Profibus option for Unisab II control systems



Sabroe Profibus cards are designed to supplement the communication options currently available in the Unisab II range, including Comsab II.

Complete control and monitoring system

Profibus technology simplifies communication between the Unisab II compressor control system and all standard PLC (Programmable Logic Controller) equipment, including those manufactured by Siemens-S7, Allen-Bradley and Mitsubishi. All units are fully modular and based on an open Profibus network structure, which ensures high quality and reliability while minimising costs.

Significant advantages

The Unisab II Profibus option uses advanced technology yet is easy and straightforward both to install and to use. The advantages include

- Unisab II is able to connect directly to most PLC systems
- easy installation and commissioning because no on-site configuration or set-up is required
- two separate networks operate independently for maximum safety – with data transfer via Profibus and compressor sequence control using a Danbus network interface.

Customer benefits

The Unisab II Profibus option is both powerful and very cost-effective. The customer benefits include

- direct control and monitoring of Unisab II for total plant integration and optimisation
- a complete Unisab II communication package.
 No additional costs except the communication cable
- cost savings because no time-consuming software testing is necessary, and operation is simple
- an easy upgrade path for existing Unisab II units, with no need for specialist staff. It only requires adding the Profibus card and connecting the unit to the network.



Profibus DP communication card

The Profibus communication card is a plug-and-play card designed for installation in the Unisab II. Each card is delivered with the Profibus DP protocol and a complete documentation package.

Profibus DP protocol

This protocol is based on the most important information available from the Danbuss network interface. The accessible signals fall into two groups

From Unisab II to PLC

- Unisab mode (remote/auto/manual/stopped)
- Unisab status (run/alarm/limit, etc.)
- · compressor capacity
- suction, discharge and oil filter pressure [°C/R]
- suction, discharge and oil temperature [°C]
- oil differential pressure [Bar]
- compressor motor current [A]
- external 4-20 mA signal
- alarm/warning signal
- actual timer status
- · actual timer setting
- Multisab data (system number/Unisab number/start number/status)

From PLC to Unisab II

- start/stop compressor
- regulation mode (capacity/brine/suction/discharge/ hot water/external)
- two setpoint values for regulation
- neutral zone
- proportional band
- Multisab data (system number/start number)
- capacity setpoint.





