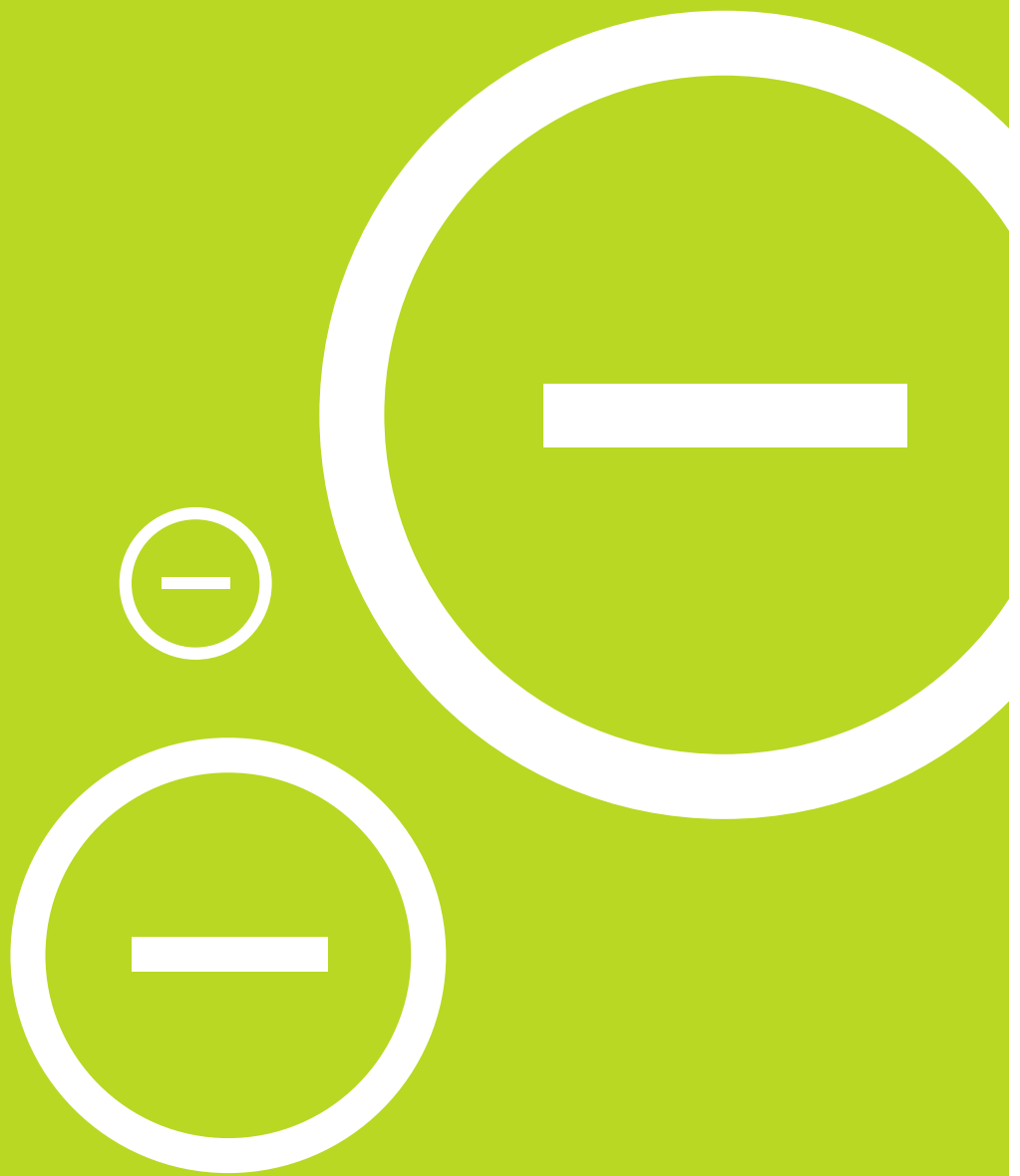
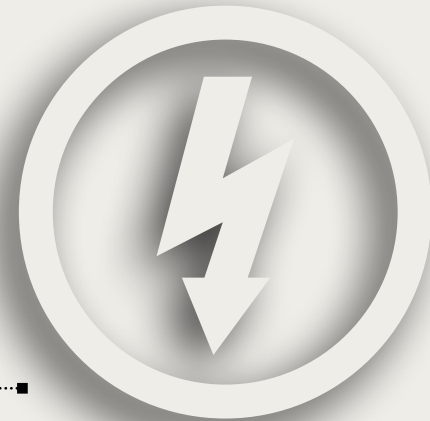


DISCHARGING



The driving force
for your discharge.

Power Supply



The high-voltage generators provide the electrical supply for all KERSTEN discharging components.

At Kersten, you will find the most compact and most efficient high-voltage generator for electrostatic discharge in its class.

If you need high-voltage generators for large installations, you will find the right solution at Kersten – compact and expansion possibility via the high-voltage distributor.

KERSTEN-PRODUCTS – YOUR BENEFITS

- Plug-in system
- Easy assembly
- Installation in tight spaces
- Flexible expansion options
- Suitable for various application areas
- No EMC problems
- Minimal maintenance / Maintenance free

GENERAL NOTICE

Custom-made products and customer-specific adaptations are possible at any time if necessary.

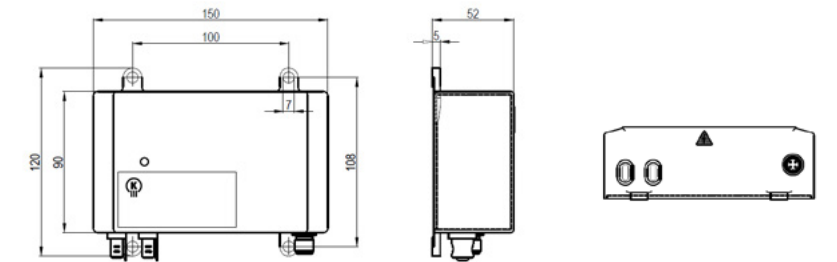


Find further information related to product category at www.kersten.de/en

DG 209

The driving force for your discharge. The high voltage generators provide the electrical supply for all KERSTEN discharging components.
Error information for generator and components included.

- Bipolar DC High Voltage
- Compact Design
- Plug-in system
- Highest output of ions

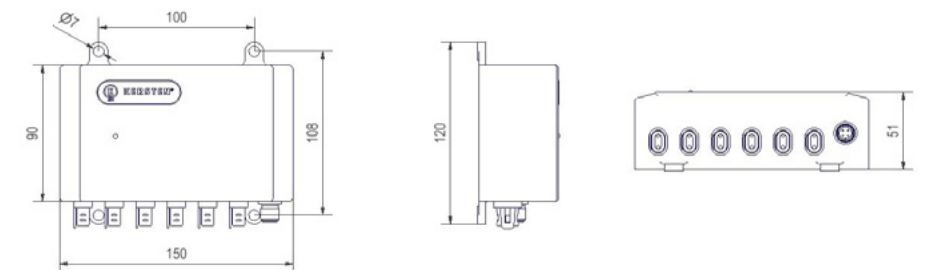


All dimensions in mm.

DG 309

The driving force for your discharge. The high-voltage generators provide the electrical supply for all KERSTEN discharging components.
Error information for generator and components is included.

