



Translation

(1) **EC-Type Examination Certificate**

(2) **- Directive 94/9/EC -**

**Equipment and protective systems intended for use
in potentially explosive atmospheres**

(3) **DMT 01 ATEX E 106**

(4) **Equipment: Level limit switch ROTONIVO Type RN 4001**

(5) **Manufacturer: UWT GmbH**

(6) **Address: D 87488 Betzigau**

(7) The design and construction of this equipment and any acceptable variation thereto are specified in the schedule to this type examination certificate.

(8) The certification body of Deutsche Montan Technologie GmbH, notified body no. 0158 in accordance with Article 9 of the Directive 94/9/EC of the European Parliament and the Council of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II to the Directive.

The examination and test results are recorded in the test and assessment report BVS PP 01.2079 EG.

(9) The Essential Health and Safety Requirements are assured by compliance with:

EN 50281-1-1:1998 Dust explosion protection

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EC-Type Examination Certificate relates only to the design, examination and tests of the specified equipment in accordance to Directive 94/9/EC.

Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate

(12) The marking of the equipment shall include the following:

II 1 / 3 D IP 6X T 95 °C

Deutsche Montan Technologie GmbH

Essen, dated 23. July 2001

Signed: Dill

Signed: Wenzel

DMT-Certification body

Head of special services unit



(13) Appendix to

(14) **EC-Type Examination Certificate**

DMT 01 ATEX E 106

(15) 15.1 Subject and type

Level limit switch ROTONIVO Type RN 4001

15.2 Description

The Level limit switch ROTONIVO Type RN4001 is used for the detection of the fill level in containers in which granular, powdery or sludge materials are stored.

It consists of electronics enclosure conforming to category 3 and a extension part conforming to category 1.

A low revolution synchronous induction gearing motor drives a measuring vane which is fixed to a shaft and which stops as soon as it is covered with the bulk material. The freely suspended motor then operates a micro switch which stops the motor and triggers a signal in an electrical circuit. If the bulk material level drops, the rotating vane becomes free again, the motor will be drawn back by a tension spring to its initial position and will be switched on again.

The mechanical version varies according to the spatial and thermal requirements.

15.3 Parameters

15.3.1 Electrical data

15.3.1.1 AC-version

Voltage	AC 24, 42 V, 48 V, 110...120 V, 220...240 V
Frequency	50 / 60 Hz
max. power dissipation	3,5 VA

15.3.1.2 DC-version

Voltage	DC	24 V
max. power dissipation		3 W

Maximum speed of rotating vane of both types 10 U/min

15.3.1.3 Contact rating of micro switches

	AC	DC
max. voltage	250 V	300 V
max. current	2 A	2 A
max. switching power	600 VA	60 W
	at $\cos\varphi = 1$	



15.3.2 Thermal data

Maximum surface temperature T
at 80 °C process temperature (category 1) and
at 60 °C ambient temperature (category 2) 95 °C

Maximum surface temperature T
at 70 °C process temperature (category 1) and
at 50 °C ambient temperature (category 2) 85 °C

Maximum surface temperature T
at 60 °C process temperature (category 1) and
at 40 °C ambient temperature (category 2) 75 °C

Permitted process temperature - 25 °C...+ 80 °C

Permitted ambient temperature - 25 °C...+ 60 °C

15.3.3 Degree of protection according to EN 60529 IP 6X

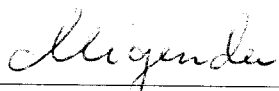
(16) Test and assessment report
BVS PP 01.2079 EG as of 23.07.2001


(17) Special conditions for safe use
None

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

45307 Essen, 16.04.2003
BVS-Hk/Ar

Deutsche Montan Technologie GmbH


DMT-Certification body


Head of special services unit