MAFFIOLETTI SRL


# Falcon Series Ex Connectors

Robust, rapid–assembly, power, data and fibre Ex Connectors for use in hazardous areas.

**Oil and gas installations, offshore applications, wellhead control panels, mobile skid units, mining, tunnelling, process plants, portable equipment and mobile machinery.**

MAFFIOLETTI SRL

# Connections you can trust from Trolex

The Falcon Series Connectors from Trolex have been engineered for the purpose of bringing you the world's most robust and easy to use Ex connection systems for heavy-duty power, data and fibre cables.

Incorporating live disconnect possibility in the most hazardous areas, a virtually instantaneous connect/disconnect system, and a making-off procedure that reduces assembly times from hours to minutes, the Falcon series connectors will save you both time and money, and deliver connections that you can really trust.

Who says Ex Connectors are hard to use? Contact our distribution partner today for a demonstration and to find out how we've solved the problem.

# The Falcon Ex Connector Range

## Falcon 25

Solid, reliable and easy-to-use Ex Connector with live disconnect capability. Available with 4 to 10 contacts, for control circuits and medium power applications.


## Falcon 25 Flash

Flash drive connector for download of data or control devices housed in Ex d enclosures in the hazardous area. Available with desktop reader for PC downloads, and comes with standard 32 GB data storage.

## Falcon 25 Fibre

Carrying premium quality Cinch expanded beam optical fibre connectors with 2, 4 or 8 single or multi-mode channels for high speed, high density data transfer applications.

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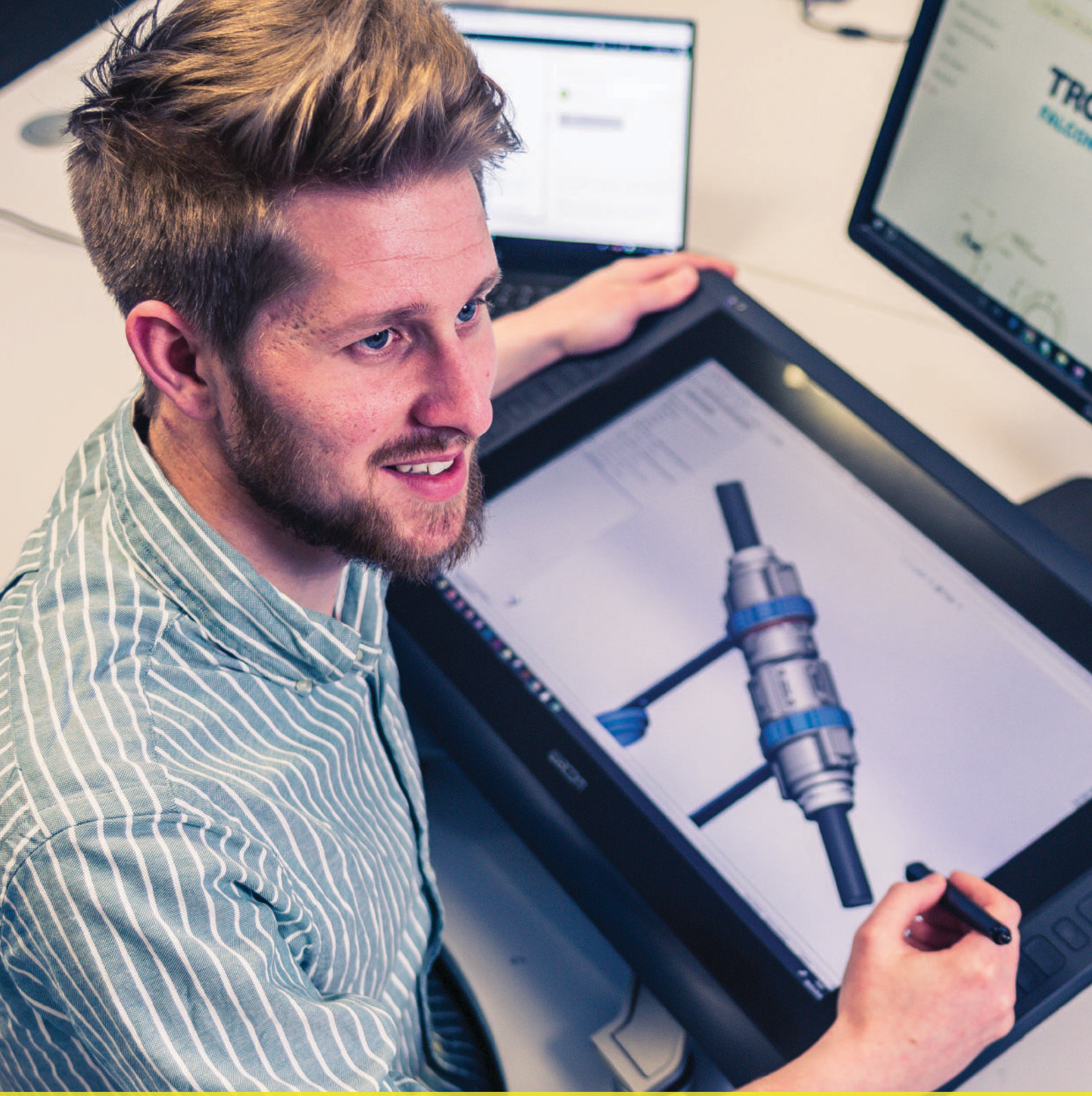
## Falcon 40

