



Heavy Duty Gas Igniter

**Maximum heat release: 45 kW (150,000 BTU/hr),
Compact design with spark transformer and
ionisation flame monitor in
EC-tested and approved design
II 3 G EEx nC IIC T5, PTB- and ATEX approved
suitable for applications in Zone 2**

Model ZXAP...
for intermittent operation

Model ZXDAP...
for continuous operation

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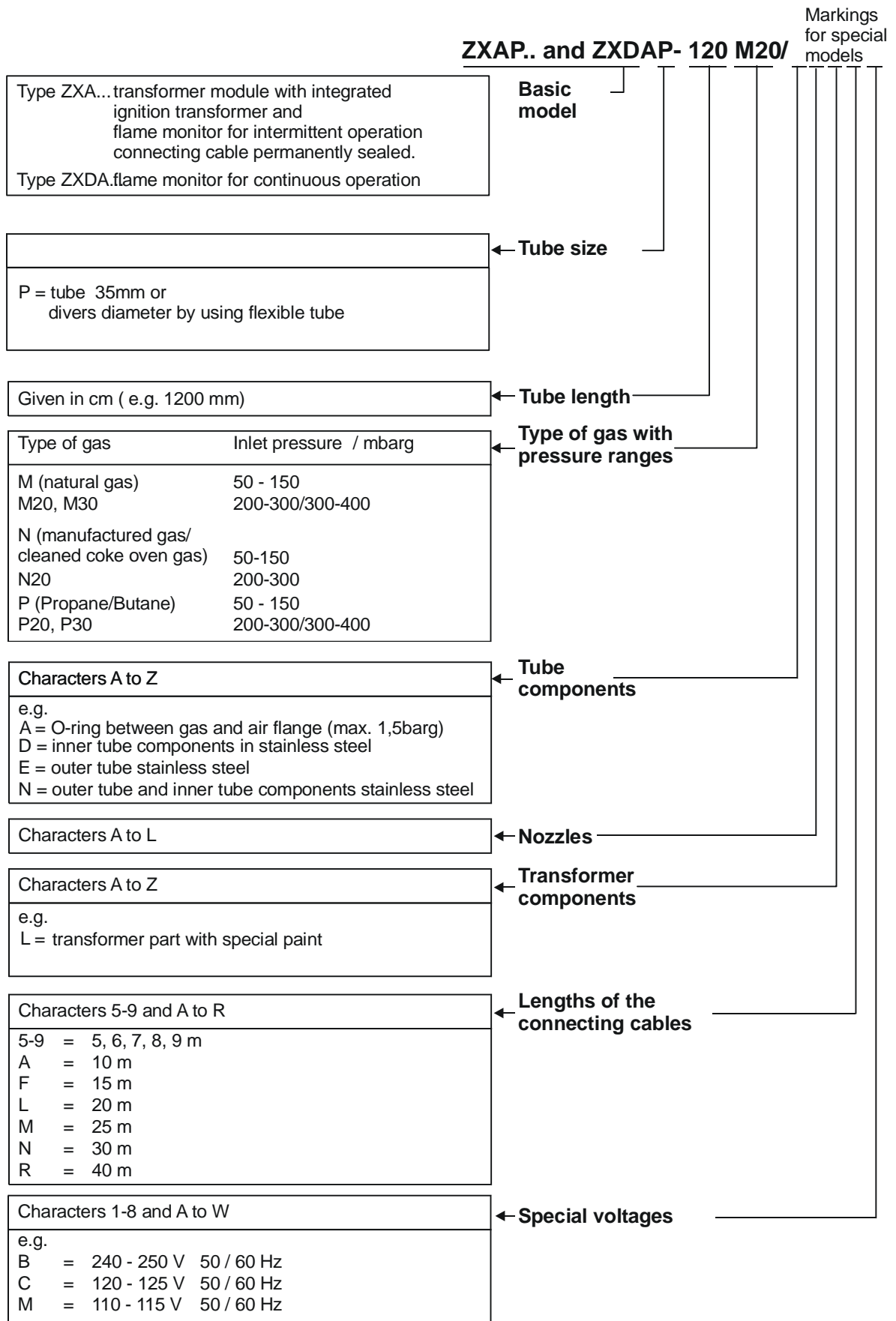
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Note

- ***Please read this manual and adhere to it when making use of the device***
- ***Installation and maintenance procedures may only be carried out by authorized personnel***
- ***All local regulations and the prevailing codes of practice must be observed during installation.***
- ***Improper installation, alignment and maintenance, as well as modifications by the customer, can all lead to personal injury or property damage, as well as loss of warranty!***

1. Part Numbering System

The example below shows how the most important igniter information is incorporated into the part number:



2. Technical Data

Burner Part

Heat release	max. 45 kW (150,000 BTU/hr)
Flame length.....	max. 400 - 500 mm (approx. 18")
Tube length.....	lengths available from 240 –15,000 mm, in 10 mm increments
Gas connection.....	1/2", from left or right (design pressure max. 10bar)
Air connection.....	1", may be rotated in increments of 90°
Air flow	max. 30 m ³ /h
Air ratio	0.3 – 0.5; remainder must be available from combustion chamber
Maximum ambient temperature.....	igniter tube: 500°C (932°F); if temperature is higher, combustion air must be left on to serve as cooling air. At temperatures > 700°C (1292°F), additional cooling air must be supplied in the gap between the guide tube and igniter tube. In case of divisible or tilting tubes the temperature at the division or moving part must not exceed 180°C (356°F).
Maximum back pressure	200 mbarg inside the igniter housing

Power head (Transformer and Flame Monitor)

Operating voltage (Flame monitor).	230 V 50/ 60 Hz (standard), or as specified in the part number
Spark transformer.....	(primary) 230 V 50/ 60 Hz (standard), or as specified in the part number (secondary) 5 kV to ground
Enclosure rating.....	IP 65 (NEMA 4x)
Connection type.....	permanently sealed in control cable (IP 65 version) In ex zone the free cable must be connected in housings, which obtain the explosion proof acc. to EN50021 or EN50014
Power consumption.....	spark transformer: 100 VA flame monitor: 10 VA
Duty cycle	spark transformer: usually limited to 2 – 3 s by the burner control 15% duty cycle (cycle time 3 min. = 100 %) primary thermal winding protection Flame monitor: any
Ambient temperature.....	-20°C to +40°C (-4°F to +104°F) Special version up to 60°C upon request
Start-up requirement	air flow must be ensured as described under 3.1
Explosion proof ratings.....	II 3 G EEx nC IIC T5 zone 2 div. II
May be connected to controllers on page 8.	

3. Storage, Installation Instructions and Lifetime

Igniters are to be stored in a dry and dust-free place. Ambient temperature during storage shall be 0 – 60°C. No operation and storage below dew point. Moisture must not exceed 60%. Igniters shall be protected from mechanical damages.

