Title (en)

PROCESS METER

Title (de)

PROZESS-MESSGERÄT

Title (fr)

APPAREIL DE MESURE DE TRAITEMENT

Publication

EP 1567834 A2 20050831 (DE)

Application

EP 03780099 A 20031202

Priority

- DE 10257322 A 20021206
- EP 0313543 W 20031202

Abstract (en)

[origin: WO2004053428A2] The process meter serves for the measurement of a physical process parameter of a medium contained in a process vessel or flowing in a process line and comprises a meter probe (10), with a sensor arrangement (60), providing measured signals (s1, s2) and a meter electronics device (50), connected to the meter probe (10). The sensor arrangement (60) comprises a primary sensor element (17), reacting to the physical process parameter, also in particular, changes in the physical process parameter and provides a measured signal (s1), dependent on the physical process parameter. The sensor arrangement (60) further comprises at least one temperature sensor (40), arranged in the meter probe (10), which records a local temperature (T1) in the meter probe (10) and provides the sensor arrangement (60) with a measured temperature signal (theta1) which represents the temperature (T1) in the meter probe (10). The meter electronics device (50) generates an instantaneous measured value (X), representing the physical parameter, using the measured signal (s1) and using a correction value (K1) for the measured signal (s1). The meter electronics device (50) determines said correction value (K1), by means of the curve with time of the one measured temperature signal (theta1), such as to take account of the temperature values recorded by the temperature sensor (40) in the past. According to the invention, temperature generated errors in the measured signal are well compensated by said process meter, even with a fluctuating transition range for the temperature distribution within the meter probe and particularly with the application of only a few temperature sensors.

IPC 1-7

G01F 1/84; G01F 15/02

IPC 8 full level

G01D 3/028 (2006.01); **G01D 3/036** (2006.01); **G01D 21/00** (2006.01); **G01F 1/84** (2006.01); **G01F 15/02** (2006.01); **G12B 7/00** (2006.01); G01N 9/00 (2006.01); G01N 11/00 (2006.01)

IPC 8 main group level

G01D (2006.01)

CPC (source: EP)

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Citation (search report)

See references of WO 2004053428A2

Cited by

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DOCDB simple family (publication)

WO 2004053428 A2 20040624; **WO 2004053428 A3 20041028**; AU 2003288210 A1 20040630; AU 2003288210 A8 20040630; CN 100374830 C 20080312; CN 1720428 A 20060111; DE 10257322 A1 20040624; EP 1567834 A2 20050831; RU 2005121257 A 20060427; RU 2007138277 A 20090420; RU 2320964 C2 20080327

DOCDB simple family (application)

EP 0313543 W 20031202; AU 2003288210 A 20031202; CN 200380105288 A 20031202; DE 10257322 A 20021206; EP 03780099 A 20031202; RU 2005121257 A 20031202; RU 2007138277 A 20071015