High capacity Ex Connector for multi-way control circuits and power distribution. Live disconnect capability and up to 37 contacts.



**Through the application of simple and elegant design principles we've created a range of Ex Connectors that I believe are the safest, most robust, and easy-to-use in the world.**

**Kyle Hudson**
Engineer –Brand Integrity and Mechanical Design

# Reduce assembly time to a matter of minutes instead of hours.

The Falcon Series rear-loading assembly system allows complete cable termination in just a few minutes and requires no specialist tools or equipment.

The incoming cable is independently terminated on the removable end-cap in the normal way and prepared ready for connecting the cores to the contact insert.

A cutting gauge is incorporated to ensure that the cable conductors are trimmed to the optimum length. Connections can be crimped or soldered and easily hand assembled into the double-insulated contact cartridge. The cartridge is then simply loaded into the rear of the connector and fixed in place with two screws to complete the operation.

This two-point radial fixing has the added benefit that cable rotation is completely eliminated.

## Rapid Connection

# Fast, simple connect/disconnect without compromising safety integrity or robustness.

The Falcon Series revolutionary two–stage bayonet coupling system provides exceptionally fast mating and de–mating with maximumsafety and a high tolerance of debris and contamination in tough site conditions. A solid and robust connect or disconnect in an instant.

Flame paths are shrouded at all times and are never exposed to potential damage.

In combination with the live disconnect facility this rapid connection protocol will save time and money in the harshest industrial environments where safety and productivity need to be maximised.

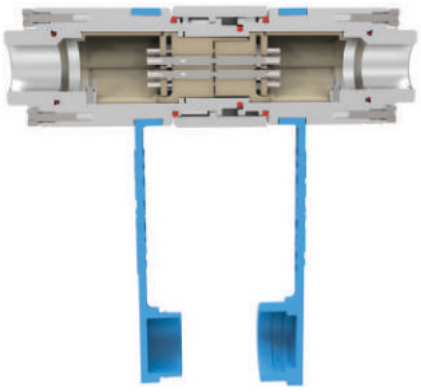
The result is increased uptime for rigs, key machinery and temporary equipment.