If the tube is longer than 2 m (approx. 80"), the igniter must be provided with a guide tube. This prevents the tube from bending too much. The end of the igniter tube should protrude at least 150 mm (approx. 6") from the end of the guide tube, if the ambient heat does not require otherwise.

The gap between carrier tube and igniter tube ought to be 5 mm (app. 0.2") or more.

In case of higher furnace temperatures additional cooling air may be supplied into the gap through a separate port.

The device has a limited service life. It is designed for app. 250,000 start-ups. For 50 start-ups per day its lifetime would be about 10 years. This time decreases under bad conditions e.g. dust, high or low temperature, moisture, aggressive gases. When the appliance has reached the end of its lifetime it must be disposed of according to local regulations.

3.1 Monitoring the Gas and Air Pressures

The gas and air supply pressures have to be monitored at site according to local regulations. Further to that it must be ensured that forced air is passing through the igniter and purging it before the electrical supply is switched on. For safety reasons any failure in forced combustion air must lead to an immediate interruption of the electrical supply.

Even after shut down the igniter shall be purged with combustion air to rule out the extremely unlikely accumulation of a flammable mixture in the igniter's wind box.

4. Flame Monitoring

The flame is monitored using an ionisation electrode. The direct current serves as the flame signal. This direct current flows via the flame from the igniter tube ground to the ionisation electrode, and to the flame monitor via the connecting rod.

The ionisation electrode and the spark electrode are aligned according to the drawing on page 12. If new electrodes are employed, they must be bent accordingly, shortened and aligned. It is recommended that a complete electrode support ring instead be ordered. The electrodes on the support ring are already bent and aligned.

The internal resistance of the ionisation path is several M Ω . This high resistance requires good insulation for the electrodes and the connecting rods. Therefore, it is important to clean the insulators more often if the combustion air contains dust; avoid moisture.

The ceramic insulator for the ionisation electrode may not be heated to temperatures exceeding 500°C (932°F), since this may cause the igniter to fault. It is therefore necessary to allow at least a minimum quantity of air (10-20% of full load) to flow if, with the igniter flame shut off, this temperature could still be reached in a hot combustion chamber through either radiation or convection.

Caution: Do not leave the spark voltage on during any of the safety time. A spark-free period of approx. 0.5 seconds must be guaranteed, since the high voltage can suppress the ionisation signal.

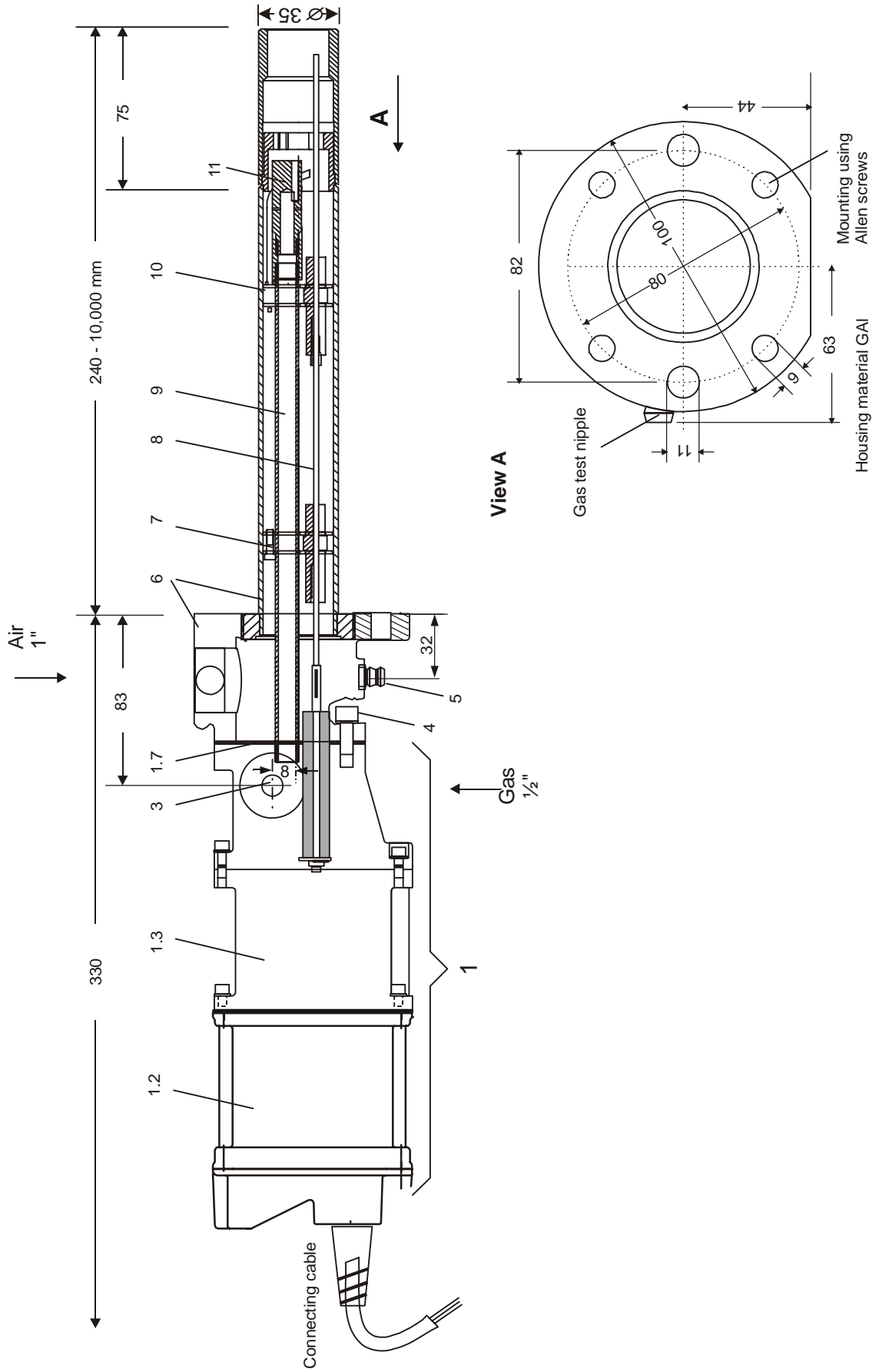
5. Construction According to Sectional Drawing

(see also page 6)

The igniter consist essentially of the power head (item 1), into which the spark transformer and flame monitor are built, the igniter tube with air/mounting flange (6), gas tube (9) and nozzle (11), as well as the electrode support ring (10). The igniter tube, which includes the air connection, is threaded onto the power head, and after loosening four screws (4), can be detached or rotated in 90° increments according to the location of the air supply. When rotating the tubes, one must be careful not to twist the inner support rings and rods. This could disrupt operation of the igniter.

