



## EN Lubricator OPTIME C4

### OPTIME-LW-C4 Operating instructions

#### 1 General information

##### 1.1 Notes on this publication and the quick start guide

This publication is part of the product and contains information on safety risks in the product life cycle.

If these publications are missing or incomplete, this can lead to misconduct on the part of the user. Ensure that these publications are always available to all users in a complete and legible form.

Images in this publication may be representations in principle and may differ from the product supplied.

##### 1.2 Note on third-party products and services

Apps and features may not be available in all countries or regions. The availability of apps and functions may change.

All names of products and services mentioned in these instructions are trademarks of the respective companies. The information in the text is non-binding and is provided for information purposes only.

- Apple, App Store, Safari and their logos are registered trademarks of Apple Inc.
- Google, Android, Google Play, Google Chrome and their logos are registered trademarks of Google LLC
- Wirepas, Wirepas Mesh and their logos are registered trademarks of Wirepas Ltd.

#### 2 Labeling

Each OPTIME C4 lubrication system is marked with a serial number and type plate. The nameplate contains the manufacturer's information for countries and regions and the CE mark.

The type plate is located under the cover on the back of the basic appliance.

#### 3 Intended use

The OPTIME C4 lubricator is only approved for use in indoor and outdoor industrial environments.

The OPTIME C4 lubricator may only be used in accordance with the technical data u8.

To avoid malfunction or failure of the pumps, only original cartridges and original spare parts may be used.

Intended use also includes

- observance of all instructions in leaflet BA 100-Q01
- compliance with all applicable regulations on occupational safety and accident prevention
- the technical training and authorization of the company to carry out the work on the OPTIME C4 lubricator

Unauthorized structural modifications to the OPTIME C4 lubricator are not permitted. We accept no liability for any resulting damage to machines or persons.

#### 4 Non-intended use

The following points are considered improper use:

- Changes to the device
- Use in motor vehicles
- Use in potentially explosive atmospheres

Improper use may result in personal injury and damage to the appliance.

#### 5 Qualification of staff

The OPTIME C4 lubricator may only be installed, commissioned, operated and maintained by qualified personnel in compliance with the accident prevention regulations. The operator is responsible for the competencies, responsibilities and supervision of the personnel.

Qualified personnel fulfill the following criteria:

- Knowledge of handling lubricant systems and handling lubricants and lubricant-carrying lines
- Trained and experienced electrician
- full knowledge and understanding of this publication and the Quick Start Guide BA 100-Q01

Work on the electrical assemblies of a lubricator and their power supply may only be carried out by a trained electrician. This work also includes the electrical connection if this is not explicitly approved for other groups of people.

A qualified electrician is someone who is able to assess the work assigned to them and recognize potential hazards based on their technical training, knowledge and experience as well as knowledge of the relevant regulations.

#### 6 Warranty

Excluded from the warranty are defects that occur as a result of improper commissioning, unauthorized modifications, improper handling, non-compliance with the operating instructions, normal wear and tear or faults in the system environment.

#### 7 Safety regulations

##### 7.1 Notes for the operator

Comply with the locally applicable regulations and statutory provisions for occupational safety and disposal. Eliminate hazards from electrical energy.

##### 7.2 Transportation and storage

The applicable safety regulations and accident prevention regulations must be observed during transportation. Do not throw the OPTIME C4 lubricator or expose it to strong impacts. Observe the permissible ambient conditions ue1. Store the OPTIME C4 lubricator in a cool and dry place to prevent corrosion of the OPTIME C4 lubricator.

##### 7.3 Assembly

Make sure that the product is fully suitable for the application in question. Check the components for external damage before installation. If damage or defects are found, do not put the OPTIME C4 lubricator into operation.

##### 7.4 Electrical connection

The connection to the power supply may only be carried out by trained electricians, taking into account the technical data of the OPTIME C4 lubricator >8.

**The following content applies to USA and Canada only:**

To connect to the power supply, only use the following conductors:

DVE.3.1.3.1 Equipment having field-wiring terminals shall be marked as follows:

- a) "use copper conductors only" if the terminal is only for connection to copper wire;
  - b) "use copper or copper-clad aluminum conductors only" if the terminal is only for connection to copper and copper-clad aluminum wire;
  - c) "use aluminum conductors only" or "Use aluminum or copper-clad aluminum conductors only" if the terminal is only for connection to aluminum wire; and
  - d) "use copper or aluminum conductors" or "use copper, copper-clad aluminum, or aluminum conductors" if the terminals is for connection to either copper or aluminum wire.
- DVE.3.1.3.2 Alternatively, the markings in DVE.3.1.3.1 may be abbreviated as follows:

- a) equipment having a connector intended only for use with aluminum wire shall be plainly marked with the letters "AL".
- b) equipment having a connector intended for use with aluminum or copper-clad aluminum and copper wire shall be plainly marked "AL-CU" or "CU-AL".
- c) equipment having a connector intended for use with copper-clad aluminum and copper wire shall be plainly marked "CC-CU" or "CU-CC".

##### 7.5 Connection cable and power supply

The OPTIME C4 lubricator may only be supplied by a power supply unit approved as Class 2 or as an energy-limited power supply unit. Ensure that external switches and power switches are located in the vicinity of the OPTIME C4 lubricator and meet the requirements of DIN EN 61010-1. Check the condition of the connection cable and the power supply before each operation.

##### 7.6 Fire fighting

Only extinguish burning grease with approved extinguishing agents such as powder, foam or carbon dioxide. Attempting to extinguish a grease fire with water will cause a life-threatening flash fire.

