

Title (en)
FIELD DEVICE HAVING AN ANALOG OUTPUT

Title (de)
FELDGERÄT MIT EINEM ANALOGAUSGANG

Title (fr)
APPAREIL DE TERRAIN À SORTIE ANALOGIQUE

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Application
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Abstract (en)
[origin: WO2009043821A1] The invention relates to a field device having an analog output, especially a measuring transducer (1) for process instrumentation having a 4-20 mA interface as the analog output (7). For digital-to-analog conversion, a digital value is split into a digital coarse portion and a digital fine portion. Depending on the digital coarse portion, a first analog signal (V1) is generated using a pulse width modulator (BUF1) having a low path filter (TP1) mounted downstream thereof, which signal is above the analog output signal (VOUT), and a second output signal (V2) using a pulse width modulator (BUF2) having a low path filter (TP2) mounted downstream thereof, which signal is below the analog output signal (VOUT). Both analog signals (V1, V2) are guided to a third pulse width modulator (SW1) which is controlled depending on the digital fine portion, a low-pass filter (TP3) being mounted downstream thereof. The invention allows provision of an analog output signal (VOUT) having high resolution and good dynamic properties. The field device is further characterized by a digital-to-analog converter that can be produced with especially little complication.

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