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**Datasheet for the decision  
of 22 October 2024**

**Case Number:** T 2057/22 - 3.4.02

**Application Number:** 16712540.0

**Publication Number:** 3265760

**IPC:** G01F1/74, G01F1/84

**Language of the proceedings:** EN

**Title of invention:**

FLOWMETER MEASUREMENT CONFIDENCE DETERMINATION DEVICES AND  
METHODS

**Applicant:**

Micro Motion, Inc.

**Relevant legal provisions:**

EPC Art. 84, 111(1)  
RPBA 2020 Art. 11, 13(1), 13(2)

**Keyword:**

Admittance of amended claim request filed after communication  
under Art.15(1) RPBA - (no)  
Remittal of case for further prosecution - (no)



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Case Number: T 2057/22 - 3.4.02

**D E C I S I O N**  
**of Technical Board of Appeal 3.4.02**  
**of 22 October 2024**

**Appellant:** Micro Motion, Inc.  
(Applicant) 7070 Winchester Circle  
Boulder, CO 80301 (US)

**Representative:** Ellis, Christopher Paul  
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**Decision under appeal:** **Decision of the Examining Division of the  
European Patent Office posted on 25 April 2022  
refusing European patent application No.  
16712540.0 pursuant to Article 97(2) EPC.**

**Composition of the Board:**

**Chairman** R. Bekkering  
**Members:** F. J. Narganes-Quijano  
C. Almberg

## **Summary of Facts and Submissions**

I. The appellant (applicant) lodged an appeal against the decision of the examining division refusing European patent application No. 16712540.0.

In the decision under appeal the examining division concluded that none of the requests then on file (main request and first and second auxiliary requests) was allowable. In particular, the examining division held that claim 1 of the first auxiliary request then on file was not clear (Article 84 EPC).

II. With the statement of grounds of appeal the appellant maintained the first auxiliary request underlying the appealed decision as the sole request (having withdrawn the other two underlying requests).

III. In the communication under Article 15(1) RPBA annexed to the summons to oral proceedings the board presented a preliminary assessment of the appellant's appeal case.

IV. With the letter of reply dated 23 September 2024 the appellant submitted amended claims.

V. Oral proceedings were held on 22 October 2024.

The appellant requested that the appealed decision be set aside and that a patent be granted on the basis of the claims of the sole request filed with the letter of 23 September 2024. The appellant also requested on an auxiliary basis that the case be remitted to the examining division to enable the examining division to

reach a decision on the issues of clarity, novelty and inventive step.

At the end of the oral proceedings the chair announced the decision of the board.

VI. Claim 1 of the sole request on file reads as follows (underlining and strike-through added by the board to identify features added and deleted with respect to claim 1 of the first auxiliary request underlying the decision under appeal):

"A method for operating a ~~vibratory~~ Coriolis flowmeter (5) comprising:

placing a process fluid in the ~~vibratory~~ Coriolis meter (5);

measuring entrained gas in the fluid, and

determining a measurement confidence level of at least one ~~operating~~ measured variable,

wherein the measurement confidence level is lowered due to the severity of gas slugs as determined by a difference in a measured mixture density of the process fluid between periods of high and low gas, ~~and a measured drive gain,~~ the periods of high and low gas determined by ~~the~~ a measured drive gain."

### **Reasons for the Decision**

1. The appeal is admissible.
2. *Admittance - Article 13(1) and (2) RPBA*

2.1 In the board's communication under Article 15(1) the board expressed the preliminary opinion that the objection of lack of clarity raised by the examining division in the decision under appeal in respect of claim 1 of the then first auxiliary request was not persuasive, but that claim 1 was not clear in other respects. In particular, the board raised, among other objections, the following objections under Article 84 EPC:

a) «It is not clear what is meant by the "entrained gas in the process fluid". In particular, it is unclear whether the entrained gas is constituted by the process fluid or one of the fluid components of the process fluid, or whether the process fluid is constituted by a liquid and the entrained gas is the gas entrained by the liquid (see in this respect page 8 of the description, lines 8 to 10). In addition, it is not clear whether the [term] "gas slugs" refers to the entrained gas being measured or to some other gas component.»

b) «It is not clear what is meant by "mixture" in the expression "measured mixture density of the process fluid", and whether this expression refers to some specific concept of density not specified in the claim or to the density of the mixture constituted by the entrained gas and the liquid referred to in paragraph [a)] above (see description, page 15, lines 5 to 14).»

c) «It appears to be unclear in claim 1 what "at least one operating variable" is referred to in the context of the claim. More particularly, claim 1 requires the determination of "a measurement confidence level" of the operating variable, and it is unclear whether the measured operating variable refers

- to a variable of operation of the vibratory flowmeter such as, for instance, the drive gain (see, for instance, the description, page 11, lines 22 to 26) or the temperature (description, page 7, lines 19 to 23), and/or

- to a measurement variable relating to the vibrational response of the flowmeter during the operation of the same such as, for instance, the time delay and/or phase difference signals delivered by the transducers of the flowmeter (description, page 1, lines 12 to 14 and lines 27 to 31), and/or

- to a measurement variable derivable from the vibrational response of the flowmeter during the operation of the same such as the mass or volume flow rate, the density, etc. (description, page 7, lines 19 to 23, and page 9, lines 8 to 10 and lines 19 to 22).»

