

**kiwa**

Partner for progress

Numero / Number	I 7800	Sostituisce / Replaces	--
Emessa / Issued	29/07/2008	Scopo / Scope	Directive 90/396/CEE
		Allegato / Annex	4 pagine / pages

Rapporto / Report: 301227

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Kiwa Italia certifica che
Kiwa Italia hereby declares that

i prodotti riportati nelle pagine seguenti, costruiti da
the products mentioned in the following pages, made by

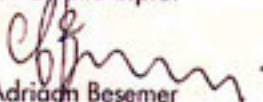
ESA S.r.l.

di / in Curno (BG), Italia

soddisfano i requisiti riportati nella
meet the essential requirements as described in the
Direttiva Apparecchi a Gas (90/396/CEE)
Directive on appliances burning gaseous fuels (90/396/CEE)

La conformità è basata sull'esame della EN 298 (settembre 2003)
The compliance is based on examination to EN 298 (September 2003)

Kiwa Italia S.p.a.


Adriano Besemer
Amministratore delegato

E' permessa la pubblicazione del certificato.
Publication of the certificate is allowed.

Kiwa Italia S.p.a.

Sede Legale:
Via G. Carducci, 5
20123 MilanoSede Amministrativa e operativa:
Via Treviso, 32/34
31020 San Vendemiano (TV)**GASTEC**

Notified Body

0694



Numero / Number 17800 Sostituito / Replaces --
Emesso / Issued 29/07/2008 Scopo / Scope Directive 90/396/CEE
Allegato / Annex 4 pagine / pages

Rapporto / Report : 301227

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sistemi di controllo fiamma automatico, tipo
automatic burner control system, type

Marchio / trade mark: **ESA**
Serie/ series: **ESTRO**

Fare riferimento alle pagine allegate per la lista completa dei modelli
Refer to next pages for complete models list

costruiti da /

made by **ESA S.r.l.**
di / in **Curno (BG), Italia**

NIP/ PIN : 0694BT1227
Rapporto / report : 301227

I suddetti prodotti sono stati approvati per
Mentioned products have been approved for

Tutti i paesi EU / All EU countries and EFTA paesi/countries

Kiwa Italia S.p.a.

Sede Legale:
Via G. Carducci, 5
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Sede Amministrativa e operativa:
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31020 San Vendemiano (TV)

GASTEC

Notified Body

0694



Costruttore/ *Manufacturer* **ESA S.r.l.**
Curno (BG), Italia

Tipo apparecchiature/ *Appliances type* **sistemi di controllo fiamma automatico**
automatic burner control system

Rapporto di conformità tecnica nr. / **301227**
Test report no.

Marchio / *trade mark*: **ESA**
Serie/ *series*: **ESTRO**

Fare riferimento alle pagine allegate per la lista completa dei modelli
Refer to next pages for complete models list

La conformità è basata sull'esame della EN 230 (Giugno 2005)
The compliance is based on examination to EN 230 (June 2005)

I suddetti prodotti sono stati approvati per
Mentioned products have been approved for

Tutti i paesi EU / *All EU countries and EFTA paesi/countries*

Allegato: 4 pagine/ *Annex: 4 pages*

San Vendemiano, **29 Luglio 2008**
San Vendemiano, 29 July 2008


Adriano Besemer
Amministratore delegato

EC type-examination certificate I7800 – Annex 1



Kiwa Italia S.p.a.

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Information on the EC type-examination certificate, issued by
Kiwa Italia S.p.a.

Registered office in Via G. Carducci, 5 20123 Milano, Italy

Administrative and operational office in Via Treviso 32/34, I-31020 San Vendemiano (TV), Italy

File no.: 0694/ I7800/301227

dated: July 2008

ESA S.r.l. automatic burner control system(s), Type ESTRO.

Scope:

The ESA S.r.l. automatic burner control system(s), Type ESTRO, are intended for use on gas fired appliances and non-permanent operation, as stated in clause 9 of EN 298. The control(s) are provided with an enclosure and they are intended for installation within an environment or enclosure, meeting the requirements of EN 60730-1 (2000) in order to provide pollution degree 1 or 2.

