

Technical Data ETAMATIC OEM / ETAMATIC S OEM

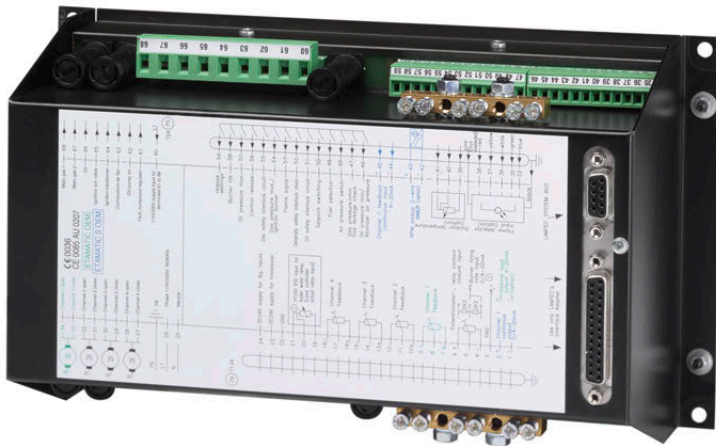


Fig. 1 ETAMATIC OEM / ETAMATIC S OEM

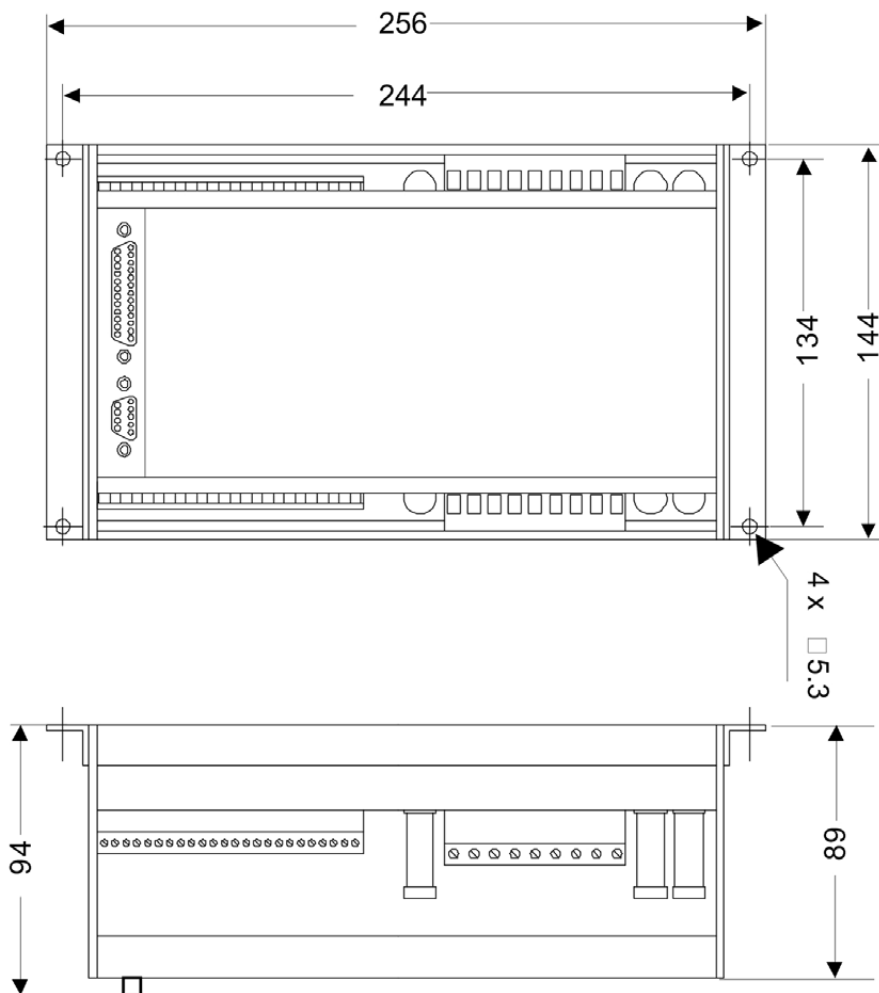


Fig. 2 Dimensional drawing ETAMATIC OEM / ETAMATIC S OEM

Technical Data ETAMATIC OEM / ETAMATIC S OEM



Fig. 3 Customer interface ETAMATIC OEM / ETAMATIC S OEM

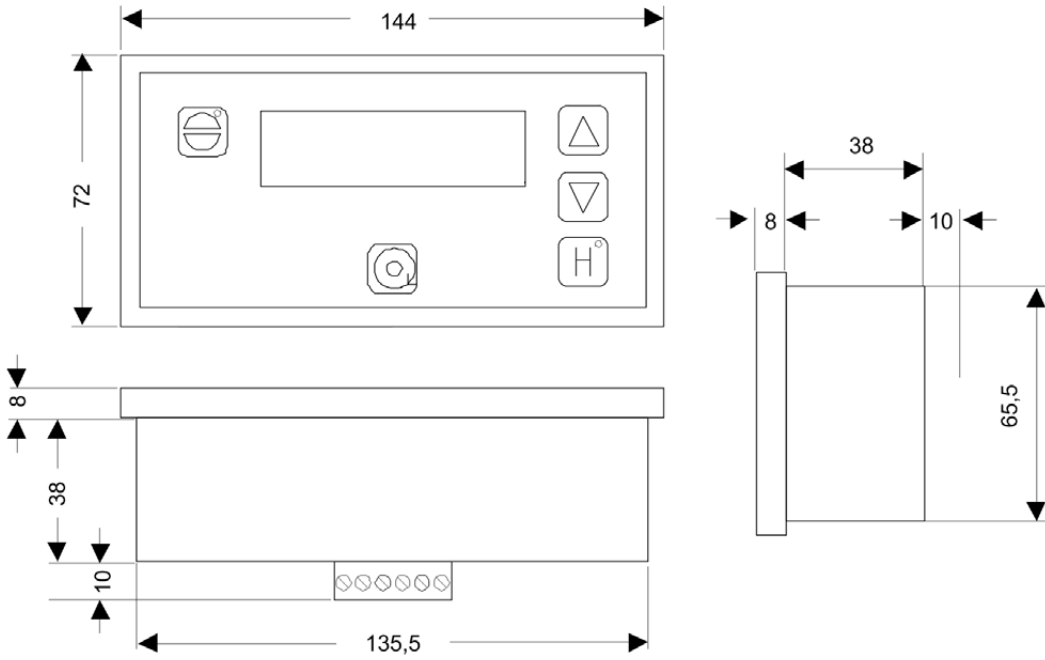


Fig. 4 Dimensional drawing customer interface ETAMATIC OEM / ETAMATIC S OEM

Technical Data ETAMATIC OEM / ETAMATIC S OEM

Dimensions	
Dimensions (HxWxD)	94x256x144 mm 3.70"x10.08"x5.67" in
Weight	3.5 kg / 7.7 lb
Input data	
Power supply	from 115 V -15 % up to 230 V +10 % 50 or 60 Hz To be used only in a grounded power line network!
Power Consumption	approx. 50 VA
Analogue outputs	
Analogue outputs	16 analogue outputs 230 V 1 analogue output (ETAMATIC S)
Control outputs	4
Continuous output	Load: 4 ... 20 mA < 600 Ω
Analogue inputs	
Analogue inputs	3 analogue inputs (all non-floating)
Load	100 Ω
Feedback inputs	Feedback TPS (tree point step) potentiometer 5 kΩ or current signal 0/4 ... 20 mA (ETAMATIC S channel 1). Option: Direct switching of NAMUR transmitter (ETAMATIC S)
Resolution each analogue input	999 digit, 10 bit
Three-point-step	Running time of the actuating drives: minimum 30 s Possible servomotors: 6 Nm 60 sec. running time to 90° Type: 662R2127 20 Nm 60 sec. running time to 90° Type: 662R2111 30 Nm 60 sec. running time to 90° Type: 662R2112 40 Nm 60 sec. running time to 90° Type: 662R2121 Other servomotors only after approval by LAMTEC. Current consumption max. 50 mA continuous current/starting current
Digital outputs	
Digital outputs	Main gas 1, main gas 2, oil valve, ignition valve, ignition transformer, fan, oil pump, fault

Technical Data ETAMATIC OEM / ETAMATIC S OEM

Digital inputs

Digital inputs	14 digital inputs 24 V
Digital signal inputs	<p>The parasitic capacitance of the lead connected to the digital inputs may not exceed 2.2 μF as a result of the ETAMATIC self-tests.</p> <p>The cable length is limited to: 100 m for ETAMATIC and 10 m for ETAMATIC OEM</p> <p>Since the digital inputs are operated with 24 VDC, suitable contacts for that voltage should be used (hard silver or gold-plated).</p>

