

# STATIC ELIMINATION WITH AUTOMATED RANGE CONTROL

The NEOS 30 OEM is an innovative long-range static eliminator designed specifically for OEMs. Ideally suited to winding machinery or converting applications, the NEOS 30 OEM features PLC-controlled output that allows the ionising range of the static eliminator to be optimised continually as its distance to the web changes.

The output frequency of the bar is directly controlled by the customer's existing PLC, without the need for additional sensors. This provides machinery manufacturers and end users with increased scope to optimise process output quality.



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FRASER ANTI-STATIC — THE EXPERTS IN CONTROLLING STATIC ELECTRICITY

How can we **help you?** Contact us on **01223 806000** or **01223 806001**



## HOW THE NEOS 30 OEM WORKS

The NEOS 30 OEM, with PLC-automated range control, is a long-range static eliminator designed to accept an additional signal representing target distance. This external input signal finely adjusts the Bar HV output frequency as the distance of the charged material varies, such that optimal electrostatic neutralisation can occur.

Developed specifically for OEMs, the NEOS 30 OEM is ideally suited to winding and converting applications where the distance between the charged material and the static eliminator changes during manufacturing processes.

Watch video at [www.fraser-antistatic.com/en/neos-30-oem](http://www.fraser-antistatic.com/en/neos-30-oem)

## BENEFITS AT A GLANCE

- Ionising range optimised continually as the Bar's distance to the web changes
- PLC-controlled ionisation output frequency eliminates the need for any additional sensors
- Shockless, resistively-coupled and replaceable tungsten emitters for long life
- 100% coverage across the Bar, leaving no 'dead zones'
- Simple to mount and available in varying lengths from 600mm to 5,000mm
- 24 V DC power supply makes the NEOS 30 OEM a versatile and flexible choice
- Encapsulated in epoxy resin in reinforced FR-ABS extrusion for maximum durability

## MAXIMISING EFFICIENCY AND RESULTS

- Compact, yet targeted, in the most challenging and varying geometry
- Configured to neutralise charges at a range of 200mm to 1,500mm
- Reliable electrostatic control at speeds of up to 1,500m/minute
- HV power generated within the bar eliminates the need for an AC supply
- Remote and local monitoring of operational status with 'clean me' function
- High-performance neutralisation for optimal process output quality

## MARKETS AND APPLICATIONS

The NEOS 30 OEM is the world's first static eliminator with PLC-automated range control. Ideally suited to manufacturers and end users of:

- Converting equipment
- Slitters and rewinders
- Cast and blown film machinery
- Laminators

## OPERATION

The NEOS 30 OEM is a long-range static eliminator for distances between 200mm and 1,500mm. Featuring PLC-automated range control, it is suited to applications such as unwinders and rewinders where geometry changes continually.

The output frequency of the Bar is directly controlled through the customer's existing PLC, without the need for additional sensors. High voltage power is generated within the Bar, eliminating the need for an AC supply.

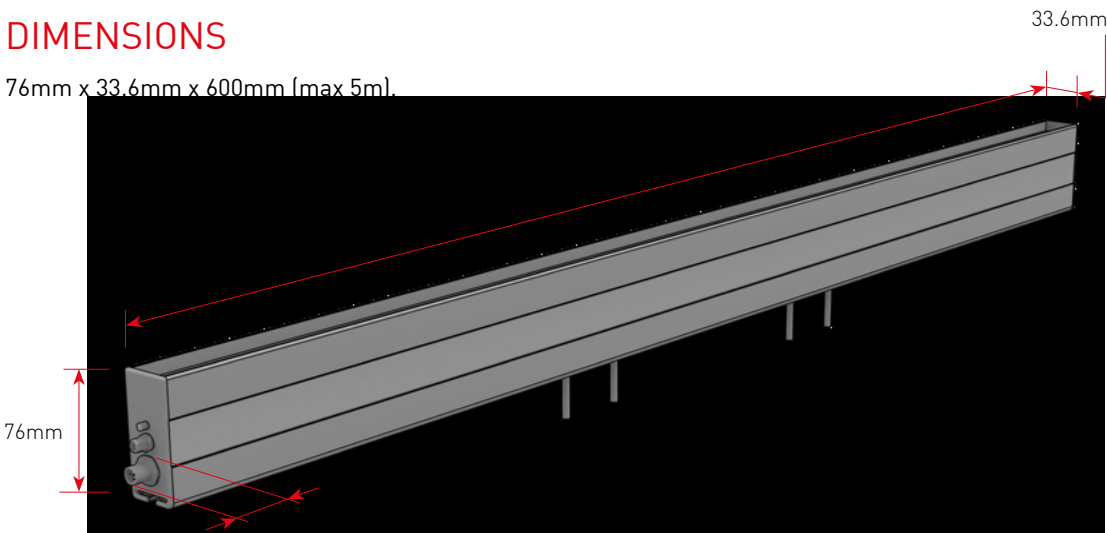
Simple to mount and available in varying lengths, the NEOS 30 OEM can handle speeds of up to 1,500 metres per minute and reliably neutralises static electricity to enhance process output quality and productivity in modern manufacturing environments.