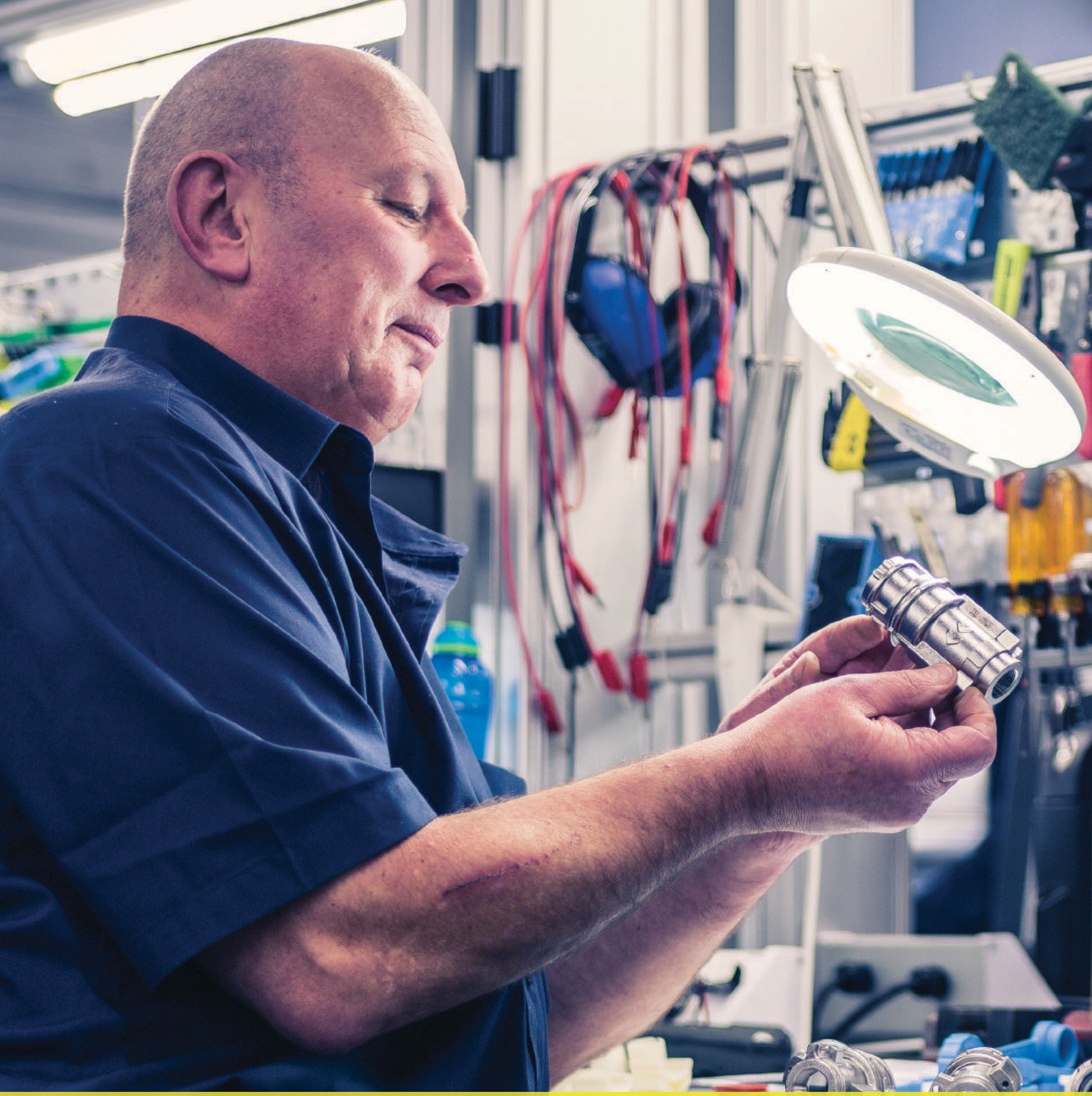
## Live Disconnect

# Engage or separate connectors with live power applied.

Falcon may be parted in the hazardous area for short periods to allow maintenance or change out of equipment, following normal risk assessment procedures. The electrical power source must originate from the socket side of the connector. Socket contacts can be user installed in either the plug or receptacle to suit the application.

