24 V DC




1. **Integrated control board with touch display and datalogger**
to configure the pump and access performance log
2. **Standard gear pump**
Provides up to 50 cm³ lubricant per minute
3. **Filling connection**
Several filling options (from top, from bottom with straight or elbow connections)
4. **Follower plate**
To obtain continuous grease flow
5. **Electrical connection***
Bayonet plug 7 pole A-coded (power, signal input and output) for mobile use or square plug A-coded for industrial use
6. **Electrical connection***
M12x1 plug, 4 pole B-coded, for signal input
7. **Electrical connection***
M12x1 plug, 4 pole A-coded, for signal output
8. **Cover panel**
To protect the display from dirt

* Depending on model

Pre-defined models make ordering easy and improve lead time

The easiest and fastest way to order the new CLS pumps is to choose a pre-defined package. By ordering a pre-defined, standard model, you get a fully equipped pump specifically configured for mobile or industrial use. These packages meet all standard requirements of these applications.

 CLS Touch 24V
for industrial use




Material number
CLS-XF1AT2-0000001

- 24 V DC
- Compliance CE
- Integrated control board with touchdisplay and datalogger
- Default internal control mode: automatic

- + For fluid grease
- + Filling from bottom left ¹⁾ with swivelling elbow connection
- + Follower plate
- + Square plug, A-coded, on the right
- + M12×1, 4-pole A-coded, on the right
- + M12×1, 4 pole B-coded, on the left
- + Outlet connection M16×1,5 ²⁾

1) Model with filling from bottom right
CLS-XF1AT2-0000010

2) Models with outlet connection G1/4:
filling from bottom right CLS-XF1AT2-0000026
filling from bottom left CLS-XF1AT2-0000025

 CLS Touch 24V
for mobile use




Material number
CLS-EF1AT2-0000012

- 24 V DC
- Compliance E1/ CE
- Integrated control board with touchdisplay and datalogger
- Default internal control mode: automatic

- + For fluid grease
- + Filling from bottom right ¹⁾ with swivelling elbow connection
- + Follower plate
- + Bayonet plug, 7 pole A-coded, on the right
- + Outlet connection M16×1,5 ²⁾

1) Model with filling from bottom left
CLS-EF1AT2-0000011

2) Models with outlet connection G1/4:
filling from bottom right CLS-XF1AT2-0000028
filling from bottom left CLS-EF1AT2-0000027

 CLS Touch 24V
for industrial use



Material number
CLS-XU4AT2-0000014

- 24 V DC
- Compliance CE
- Integrated control board with touchdisplay and datalogger
- Default internal control mode: automatic

- + For oil
- + Filling from top
- + Square plug, A-coded, on the right
- + M12×1, 4-pole A-coded, on the right
- + M12×1, 4-pole B coded, on the left
- + Outlet connection M16×1,5 ²⁾

2) Models with outlet connection G1/4:
CLS-XU4AT2-0000029

Comparison CLS Touch model features



Material number

Outlet connection M16×1,5	CLS-EF1AT2-0000011	CLS-EF1AT2-0000012	CLS-XF1AT2-0000001	CLS-XF1AT2-0000010	CLS-XU4AT2-0000014
Outlet connection G¼	CLS-EF1AT2-0000027	CLS-EF1AT2-0000028	CLS-XF1AT2-0000025	CLS-XF1AT2-0000026	CLS-XU4AT2-0000029
Application	Mobile	Mobile	Industry	Industry	Industry
Voltage	24 V DC	24 V DC	24 V DC	24 V DC	24 V DC
Compliance	E1/CE	E1/CE	CE	CE	CE
Corrosion class	C3	C3	C3	C3	C3
Lubricant					
Oil	–	–	–	–	•
Fluid grease NLGI 00, 000	•	•	•	•	–
Follower plate	•	•	•	•	–
Visual level monitoring	•	•	•	•	•
Electrical empty level monitoring	•	•	•	•	•
Extra lubrication	•	•	•	•	•
Electrical connection left/right					
Bayonet plug 7-pole A-coded	• 1)2)3)4)	• 1)2)3)4)	–	–	–
Square plug, A-coded	–	–	• 1)	• 1)	• 1)
M12×1, 4-pole A-coded	–	–	• 3)	• 3)	• 3)
M12×1, 4-pole B-coded	–	–	• 2)	• 2)	• 2)
Filling from					
Top	–	–	–	–	•
Bottom left	•	–	•	–	–
Bottom right	–	•	–	•	–
Bottom front	–	–	–	–	–
Number of outlets	1	1	1	1	1

- 1) Power
 2) Signal input: External pressure switch
 3) Signal output: Error
 4) Signal input: Extra lubrication

