

# OLC

Oil Level Controller

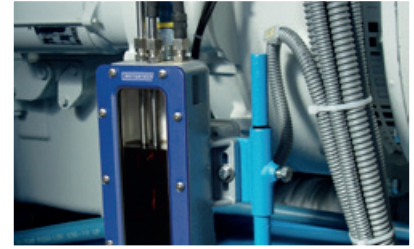


## ■ General Information



### OLC – Oil Level Controller

Combustion engines, compressors, turbines, slide bearings and gears – they all depend on a reliable supply of lubricating oil. For trouble-free operation, each of those systems, dependent on the design, requires a precisely defined oil level that may only be exceeded or undercut by a narrow margin. Moreover, the lubricating capacity of the oil is depleted after a certain operating time – it has to be changed. Oil level monitoring, oil refill, and even an automated oil change – in other words, the complete management of the oil cycle – can be realized in a completely reliable manner with MOTORTECH's OLC oil level controller.



### Advantages for the User

- Elimination of regular monitoring of the oil level
- Operation is not interrupted for monitoring the oil level
- Operating errors are avoided, no overfilling/ lack of oil
- Automated oil change possible
- Less work for staff, increase in operational safety
- Visual surveillance of the oil level during operation is possible
- Remote monitoring from a central location



## Product Variants

### Oil Level Controller with Float Switches

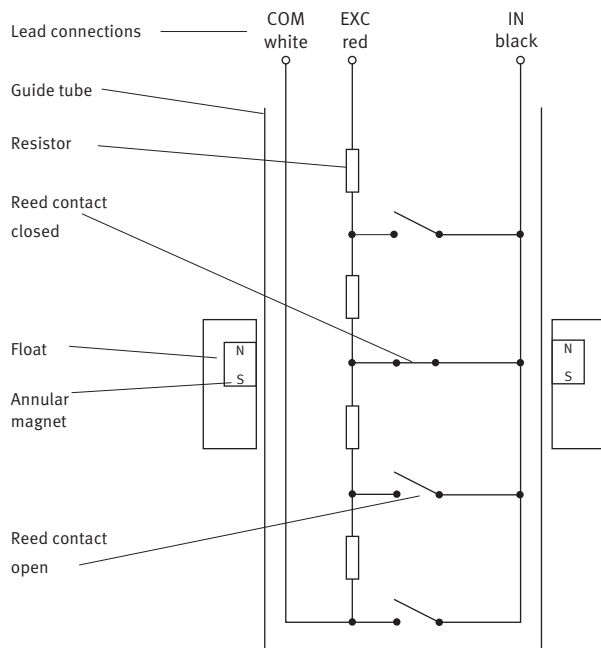
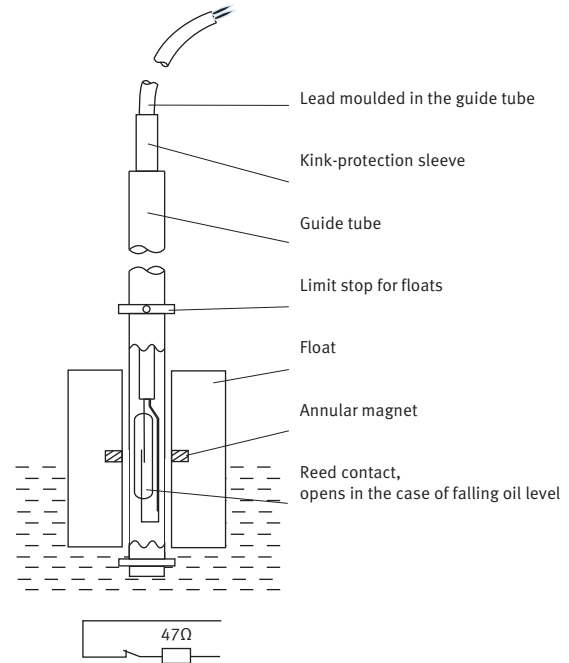
The devices of this OLC version are ideal for use with gas engines and they stand out for their reliable monitoring of the oil level.

The housing, made of a saltwater-resistant aluminum alloy, accommodates 2, 3 or 4 float switches. The float switches are screwed into the housing with a clamp screw connection. Any immersion depth can be adjusted with a swivel nut, which makes it possible to set the desired switch point. Subsequent readjustment is also possible without any problems.

A large sight glass made of impact-resistant polycarbonate enables the visual assessment of the current oil level. The white inner coating facilitates viewing even with poor light conditions.

The slotted holes and the optional use of the vertical or horizontal pipe connection threads constitute significant advantages during the installation.

