

# High Energy Igniters BROCHURE

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## High energy ignition device

The D-HG 400 high energy ignition device is suitable for the ignition of gas or liquid fuels in industrial burners of any capacity.

### Features

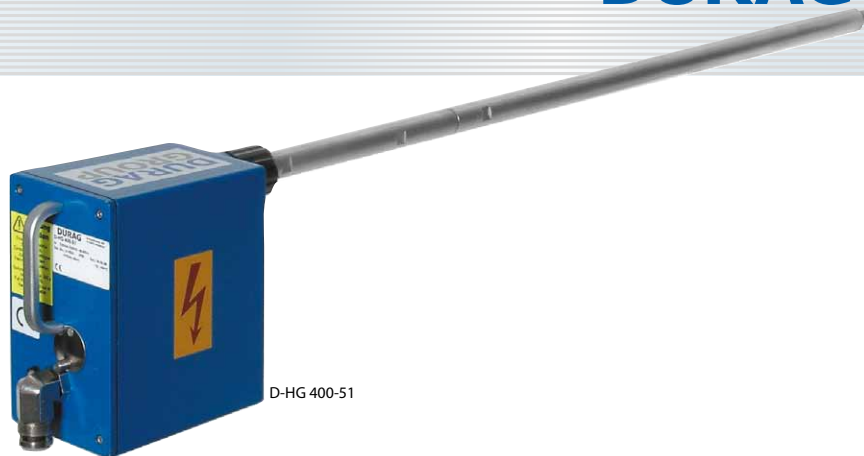
- Ignition of liquid or gaseous fuels with large power ratings
- Compact design: control unit and ignition lance form one unit
- Ignites even heavy oil no. 6
- Special designs for potentially explosive atmospheres are available
- Special design with battery operation
- Special design for tilting burner
- No wear because thyristor controlled
- 20 ignition sparks with 4.5 J per second (i.e. 90 J total per second)
- Ignition feedback signal via integrated LED or potential-free relay output
- Suitable as "Ignitor Class 3 Special" in accordance with NFPA 8501 and NFPA 8502.

### Applications

- Chemical industry
- Refineries
- Cement plants
- Waste incinerators
- Steam generators
- Heating plants
- Claus plants.

### Certifications

- GOST-R
- PTB (ATEX).



D-HG 400-51

### Functional description

A high-voltage capacitor is charged up to an energy level of 4.5J in the ignition device. Once the required energy level has been reached, a non-wearing electronic switch (thyristor) triggers a spark discharge at the ignition tip.

The device provides 20 ignition sparks per second for a duration of 1 min for reliable ignition during the start phase. It then switches to 5 ignition sparks per second.

### Models

- **D-HG 400-50**  
Compact design, electronics unit and ignition lance form one unit
- **D-HG 400-51**  
As D-HG 400-50, with push-button for ignition
- **D-HG 400-54 Ex**  
For potentially explosive atmospheres as per II 2G Ex de IIC T5/T6
- **D-HG 400-65**  
Separate design, ignition lance and electronics unit are connected together via a high-voltage cable
- **D-HG 400-72 Ex**  
For potentially explosive atmospheres as per II 2G Ex d IIC T5/T6
- **D-HG 400-80**  
As D-HG 400-50, but portable, with portable battery and integrated charger (D-HG 400-81)

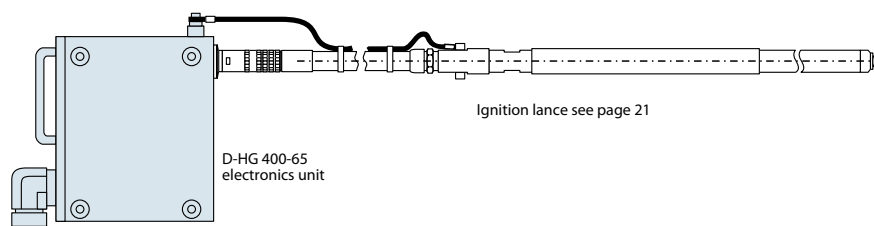
### D-HG 400-90

As D-HG 400-50, but with flexible ignition lance for tilting burners, only in conjunction with exterior guide tubing (D-HG 400-91).

### Ignition lances

The length of the ignition lance can be custom manufactured according to the requirements of the burner.

- **D-ZL 411 CG**  
Ignition lance with high-voltage cable connectable to D-HG 400-53 Ex, D-HG 400-72 Ex or customer device
- **D-ZL 421**  
Ignition lance with high-voltage cable for D-HG 400-65
- **D-ZL 422**  
Ignition lance with high-voltage cable and handles for D-HG 400-65 for manual operation
- **D-ZL 423**  
Ignition lance with high-voltage cable for D-HG 400-65, with additional connector on the ignition lance
- **D-ZL 430**  
Ignition lance with high-voltage cable for Class I, Div. 1, Group A, B, C & D
- **D-ZL 431**  
Ignition lance with high-voltage cable for Class I, Div. 2 Group A, B, C & D.



Ignition lance see page 21

D-HG 400-65 electronics unit

Mains voltage	115 / 230 VAC, 50 / 60 Hz or 24 / 48 VDC	Max. temperature of ignition tip	600°C permanent 800°C for short period (max. 2 min)
Switching performance	220 VA	Operational life of the ignition tip	10 <sup>6</sup> ignition sparks
Ignition voltage / energy	1500 V / 4.5 J	Ignition frequency	20 sparks/s for 1 min. thereafter 5 sparks/s
Power-on time	300 s (Duty cycle 50%)	Dimensions	108 x 188 x 237 mm (LxWxH)
Perm. ambient temperature	-20...+60°C	Weight (approx.)	D-HG 400-50 with 3m lance: 9.0 kg D-HG 400-65: 4.5 kg D-HG 400-54 Ex: 40.0 kg D-HG 400-72 Ex: 13.0 kg D-HG 400-80: 9.0 kg D-HG 400-81: 11.0 kg D-HG 400-90 with 3m lance: 9.0 kg D-ZL 4...: 1.6 kg/m
Protection	IP65 (400-50) IP66 (400-54 Ex)		
Switching capacity	250 VAC / 4 A		
Display	LED		

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