

PROCHEM S.A.

ZESPÓŁ DS. BEZPIECZEŃSTWA
PRZECIWWYBUCHOWEGO
04-118 W-wa, ul. Ostrobramska 103
tel. 100081, tlx 816224, fax 107694

Warszawa 05.2001

OPINIA Nr ZBP-1466/2001

w sprawie stosowania w warunkach zagrożenia wybuchem systemu pomiaru poziomu (przetwornik VP-1 + sonda VISY-Stick) wg specyfikacji (zał. Nr 1).

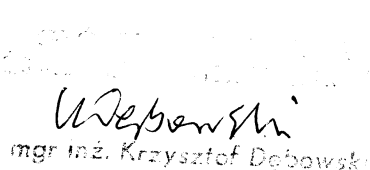
Producent: FAFNIR GmbH
Bahrenfelder Strasse 19
D-22765 Hamburg
Niemcy

Dystrybutor: Izabella Nowotny
Przedstawiciel firmy FAFNIR w Polsce
ul. Klonowa 7
24-150 Nałęczów

Ustalenia opinii:

1. Urządzenia wymienione w załączonej specyfikacji mogą być stosowane w warunkach zagrożenia wybuchem Z0/poza str. IIC T6 (patrz spec.).
2. Zaopiniowane urządzenia powinny być:
 - stosowane zgodnie z przepisami, ustaleniami stacji badawczej (TUV), przeznaczeniem oraz zaleceniami producenta i n/Zespołu,
 - eksploatowane przez przeszkoloną obsługę (DzU 59/98).
3. Na urządzeniach w wykonaniu przeciwwybuchowym powinny się znajdować tabliczki znamionowe z cechą wybuchowości oraz numerem atestu stacji badawczej.
4. Wartości bezpieczne napięć i prądów, indukcyjności i pojemności oraz stosunku L/R dla obwodów iskrobezpiecznych nie powinny być przekroczone.
5. Opinię powinien otrzymać każdy użytkownik przedmiotowych urządzeń. Opinia dotyczy urządzeń nowych, eksploatowanych przez pierwszego użytkownika.
6. Wszelkie zmiany decydujące o bezpieczeństwie w zakresie przeciwwybuchowym wymagają ponownej akceptacji n/Zespołu. Opinia jest ważna przez 3 lata (bezterminowo – w zakresie eksploatacji zgodnie z przepisami).
7. Opinię opracowano na podstawie:
 - obowiązujących przepisów krajowych i międzynarodowych,
 - atestów .

KONIEC


mgr inż. Krzysztof Dębowski

SPECYFIKACJA URZĄDZEŃ

ZBP-1466/2001

Lp	Dane producenta urządzeń			Dane użytkownika urządzeń		Opinia		
	Opis techniczny	Producent Norma	Certyfikat	Cecha EEx	Strefa zagr. wyb		Parametry subst.	Miejsce pracy
1	System pomiaru poziomu składający się z: 1 Sensora typu VISY-Stick w obwodzie iskrobezp. przetw. poz. 2	Niemcy Fafnir EN50014/20	TUV 99ATEX1496	II 1/2 G EEx ia IIC T6	Z0	IIC T6	OPINIA POZYTYWNA	PATRZ WSKAZANIA OPINII
2	Przetwornika typu VP-1	Niemcy Fafnir EN50014/20	TUV 98ATEX1380	II (1) G (EEx ia) IIC	poza strefa	IIC T6		

05.2001
PROTIM S.P.A.
ZESPÓŁ DS. BIEŻĄCEJ
PRZECHWYLIWIAJĄCYCH
OP-120 W-VA, 40.000.000.000
tel. 100081, fax 81602, fax 107694

mgr inż. Krzysztof Dobowski



Translation

(1) **EC TYPE-EXAMINATION CERTIFICATE**

(2) Equipment or Protective System intended for use in potentially explosive atmospheres - **Directive 94/9/EC**



(3) EC-Type Examination Certificate Number

TÜV 99 ATEX 1496

(4) Equipment: Magnetostrictive Tank Level Gauge VISY-Stick

(5) Manufacturer: Fafnir GmbH

(6) Address: Bahrenfelder Strasse 19
D - 22765 Hamburg

(7) This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) The TÜV Hannover/Sachsen-Anhalt e.V., TÜV CERT-Certification Body, notified body number N° 0032 in accordance with Article 9 of the Council Directive of the EC of March 23, 1994 (94/9/EC), certifies that this equipment or protective system 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 confidential report N° 99/PX22990.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 50 014: 1997

EN 50 020: 1994

EN 50284:1997

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system 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 and construction of the specified equipment or protective system according to Directive 94/9/EC. Further requirements of this Directive apply to the manufacture and placing on the market of this equipment or protective system.