Characteristics

Display	Customer display via LSB
Regular Firing Rate Input	<ul style="list-style-type: none">via internal burner-firing-rate controller actual valuemanual operating is possible via three-point step signalexternal burner-firing-rate controller (0/4 ... 20 mA)
Storage of setpoint value and variable data	in EEPROM typically 20 digit, usually 11 with linear interpolation
Number of curve sets	2 (e.g. for oil/gas-combination burner)
Number of program cycles	unlimited
Specification of operating status	via internal control signal

Interfaces

Interfaces	<ul style="list-style-type: none">1 serial interface on 25-pole Sub-D-connector, addressable via LAMTEC adapter only (Dongle 663P0600)(RS 232)1 interface on 9-pole Sub-D-connector LAMTEC SYSTEM BUS
Bus-connection	<p>via 9-pole Sub-D-connectorBUS card optional for the following systems:</p> <ul style="list-style-type: none">Interbus (Phoenix)PROFIBUS DPPROFINETModbus RTUEthernet

Operating Condition

Permissible Ambient Humidity	Class F, DIN 40 040
------------------------------	---------------------

Technical Data ETAMATIC OEM / ETAMATIC S OEM

Environmental Conditions		
Operation	permissible temperature range	0 ... +60 °C +32 ... 140° F (condensation is prohibited)
Transport	permissible temperature range	-25 ... +60 °C -13 ... +140 °F (condensation is prohibited)
Storage	permissible temperature range	-25 ... +60 °C -13 ... +140 °F (condensation is prohibited)
Degree of protection	according to DIN EN 60529	IP40

Further Technical Data	
ETAMATIC OEM with internal flame monitor	Connectable flame sensors type: <ul style="list-style-type: none"> • FFS07 IR (successor type for FFS05) • FFS08 IR (successor type for FFS06) • FFS07 UV (successor type for FFS05 UV) • FFS08 UV (successor type for FFS06 UV)
230 V supply	All consumers connected to the control unit are supplied via this terminal. The customer must fit a 6 A max. slow-acting fuse.
Maingas 1 term. 68	Contact for actuation of the main gas valve on the gas line side max. 1 A ¹ , cos φ = 0,4 ... 1
Maingas 2 term. 67	Contact for actuation of the main gas valve on the burner side max. 1 A*, cos φ = 0,4 ... 1
Oil term. 66	Contact for actuation of both oil valves max. 1 A*, cos φ = 0,4 ... 1
Ignition valve term. 65	Contact for actuation of the ignition valves max. 1 A*, cos φ = 0,4 ... 1
Ignition transformer term. 64	Contact for actuation of the ignition transformer max. 1 A*, cos φ = max. 0,2 ... 1
Fan (burner start) term. 63	Contact for actuation of the fan motor and all other components that have to be activated when starting max. 1 A*, cos φ = 0,8 ... 1
Fault term. 61	Contact for signalling a fault condition max. 0,5 A*, cos φ = 0,8 ... 1
Times	Pre-purge time of 1 - 999 s Safety time in operation: 1 s 1. safety time: Oil 4 s ² 1. safety time: Gas 3 s 2. safety time: Oil 4 s ³ (when starting without pilot burner = safety time) 2. safety time: Gas 3 s (when starting without pilot burner = safety time)

1 Several contacts are fed through one fuse. The sum of all the currents must not exceed the fuse's rating.

2 The applicable standards must be taken into account, as well as the reaction time of the flame guard = 1 s. This time must be deducted from the requirements of the standard.

3 The applicable standards must be taken into consideration when setting the unit. If there is no pilot burner used, this parameter contains the safety time.

Technical Data ETAMATIC OEM / ETAMATIC S OEM

NOTICE

Up to 9 mA test current is discharged through the outputs by a cyclic self-test. This self-test requires the consumers to be connected directly to the outputs. If this cannot be assured, the output must be connected to a test firing rate with the burner stationary; the firing rate can be (e.g.) a 0.15 μF capacitor with 0,15 μF / 220 Ω



WARNING!

Only passive or non-reactive equipment may be connected to the 230 V-outputs of the ETAMATIC OEM. Any 230 V supply feed to the unit via these terminals in the event of a fault must be excluded. Connect only equipment which can not be activated by the test current.

