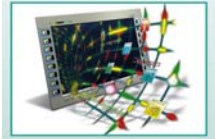


Munich City Sewage System

As part of the implementation of a new computer-integrated process control concept in the Gut Großlappen sewage treatment plant, the automation and remote data transmission technology in Munich, Germany, was also updated. Phoenix Contact technology (surge protection, interface, and automation technology) was seamlessly integrated in the project as early as the invitation to tender phase. Hautz GmbH based in Lenting, a specialist in computer-aided automation, was awarded the contract.



AUTOMATIONWORX for Remote Systems (ReSy)

Application

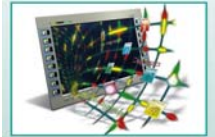
Data transmission was required between 31 distributed and remote automated stations in the municipal area of Munich and the Gut Großlappen sewage treatment plant. Phoenix contact technology is used in outdoor cabinets; the collected and prepared measured data was to be transmitted via fixed German Telekom connections to a sub control center in the municipal area and from here to the sewage treatment plant over approximately 14 km of existing glass fiber cable. Another sub control center was to be installed directly in the Gut Großlappen sewage treatment plant and the data acquired via separate telecommunications cables from four stations in the vicinity of the sewage treatment plant. An OPC server is used for the connection to the process control system.



AUTOMATIONWORX

Solution

In the external stations, an ILC 200 IB controller with the relevant input and output modules and a V.24 (RS-232) Inline module and a Phoenix Contact modem ensure smooth operation. An RFC 430 ETH-IB with a total of 27 IL RS232 modules and 27 Phoenix Contact modems configured for permanent line operation were used as sub control center 1. All power supply and telephone lines were also connected with surge protection modules.



In sub control center 2, an RFC 430 also collects the data, but this time via RS-485 connections. The desired data transmission could be established very easily via both fixed German Telekom connections and dedicated permanent lines using the function blocks for permanent line operation from the "AUTOMATIONWORX for Remote Systems - ReSy" block library. The data from the RFCs is transferred to the central switch in the sewage treatment plant via Factory Line FO converters. Here, a PC with an INTERBUS OPC server collects all the data and makes it available to the control system.

The use of standard components, the combination of a remote control station and control system in a single device, the same hardware and software for data transmission via German Telekom and dedicated lines, and not least the advantage in terms of price compared to the other solutions submitted were ultimately the decisive factors in choosing a comprehensive solution from Phoenix Contact.

AUTOMATIONWORX

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