

Technical Data ETAMATIC



Fig. 1-1 ETAMATIC

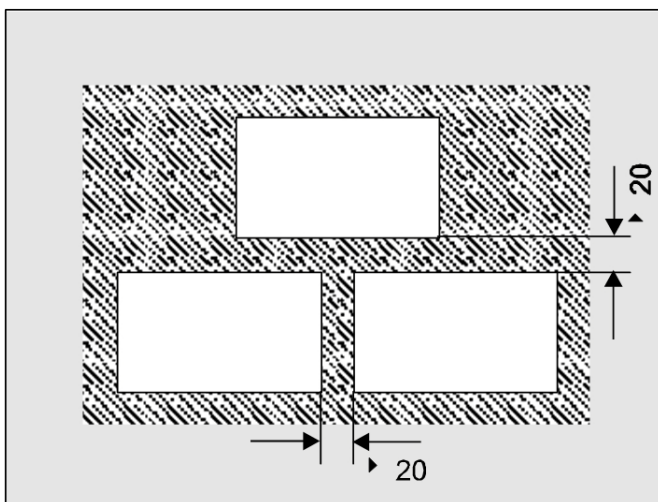


Fig. 1-2 Minimum distances in the case of several cut-outs

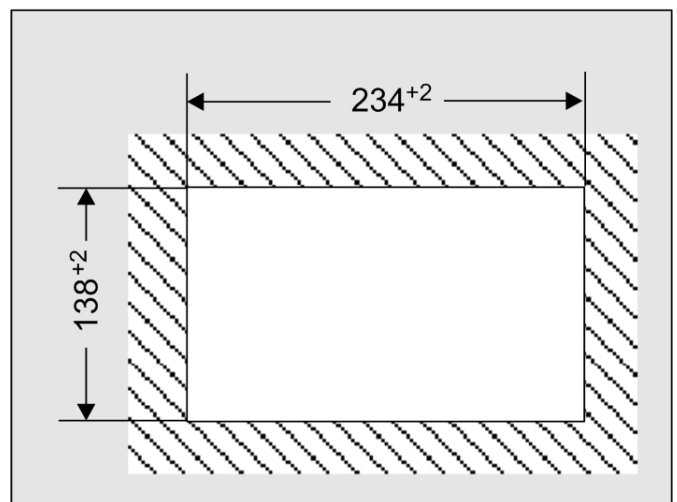


Fig. 1-3 Single cut-out

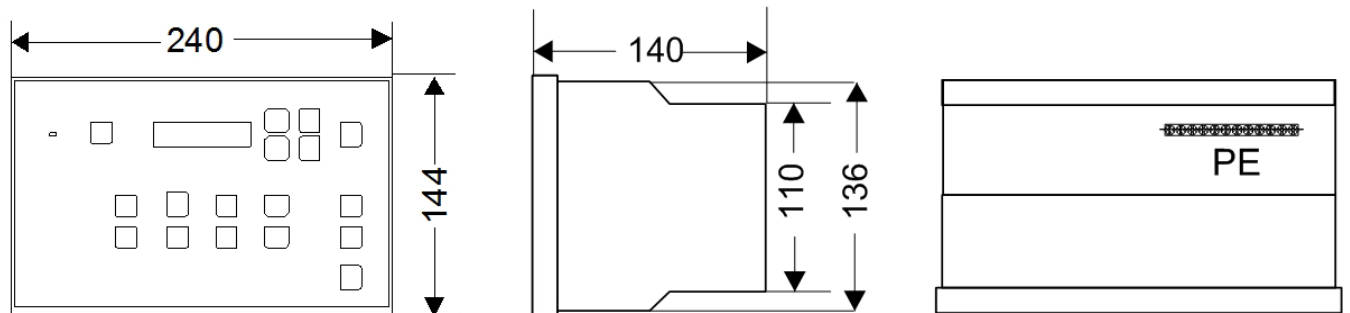


Fig. 1-4 views ETAMATIC

Technical Data ETAMATIC

Dimensions

Dimensions (HxWxD)	144x240x142 mm/5.67"x9.45"x5.59" in
Installation depth	125 mm/4.92" in
Weight	2,3 kg/5.07 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 (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: 30 s ... 60 s Possible servomotors: 6 Nm 60 sec. running time to 90° Type: 662R2127 19 Nm 60 sec. running time to 90° Type: 662R2111/N 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 lead length should be limited to 100 m. Since the digital inputs are for 24VDC, suitable contacts for that voltage should be used (hard silver or goldplated).

Technical Data ETAMATIC

Characteristics

Display	alphanumeric display, 2 rows with 16 digit each
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 mV)
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
Bus-connection	via 9-pole Sub-D-connectorBUS card optional for the following systems: <ul style="list-style-type: none"> Interbus (Phoenix) CAN-Bus (CANopen) PROFIBUS DP Modbus RTU Ethernet

Operating condition

Ambient temperature	Operation: 0 °C ... +60 °C/32 °F ... +140 °F Transport and storage: -25 °C ... +60 °C/-13 °F ... +140 °F
Permissible Ambient Humidity	Class F, DIN 40 040
Protection Class	IP54 (with sealing against cabinet door), otherwise IP20

Technical Data ETAMATIC

Order Information

663R1-	A10 FLAME MONITORING	A20 CONTROL BY ATMOS. CONDITION, STANDBY- OPERATION	A30 CONTROL OUTPUTS, POS. FEEDBACK	A35 CO/O2- CONTROL	A40 CUSTOMER LOGO	A50 CONNECTOR SET	A60 OUTPUT FAULTRELAY	A70 OPTIONS	A80 SPECIAL CONFIGU- RATION
---------------	-----------------------------------	---	---	---------------------------------	--------------------------------	--------------------------------	------------------------------------	-----------------------	---

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 PAS-SIV	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

* (Default setting)

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*

Technical Data ETAMATIC

A 30 – CONTROL OUTPUTS / POSITION FEEDBACK

	Selection
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

* (Default setting)

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

Technical Data ETAMATIC

A 35 – CO/O₂-CONTROL	Selection
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

* (Default setting)

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

* (Default setting)

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

* (Default setting)

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

* (Default setting)

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

* (Default setting)

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

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

* (Default setting)

Approvals



The information in this publication is subject to technical changes.

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

Wiesenstraße 6
D-69190 Walldorf

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

info@lamtec.de
www.lamtec.de

