



## APPLICATION STORY: SHELL NANHAI/CNOOC, CHINA

When fully operational, the world-scale CSPC petrochemical complex in Guangdong Province in China, a joint venture between **Shell Nanhai Limited** and **CNOOC**, will produce 800,000 tons of naphtha per year for plastics manufacture. The installation is regarded as one of the world's largest **FOUNDATION fieldbus™** networks to date, comprising over 30,000 fieldbus instrument connections on more than 3,000 segments.

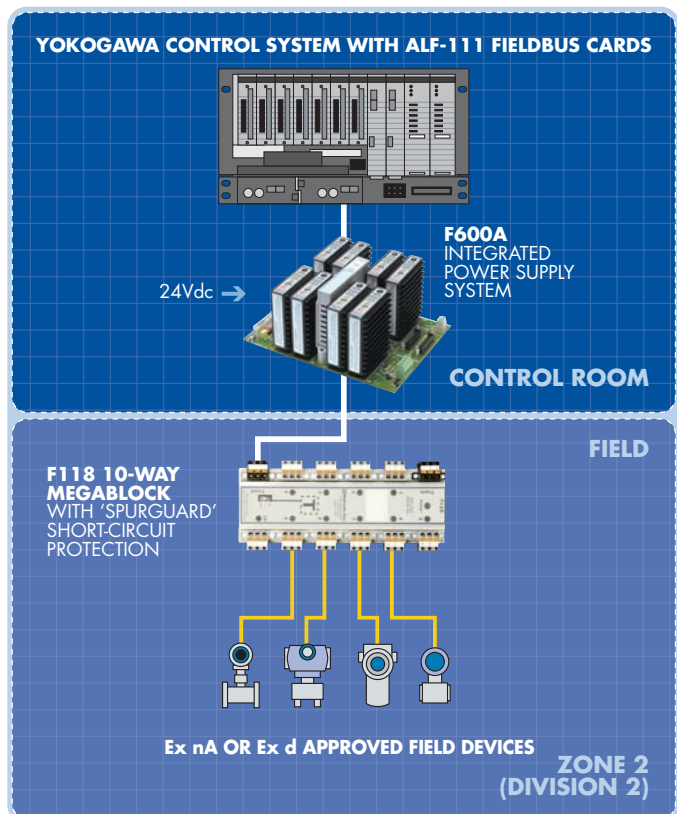
**MTL-Relcom** were chosen to supply **fieldbus power conditioners** and **Megablock wiring hubs**. The FPS Series power conditioners were selected because they provide the required isolation between power supply and fieldbus segment, and their redundant operation has delivered the highest levels of availability on many prior fieldbus projects. To improve integration and reduce control room cabinet requirements, the power conditioners were mounted on F600A backplanes for direct connection to redundant Yokogawa ALF111 fieldbus cards.

*"MTL-Relcom were selected as the supplier of key fieldbus components because of their proven record with Shell and other fieldbus users" said Johan Veerman (Principal Instrument and Process Control Engineer for CSPC). "Also, MTL's ability to support the many engineering contractors throughout the world and to offer on-site support from their offices in China is important in this fast track project. As the most experienced fieldbus physical layer supplier, MTL-Relcom has helped minimise the risk on this prestige fieldbus project".*

The segment design standardised on 8 fieldbus devices per segment with a requirement for 2 spares, so the specially-developed F118-PC 10-way Megablock was selected as the wiring solution for use throughout the project. Its Zone 2 certification and 'SpurGuard' short-circuit protection allows connection to non-incendive, non-arcing and flameproof certified field devices. To simplify wiring, spring clamp connections were provided for all fieldbus connections.



**F600A 4-SEGMENT INTEGRATED REDUNDANT POWER SUPPLY SYSTEM FOR YOKOGAWA ALF-111 FIELDBUS CARD**



F600A fieldbus power supply system supports 10 fieldbus devices per segment at Shell, Nanhai, China

