



- (1) **UK - Type Examination Certificate**
- (2) Equipment and protective systems intended for use in potentially explosive atmospheres – **UKSI 2016:1107 (as amended)**
- (3) UK - Type Examination Certificate Number

EPS 23 UKEX 1 183 X

Revision 0

- (4) Equipment: Capacitive Pressure Transmitter Series 41X-Ei and 46X-Ei
- (5) Manufacturer: KELLER Druckmesstechnik AG
- (6) Address: St. Gallerstrasse 119
8404 Winterthur
Switzerland
- (7) This equipment and any acceptable variation thereto are specified in the annex to this certificate and the documentation therein referred to.
- (8) Bureau Veritas Consumer Products Services United Kingdom Limited, approved body No. 8507 in accordance with UKSI 2016:1107 (as amended) Part 4, certifies that this equipment 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 atmospheres, given in Schedule 1 of UKSI 2016:1107 (as amended). The examination and test results are recorded in the confidential documentation under the reference number 23TH0359.
- (9) Compliance with the essential health and safety requirements has been assured by compliance with:

EN IEC 60079-0:2018/AC:2020

EN 60079-11:2012

EN 60079-26:2015

- (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 annex to this certificate.
- (11) This UK - Type Examination Certificate relates only to the design and construction of the specified equipment in accordance with UKSI 2016:1107 (as amended). Further requirements apply to the manufacture of this equipment and its placing on the market. Those requirements are not covered by this certificate.
- (12) The marking of the equipment shall include the following:

 II 1/2G Ex ia IIC T4 Ga/Gb

Certification department of explosion protection

Warrington, 02-10-2023



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(13)

Annex

(14) **UK - Type Examination Certificate EPS 23 UKEX 1 183 X**

Revision 0

(15) Description of equipment:

The capacitive pressure transmitter series 41X-Ei or 46X-Ei is used for measuring pressures in potentially explosive atmospheres requiring category 1 or category 2 equipment. The series 41X-Ei capacitive pressure transmitter is used to measure pressure in areas requiring category 1 equipment and must be installed in the boundary wall to the area with category 1 requirements.

The transmitter can be used as a pressure transmitter with threaded connection (series 41X-Ei) or as a level probe (series 46X-Ei) for hydrostatic pressure measurement. The maximum permissible ambient temperature range is: -20 °C to +80 °C.

Electrical data:

Supply circuit
(Pins: VCC+, GND)

in type of protection intrinsic safety Ex ia IIC;
only for connection to certified intrinsically safe circuits with
maximum values:

$U_i = \leq 30 \text{ V}$
 $I_i = \leq 100 \text{ mA}$
 $P_i = \leq 640 \text{ mW}$
 C_i negligibly small
 L_i negligibly small

Signal and interface circuits
(Pins: RS485A, RS485B, +OUT)

in type of protection intrinsic safety Ex ia IIC;
maximum values:

$U_o = \leq 14.7 \text{ V}$
 $I_o = \leq 464 \text{ mA}$
 $P_o = \leq 1.71 \text{ W}$
 C_i negligibly small
 L_i negligibly small

(16) Reference number: 23TH0359

(17) Special conditions for safe use:

1. The metal housing must be grounded by suitable methods.
2. Strong charge generating processes, stronger than manual rubbing, must be excluded.
3. The material of the membrane must not be exposed to external environmental stresses which could affect the partition wall.
4. The partition wall must not be exposed to continuous vibrations.
5. For pressure measurements requiring category 1 equipment, the device must be built into the boundary wall (tightness at least IP67).

(18) Essential health and safety requirements:

Met by compliance with standards.

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Warrington, 02-10-2023


Natalie Wilkinson

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