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OBAC – Center for Examinations, Approvals and Certifications Sp. z o.o. (LLC) PL-44-122 Gliwice, 31 Jasna St.

(1) EC-Type Examination Certificate

- (2) Equipment or Protective Systems intended for use in potentially explosive atmosphere. Directive 94/9/EC (Ordinance of Minister of Economy of 22.12.2005 JoL No. 263 Item 2203).
- (3) EC-Type Examination Certificate Number: OBAC 06 ATEX 258X
- (4) Equipment or protective system: Programmable Signaling Device of PST-T type
- (5) Manufacturer: Service and Production Company TELVIS Sp. z o.o. (LLC)
- (6) Address: PL-41-181 Katowice, ul. Osikowa 69
- (7) This equipment pr protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documentation therein referred to.
- (8) The Center for Examinations, Approvals and Certifications Sp. z o.o. (LLC) OBAC, notified body number 1461 pursuant to Article 9 of the Council Directive 94/9/EC of March 23, 1994 certifies that this equipment or protective system 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 results are given in the confidential report No. OBAC/06/ATEX/258.
- (9) Compliance with essential safety requirements has been assured by compliance with: PN-EN 50014:2005 PN-EN 50020:2005 PN-EN 50303:2004
- (10) If the sign "X" is placed after the certificate number, it indicates that special conditions for safe use of this equipment are given in the following part this certificate. (11) This EC-Type Examination Certificate relates only to the design, examination and testing of the specified equipment or protective system in accordance to the Directive 94/9/EC. This Certificate does not cover further requirements of the Directive which apply to the manufacturing process and marketing of this equipment or protective system. (12) The marking of the equipment or protective system shall include the following:



President of the Management Bord of the Notified Body Zbigniew Tarnawski, M.Sc. -/- illegible signature

/a round seal reading?; Notified Certifying Body, OBAC – Center for Examinations, Approvals and Certifications, No. 1461

In Gliwice on August 29, 2006 /page 1 of 3/



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OBAC – Center for Examinations, Approvals and Certifications Sp. z o.o. (LLC) PL-44-122 Gliwice, 31 Jasna St.

- (13)Schedule
- to EC-Type Examination Certificate Number: OBAC 06 ATEX 258X (14)
- (15) Description of the equipment or protective system Ex:

Programmable Signaling Device of PST-T type consist of two chambers:

- main chamber (OUT type casing)
- connection chamber (OUT2 type casing)

In the main chamber there are placed electric systems to cooperate with the intrinsically safe dispatcher's system of loud speaking communication and alarm system SAT. On the casing of the main chamber there are a microphone, loud speaker, optical signaling device and pushbuttons for calling the dispatcher both in the regular and the alarm mode. In the connection chamber there is built the electronic system enabling the cooperation of SAT system with the intrinsically safe of loud speaking communication and terminal strips.

Rating:

input parameters of the signaling device PST-T on terminals La, Lb:

$$I_i = 70 \text{mA}$$

$$P_i = 2W$$

$$C_i = 20nF$$

$$L_i = 2.2 \text{mH}$$

output parameters of the signaling device PST-T "A" socket of intrinsically safe battery:

 $U_0 = 16.8V$ $I_0 = 70 \text{mA}$

- input parameters of the signaling device PST-T "B" socket of intrinsically safe battery:

 $U_i = 16V$ $I_{i} = 140 \text{mA}$

- input parameters of the cooperation with the intrinsically safe system of loud speaking communication at terminals:

 $Z1+: U_i = 13V$ $I_i = 130mA$ $P_i = 0.3W$ $C_i = 10\mu F$ $L_i = 0$ $R_i = 100\Omega$

$$P_{i} = 0.3 \text{ W}$$

$$C_i = 10 \mu F$$
 $L_i = 0$ $R_i = 1$

$$P_{i} = 0.3 W$$

R:
$$U_i = 16V$$
 $I_i = 130mA$ $P_i = 0.3W$ $C_i = 1\mu F$ $L_i = 0$ $R_i = 120\Omega$

A1.: $U_i = 13V$ $I_i = 10mA$ $P_i = 0.1W$ $C_i = 0$ $L_i = 0$ $R_i = 2.7k\Omega$

$$P_i = 0.1 \text{ W} \quad C_i = 0$$

$$L_i = 0$$
 $R_i = 2.7k\Omega$

$$P_{i} = 0.1 \text{W} \quad C_{i} = 0$$

D:
$$U_i = 13V$$
 $I_i = 10mA$ $P_i = 0.1W$ $C_i = 0$ $L_i = 0$ $R_i = 2.7k\Omega$

- protection grade

- scope of work temperatures:

from
$$-40^{\circ}$$
C to $+40^{\circ}$ C

(16) Report:

OBAC/06/ATEX/258

Programmable Signaling Device of PST-T type complies with all the requirements for explosion-proof equipment and may be used as the equipment in group I of category M1.