- Bipolar DC High Voltage
- Compact Design
- Plug-in v
- Highest output of ions
- 6 high voltage slots

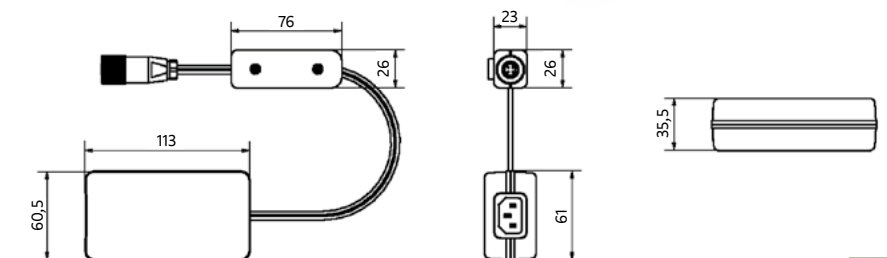


All dimensions in mm.

AN 112

The power supply unit AN 112 is used to supply the discharging generator. The power supply unit has a switch where the connected generator can be turned on or off.

- Use in the absence of 24 V DC
- Supply voltage 115/230 V AC 50/60 Hz

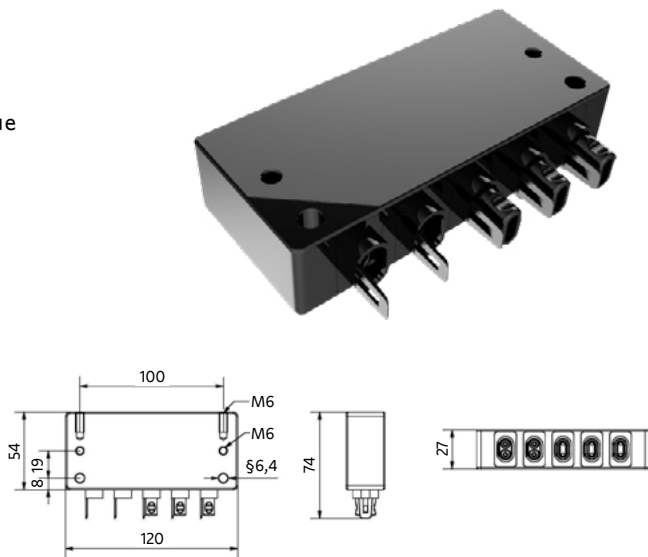


All dimensions in mm.

DV 109

DV 109 serves as a link between the generator and discharge components. The system can be expanded due to its additional slots.

- Additional sockets
- Compact design
- Plug-in system

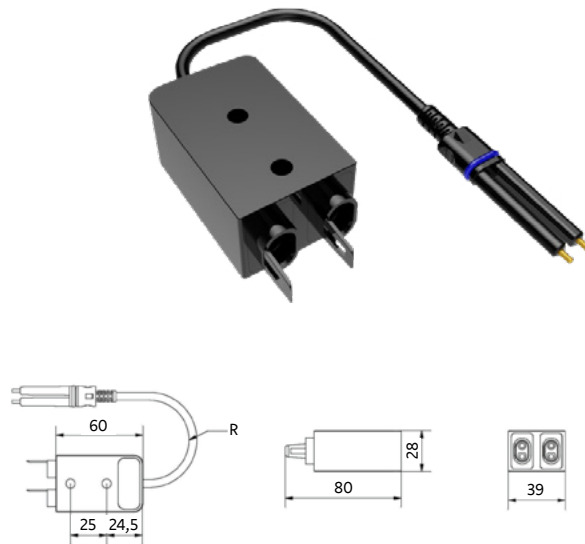


All dimensions in mm.

DV 209

System with flexibility: The DV 209 high voltage distributor is the little brother of the DV 109, offering you the option of extending your existing discharge system by a further member of the KERSTEN neXt® product family.

- Passive high voltage distributor
- Additional sockets
- Plug-in system



All dimensions in mm.



POWER
SUPPLY

TECHNICAL DATA		DG 209	DG 309	DV 109	DV 209	HIGH VOLTAGE DISTRIBUTOR
Max. Output Voltage	kV DC	<+9,0/>-9,0	<+9,0/>-9,0	<+9,0/>-9,0	<+9,0/>-9,0	<+9,0/>-9,0
Supply Voltage	V DC	24 +- 10%	24 +- 10%			
Max. active Power	W	56	56			
Number of high voltage Slots	Stk.	2	6	5 1x Power Supply 4x Component Slots	2	1
Type of Protection		IP 54	IP 54	IP 54	IP 54	IP 54

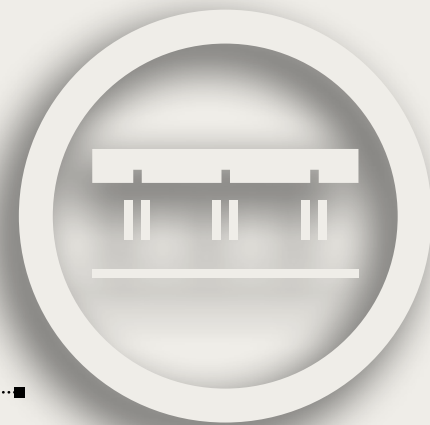
GENERAL ACCESSORIES

- Measuring Instruments:
Securing process quality through checks is an important topic. With the measurement devices offered by KERSTEN, you're able to have your entire process under control. We will gladly create an offer for you with the right measurement devices for your application
 - Electrostatic field meter
 - Digital multimeter
 - High voltage probe
- Pneumatic Supply:
The pneumatic supply and distribution systems offered by KERSTEN allow you to enjoy the benefits of air-assisted electrostatic discharging even without your own house air supply.
 - Compressor
 - Air fittings



Small product,
big effect.

Electrodes



The discharge electrodes by KERSTEN are the core component in order to control and neutralise electrostatic charges.

Kersten offers, for example, an extremely compact discharging electrode with the world's smallest electrode cross-section.

Furthermore, you will find products for universal use or for specialized applications, such as: an adjustable air duct, a flush mounted structure or longer unsupported lengths.

KERSTEN-PRODUCTS – YOUR BENEFITS

- Durable and robust due to GFRP
- Minimal maintenance / Maintenance free
- Safe to touch
- Continuous flow of ions

LEGEND

H = Heat resistant
L = with air support (fixed / adjustable)

GENERAL NOTICE

Custom-made products and customer-specific adaptations are possible at any time if necessary.

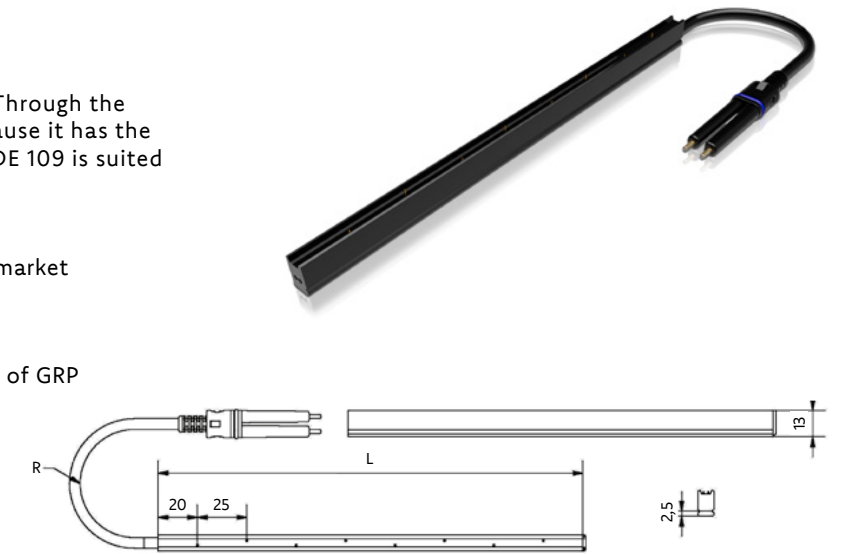


Find further information related to product category at www.kersten.de/en

DE 109

The smallest from the house of KERSTEN. Through the electrode's extremely slim design and because it has the smallest cross section on the market, the DE 109 is suited for the smallest of application spaces.