Alternatively, as all contact operations are contained within full Ex d protection, pilot circuit interlocking can be employed where regulation demands, to automatically isolate the system before disconnection is completed.





**In my 40 years of working, the Falcon connector is one of the highest quality and well-structured products that I have worked on. Engineered for ease of build and operation, it's a product that can be used worldwide for many applications.**

**Garry Ross**
Production Operative

## Direct Enclosure Mounting

**Connect directly into Ex d and Ex e enclosures and equipment.**

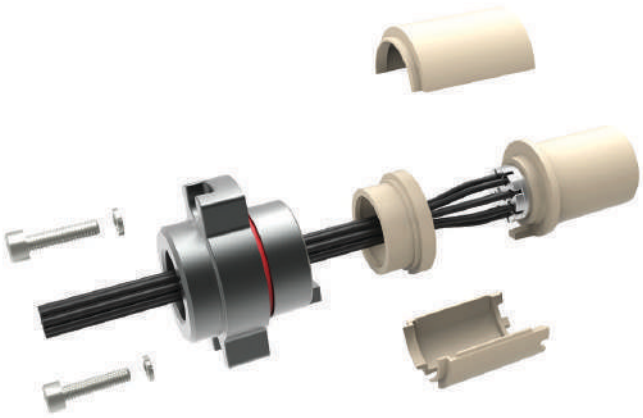
Fixed versions of the Falcon receptacles are equipped with mounting bushes for direct fitting with Ex gland entries. Electrical connections are fully encapsulated for explosion protection with a choice of wire length to suit the application.


## Optical Fibre Capability

**The Falcon 25 Fibre Connector comes with a choice of 2, 4 or 8 way optical fibre contacts utilising Cinch expanded beam fibre couplers for high-end applications in hazardous areas. Certified for inherently safe and protected optical radiation standards.**

The high precision contact elements have low attenuation losses for single and multi-mode fibres which are easy to clean and are field repairable using standard tooling.

Accurate lens conformity is assured by a unique active spring-supported alignment device providing reliable performance in the most demanding environments on repeated duty cycles.

