

Intelligent electrostatic neutralising system

iONstream FUSION



6 kV / 12 kV **AUTO^{DC}**® Technology
TRUE^{DC}® Sensor Technology

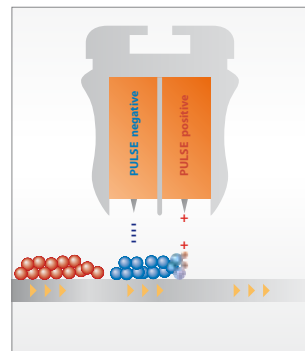


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System description

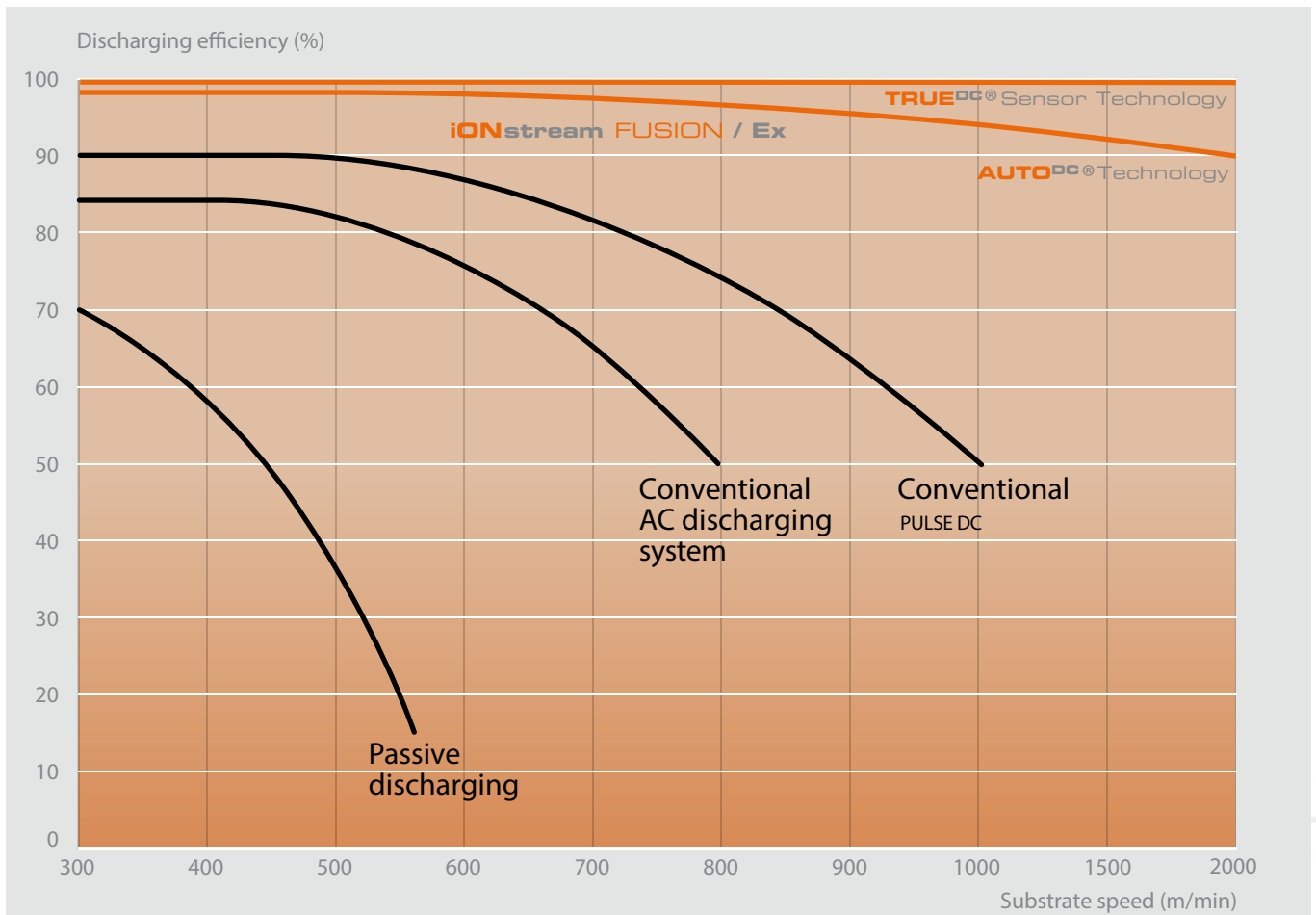
iONstream FUSION is a high performance AUTO^{DC}® & TRUE^{DC}® static neutralising system. It incorporates the latest technological developments and is micro-controller operated with local embedded intelligence. Electrode contamination and emitter pin status, as well as neutralising efficiency, are continuously monitored and visualised. Each neutralising bar is accessible via a GateWay, a Mastertouch-Screen PC or WLAN wireless. Parameters can easily be read and controlled by process engineers. The specially developed AUTO^{DC}® & TRUE^{DC}® technology senses the polarity of the charge on the target substrates surface and automatically corrects the pulse/pause relationship towards the dominant polarity surface charge in order to achieve maximum neutralising effect. In TRUE^{DC}® mode 100% neutralisation can be achieved regardless of machine speed. All electronic and high voltage components are encapsulated within the bar profile. iONstream

