



(1) **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 03 ATEX 2086 X

- (4) Equipment: Valve solenoid type 0518 and type 1218
- (5) Manufacturer: Nass Magnet GmbH
- (6) Address: Eckenerstraße 4-6, 30179 Hannover, 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 report PTB Ex 03-22229 .

- (9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN 50014:1997 + A1 + A2 EN 50028:1987 EN 50281-1-1:1998
- (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 2 G EEx m II T4...T6 and II 2 D IP 65 T 80 °C, T 95 °C, T 130 °C

Zertifizierungsstelle Explosionsschutz
By order:

Braunschweig, September 23, 2003

Dr.-Ing. U. Johannsmeyer
Regierungsdirektor

(13)

SCHEDULE

(14)

EC-TYPE-EXAMINATION CERTIFICATE PTB 03 ATEX 2086 X

(15) Description of equipment

The valve solenoid consists of a solenoid, an armature system and a fixing nut. The armature guide forms the flameproof part of the magnet, the guide tube is tested with 1.5 times the nominal operating pressure. Depending on its design, the guide tube is suitable for thread mounting or flange mounting. The winding consists of enamel-insulated copper wires of insulation class H. This coil is injection-moulded with pre-plastified plastic granules. A PCB with electronic components is soldered onto the terminal posts of the encapsulated part of the coil. A housing made of fibre-reinforced polyimide 6 is mounted over the terminal area and then sealed with compound.

Electrical data

Type designation	1218..
Type of current	Direct current
Rated voltage	6 V ... 220 V
Rated current	0.845 A ... 0.022 A
Limit power	4.9 W
Max. perm. ambient temperature	40 °C
Temperature class	T6
Medium temperature	70 °C
Single mounting	yes
Butt mounting	no

Type designation	0518..
Type of current	Alternating current
Rated voltage	12 V ... 240 V
Rated current	0.366 A ... 0.021 A
Limit power	4.8 W
Max. perm. ambient temperature	50 °C
Temperature class	T6
Medium temperature	70 °C
Frequency	50 Hz ... 60 Hz
Single mounting	yes
Butt mounting	no

Type designation	1218..
Type of current	Direct current
Rated voltage	6 V ... 220 V
Rated current	0.845 A ... 0.022 A
Limit power	4.6 W
Max. perm. ambient temperature	50 °C
Temperature class	T5
Medium temperature	80 °C
Single mounting	yes
Butt mounting	yes, wall to wall

Type designation	0518..
Type of current	Alternating current
Rated voltage	12 V ... 240 V
Rated current	0.366 A ... 0.021 A
Limit power	4.9 W
Max. perm. ambient temperature	50 °C
Temperature class	T5
Frequency	50 Hz ... 60 Hz
Medium temperature	80 °C
Single mounting	yes
Butt mounting	yes, wall to wall

Type designation	1218..
Type of current	Direct current
Rated voltage	6 V ... 220 V
Rated current	1.58 A ... 0.043 A
Limit power	10.1 W
Max. perm. ambient temperature	50 °C
Temperature class	T4
Medium temperature	80 °C
Single mounting	yes
Butt mounting	yes, wall to wall

Type designation	0518..
Type of current	Alternating current
Rated voltage	12 V ... 240 V
Rated current	0.623 A ... 0.039 A
Limit power	9.2 W
Max. perm. ambient temperature	50 °C
Temperature class	T4
Frequency	50 Hz ... 60 Hz
Medium temperature	80 °C
Single mounting	yes
Butt mounting	yes, wall to wall

(16) Test report PTB Ex 03-22229

(17) Special conditions for safe use

A fuse corresponding to the rated current of the magnet (max. $3 \times I_B$ according to IEC 60127-2-1) or a motor protecting switch with short-circuit- or thermal instantaneous tripping (adjusted to rated current) must be connected in series to each magnet. For very low rated currents of the magnet the fuse with the lowest current value according to the aforementioned IEC-standard will be sufficient. This fuse may be accommodated inside the associated power supply unit or has to be connected in series separately. The rated voltage of the fuse shall be the same as or higher than the rated voltage specified for the magnet. The breaking capacity of the fuse link shall be the same as or higher than the maximum short-circuit current expected to occur at the place of installation (normally 1500 A).

A maximum permissible ripple of 20 % applies to all magnets of DC-design.

(18) Essential health and safety requirements

met by compliance with the standards mentioned above

Zertifizierungsstelle Explosionsschutz

By order:


Dr.-Ing. U. Johannsmeyer
Regierungsdirektor

Braunschweig, September 23, 2003


2. SUPPLEMENT

according to Directive 94/9/EC Annex III.6

to EC-TYPE-EXAMINATION CERTIFICATE PTB 03 ATEX 2086 X

(Translation)

Equipment: Valve solenoid, type 0518/1218

Marking:  II 2 D Ex mb II T6, T5, T4 resp.
II 2 G Ex mtD A21 IP 65 T 80 °C, T95 °C, T 130 °C

Manufacturer: nass magnet GmbH

Address: Eckenerstraße 4-6, 30179 Hannover, Deutschland

Description of supplements and modifications

In the future the valve solenoid type 0518 / 1218 shall be marked as follows:

 II 2 G Ex mb IIC T6, T5, T4

 II 2 D Ex mb tb IIIC T80 °C, T95 °C, T130 °C

or

 II 2 G Ex mb IIC T6, T5, T4 Gb

 II 2 D Ex mb tb IIIC T80 °C, T95 °C, T130 °C Db

All other specifications of the examination certificate and the supplement apply without changes.

Applied standards

EN 60079-0:2009, EN 60079-18:2009, EN 60079-31:2009

Test report: PTB Ex 12-22111

Zertifizierungssektor Explosionschutz
On behalf of PTB:

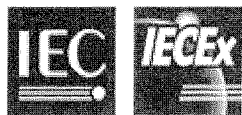
Braunschweig, May 7, 2012


Dr.-Ing. U. Johannsmeyer
Direktor und Professor



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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.



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

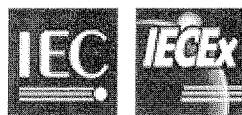
Certificate No.:	IECEX PTB 05.0005X	issue No.:0	Certificate history: Issue No. 0 (2005-4-22) Issue No. 0 (2005-4-22)
Status:	Current		
Date of Issue:	2005-04-22	Page 1 of 3	
Applicant:	Nass Magnet GmbH Eckenerstraße 4-6 30179 Hannover Germany		
Electrical Apparatus: <i>Optional accessory:</i>	Solenoid operator Type 0518... and Type 1218...		
Type of Protection:	IEC 60079-18:1992 and IEC 61241-1-1:1999		
Marking:	Ex m II T6, T5, T4 and IP 65 DIP A21 T 80 °C, T 95 °C, T 130 °C		
<i>Approved for issue on behalf of the IECEx Certification Body:</i>	Dr.-Ing. Ulrich Johannsmeyer		
<i>Position:</i>	Head of Department "Intrinsic Safety and Safety of systems"		
<i>Signature: (for printed version)</i>	_____		
<i>Date:</i>	_____		

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website.

Certificate issued by:

Physikalisch-Technische Bundesanstalt (PTB)
Bundesallee 100
38116 Braunschweig
Germany





IECEX Certificate of Conformity

Certificate No.: IECEX PTB 05.0005X

Date of Issue: **2005-04-22**

Issue No.: **0**

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Manufacturer:

Nass Magnet GmbH and Precision Controls Kft
Eckenerstraße 4-6, 30179 Hannover, Germany
Henger utca 2, 8200 Veszprem, Hungary
Germany

Manufacturing location(s):

Nass Magnet GmbH
Eckenerstraße 4-6
30179 Hannover
Germany

Precision Controls Kft
Henger utca 2
8200 Veszprem
Hungary

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex product covered by this certificate, was assessed and found to comply with the IECEX Quality system requirements. This certificate is granted subject to the conditions as set out in IECEX Scheme Rules, IECEX 02 and Operational Documents as amended.

STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identification documents, was found to comply with the following standards:

IEC 60079-0 : 2000 Edition: 3.1	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
IEC 60079-18 : 1992 Edition: 1	Electrical apparatus for explosive gas atmospheres - Part 18: Encapsulation 'm'
IEC 61241-1-1 : 1999 Edition: 2	Electrical apparatus for use in the presence of combustible dust - Part 1-1: Electrical apparatus protected by enclosures and surface temperature limitation - Specification for apparatus

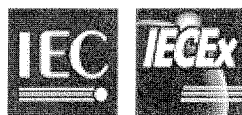
*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

IECEX ATR:
DE/PTB/05-006

File Reference:
B032086



IECEX Certificate of Conformity

Certificate No.: IECEX PTB 05.0005X

Date of Issue: 2005-04-22

Issue No.: 0

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The valve magnet consists of a solenoid, an armature system and a fixing nut. The armature guide forms the flameproof part of the magnet, the guide tube is tested at 1.5 fold the operating pressure. Depending on its design the guide tube suitable for thread-mounting or flange-mounting. The coil is manufactured of varnished copper wire with insulation class H. This coil is injection-moulded with pre-plastified granules in a mould. A PCB with electronic components is soldered to the terminals of the casted part of the coil. A housing made of glass-fibre-reinforced polyimide is mounted over the terminals and casted. Electrical data see Annex.

CONDITIONS OF CERTIFICATION: YES as shown below:

1. A fuse corresponding to its rated current (max. $3 \times I_{rat}$ according IEC 60127-2-1) or a motor protecting switch with short-circuit and thermal instantaneous tripping (set to rated current) shall be connected in series to each solenoid as short circuit protection. For very low rated currents of the solenoid the fuse of lowest current value according to the indicated IEC standard will be sufficient. The fuse may be accommodated in the associated supply unit or shall be separately arranged. The rated voltage of the fuse shall be equal to or higher than the stated rated voltage of the magnet coil. The breaking capacity of the fuse-link shall be as high as or higher than the prospective maximum short circuit current at the location of the installation (usually 1500 A).
2. A maximum permissible ripple of 20 % is valid for all magnets of direct-current design.

Annexe: Annexe to Certificate No.pdf



Milano, 22 luglio 2009

ODE Srl

Oggetto / Subject:

Avviso di Ricezione vs file tecnico secondo l' articolo 8.1.b ii della Direttiva ATEX 94/9/CE
Notification of Receipt of your technical file as article 8.1.b ii of the Directive ATEX 94/9/EC

RICEVUTA NUMERO / RECEIPT NUMBER : ATEX/ITA/09/063

Con la presente si dichiara che in data 22 luglio 2009 Bureau Veritas Italia ha ricevuto una revisione del seguente file tecnico in forma sigillata:

Herewith, Bureau Veritas Italia declares that on 22nd July 2009 has received a revision of the following sealed technical files:

Numero fascicolo / File number

N° 01/08 rev. 1

Descrizione Prodotto / Product description

Elettrovalvole

Nome e indirizzo del fabbricante / Name and address of the manufacturer

ODE Srl Società Unipersonale
Z.I. Via Borgofrancone, 18
23823 Colico (LC)



BUREAU VERITAS ITALIA S.p.A.
Viale Monza 261
20126 Milano (Italia)

Organismo Notificato No. 1370
Notified Body No. 1370

custodirà il file per il periodo imposto dalla direttiva.
will store the technical file for the period imposed by the directive.



Unità Coordinamento ATEX

Scadenza ricevuta/ Expired date: 18 Luglio 2018

Chrono N2237/09/DD/er - 08.IT.0246424.138

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