

Type Approval Certificate

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

This certificate is issued to:

PRODUCER Siemens Building Technologies Production GmbH

PLACE OF PRODUCTION Berliner Ring 23
76437 Rastatt
Germany

DESCRIPTION Microprocessor-based burner management system with integrated fuel-air-ratio control and load control for forced draft burners

TYPES LMV51 System consisting of:

Basic unit		LMV51. ① XX(X)② XX
		Optional
LM		Burner control, microprocessor based
V		Can bus system, dual-and single-fuel burner for continuous or intermittent operation, depending on the type of flame detector, gas valve proving
51		Electronic fuel/air ratio control with up to 4 actuators
① Auxiliary function/other features	0	None
	1	Integrated digital PID boiler temperature / pressure controller Adaptation of controller characteristics (PID) Temperature Limiter Automatic adaptation of controller characteristics according to operating mode (modulating/ multistage)
	2	Same as 1 (PID controller) plus variable speed drive and fuel counter connection facility


Certificate No. 05/20005

Issue Date 24 January 2005

Expiry Date 23 January 2010

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TYPES CONTINUED

XX		Intentionally left blank
(X) : Logistic tool		A...Z
⊗ Voltage/ frequency	1	AC 120V/ 50-60 Hz
	2	AC 230V / 50 - 60 Hz
XX		Intentionally left blank
Flame Detectors:		
Infrared flame detector for continuous operation		QRI (x)xx.xxxxxxxx
(x)	2	Housing : polymeric material x = internal manufacturer's code description
or		
Flame detector photo diode for intermittent operation		QRBxx-xxxxxxx x = internal manufacturer's code description
or		
Ionization electrode for continuous operation		for gas operation preferably (according to manufacturer's specification)
Actuators (1 to 4)		SQM4 x.xxxxx x = internal manufacturer's code description
Display and operating unit		AZL5x.xx(x)xxx x = internal manufacturer's code description
		(x) : Logistic tool

APPLICATION Marine, offshore and industrial applications for use in environmental categories ENV1 and ENV2 as defined in Lloyd's Register's Type Approval System, Test Specification Number 1 - 2002.

DESIGN Manufacturer's specification

RATINGS IP54 for SQM4X and QRI
IP54 for AZL5X
IP00 for LMV5X


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ADDITIONAL TEST

Dry heat tests carried out at 60° C.
Ring wave test according to EN 61000-4-12 : 1995 and UL 372, Feb. 1995
Enclosure tests
Immunity to radiated radio frequency field according to
EN 50082- 1 : 1992, EN298 : 1993, prEN298 : 1998

OTHER CONDITIONS


Final arrangement of the system is to be in compliance with relevant
Lloyd's Register Rules and Regulations.

"This Certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid certificate."

The Design Appraisal Document No. HEC 12155-05 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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