NOTICE

The limits of the technical data must be strictly adhered to.

Technical Data ETAMATIC OEM / ETAMATIC S OEM

Order Information

NOTICE

All options marked with * correspond to the standard selection.

Description / Type	Order no.
ETAMATIC OEM	66301...
A 10 – FLAME MONITORING	
EXTERNAL FLAME MONITORING VIA DIGITAL INPUT	0
INTEGRATED FLAME MONITORING for mains frequency 50 Hz Additional required: Flame sensor FFS07 order no. 659D21 or Flame sensor FFS08 order no. 659D31, as well as corresponding bracket	1
INTEGRATED FLAME MONITORING for mains frequency 60 Hz Additional required: Flame sensor FFS07 order no. 659D21 or Flame sensor FFS08 order no. 659D31, as well as corresponding bracket	2
A 20 – CONTROL BY ATMOSPHERIC CONDITION / STANDBY-OPERATION	
WITHOUT CONTROL BY ATMOSPHERIC CONDITION / STANDBY-OPERATION	0*
CONTROLLED BY ATMOSPHERIC CONDITION PCU CURRENT 4 ... 20 mA PASSIVE	1
CONTROLLED BY ATMOSPHERIC CONDITION PCU PT100 UP 320 °C / 608 °F	2
CONTROLLED BY ATMOSPHERIC CONDITION PCU POTENTIOMETER 5 kΩ	3
2 nd CORRECTION INPUT "CURRENT"	4
STANDBY-OPERATION IF LOAD CONTROLLER INTEGRATED	5
STANDBY-OPERATION, ACTIVATION VIA FIELD BUS	6
STANDBY-OPERATION, ACTIVATION VIA LSB Additional required: LSB module with 4 digital outputs, order no. 663R4028, LSB address "31" LSB connecting cable, order no. 663R0421N, please specify length when ordering	7
A 30 – CONTROL OUTPUTS / POSITION FEEDBACK	
4 x THREE-POINT STEP CONTROL OUTPUT	000
3 x THREE-POINT STEP CONTROL OUTPUT and 1x CONTINUOUS OUTPUT 4 ... 20 mA, FEEDBACK 4 ... 20 mA	001
2 x THREE-POINT STEP CONTROL OUTPUT and 2x CONTINUOUS OUTPUT 4 ... 20 mA, FEEDBACK 4...20 mA Additional required: LSB module with 4 analogue outputs 0...20 mA, order no. 663R4029, LSB address "11" LSB connecting cable, order no. 663R0421N, please specify length when ordering Terminal with 120 Ω parallel resistor 663R1192 Can be used for position feedback at LAMTEC actuators with electronic control	004
4 x THREE-POINT STEP CONTROL OUTPUT and OUTPUT OF THE INTERNAL FIRING RATE	005
4 x THREE-POINT STEP and CUSTOMER SPECIFIC SWITCH-OVER CHANNEL 1 TO 0/4 ... 20 mA	010
2 x THREE-POINT STEP CONTROL OUTPUT and 2 x CONTINUOUS OUTPUT 4 ... 20 mA, FEEDBACK 4 ... 20 mA and CUSTOMER SPECIFIC SWITCH-OVER CHANNEL 1 TO 0/4 ... 20 mA Additional required: LSB module with 4 analogue outputs 0...20 mA, order no. 663R4029, LSB address "11" LSB connecting cable, order no. 663R0421N, please specify length when ordering Terminal with 120 Ω parallel resistor 663R1192	011

