Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested in accordance with the relevant requirements of the GL Type Approval System.

Certificate No. **61 881 - 14 HH**

LMV5-System consists of:

Basic unit (different parameter sets), microprocessor based burner control system for the use in oil- or gas fried combustions plants.

- **LMV51.000C2, LMV51.100C1, LMV51.100C2, LMV51.300B1, LMV51.300B2, LMV52.200B1, LMV52.200B2, LMV52.400B2**
- **LMV51.0... / LMV51.1... / LMV51.3... / LMV52.2... software version V 05.x0**
- **LMV52.4... software version V 10.x0 with additional O2 trim control**
- **Load controller: LMV51.1... optional, LMV51.3... and LMV52... load controller integrated**
- **Load controller software version V 02.x0**
- **O2-Modul software version V 01.x0**
- **Degree of protection IP X0**
- **Power supply AC 230V / 50...60Hz**

Display and operating unit AZL52... software version V 05x.0

- **Degree of protection IP 54**

Flame detectors

- **QRI... infrared flame doctors for continuous operation, degree of protection IP54**
- **QRB... photo diode for intermitted operation, degree of protection IP40**
- **QRA7... UV cell sensor for continuous operation, degree of protection IP20 – IP65**

Actuator SQM45.../ SQM48... software version V 01.x0 for air dampers and control valves of oil and gas burners

- **Torques SQM45... up to 3 Nm, SQM48... up to 20 Nm, SQM48.6... up to 35 Nm**
- **Running times SQM45... 10 ... 120 s, SQM48... 30 ... 120 s, SQM48.6... 60 ... 120 s**
- **Degree of protection IP54**

Additional Test Reports / Dokumenation:
LMV5x_GL_Funktions_und_Fehlerversuche_2013_12_12.pdf, LMVPRF_Lebensdauer.pdf 2010-04-13-LMV52-Lloyds-2002_Chapter-09_a0001.pdf, 2010-04-13-LMV52-Lloyds-2002_Chapter-08_a0001.pdf, 2010-04-21-LMV52-Lloyds-2002_Chapter-07_14_18_a0001.pdf, 2010-04-27-LMV52-Lloyds-2002_Chapter-17_a0001.pdf, 2010-04-21-LMV52-Lloyds-2002_Chapter-07_14_18_a0001.pdf, Vibration_AZL52_K003694_03_2010_M_B01.pdf, Vibration_LMV52_K003694_03_2010_M_A01_wSmnsAnnotation.pdf, Vibration_PLL52_K003694_03_2010_M_F01.pdf, Vibration_QGO20_K003694_03_2010_M_G01.pdf, Vibration_QRA7_K003694_03_2010_M_E01.pdf, Vibration_SQM45_K003694_03_2010_M_D01.pdf, Vibration_SQM48_K003694_03_2010_M_C01.pdf, 2010-04-21-LMV52-Lloyds-2002_Chapter-07_14_18_a0001.pdf, 2010-04-14-LMV52-Lloyds-2002_Chapter-19_a0001.pdf, 2010-07-08-LMV52-Lloyds-2002_Chapter_19_Bilder.pdf, GA 09 2012 E16 Rev. 01.pdf, K003694_01_2010_E_C01.pdf 2010-04-13-LMV52-Lloyds-2002_Chapter-22_a0001.pdf, 2010-04-13-LMV52-Lloyds-2002_Chapter-30_a0001.pdf, K003798_01_2010_E_A01.pdf, K003694_01_2010_E_A02.pdf, KON1_2.pdf, LMV52-250k-Test-scan.pdf

Valid until **2019-02-25**

File No. **I.A.04**

Type Approval Symbol GL GL

Hamburg, 2014-02-25

i.A. Arne Schaarmann

Andreas Andrecht

Germanischer Lloyd

This certificate is issued on the basis of "Guidelines for the Performance of Type Approvals Part 1, Procedure".

Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested in accordance with the relevant requirements of the GL Type Approval System.

Certificate No.	**61 881 - 14 HH**
Company	**Siemens AG** **IC BT CPS** **Berliner Ring 23** **76437 Rastatt, Germany**
Product Description	**Brennermanagement System**
Type	**LMV51... / LMV52...**
Environmental Category	**C; EMC2**
Technical Data / Range of Application	**Burner management system for forced draft burners with the main functions: Burner control, Electronic fuel-air ratio control for a maximum of 4 actuators for LMV51...and a maximum of 6 actuators for LMV52... Optional PID temperature or pressure controller (boiler controller / load controller) Optional VSD module.** **The system components (e.g. AZL5..., actuators) are interconnected via a bus system. Communication between the bus users takes place via a safety-related, system-bound data bus. All safety-related digital outputs of the system are permanently monitored via a contact feedback network.**
Test Standard	**Guidelines for the Performance of Type Approvals, Chapter 2- Test Requirements for Electrical / Electronic Equipment and Systems (VI-7-2), Edition 2012**
Documents	**LMV5_CC1P7550en, QRA_CC1N7712en, QRB_n7714en, QRI_CC1N7719en, SQM45_48_CC1N7814en. Test reports SW-D-AK3-neu.DOC; GA 09 2012 E16 Rev. 01 Supplementary Type test Burner Control System. Form Sheet SW-D-AK3 and further test reports as required by (VI-7-2).**
Remarks	**The requirements in accordance to EN 298:2003 (DIN EN 298:2004) and EN 230:2005 (DIN EN 230:2005) are confirmed by TüV report GA 09 2012 E16 and excluded for the Germanischer Lloyd Type approval.**

Valid until **2019-02-25**
Page 1 of 2
File No. **I.A.04**

Hamburg, 2014-02-25

Type Approval Symbol GL GL

Germanischer Lloyd

i.A. Arne Schaarmann

i.A. Andreas Andrecht

This certificate is issued on the basis of "Guidelines for the Performance of Type Approvals Part 1, Procedure".