



Basic diagram of LMV5... for 2 types of liquid fuel

User Documentation

The LMV5... and the present document are intended for use by OEMs which integrate the Burner Management Units in their products!

Supplementary documentation

User Documentation AZL5...Modbus	A7550
User Documentation Basic diagram of LMV5... for 2 types of gas	A7550.1
User Documentation Basic diagram of LMV5... for 2 types of liquid fuel.....	A7550.3
Operation Manual ACS450 PC software for LMV5.....	J7550
Parameter Settings	I7550
Installation Guide LMV5.....	J7550.1
Data Sheet LMV5	N7550
Basic Documentation LMV5.....	P7550
Product Range Overview LMV5.....	Q7550
User Manual AZL5... (U7550.2) for Service level	74 319 0306 0
User Manual AZL5... (U7550.3) for User level	74 319 0307 0

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1 General

As described in the Basic Documentation of the LMV5... (P7550), the fuel is always selected via input X4-01.1 (gas) and input X4-01.2 (oil). The present document provides additional information for oil-fired applications (X4-01.2) where changeover between 2 types of oil is made possible during operation by using an external relay circuit.

The basic diagram below shows the basic wiring and fundamental design of the oil train.

For more detailed information, refer to the Basic Documentation of the LMV5... (P7550).



All safety, warning and technical notes given in the Basic Documentation of the LMV5... (P7550) must also be observed in connection with this document.

2 LMV5... for 2 types of liquid fuel

(example: light fuel oil / heavy fuel oil)

2.1.1 Fuel selection

Fuel selection «Oil1» or «Oil2» is made via an external selector. The valves for both types of oil are controlled during the delay time set on the delay off relays K1 and K2. The drop out delay time should not exceed the safety time set on the LMV5... The LMV5 ... is adjusted on the «oil curve» for both types of oil.

2.1.2 Fuel changeover

Changeover from «Oil1» to «Oil2» can take place while the burner is in operation. Hence, the burner will not be shut down. By contrast, when changing from oil to gas, the burner will be shut down.

2.1.3 Curves

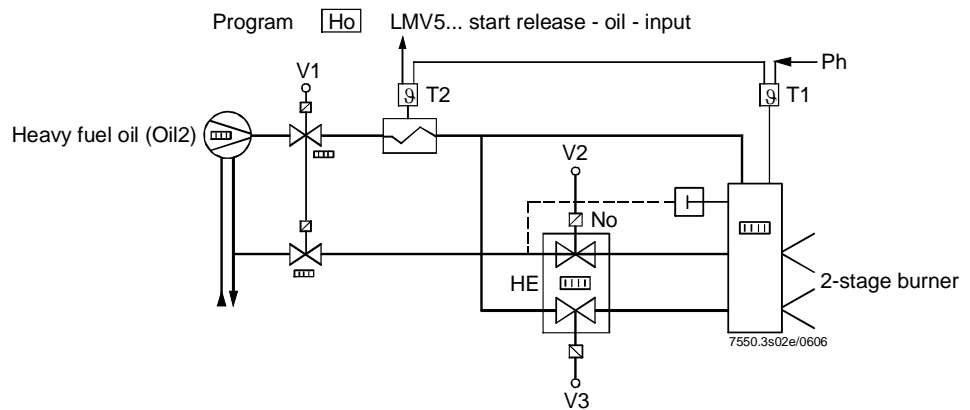
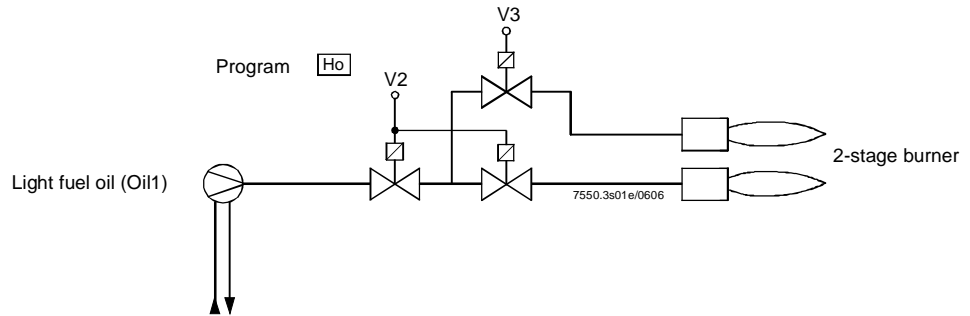
- The LMV5 ... is always set for using the oil curve
- The air curve applies to «Oil1» and «Oil2»
- The fuel valve actuator is used for «Oil1»
- The auxiliary actuator is used for «Oil2»
- Both types of oil can be set for 2-stage or modulating operation, but not for mixed operation

