

Technical Data ETAMATIC



Fig. 1 ETAMATIC

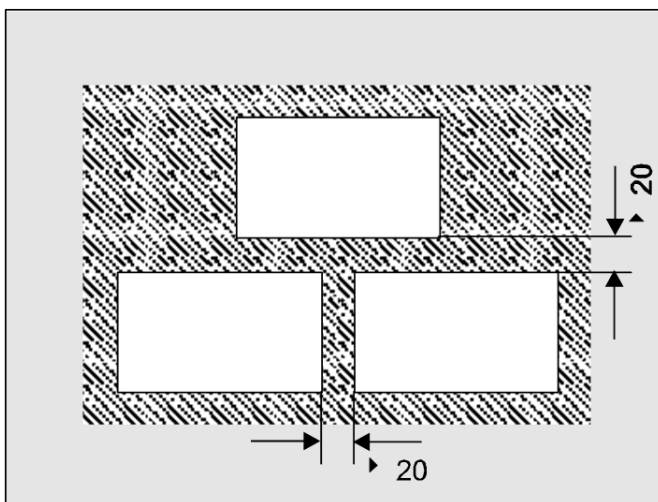


Fig. 2 Minimum distances in the case of several cut-outs

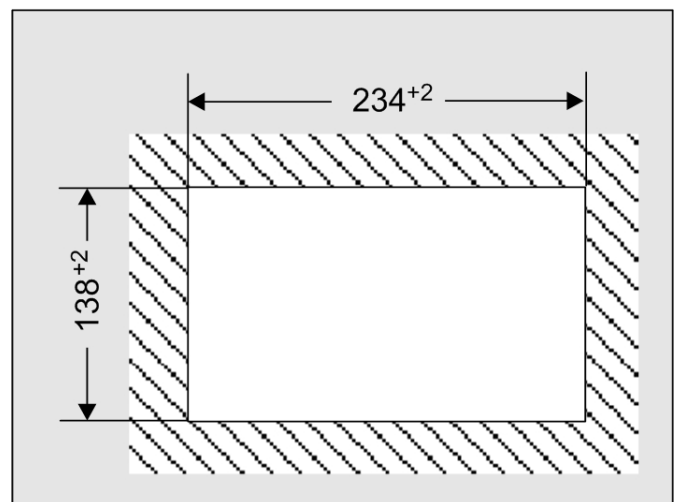


Fig. 3 Single cut-out

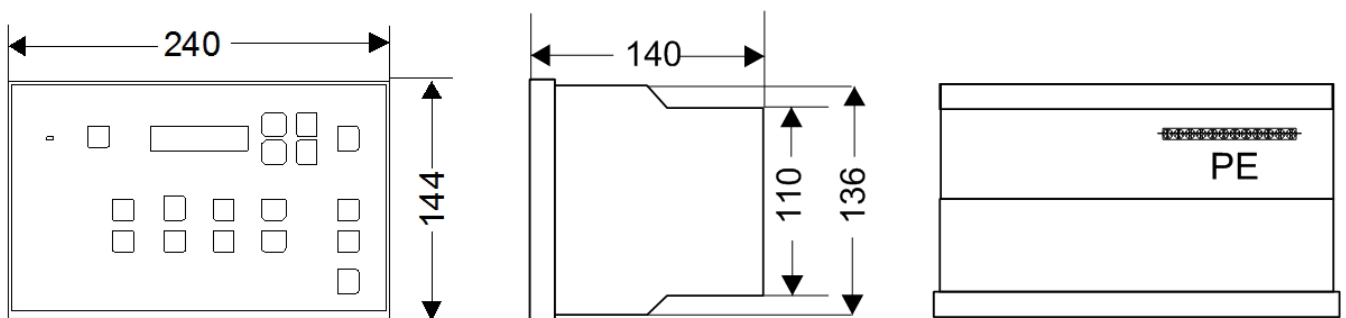


Fig. 4 views ETAMATIC

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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 (three point step) potentiometer 5 k Ω 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
Digital inputs	
Digital inputs	14 digital inputs 24 V
Digital signal inputs	The parasitic capacitance of the lead connected to the digital inputs may not exceed 2.2 μ F as a result of the ETAMATIC self-tests. The cable length is limited to: 100 m for ETAMATIC and 10 m for ETAMATIC OEM Since the digital inputs are operated with 24 VDC, suitable contacts for that voltage should be used (hard silver or gold-plated).