- Safe to touch
- Smallest electrode cross-section on the market
- Vacuum casted
- Customizable to the centimetre
- Installation in the smallest spaces
- Long lasting and durable through the use of GRP and HV needles made of tungsten
- Minimal maintenance effort

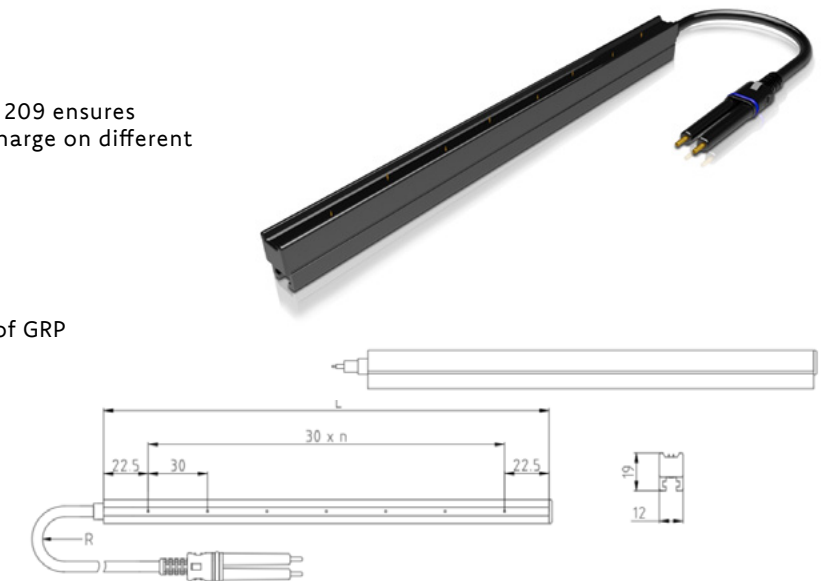


All dimensions in mm.

DE 209 (L) (H)

Our most popular discharging electrode. DE 209 ensures the effective elimination of existing static charge on different materials and optimizes your process.

- Safe to touch
- Small electrode cross-section
- Vacuum casted
- Customizable to the centimetre
- Long lasting and durable through the use of GRP and HV needles made of tungsten
- Minimal maintenance effort
- Plug-in system

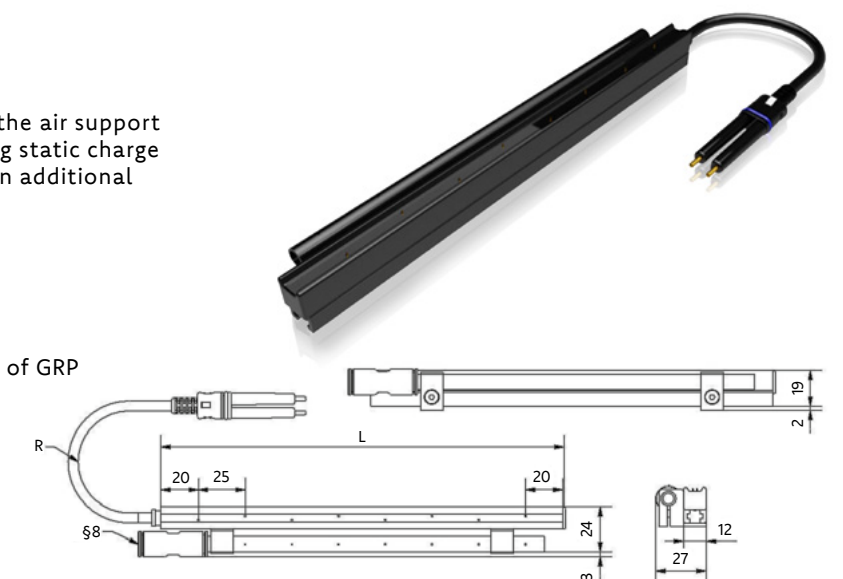


All dimensions in mm.

DE 219 L

The DE 219 L with adjustable exit angle of the air support ensures the effective elimination of existing static charge over longer ranges and is able to achieve an additional cleaning effect.

- Safe to touch
- Small electrode cross-section
- Adjustable exit angle of the air support
- Customizable to the centimetre
- Long lasting and durable through the use of GRP and HV needles made of tungsten
- Minimal maintenance effort
- Plug-in system



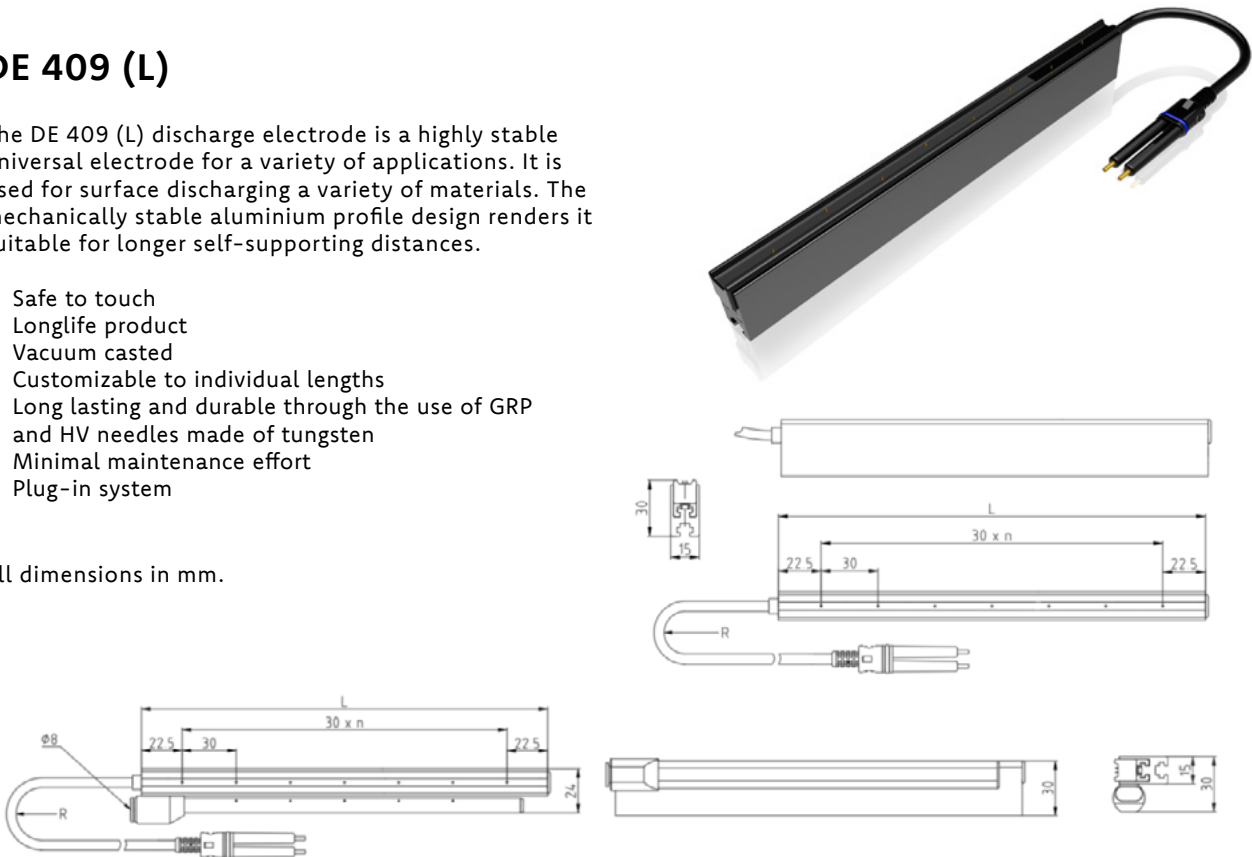
All dimensions in mm.

