



(1)

## EU - Type Examination Certificate

- (2) Equipment and protective systems intended for use in potentially explosive atmospheres – **Directive 2014/34/EU**
- (3) EU - Type Examination Certificate Number

**EPS 23 ATEX 1 376 X**

**Revision 1**

- (4) Equipment: Smart Position Transmitter TS510/TS515 and Limit switch box TS410/TS415
- (5) Manufacturer: Tissin Co., Ltd.
- (6) Address: 201-1105, No 397, Seokcheon-ro  
Bucheon-si, Gyeonggi-do, Korea  
Republic of Korea
- (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 Germany GmbH, notified body No. 2004 in accordance with Article 21 given in the Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014, 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 Annex II of the Directive. The examination and test results are recorded in the confidential documentation under the reference number 22TH0524.
- (9) Compliance with the essential health and safety requirements has been assured by compliance with:

**EN IEC 60079-0:2018**

**EN 60079-1:2014**

**EN 60079-31:2014**

- (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 EU - Type Examination Certificate relates only to the design and construction of the specified equipment in accordance with Directive 2014/34/EU. Further requirements of this Directive 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 2G Ex db IIC T5/T6 Gb

II 2D Ex tb IIIC T100°C/T85°C Db IP67



Certification department of explosion protection

Tuerkheim, 2024-06-12

Ulrich Feike

Certificates without signature and seal are void. This certificate is allowed to be distributed only if not modified. Extracts or modifications must be authorized by Bureau Veritas Consumer Products Services Germany GmbH.

(13)

## Annex

(14) **EU - Type Examination Certificate EPS 23 ATEX 1 376 X**

**Revision 1**

(15) Description of equipment:

Limit switch box TS410 (aluminium) and TS415 (stainless steel) is a device that notifies the open/closed state of the valve to the central control room or controller through ON/OFF electrical signals.

Smart position transmitter TS510 (aluminium) and TS515 (stainless steel) is a device that proportionally changes the valve opening into a 4-20 mA DC current signal and transmits this information to DCS room or controller.

The -40 °C aluminium housing models TS410 and TS510 must be subjected to routine overpressure batch testing.

### Electrical data:

Model	TS510	TS515
Connection type	2-Wire	
Supply voltage	9~28 V DC	
Output signal	4~20 mA DC	

Model	TS410M	TS415M
Switch type	Mechanical (2xSPDT)	
	KW3A-16Z3B-A200 (Dongnan)	
Switch specification	AC	16 A, 125/250 V
	DC	30 V, 10 A

Model	TS410P	TS415P
Switch type	Inductive Proximity Sensor	
	PSN17-5DNU (Autonics)	NJ2-V3-N (P&F)
		NBB2-V3-Z4 (P&F)
Switch type	DC	10~30 V
		8.2 V
		5~60 V

Model	TS410D	TS415D
Switch type	Mechanical Switch(2*DPDT)	
	DZ-10GV-1B (Omron)	
Switch specification	AC	10 A, 125/250 V
	DC	250 V 0.25 A, 125 V 0.5 A, 30V 10 A

**EU - Type Examination Certificate EPS 23 ATEX 1 376 X**

**Revision 1**

(16) Reference number: 22TH0524

(17) Special conditions for safe use:

A repair of flameproof joints is only allowed according to manufacturer values.

The dome cover must be protected from electrostatic charge hazard.

Ambient temperature range:

TS410/TS415:

with NBR gasket: -30 °C to +80 °C (T5, T100 °C) or -30 °C to +70 °C (T6, T85 °C)

with silicone gasket: -40 °C to +80 °C (T5, T100 °C) or -40 °C to +70 °C (T6, T85 °C)

TS510/510:

with silicone gasket: -40 °C to +80 °C (T5, T100 °C) or -40 °C to +70 °C (T6, T85 °C)

(18) Essential health and safety requirements:

Met by compliance with standards.

Certification department of explosion protection

Tuerkheim, 2024-06-12

