

CASE STUDY

FRANKFURT TRADE FAIR, HALL 12: AN UNPARALLELED PROJECT

Despite the demanding schedule, Datwyler and the installation firms involved managed to connect new Exhibition Hall 12 on time.



In the autumn of 2018, after a construction period of just under two years, Frankfurt Trade Fair opened its new Hall 12. At 30 metres in height the hall provides exhibitors with a gross area of 33,600 square metres on two levels. It has open foyers with a view of the “European Quarter” and 13 leased offices, together with restaurants and bistros to seat 500. There is also a multi-storey car park with 800 parking bays.

Invitations were issued to tender for highquality, future-proof solutions for the communications infrastructure and the cabling of the safety equipment in the new exhibition hall. For the data cables this meant, for example, a signal propagation time (NVP) of over 80 percent, low attenuation losses and minimal power loss for Power over Ethernet. The connection technology also needed to be optimised for high electrical power-carrying capacity. The products had to comply with the Regulations on Places of Public Assembly and have all the requisite MPA General Appraisal certificates. In addition, the suppliers had to prove that their products contained no toxins, that they complied with sustainability require-

ments (ROHS, WEEE, REACH) and would be disposed of responsibly. Last but not least, current SQS and IQNet certificates were required.

The Frankfurt Trade Fair IT Infrastructure Manager responsible, Leon Tadic, decided on Datwyler. Among the factors which persuaded him were the quality of the solutions offered and the support, which even extended to construction. Another important criterion was the closeness of the European distribution centre, from which Datwyler could always deliver at short notice.

The first deliveries – data technology and fire alarm cables – were called up in August 2017, only a few days after contract award. Coordination on preassembly and installation deadlines were agreed in parallel with the firms involved, the SPIE Lück Group in Lich and WISAG in Dresden. In the months that followed Datwyler delivered over 130 kilometres of FO Universal cable with four to 24 fibres, 350 splice boxes, 56 telescopic patch panels each with 48 ports, and 400 FO patch cables for the communications network.





Cutting-edge data and safety technology

The copper technology comprises 300 kilometres of Cat.7 data cable – suitable for 4PPoE –, just under 12,000 shielded Cat.6A modules, 276 patch panels, 53 telephone panels, 2700 data outlets, 313 surface-mount enclosures, 100 coax outlets with IP44 protection, and 3000 Cat.6A patch cables.

Approximately 150 kilometres of Datwyler (N)HXCH and JE-(ST)H...Bd cable with a functional integrity of E30 to E90 were also installed for preventative fire safety, fire alarm systems and escape and safety technology.

55 plant rooms were housed in the exhibition hall, each of them containing two data racks with copper and fibre optic panels. At the request of the Trade Fair these rooms are connected in parallel to the main distribution room by single- and multimode cables. On each of the two levels there are 12 accessible cable passages, so-called utility ducts, from which a stub goes off to the distributors on the exhibition stands. Here the fibre optic, copper and power cables are routed. In order to speed installation Datwyler supplied some pre-assembled fibre optic panels and cables. The offices and restaurants together with the wall telephones and WLAN access points are connected to the network by copper data cables.

Success despite tight time constraints

The greatest challenge during this project was the narrow timeframe. The hall was to be ready no later than 11th September 2018, for the launch of “Automechanika”. As there were no storage facilities on site, Datwyler had to make up and deliver the products required virtually “on call”.

The data technology team of SPIE Lück needed to meet the high-quality standards necessary for successful acceptance and the Datwyler 25-year system warranty. As up to 800 people were working in the hall at any one time – including 150 WISAG employees alone –, the installation conditions for the data technology installers were anything but optimal.

The Datwyler specialists from Hattersheim monitored the installation from conception through planning to implementation. Despite the tight time constraints, they were able to assist the Trade Fair, for example by devising special solutions. These included a cable management device which allowed large amounts of fibre optic cable to be neatly terminated behind the splice boxes. Thanks to good prior documentation individual routings could also be rescheduled at short notice, saving material and cutting costs.

In this way the firms involved succeeded in rising to every challenge and complying with the Trade Fair’s stringent requirements. Most important of all is that the opening date was met.

Today Hall 12 has a future-proof communications infrastructure and safety equipment which conforms to all the applicable standards. No wonder that those in charge are very satisfied with the solutions implemented. They now list Datwyler as one of the leading brands for the Frankfurt Trade Fair.

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