Technical data for CLS Touch models

Function principle	Electrically operated gear pump	
Lubricants	Lubrication oils with viscosity of 20–1500 mm ² /s Fluid greases: NLGI 00 to 000	
Max. working pressure	38 bar	551 psi
Operating temperature	–25 to +65 °C	–13 to +149 °F
Usable reservoir volume	1 l	0.26 gal
Number of outlets	max. 2	
Lubricant output	50 cm ³ /min ¹⁾	
Outlet connection	M16×1,5 ²⁾ or G¼	~0.00 in ³ /min
IP-protection class ³⁾	IP 6K9K; IP 66 (IEC 60529); IP 67 (IEC 60529)	
Corrosion class	C3	
Voltages	24 V DC	
Operating current	up to 3 A (max. peak), nominal 0.6 A	
Relative duty cycle	15% ED S3 30 minutes	
Electrical protection class	III	
Dimensions depending on model and filling connection ⁴⁾		
max. H×W×D ⁴⁾	235×205×169 mm	9.25×8.07×8.94 in
Weight (empty) ⁴⁾	5 kg	11 lb
Mounting position	Upright	

1) At a backpressure of 5 bar and a viscosity of 90 mm²/s

2) Connection thread countersunk for solderless tube union for tube ø 10 mm.

3) Protection class depending on electrical connection

4) See the manual for more details

Spare parts / additional components ¹⁾

Connecting fittings M10 for outlet M16×1,5

406-004-VS	Push-in fitting GEZ 6-M10×1 NBR ³⁾
408-004-VS	Push-in fitting GEZ 8-M10×1 NBR ³⁾
506-140-VS	Push-in fitting WEDZ 6-M10×1 NBR ³⁾
223-12571-2	Straight screw-in connector TB fitting,ST GE 6-L M10×1,0 CF ³⁾
223-12369-7	Banjo fitting TB fitting,ST SWVE 6-L M10×1,0 CF ³⁾
96-7812-0058	Banjo fitting TB fitting,ST SWVE12-L M16×1,5 CF
471-006-311	Straight screw-in connector TB fitting,ST GE 6-L M10×1,0-ED CF ³⁾
471-008-314	Straight screw-in connector TB fitting,ST GE 8-L M10×1,0-ED CF ³⁾
406-166	Connector with cylindrical thread, ST D 6,0 M16×1,5 ZN

Connecting fittings for outlet G¼

406-054-VS	Push-in fitting GEZ 6-G¼ NBR
408-054-VS	Push-in fitting GEZ 8-G¼ NBR
506-143-VS	Push-in fitting WEDZ 6-G¼A NBR
223-12477-8	Straight screw-in connector TB fitting,ST GE 6-L G¼A CF
223-12477-6	Straight screw-in connector TB fitting,ST GE 8-L G¼A CF
223-12285-8	Banjo fittings TB fitting,ST SWVE 6-S G¼A CF
223-12285-9	Banjo fittings TB fitting,ST SWVE 8-S G¼A CF
471-006-161	Straight screw-in connectors TB fitting,ST GE 6-L G¼A-ED CF
471-008-161	Straight screw-in connectors TB fitting,ST GE 8-L G¼A-ED CF
401-016-371	Reducing adapter ST M16×1,5Ax G¼ CF ⁴⁾

Powercables

664-34167-9	Bayonet socket, 4 pole with cable 10 m
6640-00000182	Bayonet socket, 7 pole with cable 10 m
664-36078-7	Square socket with cable 10 m (black)
179-990-600	M12×1 connector, straight (A-coded) with cable 5 m
179-990-601	M12×1 connector, 90° angled (A-coded) with cable 5 m
179-990-371	M12×1 connector, straight (A-coded)
179-990-372	M12×1 connector, 90° angled (A-coded)
2370-00000167	Cable 5 m with M12×1 socket, straight (A-coded) and M12×1 connector, straight (B-coded)
2370-00000086	Cable 3 m with M12×1 socket, straight (A-coded) and M12×1 connector, straight (B-coded)

Adapters and closure screws ²⁾

519-60445-1	Closure screw M22×1,5
995-001-854	Plug screw M16×1,5
995-001-853	Fitting, complete, including seal
995-000-870	Filling connection, straight, plug-in without filter
169-460-406	Filling connection, straight, plug-in with filter (320 µm)
995-997-297	Filling connection, swivelling, with filter (320 µm)
519-33840-1	Adapter with lubrication fitting ST¼ acc. to SAE
519-33959-1	Adapter with lubrication fitting A2 AR¼
519-33955-1	Adapter with lubrication fitting ST AR¼
898-210-050	Protective cap for filler fitting (red)
995-001-500	Coupling socket

Others

5590-00000015	Mounting bracket kit
5590-00000014	Venting kit
993-000-098	Filter insert, complete

1) The spare parts assemblies may be used exclusively for replacement of identical defective parts. Modifications with spare parts on existing products are not allowed. Exceptions to this are the pump elements and the optional filling connection.

2) Gasket always included

3) To be used with 406-166 (adapter ST D 6,0 M16×1,5 ZN)

4) To be used for M16×1,5 outlets (feature Z)



For more accessories and spare parts, please refer to the product catalogue "Fittings and accessories"

→ [PUB LS/P1 15859 EN](#)