The gas connection can be made from either from left or right. The unused opening is plugged with a stopper into which the gas pressure test nipple (3) has also been screwed. The electrode support ring (10) is attached to the end of the gas tube. The ionisation and spark electrodes are lengthened with connecting rods (8). These rods are guided via two ceramic insulators through the floor of the power head and are supported every 250 mm by intermediate support rings (7).

Standard model: transformer module sealed to meet IP 65 (NEMA 4x), with connecting cable



Igniter Sectional Drawing

6. Available Spare Parts and Wear and Tear Parts

Item.	Qty.	Description	Part Number	Voltages	Material	Remarks	
1	1	Complete power head with transformer and flame monitor module/ IP65 (NEMA 4X) for ZXAP...	ZX859K7/_ _ _ ZX859K7/_ _ M ZX859K7/_ _ C ZX859K7/_ _ B	230 V 115 V 120/125 V 240/250 V	with housing, plug connection and gas flange	Standard model Special model Special model Special model	
	1	for ZXDAP...	ZX859K8/_ _ _ ZX859K8/_ _ M ZX859K8/_ _ C ZX859K8/_ _ B	230 V 115 V 120/125 V 240/250 V		Standard model Special model Special model Special model	
1.7	1	Gasket	--		Frenzelite or similar	No spare part	
4	4	Allen screw	--		Stainless steel	No spare part	
6	1	Igniter tube, complete with mixing chamber, mounting flange and air flange	Z1040Z_ _ _	Tube length given should be the same as that in the part number for the igniter	Stainless steel	Standard model Can be rotated in increments of 90°	
7	*	Intermediate support ring with 2 ceramic insulators	Z837K2		Stainless steel	*Qty. required depends on tube length: 4 rings per meter	
8	2	Connecting rods	--		Stainless steel	∅ 2.0 mm No spare part	
9	1	Gas tube	--	∅ 10 x 1,5	Stainless steel	Standard No spare part	
10	1	Electrode support ring with 2 ceramic insulators (Z100Z4) and 1 grounding rod	Z837K1		Stainless steel	Standard Subject to wear and tear	
11	1	Gas nozzle	Natural gas	Z834F3009		Stainless steel 1.4104	Standard
			Propane gas	Z834F2009		Stainless steel 1.4104	Standard

7. Accessories

The igniters can be connected to the following devices:

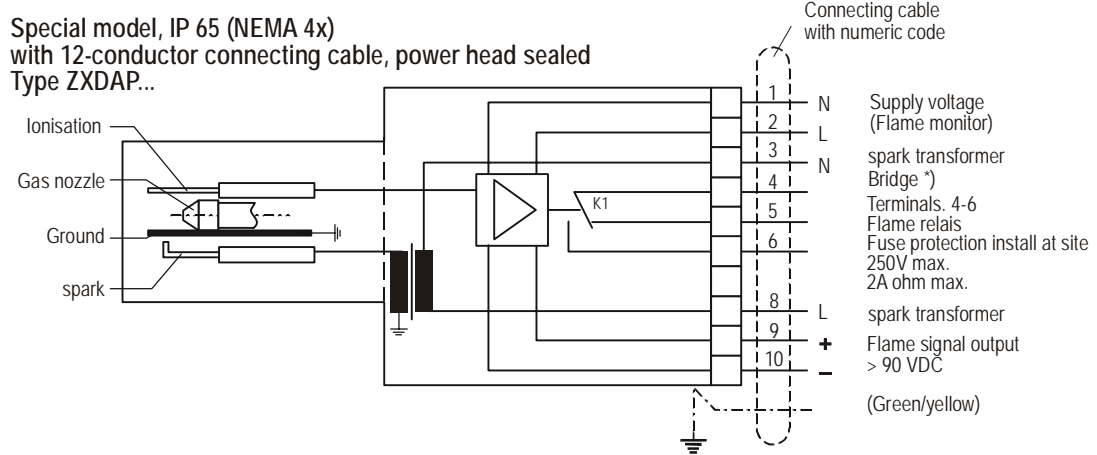
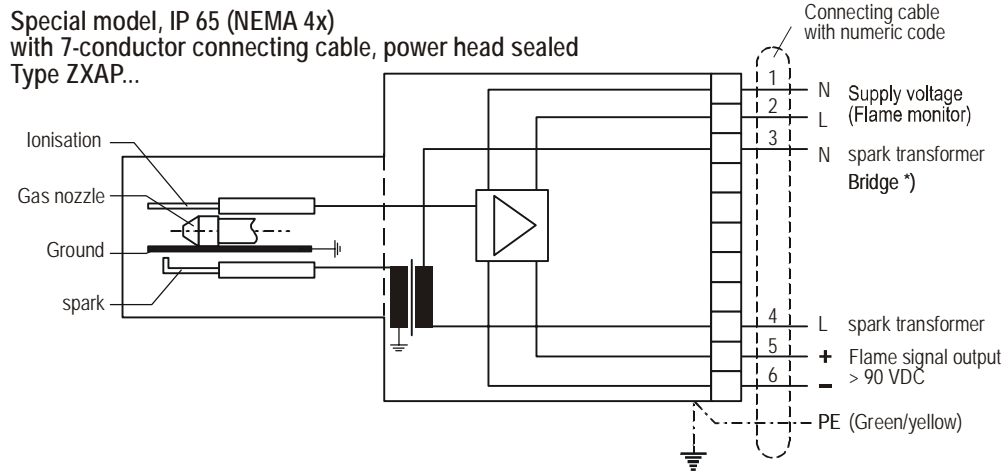
- AAUS 620 L20 Controller
for intermittent operation,
modular unit
230V 50/60 Hz IP 40
please also refer to the separate description 1.86Se of this product
- AASD 820 L20 Controller
for continuous operation,
modular unit
230V 50/60 Hz IP 40
please also refer to the separate description 1.86De of this product
- A240 K3/306 Controllers safety time 3 seconds
(5 or 8 seconds also available)
for intermittent or continuous operation,
European standard size PC board, 19" rack module
24V DC
please also refer to the separate description 1.93e of this product
- A285 K2.3 Flame Relay
with 2 volt-free relay contacts,
top hat mounting rail according to IEC/EN 60715
For burner management systems that meet the applicable standards and requirements for safety-related integration of the igniter.

It must be ensured the spark voltage (terminal 8 on the igniter) is shut off before the end of the spark safety time, so that there is a brief segment of time without spark. The high-voltage spark gap can suppress the ionisation signal to such an extent that the flame relay cannot close.

Please also refer to the separate description 1.77e of this product.

