suffer from timing delay if the pulse encoder cables are long and if the encoder has a low driving capacity. This is because the falling edges of the signals are not received separately. In such a case, use board types YPH 108B/GP/GPC and YPH 108B/SP/SPC, see below.

YPH 108B/GP/ GPC and YPH 108B/SP/ SPC Types

There are also Speed Measuring Boards YPH 108B/GP/GPC and YPH 108B/SP/SPC which functionally correspond to types YPH 108B/GP and YPH 108B/SP, respectively, but which are equipped with capacitors.

The inputs of these boards can receive signals from both single - ended and differential pulse encoders with equal timing accuracy provided that the capacitor input is used for 12 V and 24 V single ended signals. Note the jumper settings. The capacitor input cannot, however, be used for 5 V single-ended signals.

Speed Measuring Board YPH108B/ GP/GPC

Code: Incl. CDC board rack installation plate

3AFE 6115 6968 = YPH108B/GP
3AFE 6117 9372 = YPH108B/GPC

The Extended Speed Measuring Card is used to measure time and speed with up to two incremental encoders. The card is connected to the CDC system via the parallel back plane I/O connector. The card is powered with +24 VDC.

Binary input signals for synchronizing have two software selectable filtering time constants 100 µs and 5 ms.

External connections	Function
Binary synchronisation input 2 pc	Control voltage 24 VDC. Input voltage levels: Low max. 7,2 V high min. 16,2 V. Nominal input current 32 mA. Filtering time 100 µs or 5 ms (software selectable).
Incremental encoder input 2 pc	3 optoisolated channels (A, B and Z), differential or single ended tachometers. Maximum input frequency 300 kHz. Nominal input voltage may be 24 VDC, 12 VDC or 5 VDC. Input voltage levels: Low max. 9 V 3.7 V 0,7 V High min. 16 V 8,3 V 3,4 V Incremental encoder power supply. Supply voltage 24 VDC (19 - 30 V), 12 VDC or 5 VDC. Maximum current 500 mA.
Analog outputs 2 pcs	Non isolated analog output channels. Output voltage +/-10 V, resolution 12 bits, accuracy ± 1 %.

Speed Measuring Board YPH 108B/ SP/SPC

Code: Incl. CDC board rack installation plate

3AFE 6115 6925 = YPH108B/SP
3AFE 6115 6917 = YPH108B/SPC

The Extended Speed Measuring Card is used to measure time and speed with up to two incremental encoders, binary inputs and hardware timing logic. The card is connected to the CDC system via the parallel back plane I/O connector. The card is powered with +24 VDC.

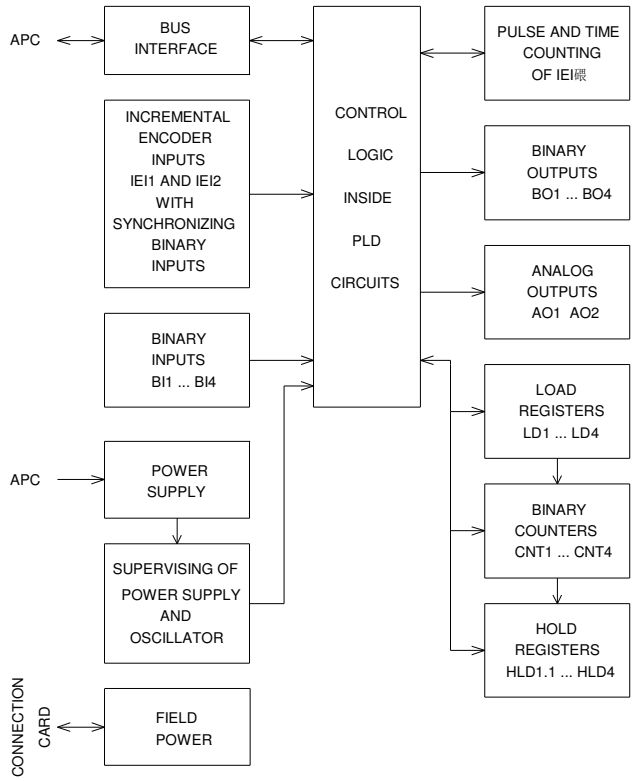


Figure 2 - 7 Block diagram of YPH 108B.

Typical applications:

- High speed (>5m/s) flying splice on coaters
- Timing of high accuracy cutting of paper, steel etc.
- General process interrupt synchronizing
- Synchronized speed difference measurements
- Web thickness computation based on consecutive measurements of diameter with simultaneous pulse trains of two transducers giving web speed and angular velocity related trains
- Time measurement from activation of binary input and delay setting of binary output