

# Reference

## Integrated charging for CPM ProFleet vehicles at the Lotus plant in Hethel (UK)



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### The project

#### Challenges:

- Line production with limited space
- Limited number of robots in use

#### Solution:

- Vehicle charging directly in the workflow
- Use of five in-ground systems

#### Result:

- No downtime for the robots
- Reduction of the charging zone area by 80 %
- Maximum occupational safety

The sports car manufacturer Lotus has the highest standards not only in terms of the outstanding quality and performance of its vehicles, but also in terms of the automation of the production process. The latest expansion at the plant in Hethel in the UK fully follows the vision of a „Smart Factory“ and combines the complex and variant-rich assembly process with the use of automated guided vehicles (AGVs). The innovative and uncompromising approach to vehicle development also continues with regard to the electrification of their AGV fleet in the manufacturing process.

#### The goal: Zero downtime for robots

The goal for this project was to integrate the charging process of the innovative ProFleet-11 vehicles from the manufacturer CPM Dürr Group into the work process so smoothly that downtime for the Pro-Fleet-11 vehicles was eliminated. In addition, there were to be no obstacles for the employees and no logistics vehicles on the ground or in the immediate vicinity. In order to avoid these exclusion zones in the production area our WCPS in combination with the etalink 3000 from Wiferion was the means of choice.

#### The solution: Targeted use of WCPS with etalink 3000

Made of a specially developed PCX material capable of withstanding high static loads and vibrations, the charging cover is extremely resistant to liquids and chemicals yet remains very permeable to the magnetic field and signals from the IrDA communication interfaces providing full charging efficiency without losses. A high fire protection rating (Bfl-S1) coupled with the IP65 rating against liquids and dirt, demonstrate the performance of the WCPS even in challenging environments.

PohlCon, CPM Dürr Group and Wiferion have successfully installed the system in the highly demanding environment of the automotive industry, thus creating the logical link between driverless transport systems, contactless power supply and the associated flush-floor charging infrastructure.