



## EC - TYPE EXAMINATION CERTIFICATE

### Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

- 3 EC - Type Examination Certificate Number: **Baseefa09ATEX0341X**
- 4 Equipment or Protective System: **TX2123 RS485 Ethernet Adaptor**
- 5 Manufacturer: **Trolex Limited**
- 6 Address: **Hazel Grove, Stockport, Cheshire, SK7 5DY**
- 7 This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- 8 Baseefa, Notified Body number 1180, in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 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 atmospheres given in Annex II to the Directive.
- The examination and test results are recorded in confidential Report No. **09(C)0722**
- 9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:  
**EN 60079-0: 2009 EN 60079-11: 2007 EN 60079-28: 2007 EN 50303: 2000**  
except in respect of those requirements listed at item 18 of the Schedule.
- 10 If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system 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 or protective system. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.
- 12 The marking of the equipment or protective system shall include the following :

**⊕ I M1 Ex ia I Ma (-20°C ≤ Ta ≤ +40°C) Ex op is I Ma**

This certificate may only be reproduced in its entirety, without any change, schedule included.


Baseefa Customer Reference No. **1159**

Project File No. **09/0722**

This certificate is granted subject to the general terms and conditions of Baseefa. It does not necessarily indicate that the equipment may be used in particular industries or circumstances.

### Baseefa

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Registered in England No. 4305578. Registered address as above.

  
**R S SINCLAIR**  
DIRECTOR  
On behalf of  
Baseefa



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## **Schedule**

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**Certificate Number Baseefa09ATEX0341X**

### **15 Description of Equipment or Protective System**

The TX2123 RS485 Ethernet Adaptor is designed to take a single serial RS485 communications interface and convert it to a fibre-optic Ethernet interface. The TX2123 is intended to be mounted in the hazardous area.

The apparatus consists of two PCB's mounted within a plastic DIN rail mounted enclosure. The TX2123 measures approximately 71mm x 90mm x 58mm. LED indicators are situated on the top of the enclosure indicating power and communications status.

Electrical connections to the apparatus are made via screw terminals. The TX2123 is mounted in a separate outer enclosure offering a degree of ingress protection of at least IP54 and suitable for a mining environment.

Power Connections: CN103/5 & 8 w.r.t. CN103/5 & 6 (0V)

$$U_i = 14.4V$$

$$C_i = 0$$

$$L_i = 0$$

RS485 Serial Interface Connections: CN103/1 & 2 and CN103/3 & 4 w.r.t. CN103/5 & 6 (0V)

$$U_o = 5.61V$$

$$I_o = 66mA$$

$$P_o = 0.302W$$

$$U_i = 6.88V$$

$$C_i = 8.42\mu F$$

$$L_i = 0$$

$$C_o = 130\mu F$$

$$L_o = 50mH$$

$$L_o/R_o = 3288\mu H/\Omega$$

Up to 15 TX9042 Programmable Sensor Controllers (Baseefa03ATEX0292X/3 or 18 TX2100 Commander Mk 2 (Baseefa07ATEX0192) can be connected to this interface.

### **16 Report Number**

09(C)0722

### **17 Special Conditions for Safe Use**

1. The apparatus must be mounted inside an enclosure that offers a degree of ingress protection of at least IP54 according to IEC 60529 and be suitable for a mining environment.

### **18 Essential Health and Safety Requirements**

All relevant Essential Health and Safety Requirements are covered by the standards listed at item 9.



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**19 Drawings and Documents**

<b>Number</b>	<b>Sheet</b>	<b>Issue</b>	<b>Date</b>	<b>Description</b>
P5562.01	1 to 2	B	29.04.2010	TX2123 RS485 Ethernet Adaptor Schematic Diagram Motherboard PCB
P5562.02	1 of 1	B	29.04.2010	TX2123 RS485 Ethernet Adaptor PCB Motherboard
P5562.04	1 to 2	B	29.04.2010	TX2123 RS485 Ethernet Adaptor Schematic Diagram Processor PCB
P5562.05	1 of 1	B	29.04.2010	TX2123 RS485 Ethernet Adaptor PCB Processor
P5562.12	1 of 1	A	10.06.2010	TX2123 RS485 Ethernet Adaptor General Arrangement