(12) The marking of the equipment or protective system must include the following:

 II 1/2 G EEx ia IIC T6

TÜV Hannover/Sachsen-Anhalt e.V.
TÜV CERT-Zertifizierungsstelle
Am TÜV 1
D-30519 Hannover

Hanover, 30.11.1999

Head of the
Certification Body



SCHEDULE

(13)

(14) **EC-TYPE EXAMINATION CERTIFICATE N° TÜV 99 ATEX 1496**

(15) Description of equipment

The Magnetostrictive Tank Level Gauge VISY-Stick is used for the detection of filling levels in hazardous explosive areas.

In the area of the category 1 (Zone 0) it is only allowed to arrange the sensor pipe and the floaters.

The maximal permissible ambient temperature has to be taken from the following table:

	T6	T5	T4
max. ambient temperature	50 °C	65 °C	75 °C

Electrical data

Signal- and supply circuit in type of protection „Intrinsic Safety“ EEx ia IIC
(terminals +, A, B, -) only for the connection to certified intrinsically safe circuits with the following maximum values:

$$\begin{aligned}
 U_i &= 15 \text{ V} \\
 I_i &= 30 \text{ mA} \\
 P_i &= 100 \text{ mW}
 \end{aligned}$$

The maximum effective internal inductance is 0,1 mH.

The maximum effective internal capacitance is 10 nF.

(16) Test documents consisting of 10 sheets, drawings and part list are listed in the test report.

(17) Special conditions for safe use

none

(18) Essential Health and Safety Requirements

no additional ones



Translation

(1) **EC TYPE-EXAMINATION CERTIFICATE**

(2) Equipment or Protective System intended for use in potentially explosive atmospheres - **Directive 94/9/EC**



(3) EC-Type Examination Certificate Number

TÜV 98 ATEX 1380

(4) Equipment: Measuring Transmitter for Tank Level Measuring Devices type VP-1

(5) Manufacturer: Fafnir GmbH

(6) Address: Bahrenfelder Strasse 19
D - 22765 Hamburg

(7) This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) The TÜV Hannover/Sachsen-Anhalt e.V., TÜV CERT-Certification Body, notified body number N° 0032 in accordance with Article 9 of the Council Directive of the EC of March 23, 1994 (94/9/EC), certifies that this equipment or protective system 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 confidential report N° 98/PX31280.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 50 014: 1997

EN 50 020: 1994

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system 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 and construction of the specified equipment or protective system according to Directive 94/9/EC. Further requirements of this Directive apply to the manufacture and placing on the market of this equipment or protective system.

(12) The marking of the equipment or protective system must include the following:

 II (1) G [EEx ia] IIC

TÜV Hannover/Sachsen-Anhalt e.V.
TÜV CERT-Zertifizierungsstelle
Am TÜV 1
D-30519 Hannover

Hanover, 15.12.1998



Head of the
Certification Body

SCHEDULE

(13)

(14) **EC-TYPE EXAMINATION CERTIFICATE N° TÜV 98 ATEX 1380**

(15) Description of equipment

The measuring transmitter is an associated apparatus which is used for the transmission of electrical signals of up to eight sensors from the hazardous explosive area to the non hazardous explosive area. It is designed as a module of a tank level measuring system.

Electrical data

Supply circuit
(terminals L, N and SL)

alternating voltage: 230 V \pm 10 %; about 2 VA, $U_m = 253$ V
resp.

alternating voltage: 24 V \pm 10 %; about 2 VA, $U_m = 33$ V

Sensor circuit(s)
(terminals

in type of protection „Intrinsic Safety“ EEx ia IIC

1A, 1B, 1+ and 1- resp.

maximum values: $U_o = 14,3$ V

2A, 2B, 2+ and 2- resp.

$I_o = 28$ mA

3A, 3B, 3+ and 3- resp.

$P_o = 98$ mW

4A, 4B, 4+ and 4- resp.

5A, 5B, 5+ and 5- resp.

6A, 6B, 6+ and 6- resp.

characteristic line: linear

7A, 7B, 7+ and 7- resp.

The effective internal inductances and capacitances are negligibly small.

8A, 8B, 8+ and 8-)

maximum effective external inductance 40 mH

maximum effective external capacitance 0,68 μ F

Measuring- and control circuits $U \leq 100$ V, $U_m = 100$ V

(16) Test documents consisting of description (7 sheets) and drawings (4 sheets) are listed in the test report.

(17) Special conditions for safe use

none

(18) Essential Health and Safety Requirements

no additional ones