## NEOS AUTOMATED RANGE CONTROL

The 4–20 mA current loop input signal allows the Bar output frequency to change as the distance to the charged material changes for optimal electrostatic neutralisation. This additional signal must be supplied by customer equipment to the Bar using a 3-pole M8 male connector, mounted on the Bar end-cap above the M12 connector.

## DIMENSIONS

76mm x 33.6mm x 600mm (max 5m).



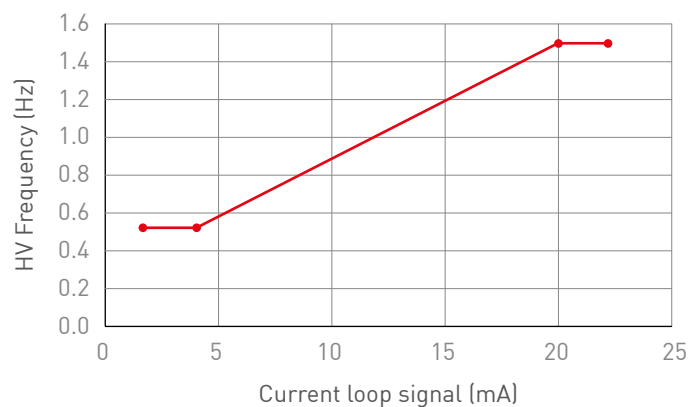
## HARDWARE SPECIFICATIONS

Sensing current range: 4 mA – 20 mA  
Sense (burden) resistance:  
250  $\Omega$   $\pm$  1%, 5 V drop at 20 mA full-scale  
Common-mode voltage range (loop compliance):  
0 V – 30 V (up to 6 in series feasible)  
Input impedance (common-mode): >100 k $\Omega$   
Overload voltage (common-mode, continuous): 60 V  
Maximum overload current (continuous): 30 mA  
Maximum overload (<1s): 50 mA  
Connector: M8 male 3-pole

## FIRMWARE SPECIFICATIONS

Frequency range: 0.5 Hz (4 mA) to 1.5 Hz (20 mA)  
Frequency tolerance:  $\pm$ 5%  
Mapping, frequency to current: Linear  
Out-of-range error detection:  
<2 mA = 0.5 Hz, >22 mA = 1.5 Hz  
Response time: <1s

HV Output Frequency vs Current Loop Input



Custom frequency response available.  
Contact Fraser for details.

## ACCESSORIES/SPARES

Description	Part No.	Description	Part No.
M12 3m cable with 180° connector	81193	M12 3m cable with 90° connector	81199
M12 5m cable with 180° connector	81194	M12 5m cable with 90° connector	81200
M12 7.5m cable with 180° connector	81195	M12 7.5m cable with 90° connector	81201
M12 10m cable with 180° connector	81196	M12 10m cable with 90° connector	81202
Additional mounting set	34208	NEOS AC/DC 24 V Power Supply*	NEOS-PSU
M8 5m cable with 180° connector	80930	M8 10m cable with 180° connector	80932

24 V Cables must be ordered separately. They have standard M12 5-pin female connectors.

\*Do not use ANY other standard power supplies with this product. Third party power supplies WILL cause damage and void warranty.

## ELECTRICAL SUPPLY

### Input:

24 V DC (21-27 V), maximum current required  
2.2 A, M12 5-pin connector

### High Voltage Supply:

30 kV supply integrated into Bar

### Remote Monitor:

2 signals available: 'HV OK' and 'Attention' can be used to drive external loads or interface to systems (lamp, relay, PLC, as required)

### Automated Range Control:

4-20 mA current loop input (0.5-1.5 Hz as standard)

## SIZE

NEOS 30 OEM minimum length 600mm, then 750mm, then steps of 250mm to 5m

## MOUNTING

Each slide has two M6 40mm studs. Two fixing slides for Bars up to 1m, plus one extra for every additional 500mm

## MATERIALS

Reinforced FR-ABS industrial grade extrusion and end-cap, fully encapsulated with epoxy resin

NEOS 30 OEM - Product weight: 3.6 kg/m

## ENVIRONMENTAL

Operating conditions: -10 to 55°C, 70% RH non-condensing

## STANDARDS

Protection classification: IP66. Fully sealed.

CE, UL and CB



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