Technical Data ETAMATIC OEM / ETAMATIC S OEM

A 30 – CONTROL OUTPUTS / POSITION FEEDBACK	Selection
3 x THREE-POINT STEP CONTROL OUTPUT and 1 x CONTINUOUS OUTPUT 4 ... 20 mA FEEDBACK RPM, 2-WIRE SYSTEM NAMUR, RANGE 175 ... 4.200 IMP/MIN	021*
3x THREE-POINT STEP CONTROL OUTPUT and 1 x CONTINUOUS OUTPUT 4 ... 20 mA FEEDBACK RPM, 2-WIRE SYSTEM NAMUR, RANGE 355 ... 8.430 IMP/MIN	022
3 x THREE-POINT STEP CONTROL OUTPUT and 1 x CONTINUOUS OUTPUT 4 ... 20 mA FEEDBACK RPM, 2-WIRE SYSTEM NAMUR, RANGE 15 ... 440 IMP/MIN	023
3 x THREE-POINT STEP CONTROL OUTPUT and 1 x CONTINUOUS OUTPUT 4 ... 20 mA FEEDBACK RPM, 2-WIRE SYSTEM NAMUR, RANGE 45 ... 1.320 IMP/MIN	024
3 x THREE-POINT STEP CONTROL OUTPUT and 1 x CONTINUOUS OUTPUT 4 ... 20 mA FEEDBACK RPM, 3-WIRE SYSTEM INDUCTIVE, RANGE 175 ... 4.200 IMP/MIN	21D
3 x THREE-POINT STEP CONTROL OUTPUT and 1 x CONTINUOUS OUTPUT 4 ... 20 mA FEEDBACK RPM, 3-WIRE-SYSTEM INDUCTIVE, RANGE 355 ... 8.430 IMP/MIN	22D
3 x THREE-POINT STEP CONTROL OUTPUT and 1 x CONTINUOUS OUTPUT 4 ... 20 mA FEEDBACK RPM, 3-WIRE-SYSTEM INDUCTIVE, RANGE 15 ... 440 IMP/MIN	23D
3 x THREE-POINT STEP CONTROL OUTPUT and 1 x CONTINUOUS OUTPUT 4 ... 20 mA FEEDBACK RPM, 3-WIRE SYSTEM INDUCTIVE, RANGE 45 ... 1.320 IMP/MIN	24D
2 x THREE-POINT STEP CONTROL OUTPUT and 2 x CONTINUOUS OUTPUT 4 ... 20 mA FEEDBACK FOR 1 st CONTINUOUS OUTPUT: RPM, 2-WIRE SYSTEM NAMUR, RANGE 175 ... 4.200 IMP/MIN Additional required: LSB module with 4 analogue outputs 0 ... 20 mA, order no. 663R4029, LSB address "11" LSB connecting cable, order no. 663R0421N, please specify length when ordering Terminal with 120 Ω parallel resistor 663R1192 Can be used for position feedback at LAMTEC actuators with electronic control.	031
2 x THREE-POINT STEP CONTROL OUTPUT and 2 x CONTINUOUS OUTPUT 4 ... 20 mA FEEDBACK FOR 1 st CONTINUOUS OUTPUT: RPM, 3-WIRE SYSTEM INDUCTIVE, RANGE 175 ... 4.200 IMP/MIN Additional required: LSB module with 4 analogue outputs 0 ... 20 mA, order no. 663R4029, LSB address "11" LSB connecting cable, order no. 663R0421N, please specify length when ordering Terminal with 120 Ω parallel resistor 663R1192 Can be used for position feedback at LAMTEC actuators with electronic control.	31D
A 40 – CUSTOMER CODE	Selection
STANDARD	S*
A 50 – CONNECTOR SET	Selection
CONNECTOR SET "SCREW TERMINAL" STANDARD Pluggable terminal, cable entry straight, screw 90° angled	S*
STECKERSATZ "SCREW TERMINAL" INVERTED Pluggable terminal, cable entry 90° angled, screw straight	INV
STECKERSATZ "SPRING TERMINAL" Pluggable terminal, cable entry and spring level straight	FED
WITHOUT CONNECTOR SET	0
A 60 – OUTPUT FAULT RELAY	Selection
OUTPUT RELAY FAULT NORMALLY OPEN	AP*
OUTPUT RELAY FAULT NORMALLY CLOSED	RP

Technical Data ETAMATIC OEM / ETAMATIC S OEM

A 70 – OPTIONS	Selection
WITHOUT OPTIONS	00*
CURVE SWITCHING UNDER OPERATION WITHIN A FUEL**	01

A 80 – SPECIAL CONFIGURATION	Selection
WITHOUT SPECIAL CONFIGURATION	z0*
CONFIGURATION BY ORDER	01

** Only at ETAMATIC with curve set 2x oil or 2x gas

Approvals



The information in this publication is subject to technical changes.



**LAMTEC Meß- und Regeltechnik
für Feuerungen GmbH & Co. KG**

Josef-Reiert-Straße 26

D-69190 Walldorf

Telefon: +49 (0) 6227 6052-0

Telefax: +49 (0) 6227 6052-57

info@lamtec.de
www.lamtec.de