### Float Switch (displayed as MIN Contact)



### Oil Level Controller with analog Level Sensor

Unlike an oil level controller with float switches, this OLC version uses 25 reed contacts that are distributed evenly in the guide tube across the entire measuring range of 125 mm. Every reed contact is connected to a resistor. When the float rises or falls with the oil level, the magnetic forces of an annular magnet activate a reed contact through which an electrical current flows. The aforementioned resistors bring about a type of sliding resistance.

The variable electrical signal, created by 25 different resistance values, is converted into a standard signal within a range of 4 to 20 mA by a measuring transducer that is connected by cable. This signal can be used in many different ways in a control system (e. g. ALL-IN-ONE). A visual display on a screen or an LED bar graph is also possible.

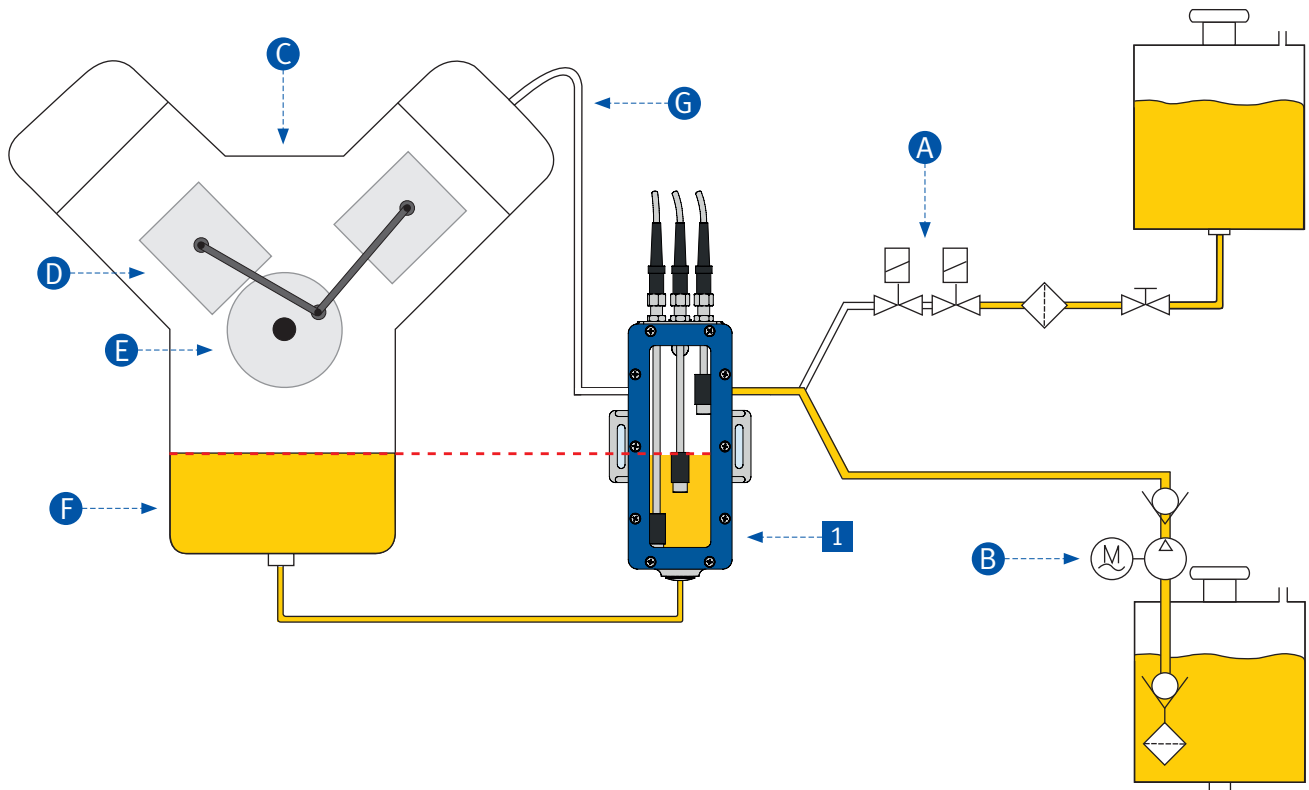
Two versions of the OLC can be equipped with one or two float switches in addition to the analog sensor in order to provide a redundant monitoring signal for the minimum or maximum oil level.

# Automatic Oil Refill



Monitoring the optimal oil level and signaling a lack of oil or overfilling with the OLC oil level controller is imperative for stationary gas engines that are in continuous operation. Therefore, upgrading to an automatic oil refill is logical and enables operation without supervision.

If the oil level falls short of the switch point for the refill contact (or the set electrical current with an analog sensor), then the engine control system sends a signal to the refill valve or to a refill pump. Fresh oil will be supplied to the engine until the refill contact interrupts the flow of oil.