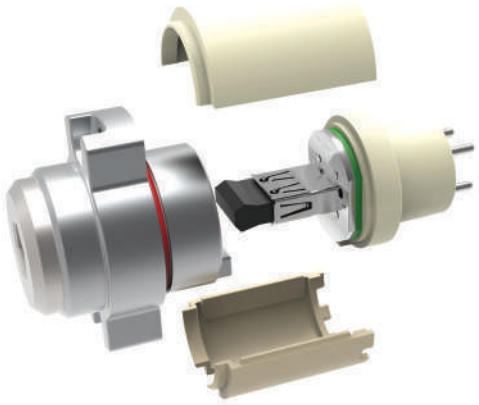


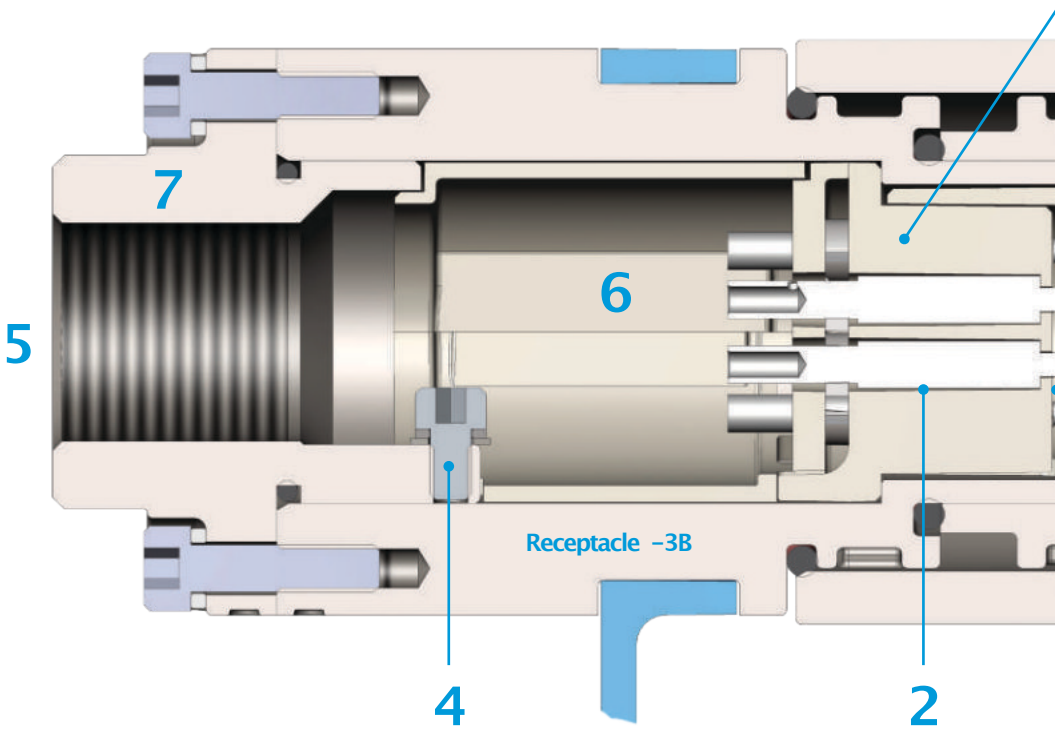
## Flash Drive Data Collection

**The Falcon 25 Flash provides a quick and convenient USB link to collect and store data from PCs and data systems that are operating within Ex d enclosures in hazardous areas.**

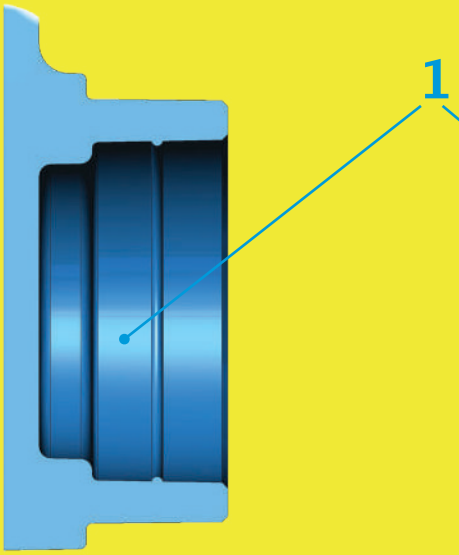
Data can be safely acquired when the Falcon Flash-drive is connected to a pre-installed Falcon Fixed Receptacle, without the need to enter the apparatus enclosure.

Comes with 32 GB of storage as standard and data can be later transferred to a PC port using a standard Falcon USB docking accessory.






