

Technical Data ETAMATIC OEM / ETAMATIC S OEM



Fig. 1 ETAMATIC OEM / ETAMATIC S OEM

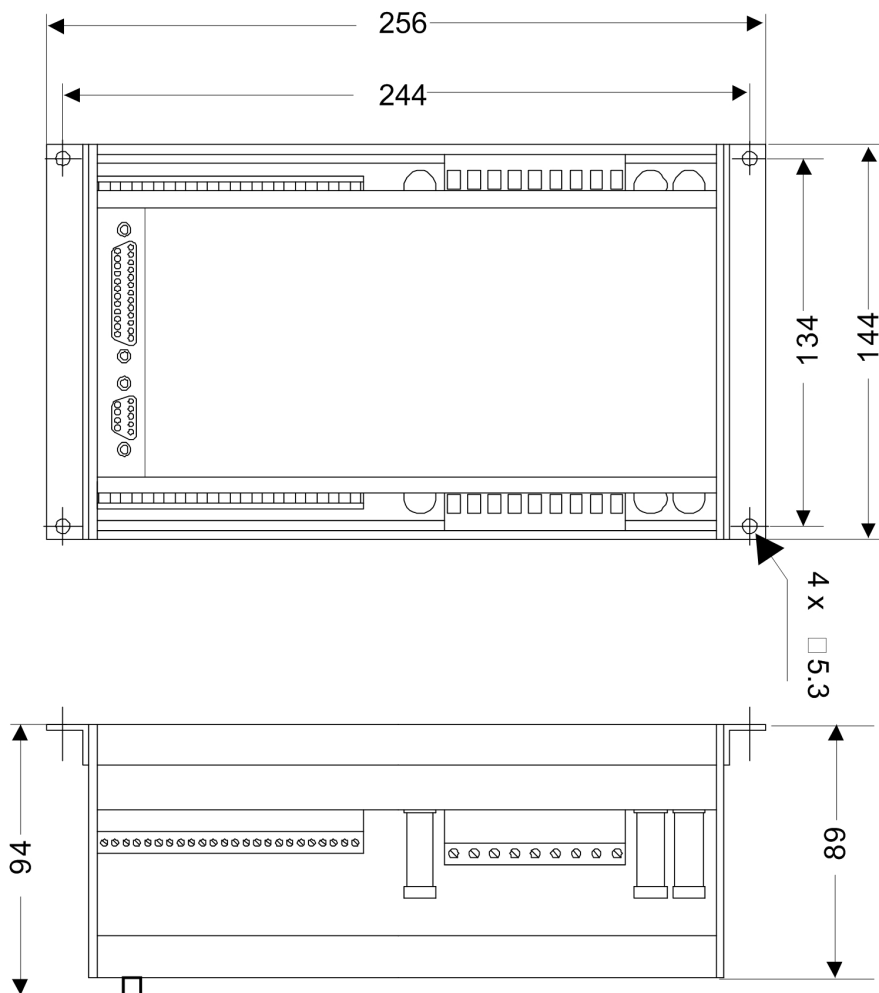


Fig. 2 Dimensional drawing ETAMATIC OEM / ETAMATIC S OEM

Technical Data ETAMATIC OEM / ETAMATIC S OEM

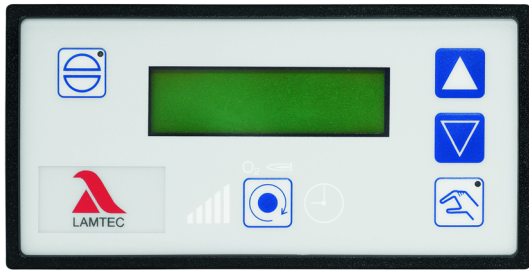


Fig. 3 Customer interface ETAMATIC OEM / ETAMATIC S OEM

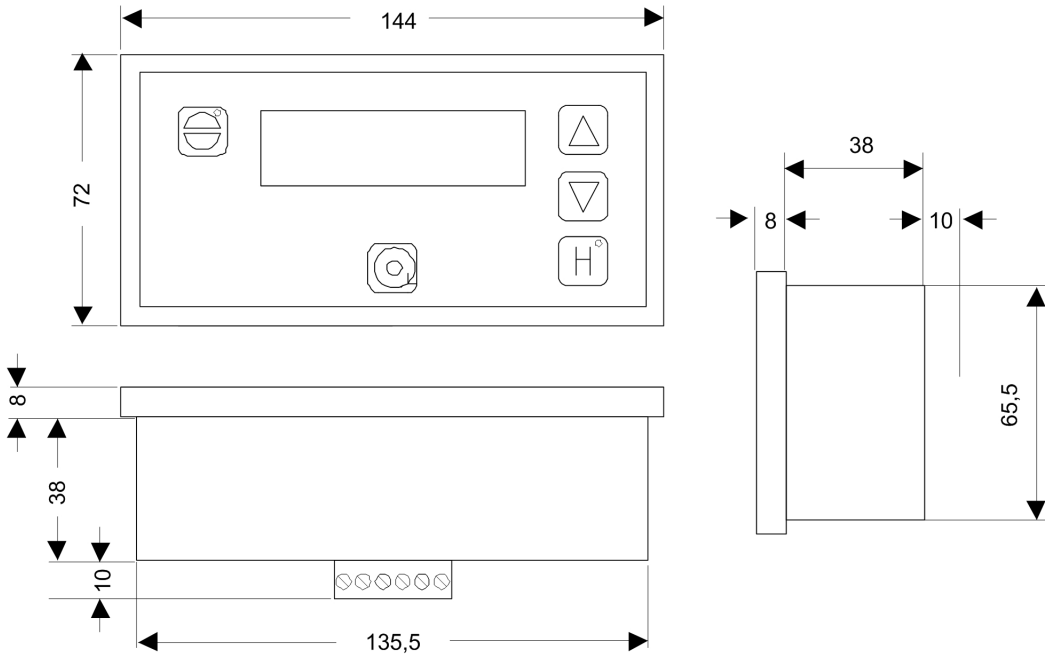


Fig. 4 Dimensional drawing customer interface ETAMATIC OEM / ETAMATIC S OEM

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 value manual operating is possible via three-point step signal external 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		via 9-pole Sub-D-connector BUS card optional for the following systems: <ul style="list-style-type: none"> Interbus (Phoenix) PROFIBUS DP PROFINET Modbus RTU Ethernet
Operating Condition		
Permissible Ambient Humidity		Class F, DIN 40 040
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)

Technical Data ETAMATIC OEM / ETAMATIC S OEM

Environmental Conditions		
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)	

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

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.

Technical Data ETAMATIC OEM / ETAMATIC S OEM

NOTICE

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

Order Information

NOTICE

All options marked with * correspond to the standard selection.

Description / Type	Order no.
ETAMATIC OEM	663O1...
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

Technical Data ETAMATIC OEM / ETAMATIC S OEM

A 30 – CONTROL OUTPUTS / POSITION FEEDBACK	Selection
<p>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</p> <p>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</p>	011
