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Fringe Up and Down Counter



The counter receives the quadrature signals A and B from the preamplifier (474308). Depending on which falling edge of the TTL signal of A or B occurs first, the direction of count either up or down is defined. By exploiting the rising and falling edge of the TTL signals A and B an interpolation can be realised, resulting in a resolution enhancement of factor 2 or 4. Without interpolation one count event relates to a movement of the triple reflector of $\lambda/2$. By using the internal interpolation a movement of $\lambda/4$ or $\lambda/8$ corresponds to one count event. To calculate the movement the displayed result must be multiplied by the wavelength $\lambda = 0.632 \text{ nm}$ and divided by the interpolation factor used. The counter is controlled by a microprocessor. The settings are done by a one button control which navigates through the available menu. Via the USB bus the measurement results can be transferred to a computer. In addition the counter can be fully controlled by a connected computer.

Matériel livré :

- Fringe Up and Down Counter - Wall plug power supply (474345)