# Key Features



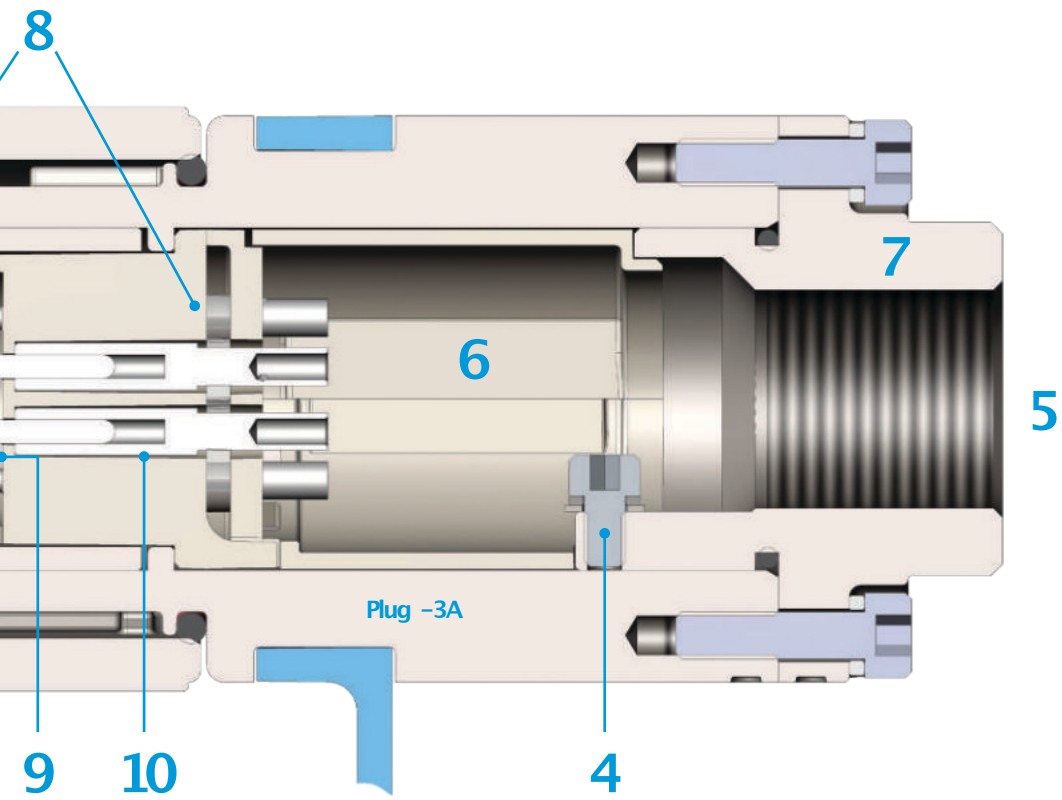

**1** In-built ingress protection caps are permanently attached and ready to hand. Integrated resilient fender for impact protection.

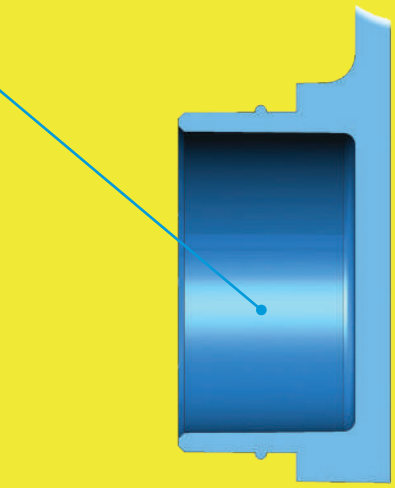
**2** Passivated silver-plated contact **Pins** suitable for solder or crimp connections.

**3** Precision investment-cast and machined **Plug (3a)** / **Receptacle (3b)** in aluminium or stainless steel. Sealed for IP66 ingress protection.

**4** Internal earth connection permits the use of non-armoured cable.

**5** Cable entries are certified for use with most types of compatible Ex approved cable glands. Rear loading with screw fastenings makes for simple and fast cable termination accommodating both compression and standard sealed glands.



**6** Internal 'double insulated' cable connection cartridge.

**7** Removable precision investment-cast and machined **End Cap** for terminating the incoming cable.

**8** High grade glass filled polymer **Contact Insert** carrying slide-in contact Pins and Sockets. **Pins** and **Sockets** can be loaded into any preferred configuration.

**9** User configurable **Security Interlock** to prevent non-valid mating.

**10** Passivated silver plated contact **Sockets** with longitudinal multi-contact springs for high reliability and low insertion force, providing exceptionally low contact resistance.

