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 TUR 20.0049X**

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Certificate history:
Issue 2 (2024-03-05)
Issue 1 (2021-02-22)
Issue 0 (2020-10-19)

Status: **Current**

Issue No: 3

Date of Issue: 2026-02-19

Applicant: **Dräger Safety AG & Co KGaA**
Revalstr. 1, 23560 Lübeck
Germany

Equipment: **Gas Transmitter types ITR 0*** (Polytron P8700) and XTR 0*** (Polytron P8200)**

Optional accessory:

Type of Protection: **Gas performance tests**

Marking: 60079-29-1

Year of production

Approved for issue on behalf of the IECEx Certification Body: **Christian Mehrhoff**

Position: **Assigned certifier**

Signature:
(for printed version)

Date:
(for printed version) 2026-02-19

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Certificate issued by:

TUV Rheinland Industrie Service GmbH
Am Grauen Stein
51105 Cologne
Germany

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Manufacturer: **Dräger Safety AG & Co KGaA**
Revalstr. 1, 23560 Lübeck
Germany

Manufacturing locations: **Dräger Safety AG & Co KGaA**
Revalstr. 1, 23560 Lübeck
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 60079-29-1:2020 Edition:2.1 — Explosive atmospheres – Part 29-1: Gas detectors – Performance requirements of detectors for flammable gases

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:

DE/TUR/ExTR20.0049/03

Quality Assessment Report:

DE/BVS/QAR06.0001/21

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

ITR 04 and ITR 05** (Polytron 8700)**

Product Description
The transmitters ITR 04** and ITR 05** (Polytron 8700) are fixed infrared gas detectors intended for continuously measuring of combustible or non-combustible gases and vapours. The enclosure consists of aluminium (ITR 04**) or stainless steel (ITR 05**). The infrared sensor IDS 01** (PIR 7000) may be directly connected to the transmitter housing or operated as remote sensor with junction box EAC 01** or other junction boxes. The gas detector provides a 4 to 20 mA analog output signal for safety relevant purposes proportional to the measured gas concentration. The transmitter can be equipped with a relay module providing two alarm relays and one fault relay.

Measuring Function for Explosive Protection
Measuring function for transmitter type ITR 041* and ITR 051* with sensor type IDS 01*1 (type 334) as well as transmitter type ITR 042* and ITR 052* with sensor type IDS 01*2 (type 340) for those gases and vapours as listed in IECEx TUR 20.0048X of the PIR 7000 issued for IDS 01** (PIR 7000).

XTR 04 and XTR 05** (Polytron 8200)**

Product Description
The transmitters XTR 04** and XTR 05** (Polytron 8200) are fixed gas detectors using catalytic combustion sensors for continuously measuring of combustible gases and vapours. The enclosure consists of aluminium (XTR 04**) or stainless steel (XTR 05**). The catalytic combustion sensors XDS 02** (DrägerSensor DD/DQ/DQ S) or Ex-Sensor LC NPT, Ex-Sensor LC M may be directly connected to the transmitter housing or operated as remote sensor with junction box EAC 01** or other junction boxes. The gas detector provides a 4 to 20 mA analog output signal for safety relevant purposes proportional to the measured gas concentration. The transmitter can be equipped with a relay module providing two alarm relays and one fault relay.

Measuring Function for Explosive Protection
Measuring function for transmitter type XTR 0*1* methane, propane, acetone, acetylene, ammonia, special boiling point spirit 65/95, benzene, 1,3-butadiene, n-butane, 2-butanone, n-butyl acetate, diethyl ether, dimethyl ether, acetic acid, ethanol, ethylene, ethyl acetate, ethylene oxide, n-hexane, methanol, methyl methacrylate, n-octane, n-pentane, 2-propanol, propylene, propylene oxide, n-nonane, toluene, o-xylene, hydrogen, allyl alcohol, isobutane, isobutene, cyclohexane, cyclopentane, ethane, 1-ethoxy-2-propanol, carbon monoxide, 1-methoxy-2-propanol, methyl tert-butylether, 1-propanol, styrene and 1-methyl-2-pyrrolidone in the measuring range 0-100% LEL.

Measuring function for transmitter type XTR 0*2* methane, propane, ethylene, acetylene, propylene, i-butylene, benzene, n-nonane and hydrogen in the measuring range 0-10% LEL.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- See IECEx PTB 11.0005X
- See IECEx TUR 20.0048X
- If operated with a relay module
  - The main alarm shall be configured “latching” and “non-acknowledgeable” or “pre-acknowledgeable”.
  - The pre-alarm shall only be configured “acknowledgeable” if it is used for operation of an acoustic alarm device.
- For transmitters type XTR 0*1*:
  - When exposed to a directed flow of air mixed with gas, the measured values can be increased by up to 32 %.
  - When operated with the remote calibration adapter DQ the measured values can be increased by up to 70 %.
  - When operated with the pitot tube DQ sensor, the calibration shall be performed in the same orientation as used with the pitot tube DQ sensor.
- For transmitters type XTR 0*2*:
  - Operate the transmitter when connected to a control unit that has a latching over-range indication. Do not use internal alarm relays of the transmitter.
  - When exposed to a directed flow of air mixed with gas, the measured values can be increased by up to 32 %.
  - Adjust the transmitter with the sensor in its operational orientation.
  - False alarms can occur during warming up of the sensor.