2.2 In reply to the board's communication the appellant filed amended claims constituting the present sole request. The admittance of this request is governed by Article 13(2) RPBA and according to this article "[a]ny amendment to a party's appeal case made [...] after notification of a communication under Article 15(1), paragraph 1, shall, in principle, not be taken into account unless there are exceptional circumstances, which have been justified with cogent reasons by the party concerned". The amendments to claim 1 were made in reaction to the objections raised by the board in its communication, and the fact that these objections were raised for the first time in the mentioned communication constitutes exceptional circumstances. However, when exercising its discretion under Article 13(2) RPBA the board may also rely on the criteria set out in Article 13(1) RPBA, and one of the criteria to be considered in the case of an amendment to a patent application is "whether the party has demonstrated that

any such amendment, prima facie, overcomes the issues raised [...] by the Board [...]" (cf. Article 13(1), fourth paragraph, RPBA).

After consideration of the amendments made to claim 1 and of the appellant's arguments the board is of the opinion that the amendments prima facie do not overcome all the objections raised by the board in its communication and, in particular, not the objections a), b) and c) mentioned in point 2.1 above. More particularly, the board notes the following:

- 2.2.1 As regards the objections a) and b), in its letter of reply dated 23 September 2024 and during the oral proceedings the appellant referred to the passage on page 8, lines 8 to 10, of the description of the application and essentially submitted that flowmeters operated to measure process fluids, including liquids, that the claimed "entrained gas" referred to gas trapped in or carried by a liquid, and that the entrained gas was the sole gas. Furthermore, flow with slugs was a type of two-phase flow pattern characterized by the intermittent sequence of gas slugs in a liquid. In addition, the description referred to a multiphase flow (page 4, lines 12 to 14) and to the mixture density of a "gas and liquid" (page 15, lines 5 to 14) and the claimed "mixture density" referred to the mixture of phases of the multiphase fluid, namely to the entrained gas and the liquid of the process liquid.

The board first notes that none of the amendments made to present claim 1 is directed to overcome objections a) and b), and that the claim only refers to a "process fluid" and to "entrained gas in the fluid", and not to the process fluid being specifically constituted by a

liquid and/or by a phase mixture of a liquid and a gas, in particular the "entrained gas". In addition, the passage of the description cited by the appellant reads "The process fluid can comprise a liquid. The process fluid can comprise a gas. The process fluid can comprise a multi-phase fluid, such as a liquid including entrained gas [...].". This passage supports the lack of clarity of claim 1 relating to the question of whether or not the claimed entrained gas is a component of the process fluid, and to the further question of whether the "mixture density" is to be interpreted as referring to a mixture constituted by the process fluid and the entrained gas as two different entities or as referring to the process fluid being itself constituted by a mixture independently of the presence of entrained gas.

- 2.2.2 As regards the objection c), the appellant referred to the passage on page 11, line 30, to page 12, line 3, of the description and submitted that the measurements taken by the flowmeter referred to measured variables in a process fluid and that they included density, volume flow rate and mass flow rate.

The board notes that the expression "operating variable" of claim 1 of the first auxiliary request underlying the decision under appeal has been replaced in present claim 1 by the expression "measured variable" and that this amendment overcomes only in part objection c). In particular, claim 1 leaves open whether the "measured variable" refers to any measured variable, including measured variables not necessarily relating to the process fluid (see point 2.1 above, paragraph c)), or whether it refers - as submitted by the appellant - specifically to a variable of the process fluid.

2.3 The board concludes that the amendments made in the appellant's sole request prima facie do not overcome at least objections a), b) and c) raised in the board's communication. For this reason the board, in the exercise of its discretion under Article 13(2) RPBA and taking into account the criteria set out in Article 13(1) RPBA, decides not to admit the appellant's sole request into the appeal proceedings.

3. *Request for remittal*

The appellant requested on an auxiliary basis that the case be remitted to the examining division to enable the examining division to reach a decision on the issues of clarity, novelty and inventive step. The appellant submitted in particular that the objections under Article 84 EPC under consideration were raised for the first time by the board, and that they had a right to examination in two instances.

In the present case the then first auxiliary request, i.e. the basis for the amendments resulting in the present sole request, was refused for lack of compliance with the requirements of clarity (Article 84 EPC). In these circumstances, a remittal for further prosecution could - as noted by the board during the oral proceedings - only be considered in respect of claims that are clear within the meaning of Article 84 EPC. In addition, the appellant's sole request is not admitted into the proceedings. In these circumstances, there is no basis for a remittal of the case for further prosecution, let alone special reasons for doing it (Article 111(1) EPC, together with Article 11 RPBA). Lastly, the board recalls that there is no absolute right to have an issue decided on at two

instances (see "Case Law of the Boards of Appeal", EPO, 10th edition 2022, section V.A.9.2.1). It follows from the above that the case is not to be remitted.

4. Since the sole request of the appellant is not admitted into the proceedings, the appeal must be dismissed.

## Order

### **For these reasons it is decided that:**

The appeal is dismissed.

The Registrar:

The Chair:



L. Gabor

R. Bekkering

Decision electronically authenticated