# Falcon 25 Ex Connector TX3706


## Technical Information

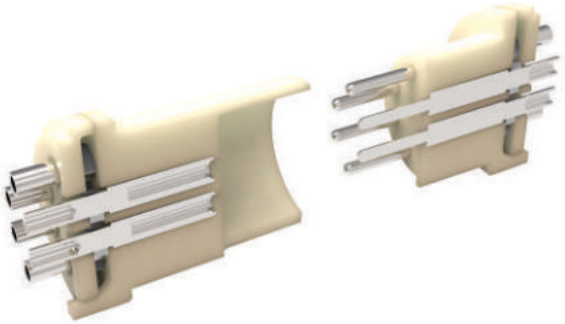
| | |
|---|---|
| **Housing format** | 25mm contact insert |
| **Housing material** | Stainless Steel –ANC4B<br>Aluminium Alloy –LM25TF –with hard anodised protection (Group II only) |
| **Cable entry** | Choice of threaded cable entry sizes for standard Ex d cable glands: M20 and M25 |
| **Fixed receptacle mounting** | M20 into Ex d or Ex e housing<br>M25 into Ex d or Ex e housing |
| **Fixed receptacle wires** | 1.5mm$^2$ x 1m,2m or 3m (L) flexible insulated wire<br>2.5mm$^2$ x 1m,2m or 3m (L) flexible insulated wire |
| **Mating cycles** | 10,000 no load<br>(Limited to 200 for live disconnect) |
| **Security coding** | 5 Selectable positions |
| **Ingress protection** | IP66 |
| **Temperature limits** | ATEX/IECEx certified to –50 to +60°C |
| **Contacts** | Multi–springwire socket and solid pins |
| **Cable terminations** | 4, 6 or 8 point crimp or solder –IEC 60352–2 |
| **Contact protection** | Passivated silver plate |
| **Insert material** | Glass filled polymer |
| **Fire rating** | UL 94 V–0 |
| **Insulation** | Class II double insulated |
| **Protective earth connections** | Screw clamp terminals for 2.5mm$^2$ conductor |

| **Weight** | Stainless Steel | Aluminium |
|---|---|---|
| TX3706.1 Line Plug | 0.5kg | 0.2kg |
| TX3706.2 Line Receptacle | 0.43kg | 0.17kg |
| TX3706.3 Fixed Receptacle | 0.4kg | 0.15kg |

| | |
|---|---|
| **Conformity** | EN 61984:2009 –Safety Requirements<br>EN 60664: 2007 –Insulation Co–ordination<br>EN60079–0: 2012+A11:2013–General Requirements<br>EN60079–1:2014 –Flame–proof enclosures<br>EN60079–7:2015–Explosive atmospheres. Equipment protected by increased safety “e”<br>EN60079–31:2014–Equipment Dust Ignition Protection by Enclosure “t” |

Certified for use in underground mines and surface industry with explosive gas and dust atmospheres. For full certification details including certificate numbers, Ex marking and conditions of safe use refer to the product user manual –available at www.trolex.com.

# Contact Inserts



The contact inserts are moulded in a high–gradeglass filled polymer. Mechanically interlocked male and female pairs of inserts ensure maximumprotection for the pins and sockets duringengagement. They can be fitted in either orientation in the plug housing or the receptacle housing and all pins are fully shrouded in all configurations.

## Pins & Sockets

Pins or sockets can be inserted into either the male or female inserts according to application preference. Connections can be crimped or soldered, in two available wire sizes 1.5or 2.5 mm$^2$.

## Protective Earth

A leading earth pin can be loaded into an insert, this is slightly longer than the standard pin and provides a firstmake, last break safety earth connection. Internal earth terminals also permit the use of non–armouredcables.

