5 Counting, Frequency Measurement and Pulse Width Modulation

5.1 Overview

5.1.1 Operating Modes

- Counting
- Frequency measurement
- Pulse width modulation (output of a pulse sequence)

5.1.2 Properties Overview

- **Number of channels**
  - CPU 312C: 2 channels
  - CPU 313C, CPU 313C-2 DP/PtP: 3 channels
  - CPU 314C-2 DP/PtP: 4 channels

Note

You have only 2 channels (channel 2 and 3) available when using a positioning function.

- **Counting frequency**
  - CPU 312C = 10 kHz max.
  - CPU 313C, CPU 313C-2 DP/PtP = 30 kHz max.
  - CPU 314C-2 DP/PtP = 60 kHz max.
- **Signals the CPU counts**
  - 24-V incremental encoder, equipped with two tracks with 90° phase offset (rotary transducer).
  - 24-V pulse generator with direction signal
  - 24-V proximity switch (e. g. BERO or light barrier)
- **Project design**
  - Via parameter assignment screen forms[1]

---

[1] Quadrouple evaluation of the two signals will result in an internal quadrouple counting frequency