



Inspiro London

94 nine-car metro trains for the Piccadilly line

The innovative new trains will be in operation on London Underground's Piccadilly line from 2025.

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SIEMENS

Inspiro London serving the **Piccadilly Line**

In November 2018, Transport for London (TfL) commissioned Siemens to supply 94 nine-car Inspiro London trains. The innovative new trains will be in operation on London Underground's (LU's) Piccadilly line from 2025.

The new metro platform, which was specifically developed for the capital city, sets new standards in design and innovation to meet LU's unique and diverse requirements.



The trains are part of Siemens Mobility's Inspiro family. They boast a 10 per cent capacity increase thanks to an innovative articulated design that reduces the number of bogies required per full length train whilst maximising the available interior space – important in the space-constrained Tube environment. This articulation reduces track damage and has the additional benefit of a smoother and quieter ride for passengers.

The Inspiro platform design for the Piccadilly line, which mirrors the Tube's iconic image, will also enable LU to additionally operate a standard fleet of trains on the Bakerloo, Central and Waterloo & City lines in the future, subject to funding agreement. It also delivers cost savings through increased reliability, greater standardisation of train operations, staff training, equipment, spares and maintenance.

The longer, more spacious, air-conditioned trains – with HVAC units integrated under the train – will be fully walk-through, boosting accessibility and ensuring customers can move easily to quieter areas. They will also be lighter, more energy-efficient and significantly more technologically advanced than current trains, with digital screens for real-time customer information and advertising fitted throughout

The new trains feature regenerative braking capability and cutting-edge traction systems using low-loss permanent magnet motors and auxiliary electric systems that feature silicon carbide technology, as well as Lithium Ion batteries.

When combined with LED lighting and advanced energy management, overall energy consumption is reduced by 20 per cent compared with the existing fleet. They will also emit less heat into the tunnels than current rolling stock.



Highlights

- Heritage design aligned with London Underground's iconic image
- Enhanced passenger safety and better passenger flow due to open, walk-through carriages
- Large door openings to facilitate easy access on and off the train
- Maximised interior space and 10 per cent increased passenger capacity
- Energy consumption reduction of 20 per cent compared to existing fleet
- More comfortable, cooler travel environment thanks to innovative, underfloor air-conditioning units
- Passenger information screens for dynamic travel information plus advertisement / video displays
- Increased reliability and high availability thanks to redundant system design of vital components
- Cost efficient, optimised maintenance periodicity
- Significantly lighter, track-friendly, multi-articulated train design with a smoother ride
- Smart remote monitoring and digital services using Railigent® to improve train performance
- Optimised whole lifecycle costs



Technical data

Train configuration	9-car train
Train length over couplings	113.7 m
Train width (over passenger doors)	2,648 mm
Train height (above top of rail)	2,844 mm
Entrance height (above top of rail)	700 mm
Passenger capacity per train (5 passengers/m ²)	1,076 persons (268 seating)
Entrance height (above top of rail)	700 mm
Number of passenger double doors per	18
Width of passenger doors	1,690 mm
Motorisation	80%
Maximum traction power	2,500 kW
Line voltage	630/750 VDC, third and fourth rail
Maximum operating speed	100 km/h