



## 科隆 Crane House采用的最新技术 State-of-the-art technology for Crane House in Cologne

在Crane House South中，开发商以德特威勒电缆公司提供的unilan®系统解决方案为基础向住户提供了现代化的通信基础设施，该安全电缆系统由多个国际制造商的各种产品组成。

In the Crane House South, the developers offer tenants a modern communications infrastructure based on a unilan® system solution by Daetwyler Cables. The safety cabling also comes from the portfolio of the international manufacturer.

在德国科隆Rheinauhafen逐渐形成了现代化的商业和住宅中心。可以从远处看到Crane Houses的玻璃门面以及“手臂”状建筑悬在河上，该建筑已经被认为是莱茵河大都会的一个新地标。Crane House South竣工于2009年，其所有者和经营者是Südliche Krankenhaus GmbH，该公司为Deutsche Immobilien Development GmbH moderne stadt GmbH的合资公司。新楼宇共16层，楼面总面积近20,000平方米。楼宇拥有九层标准楼层，带有走廊和底楼，形成“塔”状，并且由五层高楼层形成的“手臂”状建筑构成顶部，根据住户的要求所有的楼层都配有灵活的分割间和高档的内饰。

除了壮观的建筑和可持续能源利用理念之外，新楼宇也因其智能化、技术设备质量高及安防理念先进而引人注目。这包括高性能级别F<sub>A</sub>级通信网络以及安防布线系统，该布线系统经过完整的测试，以检测在火灾情况下该系统延伸的完整性。两套系统均由德特威勒电缆公司提供。



At Rheinauhafen in Cologne, Germany, a modern business and residential centre is taking form. The Crane Houses, visible from afar with their glass façades and “arms” cantilevering over the river, are already considered a new landmark of the Rhine metropolis. Owner and operator of Crane House South, which was completed in 2009, is Südliche Krankenhaus GmbH, a joint venture between Deutsche Immobilien Development GmbH and moderne stadt GmbH. The new building has a gross floor area of nearly 20 000 square metres on 16 floors. Nine standard floors, with gallery and ground floor below, form the “tower”, crowned by the “arm” formed by five upper floors – all with flexible partitioning in accordance with tenants’ wishes and high-class interiors.

Besides the spectacular architecture and the sustainable energy concept, the new building is remarkable for its intelligent, high-quality technical equipment and its advanced security concept. This includes a high-performance Class F<sub>A</sub> communications network and safety cabling fully tested for extended integrity in case of fire. Both of these systems were supplied by Daetwyler Cables.

### 最新通信系统

#### State-of-the-art communications system

对于网络技术，负责该项目的团队特意选择带宽容量达到1000兆赫的解决方案，以实现安全、长期的投资。使用了unilan® Prime Solution(PS)水平布线，以适用于多媒体应用。办公室中的安装了包括100千米的uninet® 7150 4P数据铜缆、7200个PS GG 45模块、约420个配线架和管理面板以及800个地插盒。1700米的OM3，12芯主干光缆与楼层配线架中的56个光纤接续盒连接。

“现代基础设施设计的目的是为了为了满足主要租户的要求，该设计是由工程师与租户的高级IT经理通过密切合作而研发出来的，”Friedhelm Körner说道。他与同事Hans-Joachim Franken在Moderne stadt公司中负责项目管理。主要租户是指一大型律师机构团体，该机构团体在2009年春天入住整个“手臂”形建筑中。Körner解释说，所有的通信服务以及楼宇控制系统（包括监管和监控）都集成在新的布线系统中。“为了满足其他租户在内部系统方面的要求，我们在标准楼层中采用了相同的技术。”在接线柜中，为了进行接线排列，德特威勒电缆公司对电缆进行了预先布线，并进行了测量。对于通信和电源，客户在办公室中都拥有即插即用的地插盒。具体位置可以根据需要在短时间内进行调节。

For the network technology, the team in charge deliberately chose a solution with a reserve capacity of up to 1000 megahertz, representing a secure long-term investment. Horizontal cabling was executed in unilan® Prime Solution (PS), suitable for multimedia. The installation comprises 100 kilometres of uninet® 7150 4P copper data cable, 7200 PS GG 45 modules, about 420 patch panels and management panels, and 800 floor boxes in the offices. 1700 metres of OM3 12-fibre optical cable is built into the backbone, connected to a total of 56 fibre optic boxes in the floor distribution racks.