DE 409 (L)

The DE 409 (L) discharge electrode is a highly stable universal electrode for a variety of applications. It is used for surface discharging a variety of materials. The mechanically stable aluminium profile design renders it suitable for longer self-supporting distances.

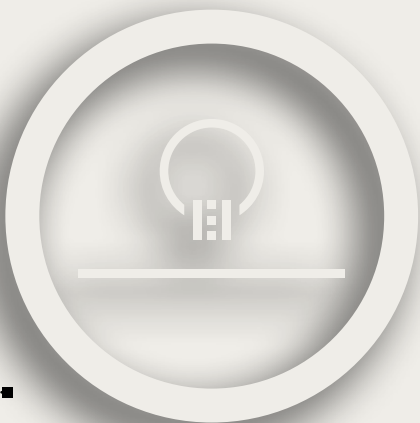
- Safe to touch
- Longlife product
- Vacuum casted
- Customizable to individual lengths
- Long lasting and durable through the use of GRP and HV needles made of tungsten
- Minimal maintenance effort
- Plug-in system

All dimensions in mm.



Brings air
to the point.

Nozzles



The discharge nozzles can be installed to pinpoint precision.
It can also be used to replace existing nozzles without ionisation.

Nozzles from Kersten can, for example: connect with existing articulated hose systems, are suitable for use in confined spaces, can be integrated into existing systems. You can also increase the nozzle operation via additional compressed air.

TECHNICAL DATA		DE 109	DE 209	DE 209 H	DE 209 L	DE 219 L	DE 409	DE 409 L
Available total lengths	mm	80–860*	80–3050*	80–3050*	80–3050*	80–3050*	1010–4010*	1010–4010*
Supply Voltage	kV DC	<+9,0/>-9,0	<+9,0/>-9,0	<+9,0/>-9,0	<+9,0/>-9,0	<+9,0/>-9,0	<+9,0/>-9,0	<+9,0/>-9,0
Max. effective distance at max. output voltage**	mm	380	380	380	1000	1000	380	1000
Grid width (tip distance)	mm	30	30	30	30	30	30	30
Needle material		Tungsten	Tungsten	Tungsten	Tungsten	Tungsten	Tungsten	Tungsten
Air consumption (1m) at 0.2 to 1.0 bar	m3/h				4,2–20,5	4,2–20,5		4,2–20,5
Minimum distance (operating direction)	mm	30	30	30	30	30	30	30
Minimum distance (lateral)	mm	40	40	40	40	40	40	40
Exterior material		GFK	GFK	GFK	GFK	GFK	GFK	GFK

* Active length = Available total lengths – 45mm
** slow process

GENERAL ACCESSORIES

- Measuring Instruments:

Securing process quality through checks is an important topic. With the measurement devices offered by KERSTEN, you're able to have your entire process under control. We will gladly create an offer for you with the right measurement devices for your application

 - Electrostatic field meter
 - Digital multimeter
 - High voltage probe
- Pneumatic Supply:

The pneumatic supply and distribution systems offered by KERSTEN allow you to enjoy the benefits of air-assisted electrostatic discharging even without your own house air supply.

 - Compressor
 - Air fittings

KERSTEN-PRODUCTS – YOUR BENEFITS

- Plug-in system
- Easy assembly
- Installation in tight spaces
- Suitable for various application areas
- No EMC problems
- Minimal maintenance / Maintenance free
- Suitable for your compressed air supply
- Continuous flow of ions

GENERAL NOTICE

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Find further information related to product category at www.kersten.de/en

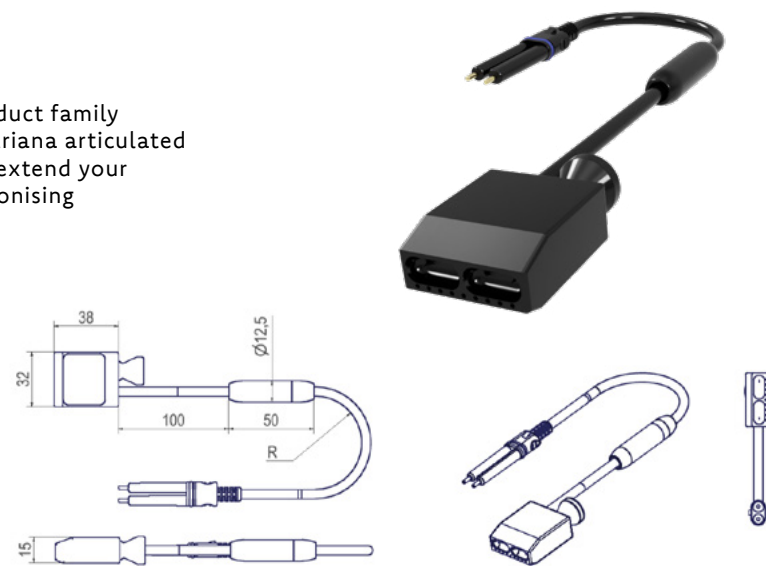


DD 109 (A)

The DD 109 discharge nozzles in the neXt® product family are designed to fit existing ball heads of 1/4" Ariana articulated hoses. This means that you may, for instance, extend your existing articulated hose system by adding deionising functionality.

- Compact design
- Improvement of processes
- Continuous flow of ions
- Easy to install
- Suitable for your compressed air supply
- Maintenance free

All dimensions in mm.