FUSION is available in two versions, a +/-6 kV standard application version and a +/-12 kV long range version. If connected to a network, up to 127 units can be monitored and controlled.



EN 61326
EN 61000
EN 55011
EN 601010
CE conform

Principle of operation

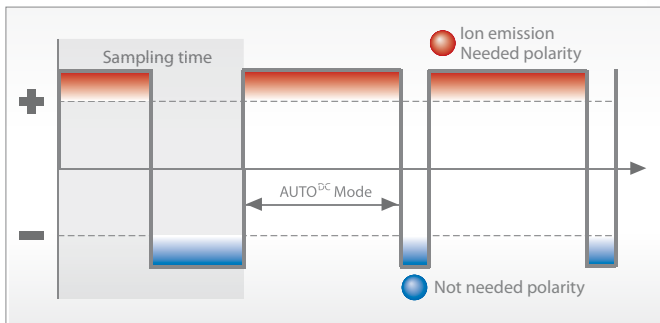


System discharging efficiency comparison (dynamically)

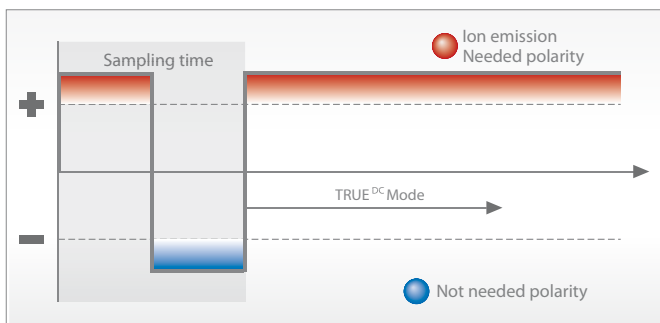
Technology

By applying alternate positive and negative high voltage current to the emitter pins, ions of both polarities are generated. **IONstream FUSION**'s special **AUTO^{DC}** technology generates substantially more ions due to its perfect control of the pulse/pause relationship and therefore provides a much more homogenous electrostatic field when compared to any other conventional **PULSE^{DC}** method neutralising systems. When operating in **TRUE^{DC}** mode the system operates without a zero volt pass point and same polarity output as the target material. The highly efficient pin shape and its sharpness is maintained during the full life time of the neutralising bar. Our revolutionary design of the static neutralising bar is constructed with a special glass fibre re-enforced extrusion incorporating non-metallic shields which work in harmony with the electrostatic field of the emitter pins. The result of this revolutionary technology and intelligence is an effective neutralising range of up to 1500 mm in certain applications. The expert DOE software, in combination with its real time micro-controller functionality, allows easy inte-

gration into today's industrial fieldbus as well as Ethernet networks. Our experienced application engineers can assess your machine and advise on how to effectively install the **IONstream FUSION** into your production process to 'eliminate' your static issues.



