IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres

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

Certificate No.:	**IECEx KEM 10.0053X**		Certificate history:
Status:	**Current**	Issue No: 6	Issue 5 (2019-05-27) Issue 4 (2015-09-04) Issue 3 (2014-02-06) Issue 2 (2012-11-23) Issue 1 (2011-03-31) Issue 0 (2010-08-05)
Date of Issue:	2022-08-17		
Applicant:	**HYDAC Electronic GmbH** Hauptstraße 27 66128 Saarbrücken-Gersweiler **Germany**		
Equipment:	**Pressure Transducers, Pressure Switches, Temperature Transducers, Flow Rate Transmitters, Bladder Integrity Sensors and Connection heads**		
Optional accessory:			
Type of Protection:	**Ex db, Ex tb**		
Marking:	Ex db I Mb Ex db IIC T6...T4 Gb Ex tb IIIC T110 °C...T130 °C Db		

Approved for issue on behalf of the IECEx Certification Body:	**L.G. van Schie**
Position:	**Certification Manager**
Signature: (for printed version)	
Date: (for printed version)	2022-08-17

Certificate issued by:

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

IECEx Certificate of Conformity

Manufacturer: **HYDAC Electronic GmbH**
Hauptstraße 27
66128 Saarbrücken-Gersweiler
Germany

Manufacturing locations: **HYDAC Electronic GmbH**
Hauptstraße 27
66128 Saarbrücken-Gersweiler
Germany

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 equipment 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 60079-0:2017 Edition:7.0	Explosive atmospheres - Part 0: Equipment - General requirements
IEC 60079-1:2014-06 Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-31:2013 Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

This Certificate **does not** indicate compliance with 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/KEM/ExTR10.0022/06

Quality Assessment Report:

DE/BVS/QAR06.0017/13

IECEx Certificate of Conformity

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

HDA 4xxx

Electronic Pressure Transducer with analogue output.
Depending on the applied pressure on the sensor cell a proportional output signal is generated.
One version has an additional temperature sensor.
It provides an analogue signal or analogue signal combined with a HART digital protocol.

EDS 4xxx
Electronic Pressure switch.
Depending on the applied pressure on the sensor cell a proportional internal signal is generated.
Depending on the factory set fixed value or programmable set point an electronic switch changes its status.

ETS 4xxx
Temperature Transducer.
Depending on the applied temperature on the sensor a proportional output signal is generated.
One version has an additional pressure sensor.
It provides an analogue signal or analogue signal combined with a HART digital protocol.

HFT 31xx
Flow Rate Transmitter.
An impellor driven by the speed of the flow of the liquid or gas through a turbine generates a signal pick up by a proximity switch, converted to a linear analogue current signal and is available via a HART interface.

BIS 1xxx
Bladder Integrity Sensor.
The bladder status signal is provided as a switching signal. Depending on the version, the temperature or pressure signal measured by the sensor is converted into a proportional analogue current signal and is available via a HART interface.

HPT 5xx
Electronic differential pressure transmitter with analogue output.
Depending on the applied differential pressure a piston with integrated magnet is shifted linearly. A Hall sensor is detecting the position and passes on the position to the evaluation electronics which calculates the output signal.

HPS 5xx
Same as HPT 5xx but with an output with an electronic switch.

Optional Connection Heads
Limatherm Type XD-AD and Pushna Type 1016 PSEM Ex d and Ex t certified enclosures.

SPECIFIC CONDITIONS OF USE: YES as shown below:
The ambient temperature range of the equipment is as indicated at ‘Rated ambient temperature range’ below.

When used in mining applications a conduit hose or pipe is to be installed at the ½-14 NPT or M20x1.5 electrical connection and the cable or leads are to run inside the conduit until an area is reached which is not contaminated with chemicals.

Electrostatic charging on non-metallic parts shall be avoided. See installation instructions for details.

Equipment (continued):

Type Codes

Pressure Transducer
HDA4abc-d-eeee(e)-fg-hhh(psi)iiij
HDA 4aZc-d-eeee(e)-kkk-fg-hhh(psi)iiij
HDA 4abc-F21-eeee(e)-fg-hhh(iiij) Standard
HDA 4abc-F21-eeee(e)-T-III-fg-hhh(iiij) With temperature measurement
HDA 4aZc-F21-eeee(e)-kkk-fg-hhh(iiij) With front flush membrane

Pressure Switch
EDS 4abc-dddd(d)-ef-gh-iiii(psi)kkkl

Temperature Transducer
ETS 45ab-c-d-eee-fff-gggh
ETS 4abc-F21-kkk-f-hhh(iiij) Standard
ETS 4abc-F21-kkk-P-eeee(e)-fg-hhh(iiij) With pressure measurement

Flow Rate Transmitter
HFT 31bc-F21-eeee-S-X-f-hhh(iiij)

Bladder Integrity Sensor
BIS 1abc-F21-eeee(e)-fg-hhh(iiij)

Difference Pressure Transmitter
HPT 50c-d-eeee-S-f-hhh(psi)iiij
HPS 50c-pppp-ef-S-g-hhh(psi)iiij

Rated ambient temperature range
xxx-xxxx-F21-xxx
-40 °C to +60 °C for T6 and T110 °C
-40 °C to +70 °C for T5 and T120 °C

EDS with max. 2 x 1.2 A output signal
-40 °C to +80 °C for T4
-40 °C to +60 °C for T110°C
-40 °C to +70 °C for T120°C
-40 °C to +80 °C for T130°C

Other
-40 °C to +60 °C for T6 and T110 °C
-40 °C to +70 °C for T120 °C
-40 °C to +80 °C for T5 and T130 °C

For details of the variables refer to Annex 1.

IECEx Certificate of Conformity

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
Assessment per IEC 60079-0 : 2017 Ed. 7.0
Minor constructional changes

Annex:

226247500-ExTR10.0022.06 Annex1_1.pdf