8. Electrical Connection

Connect the wiring cable carefully at site. Connection to ground is achieved by protection earth of the supply cable and via the metallic housing, the gas and air connection and the flame of the combustion chamber. Please provide for adequate contact. Depending on their location at site, the wiring terminals of the supply cable may have to be installed in an enclosure that provides the same protection from explosion. Take care of local regulations.



Power supply according to the nameplate on the igniter

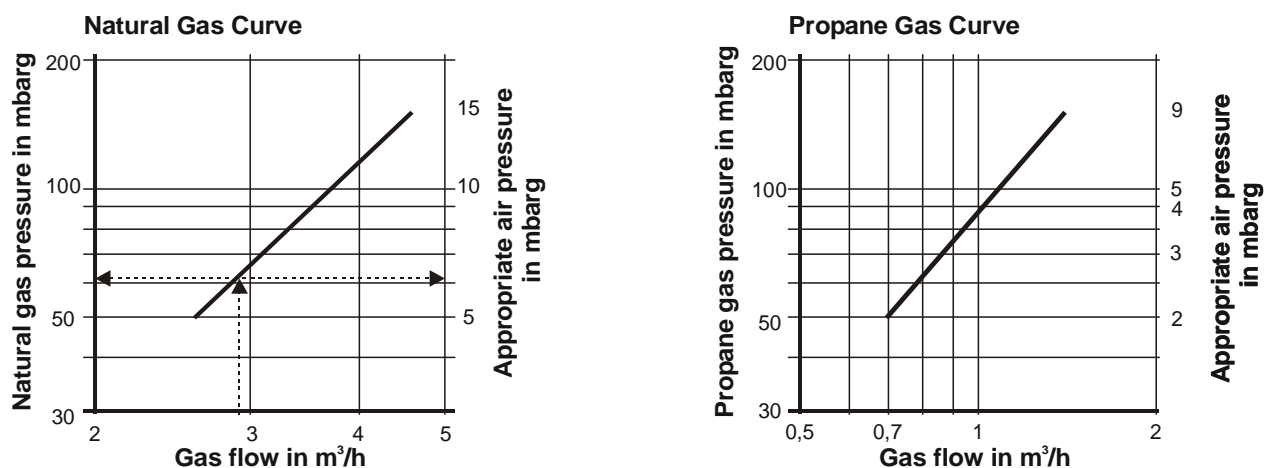
*) Bridge 1-3 if the transformer and flame monitor voltages have the same phases

9. Setting the Required Gas Flow

The igniters operate in a pressure range of 50-150 mbar, which may be measured using the **gas pressure test nipple (item 3/ sectional drawing)**. The gas flow can be selected according to the diagram below. Pressure is set using a ball valve to a value of 100 mbar.

If, when placing an order, a higher gas pressure is given, then pressure-reducing restrictors are screwed into the threads of both gas inlets at the factory. This allows the pressure of the igniter to be set to a level above 150 mbar. If high admission pressure is available at the plant, then pressure can be restricted to levels below 150 mbar using the ball valve.

At admission pressure levels above 500 mbar, this setting becomes extremely difficult. In these cases one should request from Hegwein the appropriate pressure-reducing restrictors and indicate the admission pressure.



Type of Gas	Nozzle Orifices in mm	Flame Length in mm
Natural gas	1 x 3,0 + 6 x 0,9	400 - 500
Propane gas	1 x 2,0 + 3 x 0,9	400 - 500

The graphs shown are based on average values regarding gas density, gas composition, calorific value, igniter version and igniter tube length as well as optimised surrounding (unimpeded burn out and no back pressure in combustion chamber). The supply pressure derived from the graphs should therefore be regarded as guide numbers only. The actually required values can deviate, depending on site conditions.

10. Setting the Required Air Flow

The airflow, i.e. the adjustment of the air pressure depends on the set gas flow and with longer igniters on their tube length as well.

Igniters with a tube not longer than 1 m may therefore be adjusted according to the flow chart above and add length coefficient. Read out the gas pressure on the left and the air pressure on the right. With longer igniters a tube length coefficient of 20 mbar per each additional meter has to be added to the value read out from the chart.

Example for an igniter with a tube length of 2 m, operation with 2.8 m³/h natural gas:
 required air pressure as shown in the chart app. 6 mbarg.
 Total air pressure 6 mbarg + 2x20 mbarg = 46 mbarg.

The blower pressure has to be reduced by an air-regulating sleeve to the actually required flow pressure stipulated by the igniter's tube length. Any furnace backpressure has to be compensated. The flow pressure can be picked up at the **air pressure test nipple (item 5/ sectional drawing)**. Open the test nipple by turning the inserted Allen screw anti clockwise by 1 ½ turns. Connect the hose with pressure gauge immediately (be aware of the pressure). After measurement close test nipple by turning clockwise immediately.

Varying backpressures with fluctuations exceeding 20% require a differential pressure regulator on the air supply side.

1. Immediate ignition
2. Good optical flame image / flame signal > 90VDC
3. Flame length approx. 500 mm at a maximum capacity of 45 kW (approx. 150,000 BTU/hr) at unimpeded burn out

11. Maintenance and Alignment

These igniters do not require any special maintenance. They should, however, be checked periodically (e.g., every 3 months) for proper operation.

If the igniters are operated using air that contains dust, this check should be performed at shorter intervals, since electrically conductive dirt deposits or moisture on the ceramic insulators can lead to a fault in the igniter.

The intrinsic impedance of the ionisation path amounts to several M Ω . Such high resistance requires that the ceramic insulators be in perfect condition.

Performing Maintenance and Replacing Worn Parts

(please compare to the sectional drawing)

Igniter Tube (may be rotated in 90° increments)

After loosening the four screws (item 4), the tube may be removed. Depending on the position of the air connection, the tube may be turned and tightened.

Power head

The power head with spark transformer and ionisation flame monitor is completely interchangeable. To do so, the outer tube must be detached, and the electrode support ring (item 10) and the two 3 mm rods (item 8) must be removed. The gas tube must then be unscrewed.

Caution: If necessary, remove the pressure-reducing restrictors, which are screwed in to the two threaded gas inlets, and put them into the new power head.

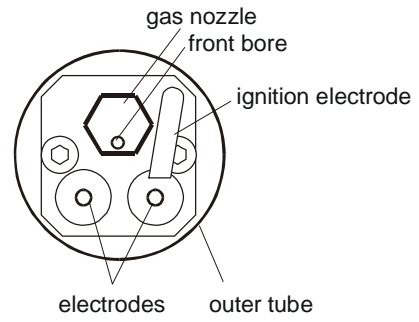
Electrode Support Ring (subject to wear and tear, exempted from manufacturer's warranty)

Remove the igniter tube and loosen the locking screw on the support ring. After unscrewing the gas nozzle the ring may then be removed from the gas tube. Slide onto the gas tube the new ring and fit on the nozzle (its off-set front bore must be positioned on the center axis of the igniter tube), insert the connecting rods into the sockets and tighten the locking screw. The electrode support ring is placed approx. 55 mm behind the gas nozzle. The alignment of the electrodes is described on page 12. The electrode support rings are normally delivered with the electrodes already bent. Only if individual electrodes are ordered is it necessary to bend, shorten and align them once they are in place.

