



## EU Type Examination Certificate CML 18ATEX1083X Issue 0

- 1 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU
- 2 Equipment **TX3740 Falcon 40 Series Connector**
- 3 Manufacturer **Trolex Ltd** **PEI Genesis**
- 4 Address **Newby Road, Hazel Grove, Stockport, Cheshire, SK7 5DY, United Kingdom** **George Curl Way, Southampton, Hampshire, SO18 2RZ, United Kingdom**
- 5 The equipment is specified in the description of this certificate and the documents to which it refers.
- 6 CML B.V. , Chamber of Commerce No 6738671, Hoogoorddreef 15, Amsterdam, 1101 BA, The Netherlands, Notified Body Number 2776, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 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 intended for use in potentially explosive atmospheres given in Annex II to the Directive.
- 7 If an 'X' suffix appears after the certificate number, it indicates that the equipment is subject to conditions of safe use (affecting correct installation or safe use). These are specified in Section 14.
- 8 This EU Type Examination certificate relates only to the design and construction of the specified equipment or component. Further requirements of Directive 2014/34/EU Article 13 apply to the manufacture of the equipment or component and are separately certified.
- 9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the confidential report, has been demonstrated through compliance with the following documents:

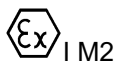
EN 60079-0:2018

EN 60079-1:2014

EN 60079-7:2015

EN 60079-31:2014

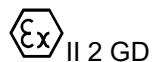
- 10 The equipment shall be marked with the following:



Ex db I Mb

Ex db eb I Mb

Ta= -50°C to +60°C



Ex db IIC T4 Gb

Ex db eb IIC T4 Gb

Ex tb IIIC T135°C Db

Ta= -50°C to +60°C



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## 11 Description

The TX3740 Falcon 40 Series Connectors are a range of plug and socket arrangements that consist of the following options:

- TX3740.1 – Falcon 40 Line Plug
- TX3740.2 – Falcon 40 Line Receptacle
- TX3740.3 – Falcon 40 Fixed Receptacle
- TX3740.4 – Falcon 40 Line Plug Ex d Cap
- TX3740.5 – Falcon 40 Receptacle Ex d Cap

Internally the TX3740 Falcon 40 Series Connectors can contain pin and socket inserts (up to 37 way). The connectors also allow the connection of cables via separately certified cable glands.

In the case of the fixed receptacles, a potted cable entry is incorporated.

The enclosures contain ingress protection seals at the base of the Line Plugs, around the bayonet and bayonet track (full engagement – rated IP66) which is an extension of the housing which contains an inner insulator tube with further connection to an internal earth connection.

The end caps have threaded cable entries (where used) and incorporate an internal earth connection. Two cable entry sizes are available; M32 x 1.5 and M40 x 1.5 and the end cap is secured in place by two screws.

The connectors further utilise an interlocking mechanism to create a flameproof enclosure during disconnection of the pins and sockets.

All securing screws are M5 x 16 long socket cap head screws, stainless steel Grade A2-70 with hex socket cap heads in accordance with ISO4762.

During disconnection, connectors also incorporate the use of rubber cover end caps on the sockets and plugs to help protect the enclosures from ingress of dust and moisture to provide an IP65 rating.

The ratings of the Falcon 40 Series Connectors are as follows:

Contact Size (mm <sup>2</sup> )	Max Ambient Temp (°C)	Max Current Per Contact (A)	Max Current Per Connector (all contacts) (A)
0.75	60	6.4	140
	55	6.9	151
	50	7.4	163
	45	8	175
	40	8.5	187
1.5	60	13.3	291
	55	14.4	316
	50	15.5	341
	45	16.6	366
	40	17.8	390



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Contact Size (mm <sup>2</sup> )	Max Ambient Temp (°C)	Max Current Per Contact (A)	Max Current Per Connector (all contacts) (A)
2.5	60	16	350
	55	17.3	379
	50	18.7	409
	45	20	438
	40	21.4	468
4	60	18.6	408
	55	20.1	443
	50	21.7	447
	45	23.3	512
	40	24.9	547

## 12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	21 Nov 2018	R2161A/00	Issue of Prime Certificate

Note: Drawings that describe the equipment or component are listed in the Annex.

## 13 Conditions of Manufacture

The following conditions are required of the manufacturing process for compliance with the certification.

- i. When aluminium is utilised as the material of manufacture of the enclosure, the equipment shall be marked for Group II and III applications only.
- ii. The fixed receptacle shall be subjected to a routine electric strength test in accordance with EN 60079-7 clause 7.1 following installation of the cable and application of the potting compound.

## 14 Specific Conditions of Use (Special Conditions)

The following conditions relate to safe installation and/or use of the equipment.

- i. The capacity of the contacts shall not exceed the limits as shown in the description.
- ii. The cable entries and cable used with the TX3740 Falcon 40 Connectors may reach 60°C above ambient temperatures, therefore, shall be selected accordingly for these temperatures.
- iii. The connector arrangement remains flameproof through the first stage of disconnection which fully disconnects the pins, however, this only applies to circuits with a power factor of between 0.6 and 1.0. For circuits outside this range, unless for resistive loads only, additional time delays shall be considered before fully disconnecting the connector even when de-energised.



## Certificate Annex

**Certificate Number** CML 18ATEX1083X  
**Equipment** TX3740 Falcon 40 Series Connector  
**Manufacturer** Trolex Ltd

The following documents describe the equipment or component defined in this certificate:

### Issue 0

Drawing No	Sheets	Rev	Approved date	Title
TX3740.1.ATEX.IECEX	1 of 1	A	21 Nov 2018	GA, TX3740.1, ATEX/IECEX
TX3740.2.ATEX.IECEX	1 of 1	A	21 Nov 2018	GA, TX3740.2, ATEX/IECEX
TX3740.3.ATEX.IECEX	1 of 1	A	21 Nov 2018	GA, TX3740.3, ATEX/IECEX
TX3740.4.ATEX.IECEX	1 of 1	A	21 Nov 2018	GA, TX3740.4, ATEX/IECEX
TX3740.ATEX.IECEX	1 of 1	A	21 Nov 2018	GA, TX3740, ATEX/IECEX
TX3740.5.ATEX.IECEX	1 to 2	A	21 Nov 2018	GA, TX3740.5, ATEX/IECEX
P5623.2000	1 of 1	A	21 Nov 2018	Marking, TX3740.1 ATEX/IECEX Grp I
P5623.2001	1 of 1	A	21 Nov 2018	Marking, TX3740.1 ATEX/IECEX Grp II & III
P5623.2002	1 of 1	A	21 Nov 2018	Marking, TX3740.2 ATEX/IECEX Grp I
P5623.2003	1 of 1	A	21 Nov 2018	Marking, TX3740.2 ATEX/IECEX Grp II & III
P5623.2004	1 of 1	A	21 Nov 2018	Marking, TX3740.3 ATEX/IECEX Grp I
P5623.2005	1 of 1	A	21 Nov 2018	Marking, TX3740.3 ATEX/IECEX Grp II & III
P5623.2006	1 of 1	A	21 Nov 2018	Marking, TX3740.4 ATEX/IECEX Grp I, II, & III
P5623.2007	1 of 1	A	21 Nov 2018	Marking, TX3740.5 ATEX/IECEX Grp I, II, & III