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

1. Modification of the software
2. New additional accessory *(process pitot tube DQ sensor)* for XTR 0*1*
3. New Specific Conditions of Use

Annex:

DE-IECEx_TUR_20.0049_X_03_Attachment.pdf

Device: **Gas Transmitter types ITR 0*** (Polytron P8700) and XTR 0*** (Polytron P8200)**

Type: **ITR 04**, ITR 05**, XTR 04**, XTR 05****
(details refer to General product information section)

Manufacturer: **Dräger Safety AG & Co. KGaA**

Address: **Revalstraße 1**
23560 Lübeck, Germany

ITR 04** and ITR 05** (Polytron P8700)

Nomenclature for Type ITR 04** and ITR 05**

Transmitter:

ITR 041*	Polytron 8700	aluminium enclosure	with PIR 7000	334
ITR 042*	Polytron 8700	aluminium enclosure	with PIR 7000	340
ITR 051*	Polytron 8700	stainless steel enclosure	with PIR 7000	334
ITR 052*	Polytron 8700	stainless steel enclosure	with PIR 7000	340

* = interface: 0 = “d”, 4-20mA
1 = “d”, 4-20mA with relays
I = “d” + “e”, 4-20mA
J = “d” + “e”, 4-20mA with relays

Sensor:

IDS 0101	PIR 7000	NPT	334	via junction box EAC 01** or others junction box
IDS 0102	PIR 7000	NPT	340	via junction box EAC 01** or others junction box
IDS 0111	PIR 7000	M25	334	via other junction box
IDS 0112	PIR 7000	M25	340	via other junction box

Junction box for remote sensor application:

EAC 010*	aluminium enclosure
EAC 011*	stainless steel enclosure

Accessories

-	Spacer	(part-no. 68 12 617)
-	Mounting set PIR 7000	(part-no. 68 11 648)
-	Splash guard PIR 7000	(part-no. 68 11 911)
-	Insect guard PIR 7000	(part-no. 68 11 609)
-	Hydrophobic filter PIR 7000	(part-no. 68 11 890)
-	Calibration adapter PIR 7000	(part-no. 68 11 610)
-	Status display PIR 7000	(part-no. 68 11 625)
-	Flowcell PIR 7000	(part-no. 68 11 490)
-	Process adapter PIR 7000	(part-no. 68 11 915)
-	Process adapter PIR 7000 SGR	(part-no. 68 13 349)
-	Process cuvette PIR 7000	(part-no. 68 11 415)
-	Process cuvette PIR 7000 SGR	(part-no. 68 13 219)
-	Junction box Ex e	(part-no. 68 11 751)
-	Junction box Ex d	(part-no. 45 20 561)
-	Magnetic wand	(part-no. 45 44 101)

Extended ranges:

Extended ranges from operating conditions required by IEC 60079-29-1 are:

- ambient temperature: -40 °C to +70 °C (with relay module)
- ambient temperature: -40 °C to +77 °C (without relay module)
- ambient pressure: 70 kPa to 130 kPa
- humidity of the measured gas: 0 % RH to 95 % RH

XTR 04** and XTR 05** (Polytron 8200)

Nomenclature for Type XTR 04** and XTR 05**

Transmitter:

XTR 041*	Polytron 8200	aluminium enclosure	with DrägerSensor DD/DQ/DQ S
XTR 042*	Polytron 8200	aluminium enclosure	with Ex-Sensor LC NPT/M
XTR 051*	Polytron 8200	stainless steel enclosure	with DrägerSensor DD/DQ/DQ S
XTR 052*	Polytron 8200	stainless steel enclosure	with Ex-Sensor LC NPT/M

* = interface: 0 = “d”, 4-20mA
1 = “d”, 4-20mA with relays
I = “d” + “e”, 4-20mA
J = “d” + “e”, 4-20mA with relays

Sensor:

XDS 0200	DrägerSensor PR DD/DQ/DQ S	NPT	via junction box EAC 01** or other junction box
XDS 0210	DrägerSensor PR DD/DQ	M25	via other junction box
XDS 0211	DrägerSensor HT DD/DQ	M25	via other junction box
	Ex-Sensor LC NPT	NPT	via junction box EAC 01** or other junction box
	Ex-Sensor LC M	M25	via other junction box

Junction box for remote sensor application:

EAC 010*	aluminium enclosure
EAC 011*	stainless steel enclosure

Accessories

XTR 0*1*

- Calibration adapter PE, Europe (part-no. 68 06 978)
- Process adapter (part-no. 68 12 470)
- Remote calibration adapter DQ (part.no. 68 12 480)
- Process pitot tube DQ sensor (part.no. MD 46 251)

XTR 0*2*

- Calibration adapter PE, Europe (part-no. 68 06 978)

Extended ranges

Extended ranges from operating conditions required by IEC 60079-29-1 are:

- ambient temperature: -40 °C to +70 °C (with relay module)
- ambient temperature: -40 °C to +80 °C (without relay module)
- ambient temperature: -40 °C to +85 °C (Polytron SE Ex LC M1/2 DD)
- ambient pressure: 70 kPa to 130 kPa
- humidity of the measured gas: 5 % RH to 95 % RH