

DIESELswitch

SAFETY FUEL CHANGE-OVER UNIT

- Automatic and controlled change-over from HFO to MDO/MGO and vice versa
- Minimized risk of damages due to abrupt temperature changes
- Change-over at full load possible
- Integrated data logger
- Sealed by magnetic coupling
- Integrated safeguard functions

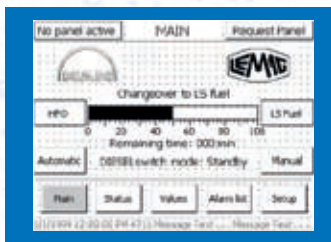


For a safe and automatic switch from HFO to MDO/MGO and vice versa

LEMAG® DIESELswitch is designed to carry out the change-over process between heavy fuel oil and low sulphur fuel automatically and safely.

LEMAG® DIESELswitch also enables the operator to switch fuels running at full load, as sensors will detect if the fuel temperature changes too rapidly. The system will then freeze the position to protect the engine's fuel injection system from a thermal shock and generate an alarm. For safety the fuel change-over process can also be stopped manually.

The system is simple to use. All the user has to do is



1. Choose time frame for change-over
2. Choose fuel change-over direction:
HFO to MDO/MGO or MDO/MGO to HFO
3. Start the process!

Patent held by MAN DIESEL

LEMAG® DIESELswitch is simple to install on both newbuilds and existing vessels and can handle different tank levels up to 25 m without additional MDO/MGO pumps. The basic system consists of:

- Safety change-over valve (bronze) *with magnetic coupling to prevent leakages*
- Static mixing tube
- Electronic cabinet with advanced software

LEMAG® DIESELswitch can also be delivered on a foundation containing all system components, pipes and internal cabling.

Before shipment each system is pressure tested by Germanischer Lloyd (other classification societies on request).

All systems are equipped with a tamper-proof data logger to prove that the correct fuel was used in regulated areas. Further LEMAG® DIESELswitch features and options e.g. flow meters are listed overleaf.

Subject to change without notice

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FEATURES AND OPTIONS

EMERGENCY START FUNCTION

The integrated emergency start function allows flushing the fuel system with pure HFO in case of accidental overheating of the distillate fuel to ensure that the engine can be started.

DATA LOGGER

The tamper-proof data logger can be used to prove that the correct fuel was used in regulated areas based on the integrated sensors.

MAGNETIC COUPLING

The safety change-over valve is hermitically sealed by a magnetic coupling to avoid any leakages.

ADDITIVE DOSING (optional)

A controlled dosing pump and additive tank can be included to prevent incompatible fuels flocking during the change-over process.

COOLER/CHILLER UNITS (optional)

Cooler or chiller units can be connected and controlled by the **DIESELswitch** software to avoid accidental cooling of HFO.

FLOW METER (optional)

Further options include flow meters to calculate total fuel consumption and low viscosity alarm sensors. Please contact us for more details.

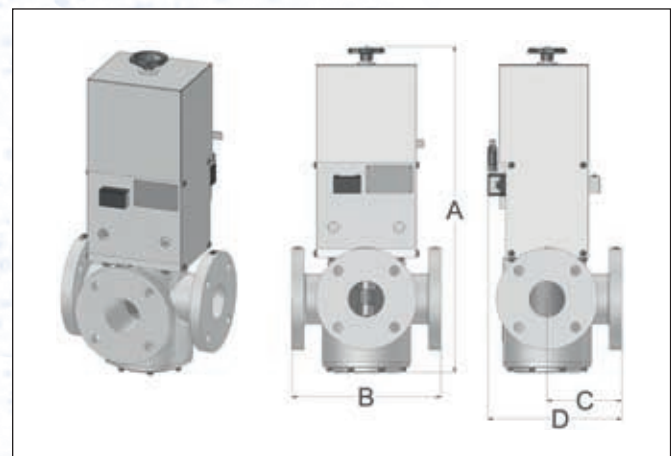
TECHNICAL DETAILS

DIESELswitch capacity				Static mixer		
Volume HFO	Flange connection	l/m	l/s	Inside diameter	Flange connection	
0,5 t	DN 25	8	0,14	1"	DN 25	DN 25
1,0 t	DN 25	17	0,28	1"	DN 25	DN 25
2 t	DN 25	33	0,56	1"	DN 25	DN 25
2 t	DN 50	33	0,56	1"	DN 25	DN 50
4 t	DN 50	67	1,11	1 ½"	DN 40	DN 50
6 t	DN 50	100	1,67	1 ½"	DN 40	DN 50
8 t	DN 50	133	2,22	2"	DN 50	DN 50
10 t	DN 50	167	2,78	2"	DN 50	DN 50
12 t	DN 65	200	3,33	2 ½"	DN 65	DN 65
15 t	DN 65	250	4,17	2 ½"	DN 65	DN 65
17 t	DN 65	283	4,72	2 ½"	DN 65	DN 65

Voltage: 400 – 460 V AC; 50 – 60 Hz plus 24 V DC

Pressure: PN 16 bar or PN 25 (optional)

Safety change-over valve				
Dimensions (mm)	A	B	C	D
DN 25	483,8	220	90	202,5
DN 50	591	250	115	222
DN 65	591	270	135	242



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