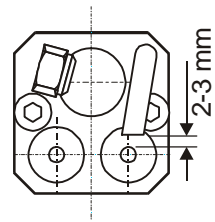
Intermediate Support Ring (for tube lengths greater than 400 mm)

Remove the igniter tube, nozzle and electrode support ring. Loosen the locking screw of each support ring and remove them from the tube. Slide on the new intermediate support rings and insert the connecting rods. The intermediate support rings should be spaced at intervals of 250 mm from one another. Finally, the electrode support ring is slid onto the gas tube then the nozzle (its off-set front bore must be positioned on the center axis of the igniter tube; see page 13 top) and then the connecting rods are inserted into the sockets on the ring. Tighten all locking screws on the support rings, while observing that the rods do not become twisted.

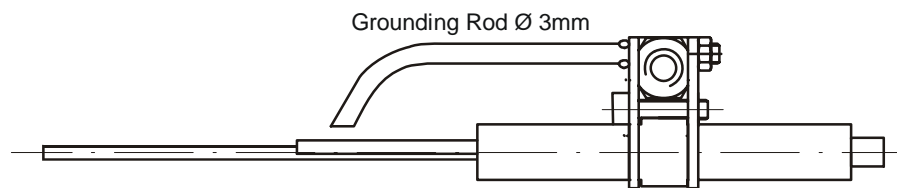
Front view nozzle placement



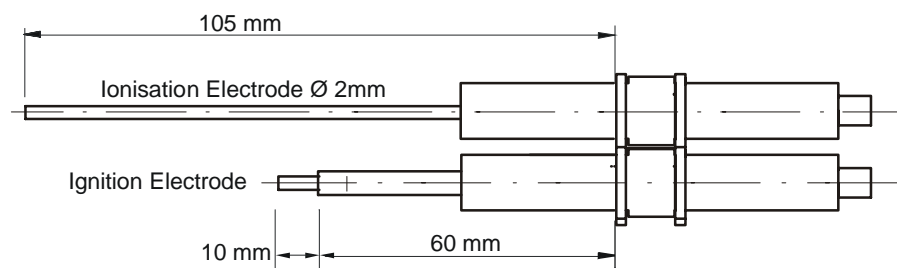
Front View



Side View



View from top



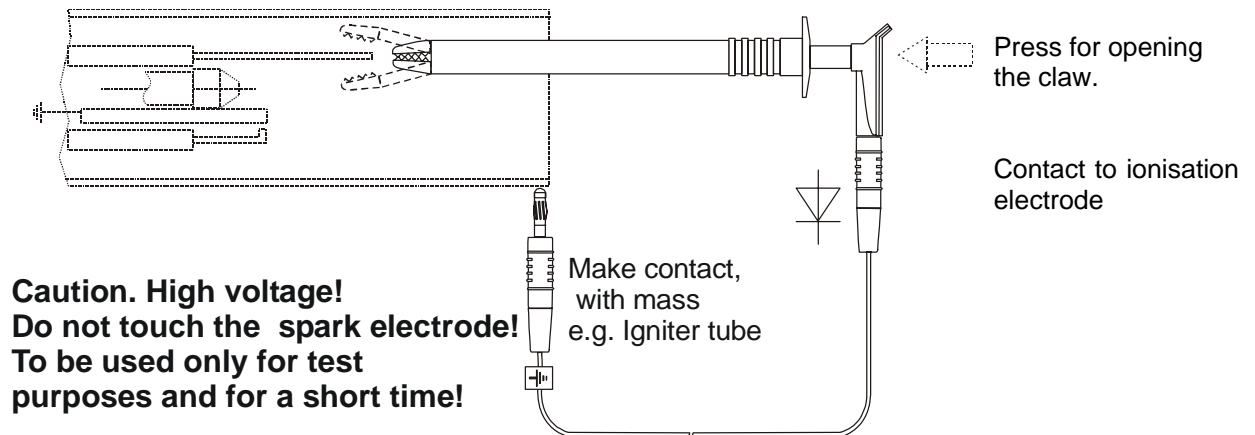
Alignment of the Z837K1 Electrode Support Ring
 Complete with ceramics and pre-bent electrodes

12. Electrical Function Test (without Flame) Using A10Z2 Test Diode

This test diode is employed to perform a purely electrical function test. Such a test should be carried out by authorized personnel only.

Caution: The gas valve must first be closed!

With the aid of the test diode A10Z2 (rectifier built in to a cable), may be simulated a flame signal to the flame monitor, once power is applied. The diode must be clamped to the ionisation electrode, the other end of the cable should make contact with burner mass (note the polarity!)



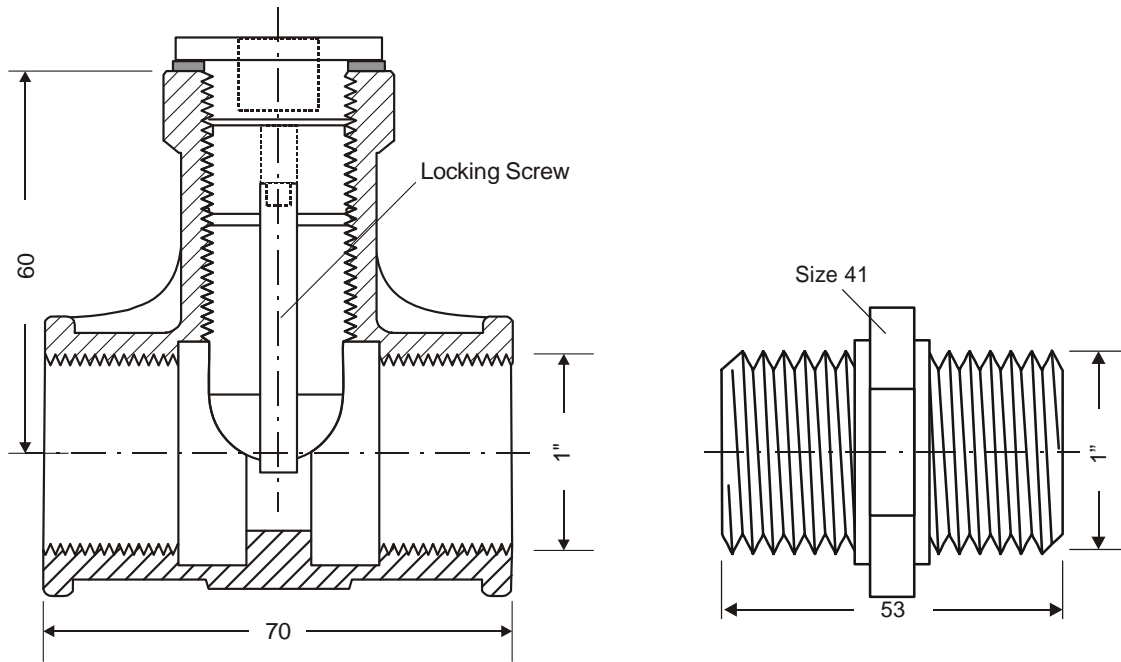
Once contact is made with the test diode at wire 5-6 for ZXA or 9-10 for ZXDA version has to be reported. The burner control should go into operation.

