

# **D-HG** 500

# **New Generation of High Energy Igniters**

# Reliable ignition of gaseous and liquid fuels



Separate set-up: High energyigniter for wall mounting



Explosion proof version: Type Exde



#### **Features**

- Reliable ignition of gaseous fuels
- Ignition of liquid fuels, up to heavy oil grade6
- Suitable"Ignitor Class 3 Special" in accordance with NFPA85
- Thyristor controlled and therefore non-wearing electronic
- Integrated temperature control
- Protective function at under and over voltage
- Discharge control and short circuit test
- LED indication for ignition feedback and ready for operation signal

### Functionality-reliable as usual

By discharging a high-voltage capacitor at the ignition lance's tip a spark is created. The spark discharge is triggered by a non-wearing switch (thyristor). Every spark produces energy of 5.6 J at a maximum ignition frequency of 20 sparks per second.

# Compatibility of existing installations

100 % downward compatibility of the electronics allows up-grading existing D-HG 400 installations to the new D-HG 500. Housings, ignition lances and retraction units can continue to be used without limitations.

#### New:

Version D-HG 550 allows softwareassisted customer specific parametrisation

- Adaptation of timing fordifferent ignition phases
- Reduction of ignition frequency for highly flammable fuels
- Optional indication of ignition tip wearing for forward planning of maintenance and spare part procurement (condition-based maintenance)
- On-site adjustment of settings as well as error analyses by DURAG Service technicians for high availability
- Optional utilization of D-ESI 100 software by user

### **Applications**

Reliable ignition of industrial burners of any capacity in

- Chemical industry
- Refineries
- Cement plants
- Waste incinerators
- Power plants
- Steam generators
- Claus plants



Cement plant



Waste incinerators



Powerplant



### Beneficial control functionalities

The microprocessor based design of the electronics allows the use of newly implemented control functionalities in order to protect the device against damages due to overheating or overload.

Faulty connected or defective ignition lances are detected before the start of ignition. Recognized errors are directly displayed at the device.

### Complementary components for complete ignition solutions

- ATEX-approved ignition lances for explosive gas and dustareas
- Flexible ignition lances fortilting
- Retraction units D-VE 500 series available for safe zones and hazardous areas

### Most easyintegration

Different versions of the D-HG 500 series allow the installation in various industrial surroundings:

- Compact or separated set-up of ignition device and ignition lance
- Lengths of ignition lances according to customer specific requirements
- Most simple integration in superordinated guide systems and controls
- Ignition feed-back by potential-free relay output

#### Certifications

- ATEX /IECEx
- Eurasian Customs Union











#### **Technical Data**

Ignition device	
Mains voltage	115/230 VAC, 50/60 Hz
Power	200VA
consumption	
Ignition voltage	1500V
Ignition energy	5,6Joule/spark
	Max. 112 Joule/s
Ignitionfrequency	Max. 20 sparks/s
Permitted	-40 °C up to +80 °C
ambi- ent	(-40°F up to +176°F)
temperature Protection	IP65/IP66
Ex-Protection	II 2G Ex de II C T5/
(optionally	T6 II 2G Ex d IIC T6
available)	II 2D Ex tD A21 T85 °C IP66
Ignition lances	
Max.	
temperature	600 °C (for short period:
Ignition tipNT	800 °C) (1112 °F/ 1472 °F)
Ignition tipHT	1000°C (1832°F)
Operational life	max. 1 Mil. sparks
time ignition	
tip Lancelength	0,7 up to 15 m
Lancediameter	22mm
Protection D-ZL	II 2G Ex d IIC T6, T5, T4 Gb II 2D Ex tb IIIC T80°C Db IP6
441Ex	II ZD EX LO IIIC 180 CDD IPO
Protection	CI. I, Div. 1, Gr. A. B. C & D
The Mark.	
2 4	



### Components for ignition solutions

Ignition lance D-ZL521



Ignition lance D-ZL441Ex



## **Optional components**

Retraction unit D-VE 500