AUTO^{DC} method



TRUE^{DC} method

Options:

- Customer interface via „Anybus“ GateWay
- TRUE^{DC} operation with external sensor
- 'Ex' hazardous version available



IONstream FUSION System advantages

Application:

- AUTO^{DC} Technology up to **100 Hz**
- TRUE^{DC} Sensor Technology
- 24V DC supply, all electronic components integrated in neutralising bar profile
- Local multi-function status LED
- Micro-controller operated; contamination and emitter pin status detection
- Discharging efficiency up to 1500 mm
- Network compatible, internal CANopen bus to communicate with touch panel or „Anybus“ Gate-Way
- Bluetooth and WLAN compatible

Economical:

- 100% process control with log book of system parameters
- TQM Sensor option to detect and protocol residual charge

Safety:

- Shock proof according EN norm
- ATEX certification for zone 1 II 2G IIB T6 and zone 21 II 2D IIIB T85 °C PTB 16 ATEX 5007 X

Ecological:

- Ozone generation < 0.1 ppm
- Lowest energy consumption in its class



Monitoring & communication

Customized real time visulisation of all network users position and status.



Overview of the network participants with „one touch“ status display

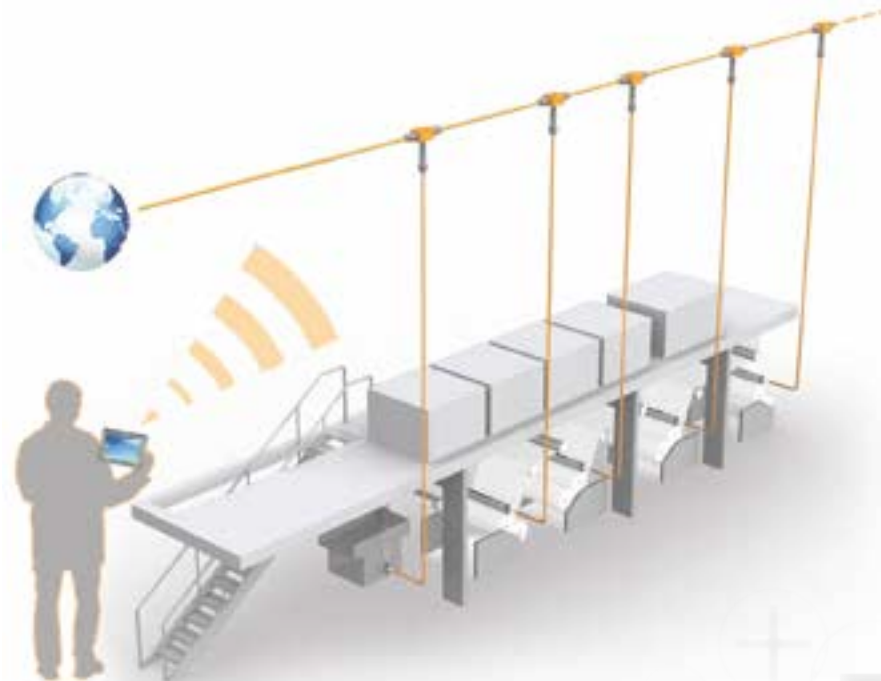


Recording and logging of residual charge data with iONsense FUSION.