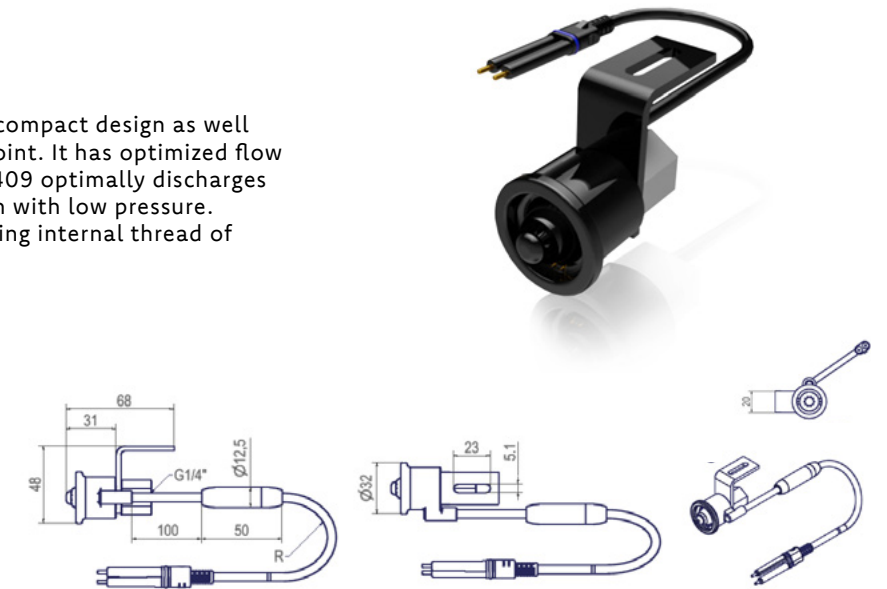


DD 409 (A)

The discharging nozzle DD 409 has a compact design as well as an air outlet that is focused to a point. It has optimized flow as well as having low-noise. The DD 409 optimally discharges all materials with high efficiency, even with low pressure. Air connection is provided by an existing internal thread of G1/4".

- Flow-optimised
- Compact design
- Improvement of processes
- Continuous flow of ions
- Low noise
- Easy to install
- Suitable for your compressed air supply
- Maintenance free

All dimensions in mm.

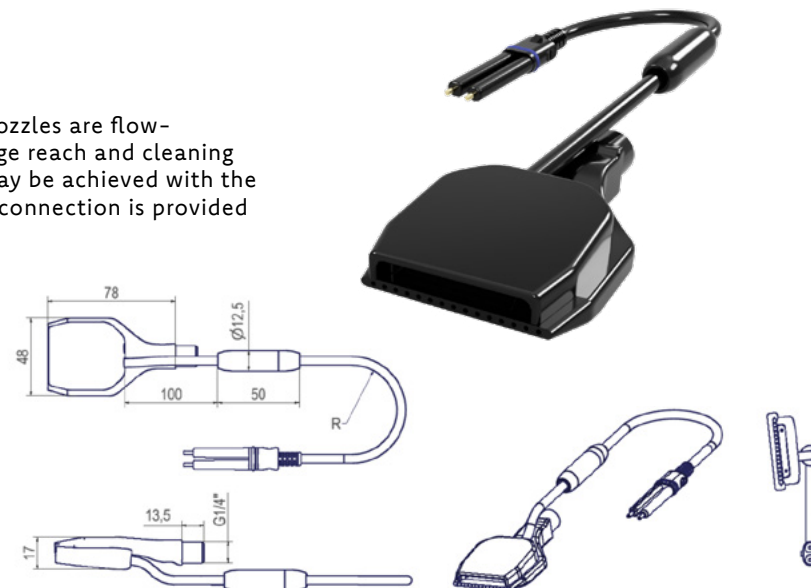


DD 209 (A)

The DD 209 and DD 209 (A) discharging nozzles are flow-optimised. A greater electrostatic discharge reach and cleaning effect on the material to be discharged may be achieved with the additional support of compressed air. Air connection is provided via a G1/4" female thread.

- Compact design
- Improvement of processes
- Continuous flow of ions
- Easy to install
- Suitable for your compressed air supply
- Maintenance free

All dimensions in mm.

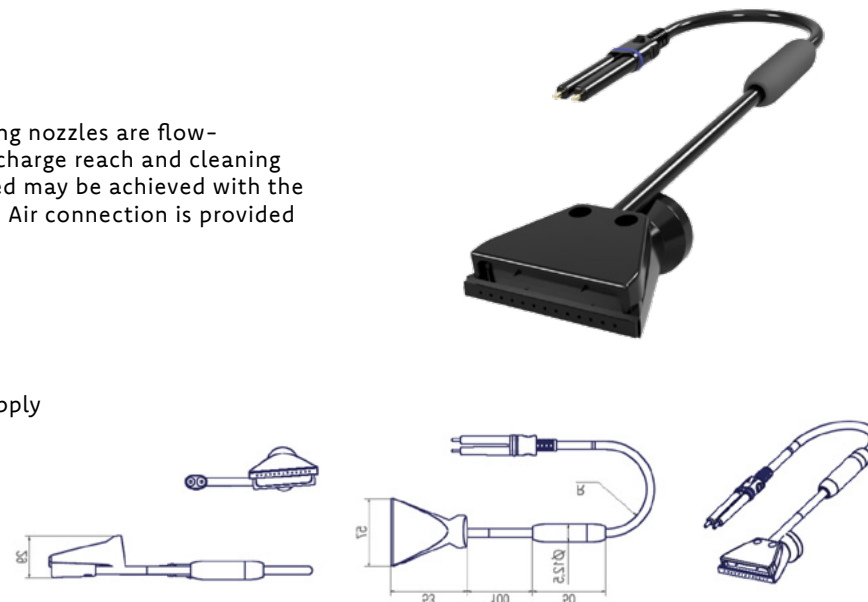


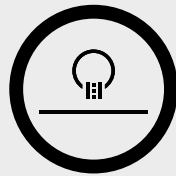
DD 229

The DD 209 and DD 209 (A) discharging nozzles are flow-optimised. A greater electrostatic discharge reach and cleaning effect on the material to be discharged may be achieved with the additional support of compressed air. Air connection is provided via a G1/4" female thread.

- Compact design
- Improvement of processes
- Continuous flow of ions
- Easy to install
- Suitable for your compressed air supply
- Maintenance free

All dimensions in mm.





NOZZLES

TECHNICAL DATA		DD 109	DD 119	DD 129	DD 209	DD229
Supply Voltage	kV DC	<+9,0/>-9,0	<+9,0/>-9,0	<+9,0/>-9,0	<+9,0/>-9,0	<+9,0/>-9,0
Max. effective distance at max. output voltage*	mm	1000	1000	1000	1000	1000
Needle material		Tungsten	Tungsten	Tungsten	Tungsten	Tungsten
Air supply (oil, water and dust free)	bar	0,5-2,5	0,5-2,5	0,5-2,5	0,5-2,5	0,5-2,5
Minimum distance (operating direction)	mm	30	30	30	30	30
Minimum distance (lateral)	mm	40	40	40	40	40

TECHNICAL DATA		DD309	DD 419	DD 509	DD 606
Supply Voltage	kV DC	<+9,0/>-9,0	<+9,0/>-9,0	<+9,0/>-9,0	<+5,0/>-4,0
Max. effective distance at max. output voltage*	mm	1000	1000	1000	1000
Needle material		Tungsten	Tungsten	Tungsten	Tungsten
Air supply (oil, water and dust free)	bar	0,5-2,5	0,5-2,5	0,5-2,5	0,5-2,5
Minimum distance (operating direction)	mm	30	30	30	30
Minimum distance (lateral)	mm	40	40	40	40

GENERAL ACCESSORIES

- Measuring Instruments:

Securing process quality through checks is an important topic. With the measurement devices offered by KERSTEN, you're able to have your entire process under control. We will gladly create an offer for you with the right measurement devices for your application

 - Electrostatic field meter
 - Digital multimeter
 - High voltage probe
- Pneumatic Supply:

The pneumatic supply and distribution systems offered by KERSTEN allow you to enjoy the benefits of air-assisted electrostatic discharging even without your own house air supply.

