



IRIG-B / NTP SYNCHRONIZATION NETWORK

Project: IRIG-B / NTP Synchronization Network for Industrial Automation

Customer: Emerson Electric

Location: Argentina

Year: 2023

Success Story



REQUIREMENTS

In today's fast-moving business arena, automation technology has emerged as a pivotal means to cultivate sustainable and efficient processes.

Initially, the primary goal of automation was to increase productivity (as automated systems operate 24/7) and to reduce the cost associated with human operators (i.e. wages & benefits). However, today, the focus of automation has shifted to increasing quality and flexibility in the manufacturing process.

For this project, Emerson needs to design and deploy one IRIG-B / NTP Synchronization network to synchronize multiple control sites in one Industrial Automation scheme in one Manufacturing Plant.

IRIG-B / NTP Synchronization Network for Industrial Automation
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BACKGROUND

Emerson Electric is a company dedicated to the design and supply of technology applied to engineering products and services within a range of industrial, commercial and consumer markets worldwide. Emerson operates primarily in the following sectors: Petrochemical, Infrastructure, Electric Power, Oil and Gas, Mining and Metals, and Water and Waste. Emerson Electric maintains a regional presence in countries such as Argentina, Brazil, Colombia, Costa Rica, Mexico and Venezuela.

System requirements

- Industrial grade devices
- Fan less devices with capability to operate in extended temperature ranges
- Multiple synchronization protocols
- Capability to integrate multiple connector types
- Resistant to high EMC levels

OUR SOLUTION:

Implementing synchronization networks for industrial automation, such as IRIG-B or NTP (Network Time Protocol), can deliver precise timing, coordination, and accuracy. Kyland introduces the Precise Timing Converter 2000 (PTC 2000), a versatile multifunction time converter designed to meet DIN Rail Mount requirements. This compact device offers time conversion services across various industries, supporting PTP (Precision Timing Protocol) and IRIG-B as input time sources.

The PTC 2000 incorporates a logical multi-time source selection mechanism, allowing it to efficiently perform time conversion based on multiple input time sources. Additionally, it provides diverse time synchronization signal outputs, including PTP, NTP, IRIG-B, 1PPS, 1PPM, 1PPH, and TOD, catering to various synchronization needs. The embedded WEB service ensures seamless system management, making the PTC 2000 a comprehensive solution for precise and synchronized timekeeping in industrial settings.

WHY KYLAND:

Fanless Design and Extended Operating Temperature

Our devices boast a fanless design, coupled with an operating temperature range of -20°C to $+70^{\circ}\text{C}$, ensuring optimal performance and longevity in challenging environments.

Compact DIN Rail Installation Design

Featuring a compact DIN Rail installation design, our products offer space-saving solutions without compromising on performance.



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Versatile Time Synchronization Support

We provide support for a range of time synchronization protocols, including PTP and IRIG-B time input, offering flexibility to meet diverse industrial synchronization needs.

Comprehensive Time Output Support

Our devices support various time output options, including PTP, NTP/SNTP, IRIG-B, PPS, and TOD, providing comprehensive solutions for time-sensitive applications.

Web Management System

Enjoy seamless device management with our user-friendly web management system, allowing for easy configuration and monitoring.

High-Performance TCXO

Equipped with a high-performance Temperature-Compensated Crystal Oscillator (TCXO), our devices ensure excellent time-keeping precision, meeting the stringent requirements of industrial applications.

PRODUCT USED:

PTC2000

Product Detail:

<https://klgsmartec.com/product/ptc2000/>



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