<p>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</p>	021*
<p>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</p>	022
<p>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</p>	023
<p>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</p>	024
<p>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</p>	21D
<p>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</p>	22D
<p>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</p>	23D
<p>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</p>	24D
<p>2 x THREE-POINT STEP CONTROL OUTPUT and 2 x CONTINUOUS OUTPUT 4 ... 20 mA FEEDBACK FOR 1st CONTINUOUS OUTPUT: RPM, 2-WIRE SYSTEM NAMUR, RANGE 175 ... 4.200 IMP/MIN</p> <p>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</p> <p>Can be used for position feedback at LAMTEC actuators with electronic control.</p>	031
<p>2 x THREE-POINT STEP CONTROL OUTPUT and 2 x CONTINUOUS OUTPUT 4 ... 20 mA FEEDBACK FOR 1st CONTINUOUS OUTPUT: RPM, 3-WIRE SYSTEM INDUCTIVE, RANGE 175 ... 4.200 IMP/MIN</p> <p>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</p> <p>Can be used for position feedback at LAMTEC actuators with electronic control.</p>	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

Technical Data ETAMATIC OEM / ETAMATIC S OEM

A 60 – OUTPUT FAULT RELAY	Selection
OUTPUT RELAY FAULT NORMALLY OPEN	AP*
OUTPUT RELAY FAULT NORMALLY CLOSED	RP

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 GmbH & Co. KG

Josef-Reiert-Straße 26
69190 Walldorf
GERMANY

Telefon: +49 (0) 6227 6052-0
Telefax: +49 (0) 6227 6052-57

info@lamtec.de
www.lamtec.de

