High energy ignition

The high energy ignition devices of the D-HG 400 and D-HG 500 series are suitable for the ignition of gas or liquid fuels in industrial burners of any capacity

D-HG 400-51 D-HG 500-51

Features

- Reliable ignition of gaseous fuels
- Ignition of liquid fuels, up to heavy oil grade 6
- Suitable as „Ignitor Class 3 Special" in accordance with NFPA 85
- Compact set-up with integrated ignition lance
- Separated set-up of ignition device and ignition lance for safe and hazardous areas
- Thyristor controlled and therefore non-wearing electronic
- Ignition feedback signal via potential-free relay output
- LED indication at device
- Integrated protection and control functionalities

Applications

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

Certifications

- ATEX/ IECEx
- EAC

Function

At the high energy igniters D-HG 400 and D-HG 500 a high-voltage capacitor is discharged and a spark is created at the ignition lance's tip. The spark discharge is triggered by a non-wearing switch (thyristor). Every spark produces –depending on the model – an energy of up to 5,6 Joule at a maximum ignition frequency of 20 sparks per second.

Capacity types

- **D-HG 400**
  Ignition feedback signal via LED at the device and potential-free relay output to the control room, maximum ignition energy of 90 Joule at a maximum ignition frequency of 20 sparks per second
- **D-HG 500**
  Ignition feedback and status signal via LEDs at the device and potential-free relay outputs to the control room, maximum ignition energy of 112 Joule at a maximum ignition frequency of 20 sparks per second
- **D-HG 550**
  As D-HG 500 but with the additional possibility for customizing of parameters and optional available control functionalities (via software D-ESI 100 by user or DURAG-Service)

Models

- **D-HG ...-50**
  Compact set-up, electronics and ignition lance are one unit
- **D-HG ...-51**
  Compact set-up as D-HG ... -50 with push-button for manual ignition
- **D-HG ...-52**
  Compact set-up as D-HG ... -50 with separated connections for signalling and power supply
- **D-HG ...-60**
  Separated set-up for safe areas: Electronic unit and ignition lance are connected by a high voltage cable
- **D-HG ...-61**
  Separated set-up as D-HG..-60 with push-button for manual ignition
- **D-HG ...-62**
  Separated set-up as D-HG..-60 with separated connections for signalling and power supply
- **D-HG ...-..Ex**
  Separated set-up for potentially explosive atmospheres 1&21 (ATEX)
- **Optional**
  Customized and project specific versions with flexible ignition lances for tilting burners

Electrical connection	115 VAC/ 230 VAC, 48-60 Hz	**Perm. ambient temperature**	D-HG 400: -20 °C to +60 °C D-HG 5x0: -40 °C to +80 °C
Power consumption	200 VA	**Display**	LEDs (Ignition feedback, status (only D-HG 5x0))
Ignition voltage	1500 V	**Protection**	IP65 (D-HG ..-5x/-6x) IP66 (D-HG ..-7xEx/-9xEx)
Inition energy/ second (max)	D-HG 400: 90 J D-HG 5x0: 112 J	**Dimension (D-HG-5x/6-6x)**	108x188x237 (BxHxT)
Ignition frequency	Max 20 sparks/ second	**Weight (appr., without ignition lances)**	D-HG ...-5x/6x: 4,5 kg D-HG ...-7xEx: 16 kg D-HG ...-9xEx: 18 kg
Power on time	50 %		

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