

12. EC type approval

TÜV CERT

(1) **EC – Type approval test certificate**

(2) Equipment and protective systems for use according to certain regulations in explosion-endangered areas – Guideline 94/9/EC

(3) EG Type approval test certificate number

TÜV 01 ATEX 1757 X

(4) Equipment: Explosion-protected temperature measuring unit Type Ex-Pt 720*

(5) Manufacturer: ecom instruments GmbH

(6) Address: D-97959 Assamstadt, Industriestrasse 2

(7) The type of design as well as the various permissible versions are specified in the appendix to this type approval test certificate.

(8) The TÜV Hannover/Sachsen-Anhalt e.V., TÜV CERT-certification authority, hereby confirms, as recognized authority no. 0032 according to Article 9 of the Guidelines of the Council of the European Union dated March 23rd, 1994 (94/9/EG), the fulfilment of the fundamental safety and health requirements for the conception and design of equipment and protective systems according to certain regulations in explosion-endangered areas in line with Appendix II of the guidelines.

The test results are recorded in the confidential test report No. 01 YEX 137383.

(9) The fundamental safety and health requirements are fulfilled on account of compatibility with

EN 50014:1997

EN 50020:1994

(10) Should the letter "X" appear at the end of the certification number, attention is drawn to special conditions for the safe use of the equipment which can be found in the appendix.

(11) This EG type approval test certificate only refers to the conception and testing of certain equipment in line with Guideline 94/9/EG. The additional requirements of this guideline which are valid for the manufacture and commissioning of this equipment are not covered by this certificate.

(12) The designation of the equipment must contain the following details:

 **II 2 (1) G EEx ia IIC T4**

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

Hannover, 19.02.2002

The person in charge

This EG type approval test certification may only be distributed in unchanged form. Extracts or changes need the approval of the TÜV Hannover/Sachsen-Anhalt e.V

(13)

Appendix

(14) **EC – Type approval test certificate No. TÜV 01 ATEX 1757 X**

(15) Description of the equipment

The explosion-protected temperature measurement unit Type Ex-Pt 720* may be used in explosion-endangered areas which require category 2 or 3 respectively. The sensors which are specially mentioned in the operating instructions may be used for the measurement of temperatures in category 1.

The permissible ambient temperature range is 0°C to +50°C.

Electrical data

Power supply one block battery as per IEC 6LR61 or 6F22
(internal battery) U = 9V

Only batteries which have satisfied the type-testing in accordance with section 10.9 of EN 50020:1994 are allowed to be used. The manufacturers and their type numbers are listed in the operating instructions.

(16) Test documentation is listed in test report No. YEX 137383.

(17) Special conditions

The temperature measuring unit Type Ex-Pt 720* may not be opened within the explosion-endangered area.

The version with the type designation EX-Pt 720L may only be used within explosion-endangered areas when it is enclosed in the leather case which is supplied with it.

In addition, the following applies to the measurement of temperatures within category 1:

The temperature measuring unit Type Ex-Pt 720* itself may not be taken into areas which require category 1 operating equipment. Only the sensors listed in the operating instructions as being suitable for category 1 may be used.

The carrying strap of the unit is to be attached to a loop on the user's belt in such a way that when the unit hangs freely on the strap it always maintains a spacing of > 50 cm from the boundary of the area which requires category 1. Only the manufacturer's carrying strap may be used.

(18) Fundamental safety and health requirements

No additional ones.

1st Supplement
to
EC – Type approval test certificate No. TÜV 01 ATEX 1757

The company: ecom instruments GmbH
Industriestrasse 2
D-97959 Assamstadt

In the future, the explosion-protected temperature measuring instrument Type Ex-Pt 720* may be manufactured in accordance with the documentation listed in the test report. The changes are concerned with the external design and the use of further sensors. The permissible ambient temperature is dependent on the type as shown in the following table:

Type	Permissible ambient temperature range
Ex-Pt 720 L	0°C to +50°C
Ex-Pt 720	-10°C to +50°C

The electrical data are valid without change for this supplement.

(16) Test documentation is listed in test report No. 02 YEX 164755.

(17) Special conditions

The temperature measuring unit Type Ex-Pt 720* may not be opened within the explosion-endangered area. The version with the type designation EX-Pt 720L may only be used within explosion-endangered areas when it is enclosed in the leather case which is supplied with it.