2.1.4 Oil trains

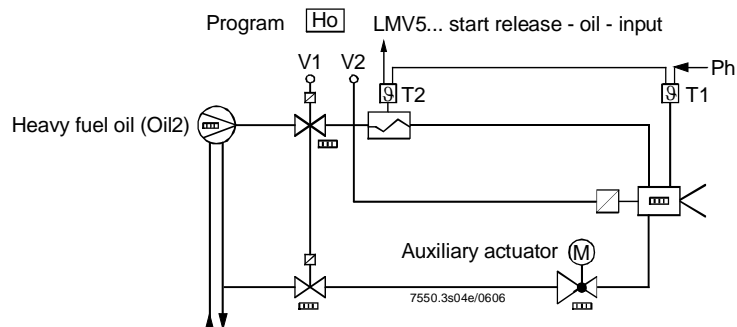
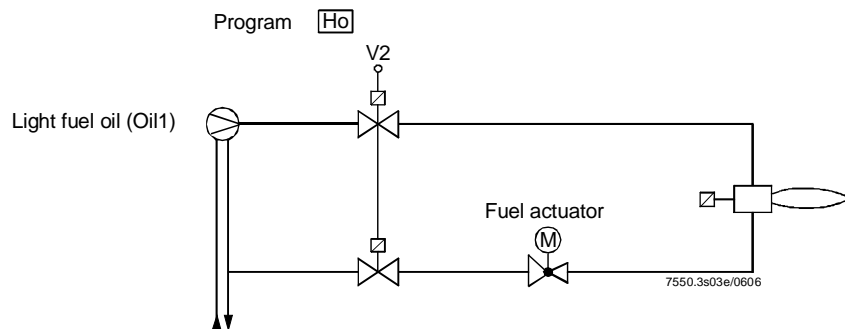
The following types of oil trains are supported:

- Oil direct ignition (Ho)
- Oil pilot ignition 2 (HogP)

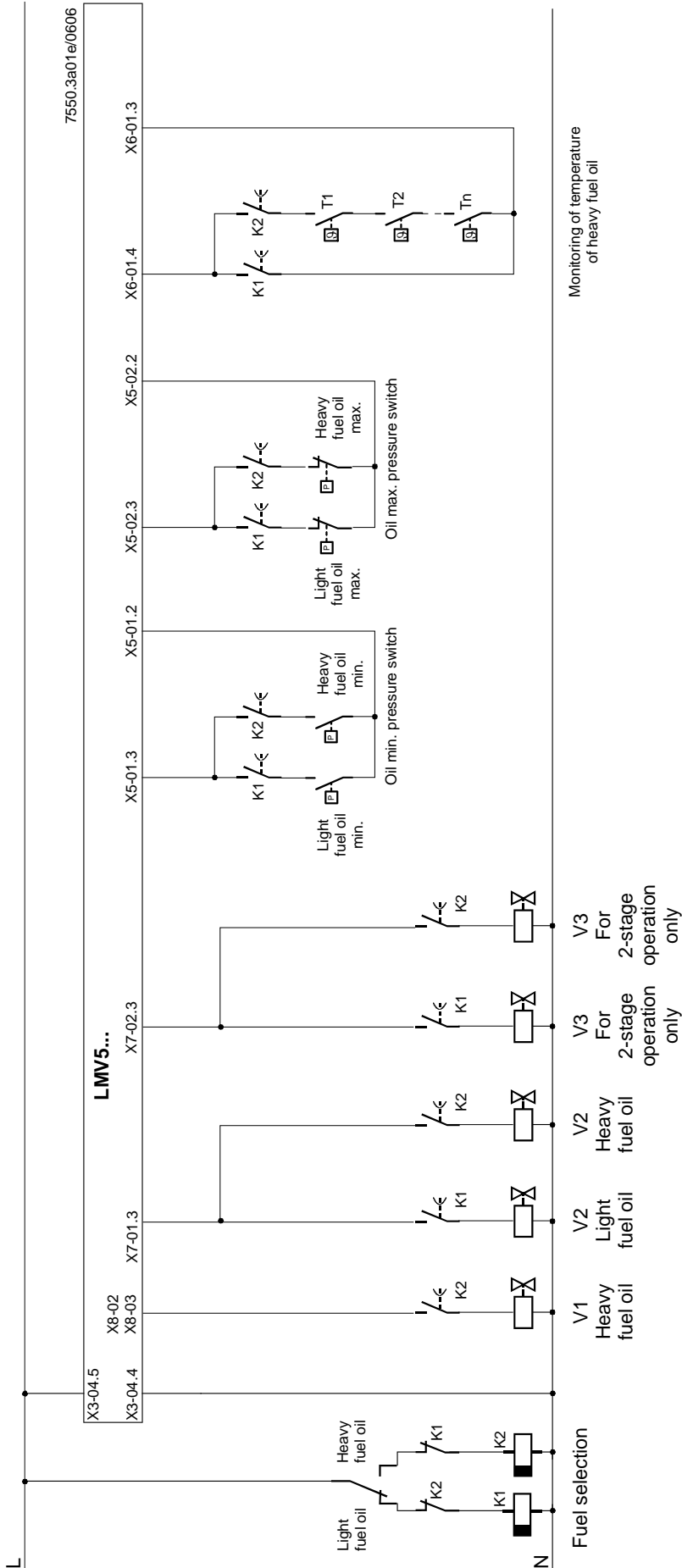
Oil line 2-stage



Oil line modulating



3 Basic diagram



Legend:

- K1 Burner operating on light fuel oil
- K2 Burner operating on heavy fuel oil
- T1 Thermostat for monitoring the temperature of the heavy fuel oil
- T2 Thermostat for monitoring the temperature of the heavy fuel oil
- Tn Thermostat for monitoring the temperature of the heavy fuel oil
- V1 Fuel valve «V1» (heavy fuel oil only)
- V2 Fuel valve «V2»
- V3 Fuel valve «V3» (2-stage operation only)

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