 - Compressor
 - Air fittings



Point-precise
and clever.

Heads

The discharging heads can be installed to pinpoint precision and can also be combined with existing nozzles without ionisation.

The heads can be used for the discharge of various materials. Due to their compact design, they can also be used in small spaces and can also be affixed onto articulated hoses or flat nozzles using a variety of mounts.

KERSTEN-PRODUCTS – YOUR BENEFITS

- Plug-in system
- Easy assembly
- Installation in tight spaces
- Suitable for various application areas
- No EMC problems
- Minimal maintenance / Maintenance free
- Suitable for your compressed air supply
- Continuous flow of ions

GENERAL NOTICE

Custom-made products and customer-specific adaptations are possible at any time if necessary.



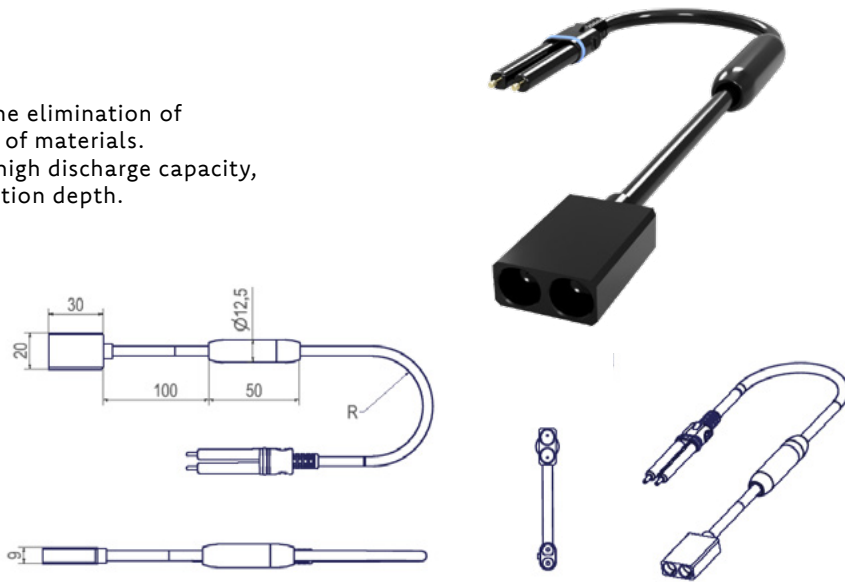
Find further information related to product category at www.kersten.de/en

DK 109

The discharging head DK 109 ensures the elimination of electrostatic charges on a wide variety of materials. DK 109 distinguishes itself through its high discharge capacity, variable positioning, and slim construction depth.

- Compact design
- Bipolar DC High Voltage
- Continuous flow of ions
- Excellent cleaning results
- Improvement of processes

All dimensions in mm.

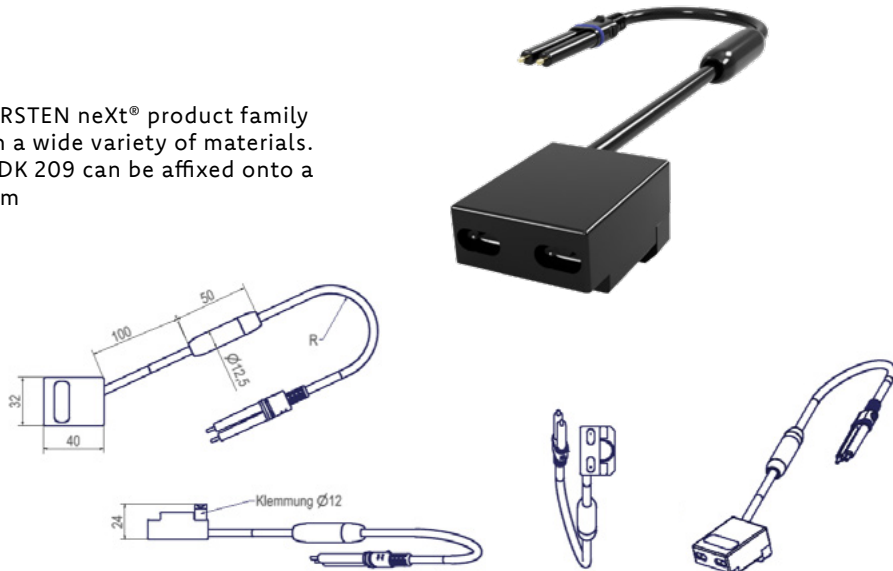


DK 209

Discharging head DK 209 of the KERSTEN neXt® product family eliminates electrostatic charges on a wide variety of materials. Through the clamp mounting, the DK 209 can be affixed onto a tube with a diameter of up to 12mm

- Compact design
- Bipolar DC High Voltage
- Continuous flow of ions
- Excellent cleaning results

All dimensions in mm.

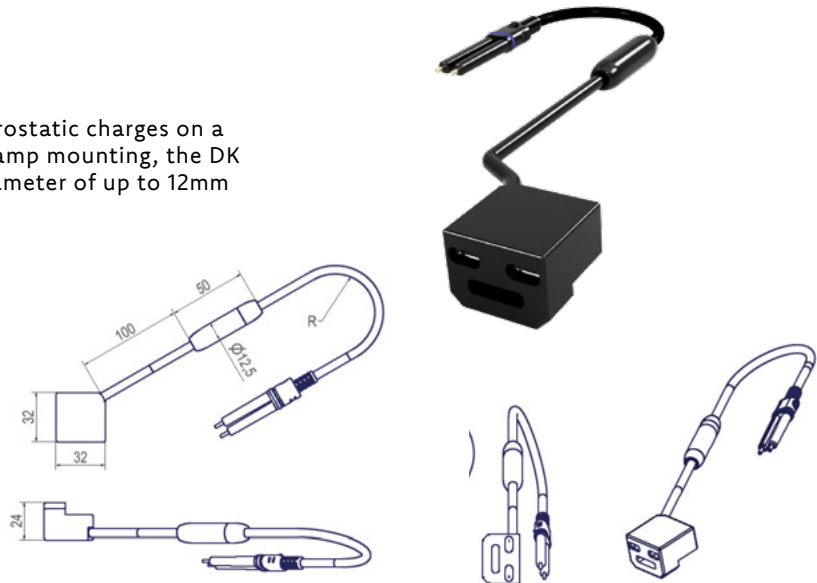


DK 219

Discharging head DK 219 eliminates electrostatic charges on a wide variety of materials. Through the clamp mounting, the DK 209 can be affixed onto a tube with a diameter of up to 12mm

- Compact design
- Bipolar DC High Voltage
- Continuous flow of ions
- Excellent cleaning results

All dimensions in mm.



