

**1 EC TYPE-EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

3 Certificate Number: Sira 02ATEX2387X

4 Equipment: M6420-Series (TX6114.01.YY.ZZ.PD320, TX6114.01.YY.ZZ, TX6114.02.YY.ZZ and TX5814.01) P6420-Series, P9420-Series, S6420-Series (TX5812.02), A-Series and B-Series Transducers

5 Applicant: Trolex Ltd

6 Address: Newby Road  
Hazel Grove  
Stockport  
SK7 5DY  
UK

7 This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 Sira Certification Service, notified body number 0518 in accordance with Article 9 of Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential report number R52A9377B.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

EN 50014:1997 (amendments 1 and 2)  
EN 50020:2002  
EN 50284:1999  
EN 50303:2000

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 EC type-examination certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.

12 The marking of the equipment shall include the following:



I M1  
EEx ia I (T<sub>a</sub> = -20°C to +90°C)



II 1G  
EEx ia IIC T4 T<sub>a</sub> = -20°C to +90°C

Project Number 52A9377  
Date 21 March 2003  
C. Index 13

C. Ellaby  
Certification Officer

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**Sira Certification Service**

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## SCHEDULE

### EC TYPE-EXAMINATION CERTIFICATE

Sira 02ATEX2387X

#### 13 DESCRIPTION OF EQUIPMENT

The M6420-Series, P6420-Series, P9420-Series, S6420-Series, A-Series and B-Series are a family of transducers designed to measure pressures that range from a few millibars to one thousand bar. The housing is manufactured in several shapes, sizes and materials for a variety of industrial applications. The interface to the pressure port is configured to the customer's requirement but is typically a threaded boss fitting. Electrical connections to the transducers are made via one of a range of connectors or cable entries. The transducers have the following safety description and alternative product references:

Model	M6420-Series			
	i (Group I)	iF (Group I Fused)	ii (Group II Standard)	G (Group II Surge)
U <sub>i</sub>	28 V	16.5 V	28 V	28 V
I <sub>i</sub>	120 mA	-	120 mA	120 mA
P <sub>i</sub>	0.84 W	-	0.84 W	0.84 W
C <sub>i</sub>	60 nF	60 nF	60 nF	53 nF
L <sub>i</sub>	0	0	0	0
Alternative ref.	-	TX6114.01.YY.ZZ.PD320 TX6114.01.YY.ZZ TX5814.01	TX6114.02.YY.ZZ Series 510 Series 503FR	-

Model	P6420-Series			
	i (Group I)	iF (Group I Fused)	ii (Group II Standard)	G (Group II Surge)
U <sub>i</sub>	28 V	16.5 V	28 V	28 V
I <sub>i</sub>	120 mA	-	120 mA	120 mA
P <sub>i</sub>	0.84 W	-	0.84 W	0.84 W
C <sub>i</sub>	60 nF	60 nF	60 nF	53 nF
L <sub>i</sub>	0	0	0	0

Model	P9420-Series		S6420-Series
	(Group II Standard)	(Group II Surge)	ii (Group II Surge)
U <sub>i</sub>	28 V	28 V	28 V
I <sub>i</sub>	120 mA	120 mA	120 mA
P <sub>i</sub>	0.84 W	0.84 W	0.84 W
C <sub>i</sub>	60 nF	53 nF	53 nF
L <sub>i</sub>	0	0	0
Alternative ref.	-	-	TX5812.02

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## SCHEDULE

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Model	A-Series and B-Series	
	A-K (Group II Standard)	B-K (Group II Surge)
U <sub>i</sub>	28 V	28 V
I <sub>i</sub>	120 mA	120 mA
P <sub>i</sub>	0.84 W	0.84 W
C <sub>i</sub>	60 nF	53 nF
L <sub>i</sub>	0	0

#### 14 DESCRIPTIVE DOCUMENTS

14.1	Drawing No.	Rev.	Sheet	Date	Title
	A1972	3	1 of 1	23 Oct 02	Trolex (TX6) Standard Group II ATEX Identification Label
	A1973	5	1 of 1	23 Oct 02	Trolex (TX6) Unfused Group I ATEX Identification Label
	A2216	3	1 of 1	23 Oct 02	Trolex (TX6) Fused Group I ATEX Identification Label
	A2217	3	1 of 1	23 Oct 02	Trolex (TX5) Fused Group I ATEX Identification Label
	A2330	3	1 of 1	23 Oct 02	Trolex (TX5) Surge Group II ATEX Identification Label

14.2 Report No. R52A9377B

14.3 Certificate number Sira 02ATEX2386X dated 28 February 2003

#### 15 SPECIAL CONDITIONS FOR SAFE USE (denoted by X after the certificate number)

15.1 Some transducers have an enclosure manufactured from aluminium alloy. In rare cases, ignition sources due to impact and friction sparks could occur. This shall be considered when the equipment is installed in locations that specifically require group II, category 1G equipment.

15.2 In the case of the B-Series pressure transducer and the S6420-Series level transducer, the circuit is not isolated from its enclosure and does not meet the 500 V insulation test; this shall be taken into account when it is installed.

#### 16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II (EHSRs)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in Report No.R52A9377B.

#### 17 CONDITIONS OF CERTIFICATION

17.1 The use of this certificate is subject to the Regulations Applicable to Holders of Sira Certificates.

17.2 Holders of EC type-examination certificates are required to comply with the production control requirements defined in Article 8 of directive 94/9/EC.

17.3 With the exception of the B- Series pressure transducer and the S6420- Series level transducers, each transducer shall be subjected to an electric strength test using a test voltage of 500 Vac applied between the circuit and the outer enclosure, in accordance with EN 50020:2002 clause 10.6. There shall be no evidence of flashover or breakdown and the maximum current flowing shall not exceed 5 mA. A test voltage of 700 Vdc may be used as an alternative.

17.4 The transducers that are marked as suitable for group I use shall have a stainless steel enclosure.

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