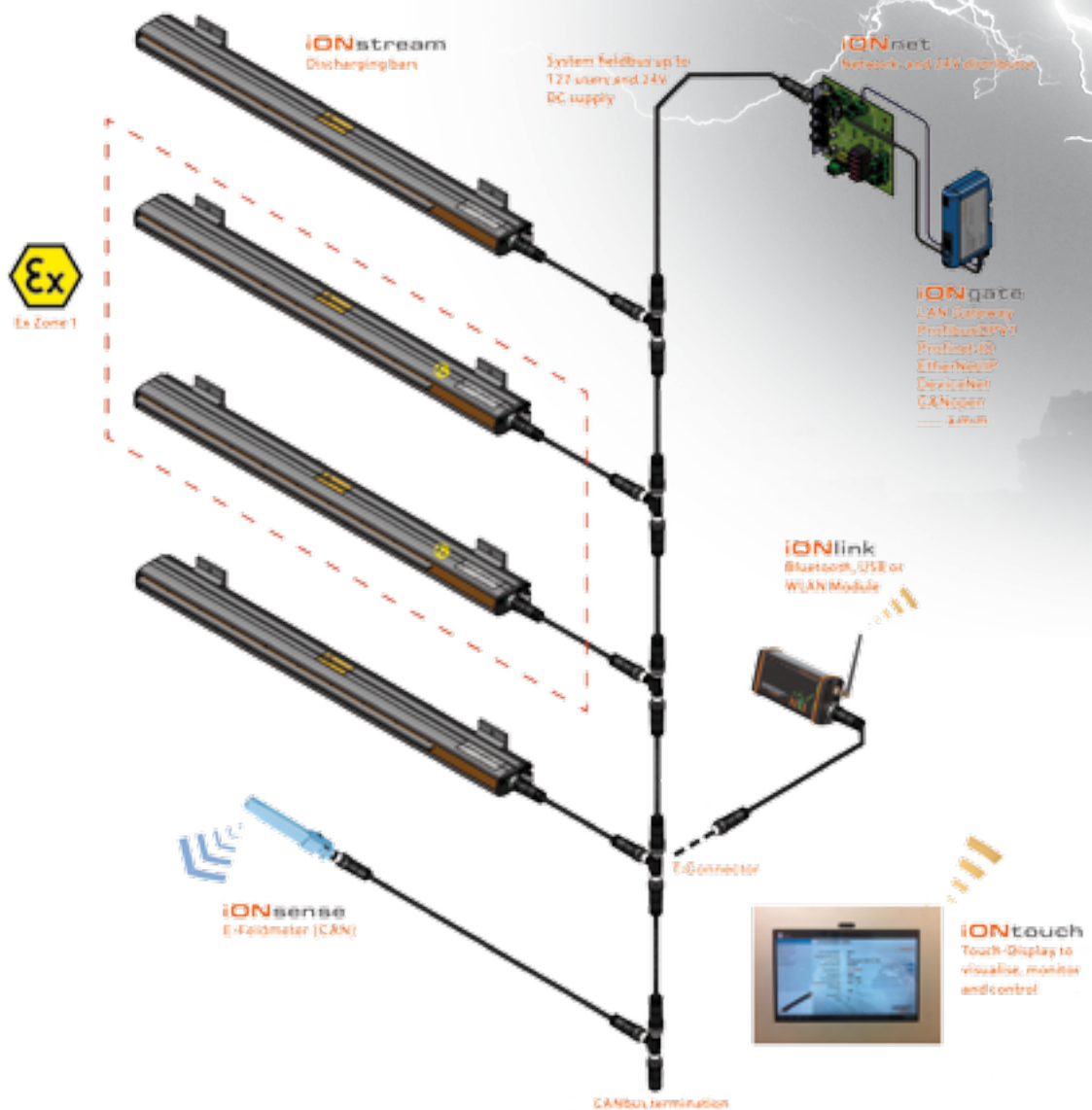
Access via iONpilot APP

Acces via **iONpilot** APP for Smart Devices, Tablet etc. or via Webbrowser.



Network capability

iONstream FUSION can be quickly and easily integrated into a process control system over an industrial network. Our „Anybus“ Gate-Way seamlessly adapts to all common fieldbus systems with plug-and-play functionality.





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