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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-connectorBUS card optional for the following systems: <ul style="list-style-type: none">• Interbus (Phoenix)• PROFIBUS DP• PROFINET• Modbus RTU• Ethernet

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Order Information

NOTICE

All options marked with * correspond to the standard selection.

Description/Type	Order-No.
ETAMATIC	663R1...
A10 - FLAME MONITORING	Selection
EXTERNAL FLAME MONITORING VIA DIGITAL INPUT	0
INTEGRATED FLAME MONITORING for power frequency 50 Hz Additional required: Flame sensor FFS07, order no. 659D21 Flame sensor FFS08, order no. 659D31, as well as corresponding bracket	1
INTEGRIERTE FLAMMENÜBERWACHUNG for power frequency 60 Hz Additional required: Flame sensor FFS07, order no. 659D21 Flame sensor FFS08, order no. 659D31, as well as corresponding bracket	2
A 20 – CONTROL BY ATMOSPHERIC CONDITION / STANDBY-OPERATION	Selection
WITHOUT CONTROLLED BY ATMOSPHERIC CONDITION / STANDBY-OPERATION	0*
CONTROLLED BY ATMOSPHERIC CONDITION BURNER FIRING-RATE CONTROLLER CURRENT 4 ... 20 mA PASSIV	1
CONTROLLED BY ATMOSPHERIC CONDITION BURNER FIRING-RATE CONTROLLER PT100 UP TO 320 °C	2
CONTROLLED BY ATMOSPHERIC CONDITION BURNER FIRING-RATE CONTROLLER POTENTIOMETER 5 kΩ	3
2nd 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 inputs, order no. 663R4028, LSB-address „31“ LSB-connecting cable, order no. 663R0421N, please specify length when ordering	7

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A 30 – CONTROL OUTPUTS / POSITION FEEDBACK	Selection
4x THREE-POINT-STEP CONTROL OUTPUT	000
3x THREE-POINT-STEP CONTROL OUTPUT and 1x CONTINUOUS OUTPUT 4 ... 20 mA, FEEDBACK 4 ... 20 mA	001
2x 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 controlling	004
4x THREE-POINT-STEP CONTROL OUTPUT and OUTPUT OF THE INTERNAL FIRING RATE	005
4x THREE-POINT-STEP CONTROL OUTPUT and CURVE SPECIFIC SWITCHOVER CHANNEL 1 to 0/4 ... 20 mA	010
2x THREE-POINT-STEP CONTROL OUTPUT and 2x CONTINUOUS OUTPUT 4 ... 20 mA, FEEDBACK 4 ... 20 mA and CURVE SPECIFIC SWITCHOVER 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
3x THREE-POINT-STEP CONTROL OUTPUT and 1x 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 1x CONTINUOUS OUTPUT 4 ... 20 mA FEEDBACK RPM, 2-WIRE-SYSTEM NAMUR, RANGE 355 ... 8.430 IMP/MIN	022
3x THREE-POINT-STEP CONTROL OUTPUT and 1x CONTINUOUS OUTPUT 4 ... 20 mA FEEDBACK RPM, 2-WIRE-SYSTEM NAMUR, RANGE 15 ... 440 IMP/MIN	023
3x THREE-POINT-STEP CONTROL OUTPUT and 1x CONTINUOUS OUTPUT 4 ... 20 mA FEEDBACK RPM, 2-WIRE-SYSTEM NAMUR, RANGE 45 ... 1.320 IMP/MIN	024
3xTHREE-POINT-STEP CONTROL OUTPUT and 1x CONTINUOUS OUTPUT 4 ... 20 mA FEEDBACK RPM, 3-WIRE-SYSTEM INDUCTIVE, RANGE 175 ... 4.200 IMP/MIN	21D
3x THREE-POINT-STEP CONTROL OUTPUT and 1x CONTINUOUS OUTPUT 4 ... 20 mA FEEDBACK RPM, 3-WIRE-SYSTEM INDUCTIVE, RANGE 355 ... 8.430 IMP/MIN	22D
3x THREE-POINT-STEP CONTROL OUTPUT and 1x CONTINUOUS OUTPUT 4 ... 20 mA FEEDBACK RPM, 3-WIRE-SYSTEM INDUCTIVE, RANGE 15 ... 440 IMP/MIN	23D
3x THREE-POINT-STEP CONTROL OUTPUT and 1x CONTINUOUS OUTPUT 4 ... 20 mA FEEDBACK RPM, 3-WIRE-SYSTEM INDUCTIVE, RANGE 45 ... 1.320 IMP/MIN	24D
2x THREE-POINT-STEP CONTROL OUTPUT and 2x CONTINUOUS OUTPUT 4 ... 20 mA FEEDBACK FOR 1st 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 controlling	031
2x THREE-POINT-STEP CONTROL OUTPUT and 2x CONTINUOUS OUTPUT 4 ... 20 mA FEEDBACK FOR 1st 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 controlling	31D

