

(1) EU-TYPE EXAMINATION CERTIFICATE



- (2) Equipment and Protective Systems intended for use in Potentially Explosive Atmosphere - **Directive 2014/34/EU**
- (3) EU-Type Examination Certificate Number

TÜV 19 ATEX 8468 X

Issue: 00

- (4) Equipment: **TX8005 Air XD Particulate Monitor and TX8805 Air XD USB Drive**
- (5) Manufacturer: **Trolex Limited**
- (6) Address: **Unit 10a, Newby Road, Hazel Grove
Stockport, SK7 5DY
United Kingdom**
- (7) This product and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.
- (8) The TÜV Rheinland Zertifizierungsstelle für Explosionsschutz of TÜV Rheinland Industrie Service GmbH, Notified Body No. 0035 in accordance with Article 21 of the Council Directive 2014/34/EU of 26th February 2014, certifies this product which 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 atmosphere, given in Annex II to the Directive.

The examination and test results are recorded in the confidential report 557/Ex 8468.00/19
- (9) Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule of this certificate, has been assessed by reference to:

EN IEC 60079-0:2018

EN 60079-11:2012

EN 60079-28:2015

- (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 EU-Type Examination Certificate relates only to the design and specification for construction of the equipment or protective system. It does not cover the process for actual manufacture or supply of the equipment or protective system, for which further requirements of the directive are applicable.
- (12) The marking of the equipment shall include the following:
TX8005 Air XD Particulate Monitor: I M1 Ex ia op is I Ma -20°C ≤ Tamb ≤ +50°C
TX8805 Air XD USB Drive: I M1 Ex ia I Ma -20°C ≤ Tamb ≤ +50°C

TÜV Rheinland Zertifizierungsstelle für Explosionsschutz

Cologne, 2019-12-18

Dipl.-Ing. Klauspeter Graff

This EU-Type Examination Certificate without signature and stamp shall not be valid.
This EU-Type Examination Certificate may be circulated only without alteration. Extracts or alterations are subject to approval by the TÜV Rheinland Industrie Service GmbH TÜV Rheinland Group Am Grauen Stein 51105 Köln
Tel. +49 (0) 221 806-0 Fax. +49 (0) 221 806 114

(13) Annex

(14) **EU Type Examination Certificate**
TÜV 19 ATEX 8468 X Issue: 00

(15) Description of equipment

15.1 Equipment and type:

TX8005 Air XD Particulate Monitor
TX8805 Air XD USB Drive

15.2 Description / Details of Change

General product information

The TX8005 Air XD Particulate Monitor is a real-time dust particulates monitor based on optical sensing technology. The Air XD is powered by a separately certified intrinsically safe power supply with communication provided by RS485 and ethernet ports. User interface is provided via a keypad and LCD screen. The main housing is of sheet metal construction providing a degree of protection of at least IP54. The equipment has an integral particle sensor tube which draws external air by a fan mounted within the tube and passes it through the laser sensor and then exhausted back to the external environment. The tube provides a degree of protection of at least IP54 ensuring printed circuit boards in the main enclosure are dust protected. Circuits housed in the particle sensor tube were considered as exposed to dust and assessed accordingly.

The TX8805 Air XD USB Drive is a portable module that may be housed in a metallic or plastic casing, provided with a short integral cable with plug that connects the TX8005 Air XD.

The product has also been issued certificate IECEx ExTC 19.0014X-0.

Technical Data

Ambient temperature

$T_{amb} -20^{\circ}\text{C} \leq t \leq +50^{\circ}\text{C}$

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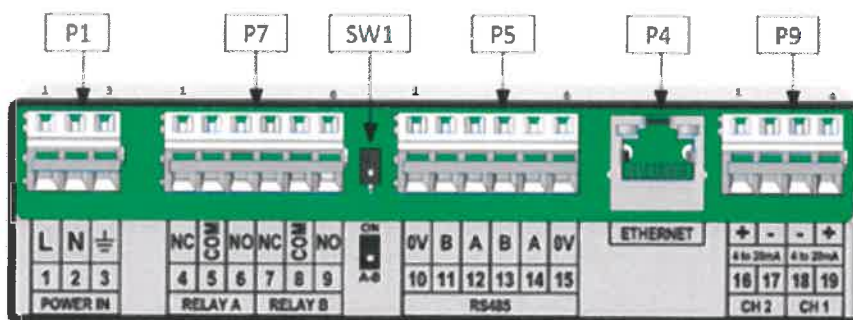
(16) Test-Report No. 557/Ex 8468.00 / 19

(17) Special Conditions for safe use

(1) The equipment has the following parameters which shall be observed when connecting in an intrinsically safe circuit:

	Connector P1 Power In	Connector P7 Relay contacts – Relay A and Relay B	Connector P5 RS485 - All lines combined	Connector P4 Ethernet – All lines combined	Connector P9 4 to 20 mA – CH2, CH1 - Separate channels
Terminal no.	1 wrt 2	4, 5, 6 and 7, 8, 9	11, 13 or 12, 14 wrt 10 and 15		16, 17 and 18, 19
Ui	16 V	16 V	8.4 V	17.64 V	16 V
Ii	3.28 A				132 mA
Pi					273 mW
Ci	0 µF	0 µF	0 µF	0.48 µF	Negligible
Li	0 µH	0 µH	0 µH	0 µH	Negligible
Uo		0 V	5.88 V	0 V dc	15.75 V
Io		0 A	127 mA	0 A dc	510 mA
Po			186 mW	0 W dc	2 W
Co			1000 µF	1000 µF	15.8 µF
Lo			28 mH	97 µH	1.7 mH
Lo/Ro				145 µH/Ω	230 µH/Ω

Refer below for example terminal number identification for external connection:



(2) The USB connector on the base of the equipment shall only be connected to the Trolex TX8805 Air XD USB Drive in the hazardous area. USB drives with no power source (eg standard USB stick) may be connected to the USB connector in the safe area for test purposes etc.

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- (3) The TX8005 must be earthed at pin 3 of the POWER IN connector (P1) to prevent excess static charge accumulation.

(18) Basic Safety and Health Requirements

Covered by afore mentioned standard

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