If there is no flame signal, the following should be checked:

- Is the supply voltage present on terminals 1-2?
- Is the polarity of the test diode correct?
- Are the ceramic insulators damp, dirty or broken?
Remedy: If so, clean or replace. If necessary replace the flame monitor module (item 2.1).

In case of spark problems please see chapter 'Trouble shooting'.

13. Gas- and Air-Regulating Components (to be ordered separately)

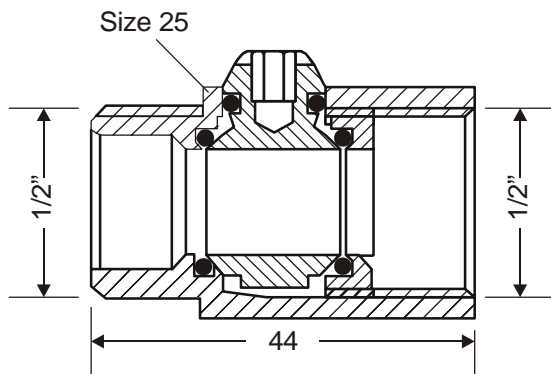


Z 945 Z 2/0FV Air Regulator

Housing: galvanized GTW 40 cast iron
 Cone: Ms 58 brass
 Cover: Ms 58 brass
 Temperature range -20° – +60°C (-4° – +140°F),
 Pressure 300mbar max.

Z 946 F 3/00V Double Nipple

Galvanized GTW 40 cast iron
 Temperature range -20° – +60°C (-4° – +140°F),
 Pressure 300mbar max.



Z 845 Z3 Ball Valve (for setting the gas flow pressure)

Housing: Ms 58 brass
 Gaskets: Teflon
 Temperature range -20° – +60°C (-4° – +140°F),
 Pressure 300mbar max.

14. Troubleshooting

The following items have to be carried out step by step

14.1 Spark cannot be seen

Possible Causes:

- .1 Igniter has not been energized
- .2 Spark suppresses the ionisation signal.
(Visual check in dark surrounding with **fuel valves closed**.)



Caution: do not touch high voltage electrode.)

Possible Reasons/ Remedy

- .1.1 Remedy: Check wiring.
Check BMS.
- .2.1 Spark electrode internals has been burnt away
Remedy: replace electrode, clean igniter / burner internals and verify the correct spark gap.
- .2.2 Electrode distance to large or has a short circuit
Remedy: clean igniter / burner internals, replace worn parts and verify the correct spark gap of 2-3 mm.
- .2.3 Spark transformer faulty
Remedy: Replace spark transformer.
- .2.4 Tinder on the spark electrode or ground rod / bolt.
Remedy: clean igniter / burner internals, and remove layer with emery cloth.
- .2.5 Ceramic insulator is broken
(De-energize the igniter/ burner.
Remove outer tube.)
Remedy: Replace ceramic insulator or better complete electrode support ring.

14.2 Flame cannot be seen

Possible Causes:

- .1 No combustion air.
(Check pressure at test nipple).
- .2 No fuel
(Check pressure at test nipple).
- .3 Air/Fuel ratio not correct.
(Check fuel and air pressure at test nipple)

Possible Reasons / Remedy

- .1.1 Sleeves or valves are completely closed.
Flap or valve does not work.
- .1.2 Pipe is clogged.
- .2.1 Fuel pipe too long.
Remedy: Install valve close to Burner/ Igniter.
- .2.2 Fuel pipe inert with nitrogen.
Remedy: Start the igniter/ burner several times to get the inert gas removed and replaced by fuel.
- .2.3 Shut off valve is out of order.
Remedy: Replace fuel valve.
- .3.1 Check correct fuel and air pressure adjustment.
Use diagram values given in igniter/ burner manual.
- .3.2 Correct fuel type?
- .3.3 Clean combustion air?

14.3 Flame can be seen but no flame signal present after safety spark time has elapsed

Possible Causes:

- .1 No ionisation signal.
(Visual check with **fuel valves closed** and de-energized igniter/ burner.)
- .2 Igniter/ burner is wired to a Hegwein burner control:
Supply voltage is released simultaneously with operation voltage.
- .3 Igniter/ burner is wired to burner control of another make:
spark suppress the ionisation signal.
- .4 Burner/Igniter has been exposed to excessive temperature from combustion chamber during Burner/Igniter stand still. Ceramics are too hot, the insulation resistance has dropped to a value that is too low.
- .5 The setting of the fuel and air pressures at the burner/igniter are not correct. Flame root is not in the area of the Ionisation electrode.
- .6 After failure correction of item1- 5 a flame signal is still not available.
If flame signal is still not reported though step 1 to 5 have been verified.

Possible Reasons / Remedy

- .1.1 Ionisation electrode has been burnt away.
Remedy: Replace electrode and verify the correct spark gap.
- .1.2 Ceramic insulator is broken.
Remedy: Replace insulator or better complete electrode support ring.
- .2.1 Operation voltage must lag supply voltage at least by 0.5 seconds.
- .3.1 Spark voltage must be shut off 0.5 seconds before spark safety time has elapsed.
- .4.1 Leave blower air fully on or in cooling stage while the burner/igniter is switched off.
- .5.1 Adjustment and correction of the corresponding devices.
Use diagram values as given in the available manual.
- .5.2 Flame is pushed out of the igniter/ burner mouth : Fuel or/ and air flow insufficient.
- .6.1 Remedy: Check complete wiring with test diode A10Z2.
See manual.

14.4 Shut off during operation

Possible Causes:

- .1 Varying back pressures or supply pressures cause the flame to trip.



Possible Reasons / remedy

- .1.1 Check pressure at the test nipples. Fluctuations require a differential pressure regulator on the air and fuel supply side.
- .1.2 Burner or igniter test should be carried out outside combustion chamber.
Local safety regulations must be observed.
- .2 Pilot flame is strongly influenced or when suffocated by the main flame.
 - .2.1 Remedy: Change igniter position
 - .2.2 Remedy: A more powerful burner/ igniter may be requested.

