



EC-TYPE-EXAMINATION CERTIFICATE

(Translation)



- (2) Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres - **Directive 94/9/EC**

- (3) EC-type-examination Certificate Number:

PTB 09 ATEX 1113 X

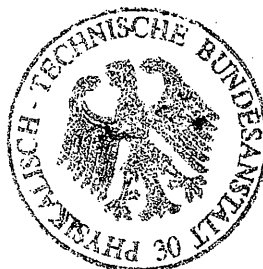
- (4) Equipment: Limiting-signal transmitter, type 4747
- (5) Manufacturer: SAMSON AG Mess- und Regeltechnik
- (6) Address: Weismüllerstr. 3, 60314 Frankfurt am Main, Germany
- (7) This equipment and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.
- (8) The Physikalisch-Technische Bundesanstalt, notified body No. 0102 in accordance with Article 9 of the Council Directive 94/9/EC 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 confidential assessment and test report PTB Ex 09-19249.
- (9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN 60079-0:2006 EN 60079-1:2007 EN 61241-0:2006 EN 61241-1:2004
- (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 the 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 2G Ex d IIC T6, T5 and T4
 II 2D Ex tD A21 IP66 T 80°C

Zertifizierungssektor Explosionsschutz
By order:

(signature)

Dr.-Ing. M. Thedens
Oberregierungsrat



Braunschweig, November 20, 2009

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EC-type-examination Certificates without signature and official stamp shall not be valid. The certificates may be circulated only without alteration. Extracts or alterations are subject to approval by the Physikalisch-Technische Bundesanstalt. In case of dispute, the German text shall prevail.

(13)

SCHEDULE

(14)

EC-TYPE-EXAMINATION CERTIFICATE PTB 09 ATEX 1113 X

(15) Description of equipment

The series 4747 limiting-signal transmitter are suited for attachment to single-acting or double-acting pneumatic or electric control valves. They are equipped with inductive or electric contacts. When an adjusted limit value is exceeded or not reached, particularly when one of the control valve's end positions is reached, the limiting-signal transmitter issues a limit signal, e.g. for transmission to an alarm or indicating unit.

Technical data

Limiting-signal transmitter version

4747-21001

4747-21011 / 4747-21012

Operating values

$U_N = 8 \text{ V DC}$, $P_{\max} = 4 \text{ W}$

$U_N = 250 \text{ V AC}$, $I = 10 \text{ A}$, $P_{\max} = 4 \text{ W}$

Degree of protection IP 66

according to EN 60529

Type code

4	747	-	x	x	x	x	x	x	x	
										System identifier
										Limiting-signal transmitter
										Ex protection
										210 Ex d acc. to EN 60079-1
										Type/limiting contact
										01 Inductive
										11 Mechanical – silver contact
										12 Mechanical - gold contact
										No. of contacts
										1 1 contact
										2 2 contacts
										Electrical connection threads
										1 M20 x 1.5
										2 NPT ½"

Physikalisch-Technische Bundesanstalt

Braunschweig und Berlin

SCHEDULE TO EC-TYPE-EXAMINATION CERTIFICATE PTB 09 ATEX 1113 X

(16) Assessment and test report PTB Ex 09-19249

(17) Special conditions for safe use

For repair of the flameproof joints due regard must be given to the structural specifications provided by the manufacturer. Repair on the basis of the values in tables 1 and 2 of EN 60079-1 is not accepted.

Notes for manufacturing, installation and operation

Limiting-signal transmitter used in explosive gas atmospheres at ambient temperatures that correspond to temperature classes T4 or T5 may be used in explosive dust atmospheres after maintenance only if a new O-ring has been inserted.

Connection conditions

1. The type 4747 limiting-signal transmitter is to be connected with suitable cable glands or conduit systems that meet the requirements stipulated in EN 60079-1, sections 13.1 and 13.2, and for which a separate test certificate has been issued.
2. Cable glands (high-strength cable glands) and blanking plugs of a simple design must not be used.
3. Any openings of the type 4747 limiting-signal transmitter that are not used must be sealed as specified in EN 60079-1, section 11.9.
4. The connecting cable of the type 4747 limiting-signal transmitter must be fixed and routed so that it will be adequately protected against mechanical damage.
5. If the temperature at the input parts exceeds 70 °C, temperature-resistant connecting cables have to be used.
6. The type 4747 limiting-signal transmitter has to be included in the local equipotential bonding system.

These notes and instructions have to accompany each device in an adequate form.

Components attached or installed (terminal compartments, bushings, Ex-type cable glands, connectors) must be of a technical standard that complies as a minimum with the specifications on the cover sheet, and they must have a separate examination certificate. The operating conditions specified in the component certificates must be complied with!

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SCHEDULE TO EC-TYPE-EXAMINATION CERTIFICATE PTB 09 ATEX 1113 X

Ambient temperature

The type 4747 limiting-signal transmitter can be operated within the following range:

In explosive gas atmospheres:

in temperature class T6 at ambient temperatures between -55 °C and +65 °C,
in temperature class T5 at ambient temperatures between -55 °C and +80 °C, and
in temperature class T4 at ambient temperatures between -55 °C and +85 °C.

In explosive dust atmospheres:

At a maximum surface temperature of 80 °C

The maximum permissible ambient temperatures are -55 °C to +65 °C.

(18) Essential health and safety requirements

Met by compliance with the afore-mentioned Standards.

Zertifizierungssektor Explosionsschutz
By order:

Braunschweig, 20 November 2009

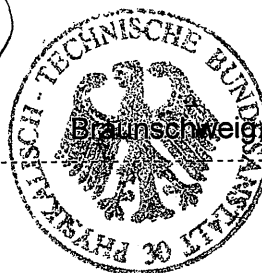
(signature)

Dr.-Ing. M. Thedens

4 pages, correct and complete as regards content.
By order:



Dipl.-Phys. U. Völkel



Braunschweig, May 12, 2010

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