HEADS

TECHNICAL DATA		DK 109	DK 209	DK 219	DK 409
Supply Voltage	kV DC	<+9,0/>-9,0	<+9,0/>-9,0	<+9,0/>-9,0	<+9,0/>-9,0
Max. effective distance at max. output voltage*	mm	380	380	380	380
Combined with Nozzle (Client)			1000	1000	1000
Needle material		Tungsten	Tungsten	Tungsten	Tungsten
Minimum distance (operating direction)	mm	30	30	30	30
Minimum distance (lateral)	mm	40	40	40	40

* slow process

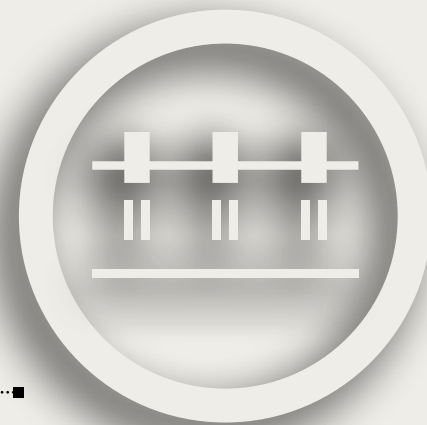
GENERAL ACCESSORIES

- Measuring Instruments:
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 - Electrostatic field meter
 - Digital multimeter
 - High voltage probe
- Pneumatic Supply:
The pneumatic supply and distribution systems offered by KERSTEN allow you to enjoy the benefits of air-assisted electrostatic discharging even without your own house air supply.
 - Compressor
 - Air fittings



Individuality in the ranks.

Rows



The Kersten discharge lines offer a variety of combinations.

The Kersten neXt® discharging rows offer you many benefits through their flexible adjustment options. They can be used, for example, in air-assisted separation of materials and can be used flexibly.

Furthermore, you will also find a Kersten discharging row for discharging and cleaning hollow parts such as PET bottle blanks.

KERSTEN-PRODUCTS – YOUR BENEFITS

- Minimal maintenance / Maintenance free
- Suitable for your compressed air supply
- Continuous flow of ions
- Individual configurations possible

GENERAL NOTICE

Custom-made products and customer-specific adaptations are possible at any time if necessary.

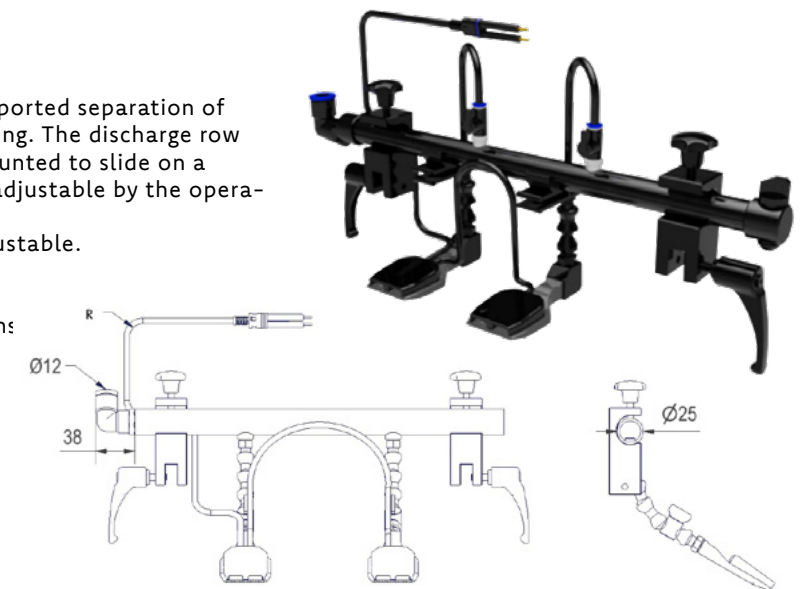


Find further information related to product category at
www.kersten.de/en

DR 209

The DR 209 discharge row offers air supported separation of materials, such as sheets in offset printing. The discharge row comprises several discharge nozzles mounted to slide on a carrier pipe. The air supply is centrally adjustable by the operator and each nozzle is also individually adjustable.

- Variable adjustment options
- Multiple air flow customization options
- Suited for very fast processes
- Example: Assures smooth sheet run



All dimensions in mm.

GENERAL ACCESSORIES

- Measuring Instruments:
Securing process quality through checks is an important topic. With the measurement devices offered by KERSTEN, you're able to have your entire process under control. We will gladly create an offer for you with the right measurement devices for your application
 - Electrostatic field meter
 - Digital multimeter
 - High voltage probe
- Pneumatic Supply:
The pneumatic supply and distribution systems offered by KERSTEN allow you to enjoy the benefits of air-assisted electrostatic discharging even without your own house air supply.
 - Compressor
 - Air fittings



www.tuev-sued.de/ps-zert



Discharging
with accuracy.

Discharging Pistol



The discharging guns are ideally suited for the discharge of substrates and for blowing off dirt. They are distinguished by their high efficiency, even at low pressure.

KERSTEN-PRODUCTS – YOUR BENEFITS

- Suitable for various application areas
- No EMC problems
- Minimal maintenance / Maintenance free
- Suitable for your compressed air supply
- Continuous flow of ions
- Plug-in system

GENERAL NOTICE

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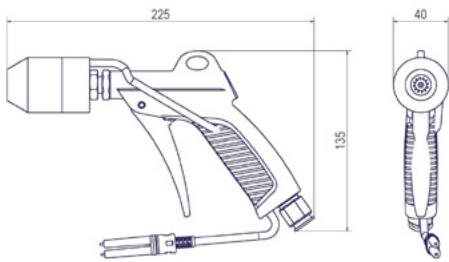
Find further information related to product category at www.kersten.de/en

DP 106

The new discharging pistol from KERSTEN.
The DP 106 is best suited for mobile and flexible use on diverse material and surfaces at your site.

- Excellent cleaning results
- Safe to touch
- Easy to use
- Plug-in system
- Suitable for a wide range of applications
- Fits to your compressed air supply
- Easy to install
- Continuous flow of ions
- Requires individual power supply

All dimensions in mm.



TECHNICAL DATA		DP 106
Output Voltage *	kV DC	<+5,0/>-5,0
Max. effective distance at max. output voltage*	mm	1000
Needle material		Tungsten
Numbers of Needles	St.	8
Type of Protection	IP	54

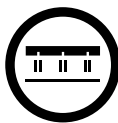
*Power Supply: Product-specific generator

GENERAL ACCESSORIES

- Measuring Instruments:
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 - Electrostatic field meter
 - Digital multimeter
 - High voltage probe
- Pneumatic Supply:
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 - Compressor
 - Air fittings



www.tuev-sued.de/ps-zert



The long range electrode enables optimum discharge performance from 300 mm to 1300 mm. Automatic control, integrated distancesensor, and external operability are standard features.

- Automatic regulation and external control
- Tungsten needles
- Suitable for all long range applications

- Plug-in system
- Longlife product
- Minimal maintenance effort
- Easy to install

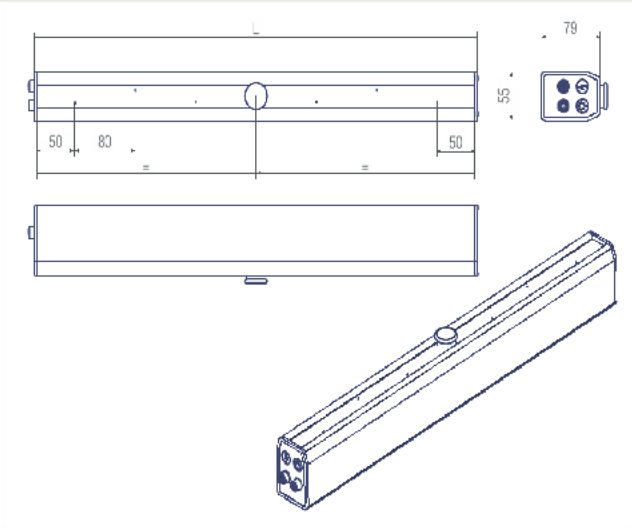
- Made in Germany for over 40 years
- Needs-based consultation
- Tailor-made solutions
- Very short delivery times