14.5 Automatic shut-down at start-up when a flame is reported before the spark fuel valve have been opened

Possible Causes:

- .1 Flame has not extinguished after the previous shut-down due to a leaking valve and is still present when system is restarted.

Possible Reasons / remedy

- .1.1 Remedy : Replace valve.

14.6 Electrical Malfunction





- .1 Burner control does not start
- .2 ZXDA.. only : Burner/ Igniter and burner control are in operation but the volt free contact does not work.

- .1.1 Remedy: Devices of a different make can cause trouble. See chapter.

- .2.1 Check separate fuse.

In case of questions please give us the exact type designation as given on the nameplate.

15. Approvals

CE 0085	 Zertifizierungsstelle
EG-Baumusterprüfbescheinigung EC type examination certificate	
CE-0085BR0163 <small>Produkt-Identnummer product identification no.</small>	
Anwendungsbereich <i>field of application</i>	EG-Gasgeräte-Richtlinie (90/396/EWG) <i>EC Gas Appliances Directive (90/396/EEC)</i>
Zertifikatinhaber <i>owner of certificate</i>	Hegwein GmbH Am Boschwerk 7, D-70469 Stuttgart
Vertreiber <i>distributor</i>	Hegwein GmbH Am Boschwerk 7, D-70469 Stuttgart
Produktart <i>product category</i>	Ausrüstungsteile für Gas- und Druckgeräte: Flammenwächter (4131)
Produktbezeichnung <i>product description</i>	Flammenwächter mit Ionisations- oder UV-Flammenfühler als Einbaugerät für Gaszündbrenner sowie Gasbrenner der Firma Hegwein und Durag
Modell <i>model</i>	A0515Z3...
Bestimmungsländer <i>countries of destination</i>	AT, BE, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MT, NL, NO, PL, PT, SE, SI, SK
Prüfberichte <i>test reports</i>	Baumusterprüfung: C-F 1308-00/06 vom 24.04.2006 (TSG)
Prüfgrundlagen <i>basis of type examination</i>	EU/90/396/EWG (29.06.1990) DIN EN 298 (01.01.2004)
Aktenzeichen <i>file number</i>	05-0994-GEE
 12.07.2006 Rie A-1/2 <small>Datum, Bearbeiter, Blatt, Leiter der Zertifizierungsstelle date, issued by, sheet, head of certification body</small>	 DVGW Deutsche Vereinigung des Gas- und Wasserfaches e.V. Technisch-wissenschaftlicher Verein Zertifizierungsstelle Josef-Wirmer-Straße 1-3 53123 Bonn Telefon: +49 (228) 91 88 807 Telefax: +49 (228) 91 88 993
<small>DVGW-Zertifizierungsstelle - von der Deutschen Bundesregierung benannte und von der Europäischen Kommission offiziell registrierte Stelle für die Konformitätsbewertung von Gasgeräten</small> <small>DVGW Certification Body - notified by the government of the Federal Republic of Germany and officially registered by the European Commission for conformity assessment of gas appliances</small>	 ZLS-ZE-349/03

A-2/2

CE-0085BR0163

Typ <i>type</i>	Technische Daten <i>technical data</i>	Bemerkungen <i>remarks</i>
A0515Z3000; A0515Z300M	Identifikationscode: B/O/O/O/X/K Sicherheitszeit: 1 s	
Ausführungsvariante <i>type variation</i>	Erläuterungen <i>explanations</i>	
A0515Z3000	Elektrische Daten: 230 V AC, 50/60 Hz	
A0515Z300M	Elektrische Daten: 115 V AC, 50/60 Hz	
Verwendungshinweise / Bemerkungen <i>hints of utilization / remarks</i>		
Zugelassen für: intermittierenden Betrieb und Dauerbetrieb (Dauerbetrieb nur mit Ionisationsfühler)		

DVGW

CE 0085

EG-Baumusterprüfbescheinigung

gemäß der EG-Gasgeräte-richtlinie (90/396/EWG)

EC type-examination certificate

according to the EC Gas Appliances Directive (90/396/EEC)



Zertifizierungsstelle

Produkt-ID-Nummer

Product-ID-Number

CE-0085AU0233

Produkt-Identnummer
product identification number

Zertifikatinhaber
owner of certificate

Hegwein GmbH & Co. KG
Am Boschwerk 7, D-70469 Stuttgart

Vertreiber
distributor

Hegwein GmbH & Co. KG
Am Boschwerk 7, D-70469 Stuttgart

Produktart
product category

Ausrüstungsteile für Gasgeräte: Flammenwächter

Produktbezeichnung
product description

Flammenüberwachungseinrichtung nach dem Ionisationsprinzip mit gemeinsamer oder getrennter Zünd- und Fühlerelektrode

Modell / Typ
model

Z 341 K ...

Prüfgrundlagen
basis of type examination

DIN EN 298 (02.1994)

Geräte-kategorien
Versorgungsdrücke
Bestimmungsländer
appliance categories
supply pressures
countries of destination

AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IS, IT, LU, NL, NO, PT, SE

Prüfbericht
test report

GA 12/99 u. GA 13/99 vom 28.04.1999 (TÜV Rheinland, Köln)

Aktenzeichen
file number

99-0359-GEE

21.07.1999 Rie-Fk

Datum, Bearbeiter, Leiter der Zertifizierungsstelle
date, issued by, head of certification body

DVGW-Zertifizierungsstelle - von der Deutschen Bundesregierung benannte und von der Europäischen Kommission offiziell registrierte Stelle für die Konformitätsbewertung von Gasgeräten

DVGW Certification Body - notified by the government of the Federal Republic of Germany and officially registered by the European Commission for conformity assessment of gas appliances



DVGW Deutscher Verein des Gas- und Wasserfaches e.V.
Technisch-wissenschaftliche Vereinigung
Zertifizierungsstelle
Josef-Wirmer-Straße 1-3
D-53123 Bonn
Telefon +49 (228) 91 88 807
Telefax +49 (228) 91 88 993

Produkt-ID-Nummer : CE-0085AU0233

Product-ID-Number

Elektrische Daten : 230 V AC; 50 - 60 Hz; 8,5 W; Schutzart: IP 00

electrical data

Typ <i>type</i>	Technische Daten <i>technical data</i>	Bemerkungen <i>remarks</i>
Z 341 K...	eingestellte Sicherheitszeit : < 1 s	

Ausführungsvariante <i>type variation</i>	Erläuterung <i>explanation</i>
...2	zugelassen für: intermittierenden Betrieb; geeignet für: Zündbrenner Typen ZA... sowie Brenner Typen BA... der Fa. Hegwein
...3	zugelassen für: Dauerbetrieb; geeignet für: Zündbrenner Typen ZDA... sowie Brenner Typen BDA... der Fa. Hegwein

Bemerkungen <i>remarks</i>
Zul. Umgebungstemperaturbereich: 0 °C bis +60 °C
Die EG-Konformitätserklärung für das Bestimmungsland Schweiz darf erst dann ausgestellt werden, wenn die Schweiz die EG-Gasgeräte-Richtlinie (90/396/EWG) in nationales Recht umgesetzt hat.



