

# Tunnel Monitoring

## Metro 5 - Milan



### Background

Milan's M5 subway line winds along approximately 25 km of tunnels and connects the Bignami Parco Nord station to San Siro stadium, providing a public transport service that radically reduces road traffic and optimises the urban environment.

### The solution

A building with underground levels was to be constructed in an area corresponding to the tunnels. Monitoring potential deformation in tunnels is essential for keeping the subway running.

The tunnel was therefore split into cross-sections and five *WineCap™* inclinometer data loggers installed in each.

### The result

The laser distance meters/inclinometers in the *WineCap™* monitoring system checked for deformation via essential convergence measurements in tunnel sections.



WSD15IIDIST-FX

The winning choice **WineCap**

- ✓ WSD15IIDIST-FX (laser distance meter/inclinometer with multi-way bracket kit)