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A 35 – CO/O₂-CONTROL	Selection
WITHOUT CO/O ₂ -CONTROL	r0
O ₂ -CONTROL VIA LSB Additional required: LSB-connecting cable, length 2 m	r1*
O ₂ -CONTROL VIA LSB WITH EXTERNAL O ₂ -VALUE (EXTERNAL SYSTEM) Additional required: LSB-connecting cable, order no. 663R0421N, please specify length when ordering LSB-module with 4 analogue inputs 0 ... 10 VDC, order no. 663R4026, LSB-address „39“ Isolation amplifier input 4 ... 20 mA / output 2 ... 7 VDC, order no. 655R0101/EXT2	r2
CO/O ₂ -CONTROL Additional required: LSB-connecting cable, order no. 663R0421N, please specify length when ordering	r3
O ₂ -CONTROL AND CORRECTION FORWARDING MASTER Additional required: LSB-connecting cable, order no. 663R0421N, please specify length when ordering	r4
O ₂ -CONTROL AND CORRECTION FORWARDING SLAVE Additional required: LSB-connecting cable, order no. 663R0421N, please specify length when ordering If field bus-module is present: configuration-adapter, order no. 657R0817	r5
CO/O ₂ -CONTROL AND CORRECTION FORWARDING MASTER Additional required: LSB-connecting cable, order no. 663R0421N, please specify length when ordering	r6
CO/O ₂ -CONTROL AND CORRECTION FORWARDING SLAVE Additional required: LSB-connecting cable, order no. 663R0421N, please specify length when ordering If field bus-module is present: configuration-adapter, order no. 657R0817	r7

A 40 – CUSTOMER CODE	Selection
STANDARD	S*
CUSTOMER CODE Presentation of the logo as (.jpg, .bmp or .gif). One-time costs for preparation of the manuscript	XY

A 50 – CONNECTOR SET	Selection
CONNECTOR SET "SCREW TERMINAL" STANDARD Pluggable terminal blocks, cable entry straight, screw 90° angled	S*
CONNECTOR SET "SCREW TERMINAL" INVERS Pluggable terminal blocks, cable entry 90° angled, screw straight	INV
CONNECTOR SET "SPRING TERMINAL" Pluggable terminal blocks, cable entry and spring lever straight	FED
WITHOUT CONNECTOR SET	0

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

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

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

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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

