

GE Security's Fire Detection - on Track Below Barcelona



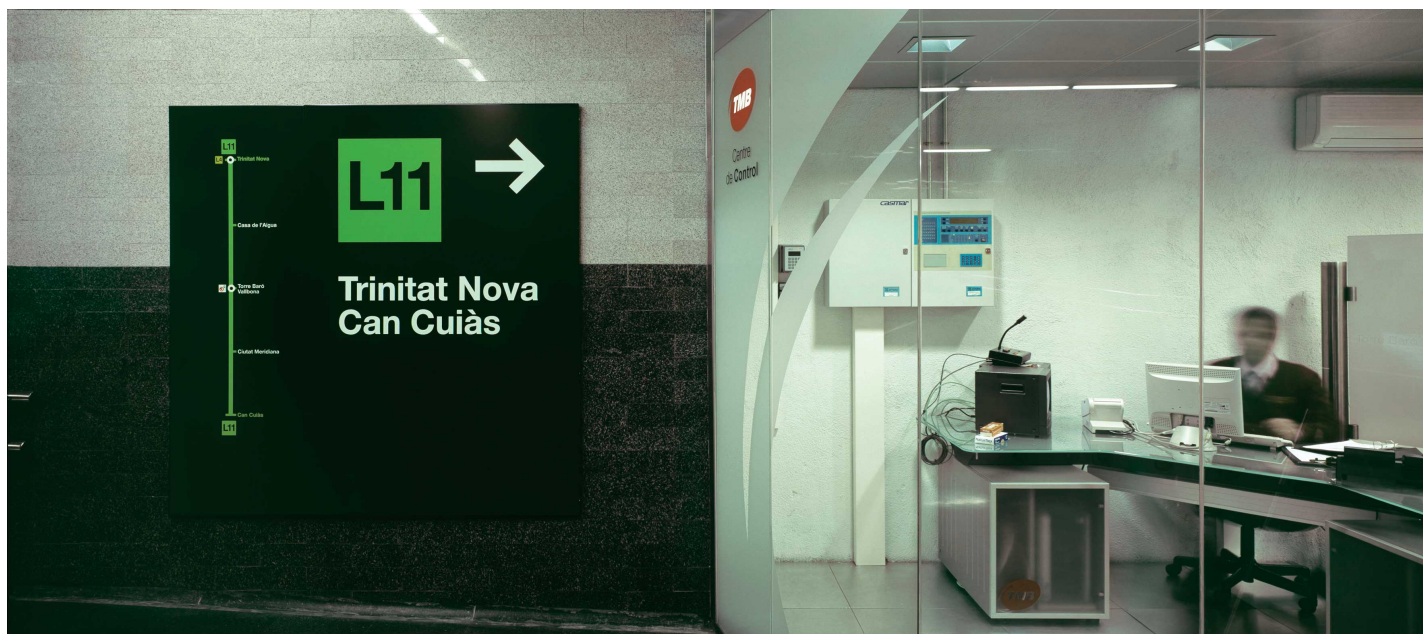
Transports Metropolitans
de Barcelona

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Hailed as one of the worlds most modern and well designed mass transit systems, the Barcelona TMB provides the primary means of transport throughout the city and its suburbs. Forming part of an integrated passenger service, the underground metro runs in conjunction with surface transport networks.

The underground railway operates on 7 lines providing a daily service between 125 stations. With a total route length of 90km, trains run continuously throughout daytime, evening hours and Saturday nights, transporting over 1.1 million passengers daily, with over 60,000 journeys completed every hour, during peak periods.





Pre-existing situation & GE Security's role

The specification called for a high level of fire detection reliability, together with the ability to provide protection at a scalable level across a complete city wide area - with over 120 stations connected to the communications network - some up to 60 metres below street level.

Fire detection was required which would enable the total alarm system to be operated from a central control room, along with all other safety and security facilities, yet at the same time provide individual control and operation on a station by station basis.

High risk areas below ground, for example lifts and escalators, required special protection - with the earliest possible warning and exact location, of any possible fire or smoke condition.

GE Security's Solution

In order to attain the level of protection needed, GE Security's installing partner developed an extensive network, covering over 120 separate stations, each with it's own fire detection and alarm system. Equipment can be operated either locally by station personel, or remotely from the TMB central control room.

The overall system is designed to operate on six, existing, copper and fibre optic, ring networks. The system has capacity for over 250 Ziton ZP3 control panels - operating 40,000 addressable devices - individually recognised and scanned every two seconds. Overall control and monitoring is carried out by 23 graphic terminals running specially developed alarm management software.

High risk areas below escalators and above elevator shafts will all be protected by over 800 special sensing systems. Featuring either high sensitivity smoke detection or extract duct sampling, all are addressed and are individually recognised at the control centre.



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