“The modern infrastructure was designed to follow the requests of the main tenant and developed in close coordination between our engineers and the top IT managers of the tenant,” reports Friedhelm Körner, who leads technical project management at moderne stadt along with his colleague Hans-Joachim Franken. The main tenant is a large international society of lawyers, which moved into the entire “arm” in spring 2009. Körner explains that all communication services and building control systems, including regulation and surveillance, are integrated into the new cabling system: “To be able to respond to the needs and wishes of other tenants regarding interior systems, we installed the same technology in the standard floors.”

In the patch cabinets the cabling is prearranged for the patch arrays and already measured. For both communications and power supply, tenants have plug-and-play floor boxes with cable reserves in the offices. The exact locations can be adjusted at short notice to meet any need.

## 为未来做投资 Investment for the future

承包商Elektro Meissner Industriemontagen GmbH为总承包商Züblin AG在楼宇中安装了所有的电气设备。Meissner雇用的IT专家Dirk Erben在其工作时第一次使用了德特威勒电缆公司提供的unilan® Prime Solution GG 45模块。他对该连接技术的质量十分满意，而且该连接技术也可以采用常规的RJ45插头。“利用GG 45模块，没有信号干扰，因此高频率运行时就不会出现信号损坏。这使该连接器型号非常有利于未来的应用。”

Friedhelm Körner重点强调投资该新布线系统具有很高的安全性：“由于产品的性能和灵活性，我们向客户提供的通信基础设施在五年内将仍然是最新的产品。”

The contractor Elektro Meissner Industriemontagen GmbH installed all the electrical equipment in the building for the general contractor Züblin AG. Dirk Erben, IT specialist hired by Meissner, gained his first experience working with unilan® Prime Solution GG 45 by Daetwyler Cables on this job. He is particularly satisfied with the quality of the connection technology, which can also handle conventional RJ45 plugs: “With the GG 45 module, you have no interference and therefore no signal corruption at high frequencies. That makes this connector type very interesting for future applications.”

Friedhelm Körner emphasises, above all, the high security of the investment in the new cabling system: “We offer our tenants a communications infrastructure that will still be up to date regarding performance and flexibility in five years.”

## 消防安全 Fire safety

在向Crane House South的安全系统供电方面，Elektro Meissner Industrie-montagen只使用德特威勒电缆公司提供的pyrosys®系列安全电缆和紧固件，包括18千米的陶瓷绝缘低电压和高电压电缆，具有E30至E90的延伸完整性，以及大约1400个SAS和Hermann夹具。该系统确保向火灾报警、电声装置、洒水器、紧急照明、烟雾疏散系统、以及供楼宇住户及消防队用的电梯提供可靠电源。该系统已经经过了测试，能够确保这些安全系统在火灾时可以为楼宇住户疏散以及消防队的介入提供持续90分钟的供电。

For supplying power to the safety systems in Crane House South, Elektro Meissner Industriemontagen exclusively used safety cable and fastener components from the pyrosys® portfolio of Daetwyler Cables, including over 18 kilometres of ceramic-insulated low-voltage and high-voltage cable with E30 to E90 extended integrity as well as some 1400 SAS and Hermann clamps. This system ensures reliable power supply to the fire-alarm, electro-acoustic, sprinkler, emergency lighting, and smoke-evacuation systems and to elevators for the building occupants and the fire brigade. The system is tested to ensure that these various safety systems will reliably support evacuation of occupants and intervention by the fire brigade for up to 90 minutes in the event of fire.

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