(17) Special conditions for safe use:

Scope of work temperatures: from -40°C to +40°C

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(18) Essential safety requirements have been provided by satisfying the requirements of standards listed in clause (9) of this certificate.

(19) The list of the agreed documentation:

- Technical Documentation. Programmable Signaling Device of PST-T type No. 28.D0.1.02. Katowice, 08.2006
- Operating and maintenance manual. Programmable Signaling Device of PST-T type. 28.D0.1.02/IO, Katowice, 08.2006

-	Schematic diagram of PST plate	picture	No. 2	8.E2.	2.10	
-	Scheme of cooperation plate PST-UGS	picture	No. 2	8.E2.	2.11	
-	Plate PST-UGS – location of elements side TOP	picture				
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Plate PST-UGS – location of elements side BOTTOM picture No. 28.E2.2.13
 Plate PST-UGS – printed circuit side TOP picture No. 28.E2.2.14
 Plate PST-UGS – printed circuit side BOTTOM picture No. 28.E2.2.15
 Covering plate picture No. 28.E2.2.16
 Assembly drawing picture No. 28.M2.2.01

Drawing of cooperation of systems SAT and UGS
 Connection scheme of PST-T and SGK
 picture No. 28.S2.2.00
 picture No. 28.K2.2.00

- Keyboard diagram picture No. 28.M2.2.03
- Rating and information plate picture No. 28.M2.2.02

President of the Management Bord of the Notified Body Zbigniew Tarnawski, M.Sc. -/- illegible signature

/a round seal reading?; Notified Certifying Body, OBAC – Center for Examinations, Approvals and Certifications, No. 1461

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END OF TRANSLATION

I, Jan J. Kaluza, Attested Translator, entered under No. TP/1413/06 into the register kept by the Minister of Justice, hereby certify the foregoing text to be a true and faithful translation of the original document produced to me.

Witness my hand and official seal, Bytom, this 20th day of August, 2007

Repertory No.

4457/2007 /6414 characters/

Attested Translator and Interpreter of English Jan J. Kaluza, M.A. Warzywna St. 16 41-909 Bytom, Poland interpoint@wp.pl





(1)



Ośrodek Badań, Atestacji i Certyfikacji Sp. z o.o. 44-122 Gliwice, ul. Toruńska 27

Schedule No. 2 to the EC-Type Examination Certificate No. OBAC 06 ATEX 258X

(Translation)

(2) Equipment or Protective System: Programmable signaling device PST-T type

(3) Manufacturer:

TELVIS Przedsiębiorstwo Usługowo-Produkcyjne Sp. z o.o

(4) Address:

ul. Karoliny 4, 40-186 Katowice

(5) Compliance with the Safety Requirements has been assured by conformity with:

PN-EN 60079-0:2013 (EN 60079-0:2012)

PN-EN 60079-11:2012 (EN 60079-11:2012) PN-EN 50303:2004

(EN 50303:2000)

(6) Description of modifications:

- The module of the input filter MFW-01 was replaced with MFW-02 which results in change of the device output parameters (Ci increased from 20nF to 27nF, Li decreased from 2.2mH to 756μH). The values of some elements on the device's motherboard were changed. These changes are confirmed in the current supplements of the certificate FTZU 03 ATEX 0323.
- Update of standards and change of designation resulting from PN-EN 60079-xx standards' series.

Rated data:

Change of the output parameters (C_i , L_i) of the PST-T signaling device at terminals La, Lb to the value: C_i = 27nF and L_i = 756 μH

The other nominal data have not been changed and they remain the same as in the certificate No. OBAC 06 ATEX 258X

(7) Results of the examinations performed:

The explosion-proof execution has been proved in the confidential product assessment report no. OBAC/15/ATEX/0602

The introduced changes meet the requirements of group I, category M1 equipment.

The explosion-proof marking shall now include the following: Ex I M1 Ex ia I Ma

(8) Technical documentation:

Technical documentation no. 28.D0.3.02. Supplement to the technical documentation no. 28.D0.1.02,
 no. 28.D0.2.02. Programmable signaling device PST-T type. October 2015

- Operation and maintenance manual no. 28 D0.3.02/IO. Programmable signaling device PST-T type.

November 2015

Certification Body Manager

Piotr Tarnawski M.Com.

Gliwice, 17 December 2015

Druk OBAC/PO-1/F12

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