Wabtec CORPORATION

SmartCarbon

Wear detection

Current Collector

No waste of material & less frequent replacement

- Precise detection of defined wear limit.
- Carbon strip completely used.
- Dynamic replacement interval saving up to 50% of material.

No waste of material & less frequent replacement

- Lightweight solution (<400g),
- Compact design.
- Easy to integrate on existing fleets.

No more strip thickness measurement on the roof

- Alert chosen at customizable wear level.
- Alert sent to location defined by customer.
- Saving up to 7h of train maintenance per year per pantograph.
- Extending maintenance intervals.

Technical characteristics	
Power supply	No external source required (internal battery)
Additional power bank (option)	12VDC external battery
Communication	Wireless communication protocol BLE type
Analog / Digital inputs	2 x isolated digital inputs
Storage	Flash 512kb
Protection Class	IP65
Specific peripherals (options)	1 x PT1000 input measurement 6 axis accelerometers Internal temperature and HR measurement

Contact:

PanTrac GmbH
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Arc Protection Design

Winter strip

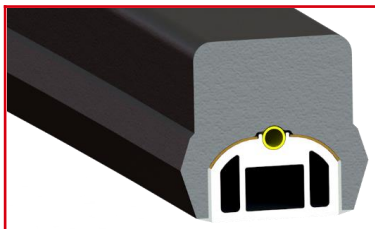
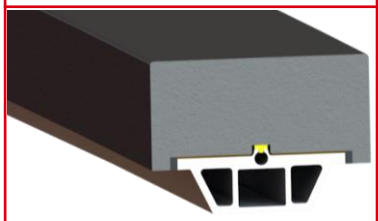
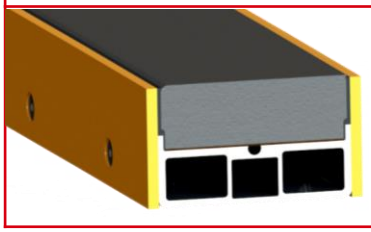
Current Collector

Protection against damage caused by arcing

- Carbon strip replaced less frequently
- Up to 3x higher strip lifetime during sever winter service

Less delamination risk

- Aluminum carrier fully covered by carbon.
- Increased bonding section between carbon and aluminium carrier

	Technical characteristics	
	Value	**Advantage**
	• For AC networks • Dimensionaly compatible with standard designs	• Longest lifetime in winter conditions due to best arcing protection • Robust ADD system (independent)
	• For DC networks • Applicable for dimensionally compatible CCCs on similar carrier	• Best LCC • High level of arcing protection
	• For AC and DC networks with different widths • Applicable for almost all CCC designs	• Very robust design • Increased mechanical stiffness
	• For AC and DC networks with different widths • For rectangular carriers	• Carbon chipping protection • Smooth catenary contact

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