List of all available types:

ESTRO

The ESA automatic burner control system denominations are generated by the below listed parts:

Family Version Options

Family	Version	Options
ESTRO	(1)	(2)(3)(4)(5)(6)(7)(8)(9)(10)(11)(12)(13)(14)(15)(16) (17)(18)(19)(20)(21)(22)(23)(24)(25)(26)(27)(28)(29)

Version description

(1) Type version :

A2 : Estro A
B2 : Estro B
C2 : Estro C
Q2 : Estro Q

Options description

(2) Cycle start :

A : Autostart
S : Stand-by

(3) Prepurge time :

xx1 : n (n = 0 – 99 s)
2M : 2 minutes
3M : 3 minutes
4M : 4 minutes

(4) First safety time:

xx1 : n (n = 0 – 25s)

(5) Regulation delay time - second safety time :

xx : n (n = 0 – 25s)

(6) Pilot burner type :

C : intermittent
D : interrupted

¹ depending on programming parameters

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- (7) Behaviour due to flame failure :
- N : lockout
Y : recycling
K : spark restoration
R : recycling (1x)
S : spark restoration (1x)
- (8) Supply voltage :
- 1 : 115 Vac
2 : 230 Vac
- (9) Post-purge flex :
- / : not active
F : active
- (10) Post-purge time :
- xx : n (n = 0 – 99 s)
2M : 2 minutes
3M : 3 minutes
4M : 4 minutes
- (11) 24 hours test :
- D : active
/ : not active
- (12) Air flow control type :
- C : Continue
D : Discontinue
P : Pulse
R : Remote
- (13) Digital input function :
- / : not active
B : reset/stop
S : stop
U : reset
T : thermostat
H : activated high temperature function
M : main function on/off
A : air function on/off
- (14) Lockout output :
- F : fault
B : fault/stop
- (15) Local button :
- B : reset/stop
R : reset/stop enabled by remote control
S : only stop
U : only reset
- (16) Automatic reset :
- x : Number of trial (x = 0 – 9)
- (17) High temperature function :
- / : not active
H : active
- (18) Safety time (TS) :
- / : TS fixed
S : TS variable
- (19) Reaction time :
- x : 0 – 9 s
y : A – K (10 – 20 s)

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(20) Communication time out :

0 :	0 s
1 :	8 s
2 :	16 s
3 :	32 s
4 :	64 s
5 :	128 s
6 :	256 s
7 :	320 s
8 :	400 s
9 :	480 s

(21) Communication Baudrate :

4 :	4800
9 :	9600
1 :	19200
3 :	38400

(22) Type of communication protocol :

E :	ECS type
1 :	MODBUS 1
2 :	MODBUS 2

(23) Not used, available

(24) Not used, available

(25) Special version:

/ :	standard
T :	internal igniter transformer
C :	pre-wired
A :	Esa trafo coupled **
2 :	expansion EXP-2
3 :	expansion EXP-3
4 :	expansion EXP-4

For expansion EXP-2:

(26) Supply voltage :

1 :	115 Vac
2 :	230 Vac
4 :	24 Vac
/ :	not present

(27) Air pressure switch :

/ :	not active
H :	wait
L :	lockout no air

(28) Thermostat input:

/ :	not active
T :	active

(29) Air damper input:

/ :	not active
R :	remote
L :	local

For expansion EXP-3: see user manual E7015

For expansion EXP-4: see user manual E7016

** = Special version, not separately tested/approved

ALLEGATO - ANNEX

EC type-examination certificate I7800 – Annex 1



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Specifications:

Electrical supply:	230 Vac 50-60 Hz. 115 Vac 50-60 Hz
Ambient Temperature:	0 °C to +60 °C.
IP protection degree:	IP 54
Flame detection:	Ionisation or ESA UV-2
Applied technology:	Complex Electronics

Outputs:

Gas valve output:	230 Vac / max 1.5 A 115 Vac / max 1.5 A
Gas valve pilot output (if applicable):	230 Vac / max 1.5 A 115 Vac / max 1.5 A
Fan output:	230 Vac / max 1.5 A 115 Vac / max 1.5 A

see note #1

Times:

Pre-purge time:	0 - 255 s
Safety time:	1 - 25 s
Post-purge time:	0 - 255 s
Reaction time	1 - 20s
Main burner stabilization time (if applicable):	1 - 25 s

see note #2

Behaviour after flame failure:

Non-volatile lockout, Recycling (1x), or Spark restoration, depending on programming parameters

Special conditions:

- The automatic burner control systems, type ESTRO..., is intended to manage the remote reset function via serial communication interface ECS. The remote control unit (PC or PLC and its interface circuit) isn't included in this examination and this aspect has to be examined and assessed as part of the appliance/installation approval.
- The expansion cards types EXP2, EXP3 and EXP4 are intended to manage non-safety relevant inputs, outputs and signals. The only exception is the APS input, physically placed on the EXP2 card but directly managed by the automatic burner control ESTRO.

note #1: max. total current of all outputs together is 4 A

note #2: safety relevant times and parameters can be programmed by the manufacturer only, and are printed on the label of the unit

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