

Interface Card IFC 430R

PC expansion board with PCI interface, serves to collect and evaluate encoder signals

Latch logic of the count values

- Asynchronous latch individually for each channel by software, encoder reference mark, or external signal
- Synchronous latch of several channels by software, timer, or external signal
- Output signal for cascading several cards; can be programmed for software sync or timer sync.

Counter operating modes

- Three counter channels (32 bits each) with one load and two latch registers
- Counting of encoder square-wave signals with one-fold, two-fold, or four-fold evaluation
- Event counter with direction and clear input
- Integral timer for measuring the pulse widths, the frequency, and the velocity.

PC bus

- PCI connector, 5 V, 32-bit, 2 x 60 pins
- Target interface (slave) for specifications Rev. 2.1
- Current consumption at +5 V approx. 0.,5 A, without encoders
- Power supply of the encoders:
+5 V or +12 V from PCI power supply
(current consumption depends on encoders connected)

Counter interface (X1)

- Nine RS 422 or TTL inputs for three encoders with square-wave signals and reference mark
- Maximum input frequency
5 MHz with delta signals (Line Driver RS 422 standard)
2 MHz with single-end signals
- Perceives edge distances up to 80 ns
- One TTL input for interfering-signal monitoring
- Separate power supply lines for each encoder

I/O interface (X2)

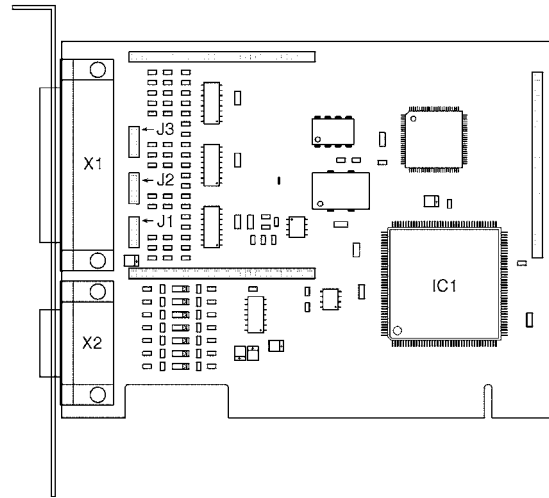
- Six inputs (3 to 30 V) that can be used as reference pulse inhibitors or as asynchronous latch signals
- One input (3 to 30 V) for synchronous latch of several channels
- One output (TTL) for cascading several cards

Software

- DLL (Dynamic Link Library) for operation with Windows 95/98/ME and NT
- VxD driver for Windows 95/98/ME
- Sys driver for Windows NT
- Test and demo software with sample programs

Mechanical design and environment

- Dimensions (of the PCB) approx. 120 x 92 mm width = one slot
- Maximum permissible ambient temperature +40°C
- One D-sub female terminal strip, 25-pin for the counter inputs
- One D-sub female terminal strip, 9-pin for the for I/O-signals



- X1 = female D-sub terminal strip, 25-pin for counter interface
- X2 = female D-sub terminal strip, 9-pin for switching and control signals
- J1-J3 = jumper for the selection of the encoder operating voltage (5 V or 12 V)
- IC1 = PCI interface

Block Diagram