TECHNICAL DATA
DE 1025

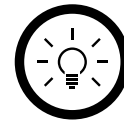
GENERALS			
Supply voltage	U _N	V DC	24 ± 20
Output voltage (pulsed)	U _a	kV DC	± 25
Internal protection	I	A	3.0
Maximum active power	P _W	W	48
Maximum operating current	I _B	A	2.0
Grid width (tip distance)		mm	80
Available lengths(grid width)	L	mm	500 - 1940* (160)
DETAILS			
Effective distance		mm	300 - 1300
Minimum distance to metal surfaces (lateral / operating direction)		mm	50 / 50
External release			potential-free contact
Pulse frequency	f	Hz	0.5 - 10
Modbus TCP/IP	DTR	Mbits/s	100
Ethernet 10/100 Base TX	DTR	Mbits/s	100
Type of protection	IP		65
CLIMATIC CONDITIONS			
Temperature during transport and storage	T	°C / °F	-25- +85 / -13- +185**
Temperature during operation	T	°C / °F	+5- +40 / +41- +104***
Relative humidity	RH		<80
DIMENSIONS			
	L/W/H	mm	L / 55 / 79

*active length = total length -100mm **acc. UL50 TypB / class 3K3

TECHNICAL DRAWING



All dimension
measurements in mm



The function tester KERSTPEN can be used for contactless testing of all KERSTEN discharge components up to $\pm 25\text{KV}$.

The successful measurement is indicated by an optical signal.

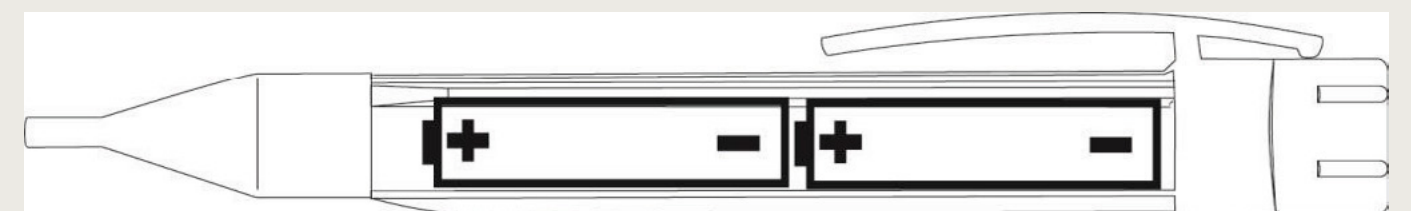
- contactless
- portable
- for all KERSTEN discharging components up to 25KV .

- Made in Germany for over 40 years
- Needs-based consultation
- Tailor-made solutions
- Fast delivery

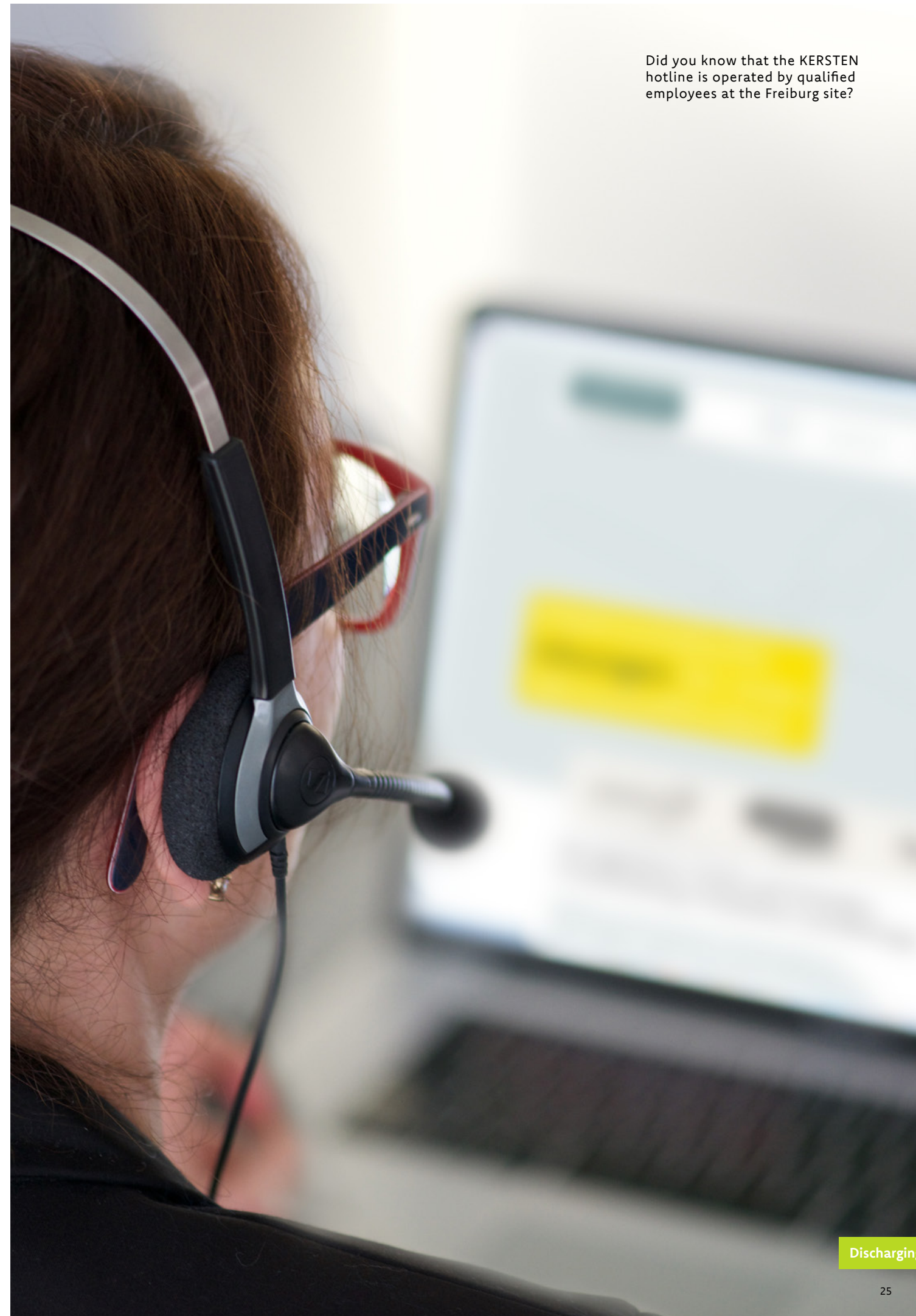
TECHNICAL DATA AM 601

GENERAL		
Voltage range	V AC	230-1000
Sensitivity		shines red by 4mm / 230 V AC
Power	2x 1,5V	AAA Batteries
Altitude	M	<2000
DETAILS		
Over-Voltage		CAT III 1000V
Protection		IP 64
Weight		40g (including batteries)
CLIMATIC CONDITIONS		
Conditions	°C	-20 - +50
Operating Temperature	°C	-20 - +50
DIMENSIONS		
	L / Ø	148mm / max. 17mm

TECHNICAL DRAWING



Did you know that the KERSTEN
hotline is operated by qualified
employees at the Freiburg site?



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