### Required Accessories

- 1 OLC oil level controller

### Accessories

- A Solenoid/double solenoid valve<sup>1</sup>  
*alternative*
- B Oil pump<sup>2</sup>

### Description

- C Engine
- D Piston
- E Crankshaft
- F Oil pan
- G Compensation line

<sup>1</sup> An oil storage tank positioned above the engine, from which the oil flows by gravity, requires a solenoid valve for blocking, or better yet a double solenoid valve for reasons of redundancy.

<sup>2</sup> An oil storage tank located below the engine must be equipped with an electric pump.

## Product Details

- Housing made of a high-grade, saltwater-resistant aluminum alloy
- Individually and infinitely adjustable float switches with reed contacts
- Potential-free closing or opening switches, no voltage transfer
- One-shot switches with step response and unambiguous switching states
- Contacts do not come into contact with oil, protection class IP 65
- Vibration-proof, no interference caused by worn rods/ valve seats
- 2, 3 or 4 contacts
- Optional analog level indicator 4-20 mA / 0-10 V
- Floats resistant to all oils
- Contact protection thanks to integrated resistor
- Switch point adjustment requires the use of tools
- Fail-safe wires
- Suitable for mineral and synthetic oils
- 2 oil and 2 equalization connectors
- Pipe connections with standard inch threads
- Sight glass made of impact-resistant polycarbonate
- Glass sealed with Perbunan (NBR)
- Interior painted white for optimal recognition of oil level
- Slotted holes allow for height adjustment during installation
- Indication of engine wear based on refill frequency
- Indication of water in lubricating oil is possible
- Optional Ex protection as per ATEX, CSA or UL

See application guide for further equipment details – P/N 01.63.002-EN – at [www.motortech.de](http://www.motortech.de)

## Optional Accessories



### Pumps

Oil pumps with electric drive: gear pumps, rotor pumps or oscillating piston pumps with a flow volume of 0.4 to 70 l/ min at pressures up to 25 bar.



### Fittings

Suction filters, non-return valves, shut-off valves, oil meters and many more.



### Magnetic Valves

Direct- or pre-controlled valves for alternating and direct current. Connections from G 1/4" to G 2", pressures up to 25 bar, as a single or double valve.



### Oil Hoses

Suitable at continuous temperatures of up to 150 °C at 16 bar. Nominal diameters of 10 – 12.5 – 16 mm, easy self-assembly of a broad range of connections without a hose press.

Download now!



### All Products at a Glance!

For further information about the MOTORTECH products get our product guide online.



Scan QR-Code to get to the download page



Distribution partner for DENSO spark plugs



Scan QR-Code to subscribe



### Once a month the latest news!

Subscription also at [www.motortech.de/subscribe.html](http://www.motortech.de/subscribe.html) or send a short request via email: [direkt@motortech.de](mailto:direkt@motortech.de)

#### **MOTORTECH GmbH**

Hogrevestr. 21-23  
29223 Celle  
Germany  
Phone: +49 (5141) 93 99 0  
Fax: +49 (5141) 93 99 99  
[www.motortech.de](http://www.motortech.de)  
[sales@motortech.de](mailto:sales@motortech.de)

#### **MOTORTECH Americas, LLC**

1400 Dealers Avenue, Suite A  
New Orleans, LA 70123  
USA  
Phone: +1 (504) 355 4212  
Fax: +1 (504) 355 4217  
[www.motortechamericas.com](http://www.motortechamericas.com)  
[info@motortechamericas.com](mailto:info@motortechamericas.com)

#### **MOTORTECH Shanghai Co. Ltd.**

Room 1018 Enterprise Square,  
No. 228 Meiyuan Road,  
Zhabei District, 200070 Shanghai  
China  
Phone: +86 (21) 6380 7338  
[www.motortechshanghai.com](http://www.motortechshanghai.com)  
[info@motortechshanghai.com](mailto:info@motortechshanghai.com)

P/N 01.65.006-EN | Rev. 03/2014 | MOTORTECH Sales Flyer Oil Level Controller

#### **Copyright**

The copyright for all materials used in this MOTORTECH publication is reserved. Any kind of duplication or use of objects such as pictures or texts in other electronic or printed publications without approval by MOTORTECH is not permitted.

#### **Trademark Information**

MOTORTECH products and the MOTORTECH logo are registered and/or common law trademarks of MOTORTECH GmbH.

All OEM names and part numbers shown are for reference purposes only. All trademarks, logos and symbols used or shown in this MOTORTECH publication are exclusive objects to the right of their owners and are used for reference purposes only.

Distribution: