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 12.0055X issue No.:0	Certificate history:
Status:	**Current**	
Date of Issue:	**2013-03-01**	Page 1 of 3

Applicant: **AGRO AG**
Korbackerweg 7
5502 Hunzenschwil
Switzerland

Electrical Apparatus: **Cable gland type EX Compact MS, EX Compact A2 and EX Compact A4**
Optional accessory:

Type of Protection: **d, e, ta**

Marking: Ex db eb IIC
Ex ta IIIC

Approved for issue on behalf of the IECEx Certification Body: Dr.-Ing. Uwe Klausmeyer

Position: Head of Section "Flameproof Enclosures"

Signature:
(for printed version)

Date: 06. JUN. 2013

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

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Date of Issue: **2013-03-01** Issue No.: **0**

Manufacturer: **AGRO AG**
Korbackerweg 7
5502 Hunzenschwil
Switzerland

Additional Manufacturing location (s):

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 products 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 identified documents, was found to comply with the following standards:

IEC 60079-0 : 2011 Edition: 6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-1 : 2007-04 Edition: 6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-31 : 2008 Edition: 1	Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure 't'

*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

Test Report:
DE/PTB/ExTR12.0069/00

Quality Assessment Report:

CH/SEV/QAR12.0001/00

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Schedule

EQUIPMENT:
Equipment and systems covered by this certificate are as follows:

Description
The cable gland type EX Compact MS, EX Compact A2 and EX Compact A4 are made from brass or steel. They consist of a pressure nut, adapter socket, press-fit element, sealing ring and 'O' ring.
They are used for entering cables into electrical equipment that is designed to Increased Safety "e", Flameproof Enclosure "d", and Protection by Enclosure "ta" type of protection.
They are installed in enclosures with threaded holes or through-holes.

Technical data and Nomenclature see Annex.

CONDITIONS OF CERTIFICATION: YES as shown below:

Only permanently installed cables may be entered through the glands. The operating company must ensure that adequate strain relief is provided.
The cable gland is used for entering cables into electrical equipment that is designed to Increased Safety "e", Flameproof Enclosure "d", and Protection by Enclosure "ta" type of protection. For the use in electrical equipment in the type of protection Flameproof Enclosure "d" the threaded holes have to meet the minimum requirements as set forth in EN 60079-1, section 5.3.
If the reference pressure exceeds 20 bar, the cable gland must be included in the type test of EN 60079-1, section 15.1.3 (overpressure test) as required for IIA, IIB or IIC classification of the corresponding operator/apparatus.
The forcing nut must be tightened with the torque specified in the manual.
The cable gland must be fixed in the electrical apparatus so that accidental loosening and rotation will be prevented.
The assignment of the temperatures to the temperature class of the cable gland must be determined when type testing the corresponding electrical apparatus.

Annexe: Annex-IECEx PTB 12.0055X.pdf

Applicant: AGRO AG
Korbackerweg 7
5502 Hunzenschwil
Switzerland

Electrical Apparatus: Cable Gland Type EX Compact MS, EX Compact A2 and EX Compact A4

Description

The cable gland type EX Compact MS, EX Compact A2 and EX Compact A4 are made from brass or steel. They consist of a pressure nut, adapter socket, press-fit element, sealing ring and 'O' ring.

They are used for entering cables into electrical equipment that is designed to Increased Safety "e", Flameproof Enclosure "d", and Protection by Enclosure "ta" type of protection.

They are installed in enclosures with threaded holes or through-holes.

Technical data

Type name	Type and size of thread
EX Compact MS	M16x1.5 to M63x1.5 NPT 3/8" to NPT 2"
EX Compact A2	M16x1.5 to M63x1.5 NPT 3/8" to NPT 2"
EX Compact A4	M16x1.5 to M63x1.5 NPT 3/8" to NPT 2"

Nominal diameter of cables	3 mm to 50 mm
Torque	24 Nm to 84 Nm
Minimum wall thickness for equipment with threaded holes for equipment with through-holes	 3.0 mm (metal) 5.0 mm (plastic) 1.0 mm (metal) 2.0 mm (plastic)
Ambient temperatures	-60 °C to +105 °C
Ingress protection	IP68 in accordance with IEC 60529

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Article number	Nominal cable diameter ø (mm)		Torque	
	min	max	Pressure nut (Nm)	Lower part (Nm)
EX1126.17.**.070	3	7	12	12
EX1126.17.**.100	5	10	16	16
EX1126.20.**.110	5	11	20	20
EX1126.20.**.140	9	14	25	25
EX1126.25.**.150	7.5	15	30	30
EX1126.25.**.180	12.5	18	25	25
EX1126.32.**.230	17	23	50	50
EX1126.32.**.260	21	26	50	50
EX1126.40.**.260	21	26	50	50
EX1126.40.**.320	24	32	40	40
EX1126.50.**.360	28	36	30	30
EX1126.50.**.420	35	42	38	38
EX1126.63.**.440	36	44	80	80
EX1126.63.**.500	43	50	84	84

Article number	Nominal cable diameter ø (mm)		Torque	
	min	max	Pressure nut (Nm)	Lower part (Nm)
EX1126.3/8NPT.**.070	3	7	12	12
EX1126.3/8NPT.**.100	5	10	16	16
EX1126.1/2NPT.**.110	5	11	20	20
EX1126.1/2NPT.**.140	9	14	25	25
EX1126.3/4NPT.**.150	7.5	15	30	30
EX1126.3/4NPT.**.180	12.5	18	25	25
EX1126.1NPT.**.230	17	23	50	50
EX1126.1NPT.**.260	21	26	50	50
EX1126.11/4NPT.**.320	24	32	40	40
EX1126.11/2NPT.**.360	28	36	30	30
EX1126.11/2NPT.**.420	35	42	38	38
EX1126.2NPT.**.440	36	44	80	80
EX1126.2NPT.**.500	43	50	84	84

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Nomenclature

EX1126.	**.	**.	***
1	2	3	4

1) Code serie EX Compact
2) Code size of connection thread
   12 = M12x1.5
   17 = M16x1.5
   20 = M20x1.5
   25 = M25x1.5
   32 = M32x1.5
   40 = M40x1.5
   50 = M50x1.5
   63 = M63x1.5
   3/8NPT = NPT 3/8"
   1/2NPT = NPT ½"
   3/4NPT = NPT ¾"
   1NPT = NPT 1"
   11/4NPT = NPT 1¼"
   11/2NPT = NPT 1½ "
3) Code combination of material of the cable gland and the gasket, O-ring always FPM
   without number = brass, nickel plated / NBR
   94 = steel A2 (1.4305) / NBR
   97 = steel A4 (1.4435) / NBR
4) Code max. cable ø
   e.g. 140 = 14 mm

Conditions of Use

Only permanently installed cables may be entered through the glands. The operating company must ensure that adequate strain relief is provided.

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