

IBExU Institut für Sicherheitstechnik GmbH

An-Institut der TU Bergakademie Freiberg

[1] **EC-TYPE EXAMINATION CERTIFICATE**
according to Directive 94/9/EC, Annex III
(Translation)



[2] Equipment and protective systems intended for use
in potentially explosive atmospheres, **Directive 94/9/EC**

[3] EC-Type Examination Certificate Number: **IBExU13ATEX1053 X**

[4] Equipment: **Flap boxes (two-way distributors)**
Type SPKK...
**in the designs SPKK240006, SPKK320006,
SPKK400006, SPKK500006 and SPKK600006**

[5] Manufacturer: **GOUDSMIT magnetic systems b.v.**

[6] Address: **Petunialaan 19
5582 HA Waalre
Netherlands**

[7] The design of the equipment mentioned in [4] and any acceptable variations thereto are specified
in the schedule to this EC-Type Examination Certificate.

[8] IBExU Institut für Sicherheitstechnik GmbH, NOTIFIED BODY number 0637 in accordance with
article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that the equipment men-
tioned in [4] has been found to comply with the essential health and safety requirements for the
design and construction of equipment and protective systems intended for use in potentially ex-
plosive atmospheres given in Annex II to the Directive.
The test results are recorded in the test report IB-12-2-115 of 16 April 2013.

[9] Compliance with the essential health and safety requirements has been assured by compliance
with EN 1127-1:2011, EN 13463-1:2009, EN 13463-5:2011 and CLC/TR 50404:2003.

[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 [17] in the schedule to this EC-Type Examination Cer-
tificate.

[11] This EC-Type Examination Certificate relates only to the design and construction of the specified
equipment. If applicable, further requirements of this Directive apply to the manufacture and sup-
ply of this equipment.

[12] The marking of the equipment mentioned in [4] shall include the following:

II 1 / 2 D c TX
 II - / 3 G c IIB TX

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Authorized for certifications
-Explosion protection-

Freiberg, 16 April 2013

By order

(Dipl.-Ing. Willamowski)



Certificates without signature
and seal are not valid.
Certificates may only be dupli-
cated completely and un-
changed. In case of dispute,
the German text shall prevail.

Schedule

[13] **Schedule**

[14] **to the EC-TYPE EXAMINATION CERTIFICATE IBExU13ATEX1053 X**

[15] **Description of the equipment**

The flap boxes (two-way distributors) mentioned in [4] consist of a housing with one product inlet and two outlets. A flap is installed in the housing, which can, depending on position, close off one outlet and direct the product flow to the other outlet.
A pneumatic unit on the outside serves to move the flap.

The flap boxes are constructed of steels and plastic material. The movable flaps are mounted in bronze bushes. All materials are specified in the documents. The flap boxes can be constructed in different sizes and designs. An overview about the possible sizes is part of the test documents. Subject of this EC-Type Examination is only the non-electrical part of the flap boxes. Purchased parts (e.g. pneumatic drives, magnetic valves, limit switches) are not subject of this EC-Type Examination. They must be selected and installed in accordance with the requirements on the equipment category and the respective zone.

Technical details to the constructive design of the flap boxes are specified in the Test Report IB-12-2-115 or in the test documents which are part of the test report.

[16] **Test report**

The test results are recorded in the Test Report IB-12-2-115 of 16 April 2013. All documents underlying this examination and the operating range of the flap boxes are mentioned in the test report. Designs are only permitted when they conform to the documents listed in the test report.

Summary of the test results:

The test results show that the flap boxes mentioned in [4] fulfil the requirements on equipment of Category 1D inside and Categories 2D and 3G outside in type of protection "c" (protection by constructional safety).

The test documents are listed in chapter 2 of the test report.

It has been taken into account that in rare cases hybrid mixtures can occur.

[17] **Special conditions for safe use**

The "X" after the number of the EC-Type Examination Certificate means that special conditions must be maintained for the safe use of the flap boxes.

- The smoulder temperature of dusts must not be less than the maximum surface temperature (temperature of the media) plus a safety margin of 75 K.
- The ignition temperature of dusts must not be less than 1.5 times the maximum surface temperature in °C (temperature of the media).
- The ignition temperature of gases must not be less than the maximum surface temperature in °C plus a safety margin of 5 K.
- The maximum circumferential speed of the flap of 1 m/s must not be exceeded.
- Before a longer standstill the flap boxes must be emptied. If nevertheless an autoignition hazard can arise, the operating company has to take additional protective measures.
- The inner surfaces must not be provided with electrically insulating coatings with a breakdown voltage of > 4 kV.
- All screw connections inside the flap boxes have to be secured against loosening.
- Purchased parts must be selected and installed in accordance with the requirements for the respective zone.

[18] **Essential Health and Safety Requirements**

Confirmed by compliance with standards (see [9]).

By order

Freiberg, 16 April 2013


(Dipl.-Ing. Willamowski)