In addition, the following applies to the measurement of temperatures within explosion-endangered areas which need category 1 equipment:

The temperature measuring unit Type Ex-Pt 720* itself may not be taken into areas which require category 1 equipment. Only the sensors listed in the operating instructions as being suitable for category 1 may be used.

The carrying strap of the unit is to be attached to a loop on the user's belt in such a way that when the unit hangs freely on the strap it always maintains a spacing of > 50 cm from the boundary of the area which requires category 1. Only the manufacturer's carrying strap may be used.

(18) Fundamental safety and health requirements

No additional ones.

2. SUPPLEMENT
to
EC-Type-Examination Certificate No. TÜV 01 ATEX 1757 X
(translation)

of the company: ecom instruments GmbH
Industriestrasse 2
97959 Assamstadt
Germany

The explosion-proof temperature measuring device of type EX-Pt 720* has been approved for manufacture according to the documents listed in the test/examination report. The changes refer to the outer structure and the use of an additional sensor.

The electrical data and the special conditions shall continue to be valid for this supplement.

The test documents are listed in test protocol No. 03 YEX 550274.

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Hannover, 07 Jan.

Signature:
The Chief Officer

3. SUPPLEMENT
to
EC-Type-Examination Certificate No. TÜV 01 ATEX 1757 X
(translation)

of the company: ecom instruments GmbH
Industriestrasse 2
97959 Assamstadt
Germany

The explosion-proof temperature measuring device of type EX-Pt 720* has been approved for manufacture according to the documents listed in the test/examination report.
The modifications are related to the internal structure of two probes, only.

The electrical data and the special conditions shall continue to be valid for this supplement.

The test documents are listed in test protocol No. 04 YEX 551244.

TÜV NORD CERT GmbH & Co. KG

Hannover, 17. 02. 2004

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Signature:
The Chief Officer

4th ADDENDUM

to certificate number: TÜV 01 ATEX 1757 X
Device: Explosion-shielded temperature gauge
Type Ex-Pt 720*
Manufacturer: ecom instruments GmbH
Address: Industriestr. 2
97959 Assamstadt
Order number: 8000554136
Date of issue: 12.11.2007

Changes:

The explosion-shielded temperature gauge type Ex-Pt 720* may be manufactured in the future in accordance with the documents listed in the test report. The changes concern the inner structure of the sensors, the battery holder and the test plate.

The electrical data and all other details remain unchanged for this addendum.

This addendum fulfils the requirements of the following standards:

EN 60079-0:2006

EN 60079-11:2007

EN 60079-26:2007

(16) The test documents are listed in test report No. 07 203 554136.

(17) Special conditions

no additional requirements

(18) Fundamental health and safety requirements

no additional requirements

TÜV NORD CERT GmbH, Langemarckstraße 20, 45141 Essen, accredited by the Central Authority of the Federal States for Safety (ZLS), ID No. 0044. Assignee of TÜV NORD CERT GmbH & Co. KG ID No. 0032

Head of the certification body

Schwedt

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5th ADDENDUM

to certificate number:

TÜV 01 ATEX 1757 X

Device:

Explosion-shielded temperature gauge
Type Ex-Pt 720*

Manufacturer:

ecom instruments GmbH

Address:

Industriestr. 2
97959 Assamstadt

Order number:

8000554527

Date of issue:

04.07.2008

Changes:

The temperature sensors 06282232 and 06282432 approved for Zone 0 and their special sensors are additionally provided with a grounding connection.

The equipment is inspected in line with the change in standards from EN 50014:1997+A1+A2 to EN 60079-0:2006.

The electrical data and all other details remain unchanged for this addendum.

This addendum fulfils the requirements of the following standards:

EN 60079-0:2006

EN 60079-11:2007

EN 60079-26:2007

The device incl. this addendum fulfils the requirements of the following standards:

EN 60079-0:2006

EN 50020:1994

EN 50284:1999

(16) The test documents are listed in test report No. 08 203 554527.

(17) Special conditions

The manufacturer's safety regulations are to be observed.

The temperature gauge type Ex-Pt 720* should not be opened within explosive areas.

The version with type designation Ex-Pt 720L should only be used in explosive areas in the appropriate leather case.

Only type-tested batteries are to be used (the types to be used are specified in the instruction manual for the gauge).