##### 7.7 Information interfaces

The OPTIME C4 lubricator has an information interface with a Wirepas mesh network. The device can be connected to other devices, components or internal and external networks via the information interface.

End devices connected via the information interface can carry malware and carry out harmful functions undetected, leading to damage to the system.

Familiarize yourself with the following points before using the information interfaces:

- Security measures provided by the product and its information interfaces
- Security requirements of your company
- Safety requirements on site

##### 7.8 Unauthorized use

To protect against unauthorized use of the Schaeffler OPTIME app and the OPTIME dashboard, data encryption and protection of the login with individual access data are used. The software user must log in with a user name and password. The password must be changed at regular intervals, e.g. every 3 months. A sufficiently complex password must be chosen. The user is responsible for keeping the login data secret.

##### 7.9 Commissioning

To configure the lubricator, you need to register in the OPTIME Cloud to assign the system to your company.

The lubricator must be bled before initial operation. The process is complete as soon as lubricant emerges from the outlet without any bubbles. During commissioning, especially when bleeding and when connecting and disconnecting the hydraulic lines, pay attention to lubricant leaks >7.14.

##### 7.10 Operation

Pay attention to leaks in the lubricator and connected hydraulic lines during operation. In the event of a fault, up to 850 cm³ of lubricant can escape from the lubricator. Always observe the information on disposal >7.14.

Electrical fuses against overcurrent influences are permanently installed in the lubricator.

##### 7.11 Maintenance and repair work

Contact Schaeffler in the event of malfunctions and defects

##### 7.12 Cleaning

If dirt gets into the lubricator, the piston pumps will be damaged. Clean the grease cartridge before inserting it if it is dirty.

Clean the device with a brush and cloth.

Compressed air can damage the seals and force dirt into the lubricator. Do not use compressed air for cleaning.

##### 7.13 Change of lubricant

Changing between oil and grease on an appliance is not permitted. It is not possible to completely empty the appliance of lubricant.

If an unsuitable lubricant is used, the lubrication point will be insufficiently lubricated or not lubricated at all and damaged. Always use the same lubricant that was in the empty grease cartridge. Only switch between lubricants that can be mixed with each other. The empty level detection counts the number of lubricant applications. Only use a completely filled grease cartridge of 400 cm³/ 750 cm³ or the oil tank with 850 cm³.

##### 7.14 Waste disposal

Always ensure environmentally friendly disposal in accordance with local regulations and provisions, especially for the following components and materials:

- Defective and irreparable components
- Materials that contain or are contaminated

with lubricants

- Electronic assemblies

The complete OPTIME C4 lubricator can be returned to Schaeffler in the event of problems with legally compliant and environmentally friendly disposal

#### 8 Technical data

| e1 Technical data                            |                                                                                                         |
|----------------------------------------------|---------------------------------------------------------------------------------------------------------|
| Feature                                      | Value                                                                                                   |
| Dimensions                                   | 144 mm×297 mm×144 mm (W×H×D)                                                                            |
| Drive system                                 | electromechanical                                                                                       |
| Dimensions without cartridge                 | ≈ 2.4 kg                                                                                                |
| Installation position                        | Vertical, max. vertical tilt 5°                                                                         |
| Housing material                             | PA                                                                                                      |
| Protection class                             | IP66                                                                                                    |
| Lubricant delivery                           | Piston pump                                                                                             |
| Dosing volume per outlet per delivery stroke | 0.13 cm³<br>+0.013/-0.013 cm³                                                                           |
| Number of lubrication points                 | ≤ 4                                                                                                     |
| Number of outlets                            | 4                                                                                                       |
| Outlet type                                  | Push-in fitting 6 mm with clamping pliers for PA pipe or metal pipes with matching claw groove geometry |
| Lubricant volume                             |                                                                                                         |
| • Fat                                        | 400 cm³ / 750 cm³                                                                                       |
| • Oil tank                                   | 850 cm³                                                                                                 |
| Lubricants                                   |                                                                                                         |
| • Fat                                        | Grease up to NLGI 2 <sup>1)</sup>                                                                       |
| • Oil                                        | 68 cSt ..... 1500 cSt                                                                                   |
| Max. permissible operating pressure          | 70 bar                                                                                                  |
| Operating temperature                        | -20 °C ... +70 °C                                                                                       |
| Wirepas Mesh communication                   |                                                                                                         |
| • Frequency band                             | 2.4 GHz                                                                                                 |
| • Max. range with line of sight              | 60 m                                                                                                    |
| NFC communication                            |                                                                                                         |
| • Frequency band                             | 13.56 MHz                                                                                               |

| Feature                                  | Value                                |
|------------------------------------------|--------------------------------------|
| Maximum output power                     | +8 dBm                               |
| Operating voltage (Class 2; NEC/NFPA 70) | DC 24 V (±1.2 V)                     |
| Power consumption                        | I <sub>max</sub> ≤ 500 mA at DC 24 V |

<sup>1)</sup> Arcanol greases up to NLGI 3, taking into account the maximum length of the lubricant line. Third-party greases up to NLGI 2 with experimental determination of the maximum length of the lubricant line.

No solid particles, except PTFE; if third-party greases are used, the suitability of the pump system must be checked by the customer within the limit temperatures that occur.

All lubricant-dependent values determined with Arcanol MULTITOP at +20 °C.

#### 9 Certificates



The OPTIME C4 lubricator is legally certified in numerous countries. Detailed information on certification can be found online at <https://www.schaeffler.de/std/201A>. Model: OPTIME-LW-C4

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