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Datasheet for the decision of 24 January 2019

Case Number: T 1190/15 - 3.4.02

Application Number: 03796938.3

Publication Number: 1709402

IPC: G01F25/00, G01F1/84

Language of the proceedings: EN

Title of invention:
FLOW METER TYPE IDENTIFICATION

Applicant:
Micro Motion, Inc.

Headword:

Relevant legal provisions:
EPC 1973 Art. 54, 56

Keyword:
Novelty - after amendment - (yes)
Inventive step - after amendment - (yes)

Decisions cited:

Catchword:

Europäisches Patentamt
European Patent Office
Office européen des brevets

Beschwerdekammern

Boards of Appeal

Chambres de recours

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Case Number: T 1190/15 - 3.4.02

D E C I S I O N
of Technical Board of Appeal 3.4.02
of 24 January 2019

Appellant: (Applicant)	Micro Motion, Inc. 7070 Winchester Circle Boulder, CO 80301 (US)
Representative:	Vossius & Partner Patentanwälte Rechtsanwälte mbB P.O. Box 86 07 67 81634 München (DE)
Decision under appeal:	**Decision of the Examining Division of the European Patent Office posted on 5 January 2015 refusing European patent application No. 03796938.3 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman	R. Bekkering
Members:	C. Kallinger
	G. Decker

Summary of Facts and Submissions

I. The applicant lodged an appeal against the decision of the examining division refusing European patent application No. 03 796 938.3.

II. In its decision the examining division held that the subject-matter of claim 1 of the then sole request was not new, and therefore did not fulfil the requirements of Article 54(1) EPC, in view of the disclosure of each of the following documents:

D1: US 6,318,186 B1
D2: US 2002/0133307 A1

III. With the statement of grounds of appeal the applicant requested to set aside the examining division's decision and

- as a main request that a patent be granted on the basis of the claims on which the appealed decision was based, or
- as an auxiliary request that a patent be granted based on the claims filed with the statement setting out the grounds of appeal.

IV. In reply to the observations made by the board in a communication annexed to the summons to oral proceedings, the applicant filed with a letter dated 7 January 2019 a set of claims essentially corresponding to the former auxiliary request and amended description pages.

V. The applicant's remaining sole request is to set aside the decision under appeal and grant a patent in the following version:

- claims: nos. 1 to 26 filed with the letter dated 7 January 2019;
- description: pages 1 and 6 to 9 as originally filed, pages 2 and 3 as filed with the letter dated 26 August 2009 and pages 4, 4a and 5 filed with the letter dated 7 January 2019;
- drawings: sheets 1/3 to 3/3 as originally filed.

VI. In view of the amendments made to the application the oral proceedings were cancelled.

VII. Independent claims 1, 9 and 18 of the sole request read as follows:

"1. A flow meter monitoring system (100), comprising a communication interface (101) configured to communicate with one or more flow meters and receive meter calibration values for a flow meter of the one or more flow meters, with the flow meter monitoring system (100) being characterized by:
a processing system (102) in communication with the communication interface and configured to receive the meter calibration values from the communication interface (101), the meter calibration values comprising a Flow Calibration Factor (FCF), and to correlate the meter calibration values to known meter calibration values (114) in order to determine the flow meter type."

"9. A flow meter type identification method for determining a flow meter type of a flow meter, comprising receiving meter calibration values for the flow meter, with the flow meter type identification method being characterized by:
correlating the meter calibration values to known meter calibration values (114) in order to determine the flow

meter type, the meter calibration values comprising a Flow Calibration Factor (FCF)."

"18. A software product for determining a flow meter type of a flow meter, comprising a storage system that stores a control software, with the software product being characterized by:
the control software configured to direct a processing system to receive meter calibration values for the flow meter, the meter calibration values comprising a Flow Calibration Factor (FCF), and to correlate the meter calibration values to known meter calibration values (114) in order to determine the flow meter type."

Reasons for the Decision

1. *Amendments - Article 123(2) EPC*

Independent apparatus claim 1 is based on a combination of originally filed claims 1 and 2. Corresponding amendments have been made to independent claim 9, which is a combination of originally filed claims 10 and 11 and independent claim 18, which is a combination of originally filed claims 20 and 21.

The board is satisfied that the requirements of Article 123(2) EPC are met.

2. Novelty and Inventive Step

2.1 Novelty, Article 54(1) EPC 1973

Document D1 discloses a flow meter monitoring system comprising:

- a communication interface (figure 1: 100) configured to communicate with a flow meter and receive meter calibration values (see figure 4: frequency in step 403) for a flow meter and
- a processing system (see figure 3) in communication with the communication interface and configured to
  - receive the meter calibration values from the communication interface (see figure 4 and column 5, lines 32 to 64) and
  - correlate the meter calibration values to known meter calibration values (see column 5, lines 54 to 64 and figure 4: step 404) in order to determine the flow meter type.

Document D2 (see figure 1, paragraph [0255] and claims 1, 4 and 5) also discloses a flow meter monitoring system with theses features.

Claim 1 differs from the closest prior art as disclosed in each of D1 and D2 in that it defines that the meter calibration values comprises a Flow Calibration Factor. Claim 1 is therefore novel in the sense of Article 54(1) EPC 1973 with respect to the closest prior art as defined by each of D1 and D2.

2.2 Inventive step - Article 56 EPC 1973

According to D1, the type of flow tube is determined based on a frequency of oscillation of the flow tube (see column 5, lines 54 to 64). According to D2, the notch filter frequency is checked to determine the type of flowmeter (see paragraph [0255]). Therefore, in contrast to the claimed invention, D1 as well as D2 use a characteristic frequency as *"meter calibration value"*.

Both D1 and D2 disclose that the phase difference between two pick-off sensors is proportional to the mass flow rate (see D1, column 1, lines 44 to 46, and D2, paragraph [0003], last sentence). The factor of proportionality is generally known as the flow calibration factor. However, neither D1 nor D2 disclose or hint towards using the flow calibration factor in order to determine the flow meter type as claimed.

By using the flow calibration factor which is inherently present within a flow meter, no additional actions or operations by a user are required to identify the flow meter type. In particular, no separate identification information has to be stored in the flow meter itself.

The invention therefore solves the problem of easy determination of the flow meter type. It is also an alternative to the identification via the characteristic frequency of a certain tube type.

As neither D1, D2 nor any other of the remaining available prior art documents discloses or hints towards the utilization of the flow calibration factor in order to determine the flow meter type, the subject-matter of claim 1 involves an inventive step in the sense of Article 56 EPC 1973.

The same arguments apply to the corresponding independent claims 9 and 18, directed to *"A flow meter type identification method"* and *"A software product for determining a flow meter type"* respectively.

2.3 Conclusion

The board concludes that the subject-matter of independent claims 1, 9 and 18, and therefore also of dependent claims 2 to 8, 10 to 17 and 19 to 26 referring back to independent claims 1, 9 and 18, respectively, is new and involves an inventive step in the sense of Articles 54(1) and 56 EPC 1973.

In addition, the characterizing portion has been identified in all independent claims, a typographical error has been corrected in claim 20 and the description has been adapted to the amended claims.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the department of first instance with the order to grant a patent in the following version:

   - claims: nos. 1 to 26 filed with the letter dated 7 January 2019;

   - description: pages 1 and 6 to 9 as originally filed, pages 2 and 3 as filed with the letter dated 26 August 2009 and pages 4, 4a and 5 filed with the letter dated 7 January 2019;

   - drawings: sheets 1/3 to 3/3 as originally filed.

The Registrar: The Chairman:

M. Kiehl R. Bekkering

Decision electronically authenticated