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 DEK 15.0071X	Issue No: 1	Certificate history:
			Issue No. 1 (2016-11-11)
Status:	**Current**	Page 1 of 4	Issue No. 0 (2016-02-02)
Date of Issue:	**2016-11-11**		
Applicant:	**Duon System Co., Ltd.** 298-29 Gongdan-ro, Gunpo-si, Gyeonggi-do **Korea, Republic of**		
Equipment:	**Smart Pressure Transmitter, Series APT3100 and APT3200**		
Optional accessory:			
Type of Protection:	**Ex d**		
Marking:	Ex d IIC T6...T4 Gb		

Approved for issue on behalf of the IECEx Certification Body: L.G. van Schie

Position: Certification Manager

Signature:
(for printed version)

Date: 2016-11-11

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:

DEKRA Certification B.V.
Meander 1051,
6825 MJ Arnhem
The Netherlands

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Manufacturer:	**Duon System Co., Ltd.** 298-29 Gongdan-ro, Gunpo-si, Gyeonggi-do **Korea, Republic of**	

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"

*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:

NL/DEK/ExTR15.0096/01

Quality Assessment Report:

NL/DEK/QAR12.0082/03

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Smart Pressure Transmitter, Series APT3100 and APT3200 measures the pressure of a process and converts it into an electrical 4 - 20 mA analog current signal with digital communication (HART protocol).

For details about the thermal data, electrical data and type designation see Annex 1 to this certificate.

CONDITIONS OF CERTIFICATION: YES as shown below:

For information regarding the dimensions of the flameproof joints the manufacturer shall be contacted.

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

issue1 change of address

Annex:

219626500-Annex1.pdf

Annex 1 to ExTR NL/KEM/ExTR15.0096/01
Annex 1 to Certificate of Conformity IECEx DEK 15.0071X, issue 1
Annex 1 to EU-Type Examination Certificate KEMA 07ATEX0103 X, issue 5

Type designation

Series No	Suffix Code
APT3100	afglmno-s (Basic)
	bfghijklor-s (LFD)
	cfghijklopr-s (LED)
	dfghijkloq-s (LFC/LFS)
	efghijklopq-s (LEC/LES)

Designation	Explanation	Value	Explanation
a	Basic type	D	Differential Pressure Transmitter
		F	Flow Transmitter
		G	Gauge Pressure Transmitter
		H	Differential Pressure Transmitter for high line pressure
		A	Absolute Pressure Transmitter
b	LFD type	LFD	Flush Diaphragm Seal and Direct Mount Type Transmitter
c	LED type	LED	Extended Diaphragm Seal and Direct Mount Type Transmitter
d	LFC/LFS type	LFC	Flush Diaphragm Seal and Capillary Type Transmitter (Two remote Seal)
		LFS	Flush Diaphragm Seal and Capillary Type Transmitter (One Remote Seal)
e	LEC/LES type	LEC	Extended Diaphragm Seal and Capillary Type Transmitter (Two Remote Seal)
		LES	Extended Diaphragm Seal and Capillary Type Transmitter (One Remote Seal)
f	Range	n.s. *1	Not relevant for Explosion Safety
g	Mounting Flange Size/ Material	n.s. *1	Not relevant for Explosion Safety
h	Mounting Flange Rating	n.s. *1	Not relevant for Explosion Safety
i	Wetted Parts Material Diaphragm/ Others	n.s. *1	Not relevant for Explosion Safety
j	Fill Fluid	n.s. *1	Not relevant for Explosion Safety
k	Materials of Construction	n.s. *1	Not relevant for Explosion Safety
l	Hazardous locations certifications	E1 I1	ATEX flameproof I1: IECEx flameproof
m	Fill Fluid	n.s. *1	Not relevant for Explosion Safety
n	Process connection	n.s. *1	Not relevant for Explosion Safety
o	Electrical connection	1	1/2-14NPT
p	Extension Length	n.s. *1	Not relevant for Explosion Safety
q	Capillary Length	n.s. *1	Not relevant for Explosion Safety
r	Low side	n.s. *1	Not relevant for Explosion Safety
s	Option	No value ST	Aluminum Alloy Stainless steel housing

*1) n.s. means value not specified

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Series No	Suffix Code
APT3200	afghijk-r (basic)
	bfghklmno-r (LFD)
	cfghklmnop-r (LED)
	dfghklmnoq-r (LFS)
	efghklmnopq-r (LES)

Designation	Explanation	Value	Explanation
a	Basic type	F	Flush Mount Pressure Transmitter
		G	Gauge Pressure Transmitter
		A	Absolute Pressure Transmitter
b	LFD type	LFD	Flush Diaphragm Seal and Direct Mount Type Transmitter
c	LED type	LED	Extended Diaphragm Seal and Direct Mount Type Transmitter
d	LFS type	LFS	Flush Diaphragm Seal and Capillary Type Transmitter (One Remote Seal)
e	LES type	LES	Extended Diaphragm Seal and Capillary Type Transmitter (One Remote Seal)
f	Range	n.s. *1	Not relevant for Explosion Safety
g	Mounting Flange Size/ Material	n.s. *1	Not relevant for Explosion Safety
h	Hazardous locations certifications	E1 I1	ATEX flameproof I1: IECEx flameproof
i	Fill Fluid	n.s. *1	Not relevant for Explosion Safety
j	Process connection	n.s. *1	Not relevant for Explosion Safety
k	Electrical connection	1	1/2-14NPT
l	Mounting Flange Rating	n.s. *1	Not relevant for Explosion Safety
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n	Fill Fluid	n.s. *1	Not relevant for Explosion Safety
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p	Extension Length	n.s. *1	Not relevant for Explosion Safety
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r	Option	No value ST	Aluminum Alloy Stainless steel housing

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Thermal data

The relation between the maximum ambient temperature, maximum process temperature and temperature class is per table shown below.

Ambient temperature range	Process temperature range	Temperature class
- 20 ℃ to 60 ℃	- 20 ℃ to 85 ℃	T6
- 20 ℃ to 60 ℃	- 20 ℃ to 100 ℃	T5
- 20 ℃ to 60 ℃	- 20 ℃ to 130 ℃	T4

Electrical data

Supply 11.9 to 42 Vdc
Output 4 - 20 mA