EG-Konformitätserklärung / *EC Declaration of Conformity*

Hersteller/ *Manufacturer* Georg Hegweín GmbH & Co. KG
 Anschrift/ *Address* Am Boschwerk 7, D-70469 Stuttgart

Produktbezeichnung/ *Product description*
 Flammenwächter der Baureihe Z341K.../ *Flame monitor Z341K...*

Das bezeichnete Produkt stimmt mit den Vorschriften folgender europäischer Richtlinien überein, vorausgesetzt, dass es installiert, gewartet und entsprechend seiner Bestimmung eingesetzt wird. Die einschlägigen Vorschriften und Hinweise aus der Bedienungsanleitung sind zu beachten.

The described product complies with the following provisions of Council Directive, provided that it is installed, maintained and used in applications for which it was made, in accordance with relevant installation standards and manufacturer's instructions.

Richtlinie des Rates 90/396/EWG (Gasgeräte-Richtlinie)
Council Directive 90/396/EEC (Gas appliance directive)

Richtlinie des Rates 89/336/EWG (EMV-Richtlinie)
Council Directive 89/336/EEC (EMC Directive)

Richtlinie des Rates 73/23/EWG (Niederspannungsrichtlinie)
Council Directive 73/23/EEC (Low Voltage Directive)

Wir bestätigen die Konformität des oben bezeichneten Produkts mit folgenden Normen:

We confirm the conformity of the above mentioned product with the following standards:

- EN 298
- EN 50081-1
- EN 50082-2
- EN 55011
- EN 60730-1

Aussteller *Issuer* Georg Hegweín GmbH & Co. KG

Ort, Datum *Place, date* Stuttgart, 20.02.2004

Rechtsverbindliche Unterschrift
Legally binding signature

Dr. Ing. U. Greul

VPRIMERGY060\Vertrieb\Vorlagen\Formulare\Konformität\KONT_Z341.DOC

25.08.2004 13:05

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Persönlich haftende Gesellschafterin:
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 Stuttgart HRB 4303
 Geschäftsführung:
 Prof. Dr.-Ing. Peter Martin (Vorsitzender),
 Dr.-Ing. Ulrich Greul

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 and Combustion*
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Physikalisch-Technische Bundesanstalt

Braunschweig und Berlin



Konformitätsaussage

- (1)
 (2) Geräte und Schutzsysteme zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen - **Richtlinie 94/9/EG**
 (3) Prüfbescheinigungsnummer



PTB 04 ATEX 1022

- (4) Gerät: Zündbrenner Typ ZX AAA K_ K __
 (5) Hersteller: Georg Hegwein GmbH + Co. KG
 (6) Anschrift: Am Boschwerk 7, 70469 Stuttgart, Deutschland
 (7) Die Bauart dieses Gerätes sowie die verschiedenen zulässigen Ausführungen sind in der Anlage und den darin aufgeführten Unterlagen zu dieser Prüfbescheinigung festgelegt.
 (8) Die Physikalisch-Technische Bundesanstalt bescheinigt als benannte Stelle Nr. 0102 nach Artikel 9 der Richtlinie des Rates der Europäischen Gemeinschaften vom 23. März 1994 (94/9/EG) die Erfüllung der grundlegenden Sicherheits- und Gesundheitsanforderungen für die Konzeption und den Bau von Geräten und Schutzsystemen zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen gemäß Anhang II der Richtlinie.
 Die Ergebnisse der Prüfung sind in dem vertraulichen Prüfbericht PTB Ex 04-13451 festgehalten.
 (9) Die grundlegenden Sicherheits- und Gesundheitsanforderungen werden erfüllt durch Übereinstimmung mit
EN 50021:1999
 (10) Falls das Zeichen „X“ hinter der Bescheinigungsnummer steht, wird auf besondere Bedingungen für die sichere Anwendung des Gerätes in der Anlage zu dieser Bescheinigung hingewiesen.
 (11) Diese Konformitätsaussage bezieht sich nur auf Konzeption und Bau des festgelegten Gerätes gemäß Richtlinie 94/9/EG. Weitere Anforderungen dieser Richtlinie gelten für die Herstellung und das Inverkehrbringen dieses Gerätes.
 (12) Die Kennzeichnung des Gerätes muß die folgenden Angaben enthalten:

II 3 G EEx nC IIC T5

Zertifizierungsstelle Explosionsschutz
 Im Auftrag

Braunschweig, 16. März 2004

Dr.-Ing. U. Klausmeyer
 Regierungsdirektor



Seite 1/2

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 Physikalisch-Technische Bundesanstalt • Bundesallee 100 • 38116 Braunschweig • Deutschland

Physikalisch-Technische Bundesanstalt

Braunschweig und Berlin



Anlage

(13)

(14)

Konformitätsaussage PTB 04 ATEX 1022

(15) Beschreibung des Gerätes

Der Zündbrenner Typ ZX AAA K_ K__ besteht aus Zündtrafo und Ionisationsflammenwächter, die in einem mit Vergussmasse gefüllten Gehäuse aus Aluminium eingebaut sind (Zündschutzart Gekapselte Einrichtung "nC"). Der Anschluss erfolgt über einen Kabelschwanz.

Technische Daten

Bemessungsspannung		
Flammenwächter	bis	230 V
Zündtrafo	bis	230 V (primär), 5 kV gegen Masse (sekundär)
Leistungsaufnahme		
Flammenwächter	max.	10 VA
Zündtrafo	max.	100 VA
Bemessungsquerschnitt	max.	12 x 1,5 mm ²
Umgebungstemperatur		-20 °C bis +40 °C

(16) Prüfbericht PTB Ex 04-13451

(17) Besondere Bedingungen

Keine;

Hinweise für Herstellung und Betrieb

Die offenen Aderleitungen des Kabelschwanzes müssen innerhalb des explosionsgefährdeten Bereiches in Gehäusen angeschlossen werden, die einer genormten Zündschutzart nach EN 50021 oder EN 50014 entsprechen.

(18) Grundlegende Sicherheits- und Gesundheitsanforderungen

erfüllt durch Übereinstimmung mit den vorgenannten Normen

Zertifizierungsstelle Explosionsschutz

Im Auftrag


 Dr.-Ing. U. Klausmeyer
 Regierungsdirektor



Braunschweig, 16. März 2004

Seite 2/2

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