## Pilot Circuit Interlocking

A lagging or short pilot pin can be loaded into a pin contact insert. This may be interconnected with the system control circuits to isolate the system power and ensure that all contacts are dead on final separation.


| | |
|---|---|
| **Contact ways** | 4 to 10 |
| **Maximum total current (all contacts)** | 100A |
| **Maximum rated current (per contact)** | 25A |
| **Rated voltage** | 250V ac<br>100V dc |
| **Wire size** | 1.5or 2.5mm$^2$ |
| **Insertion force** | 6N per contact |
| **Contact resistance** | 400 µ ohm |
| **Test voltage** | 2000V |
| **Other voltage transients** | 3000V |
| **Intrinsically safe connections** | 30V max |

# Live Disconnect

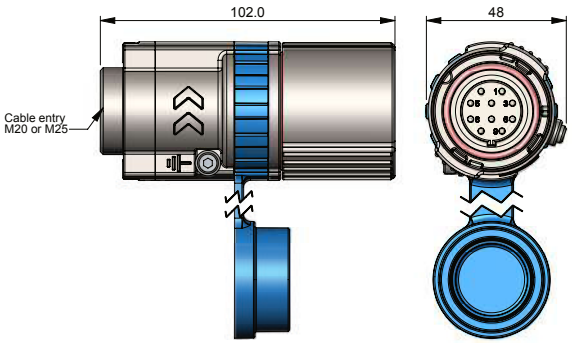
Connecting and disconnecting Falcon in the hazardous area is permitted for short periods to allow maintenance activities or change-outof apparatus where the system power originates ONLY fromthe SOCKET CONTACT side of the connector.

Contact inserts for LIVE DISCONNECT applications are suppliedwith high clearance pins to maintain optimumelectrical separation.

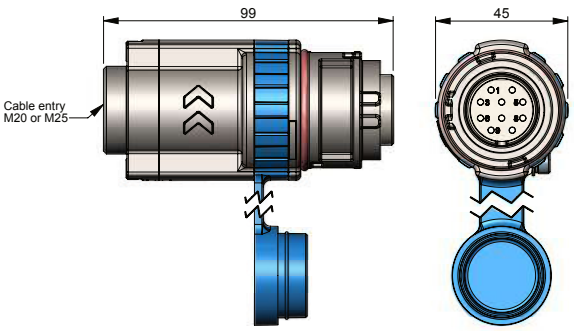
| | ac | dc |
|---|---|---|
| **Maximum voltage: 4-way** | 250V | 250V |
| **Maximum voltage: 10-way** | 80V | 80V |
| **Power factor (Reactive load)** | Between 0.6 and 1.0 | Between 0.6 and 1.0 |
| **Maximum contact current** | 1A | 1A |

# Dimensions

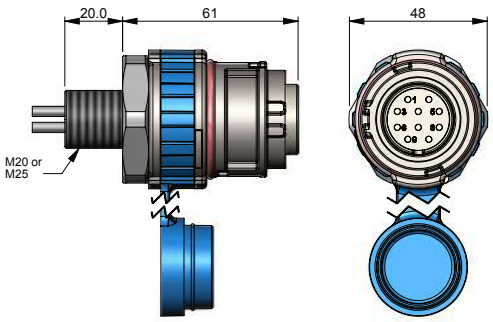
## TX3706.1-Line Plug




## TX3706.2 -Line Receptacle

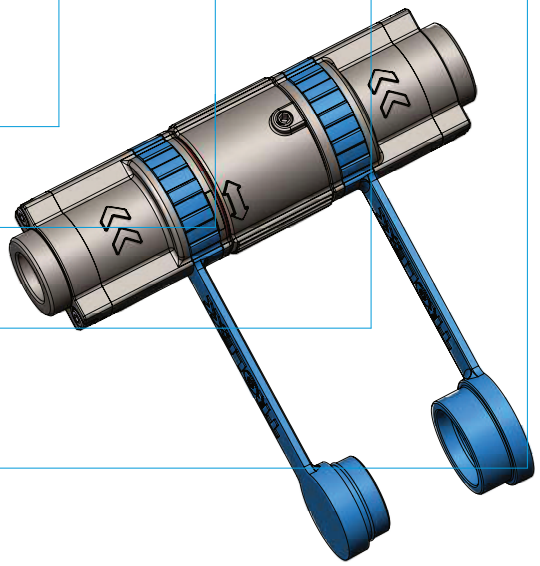



## TX3706.3 -Fixed Receptacle

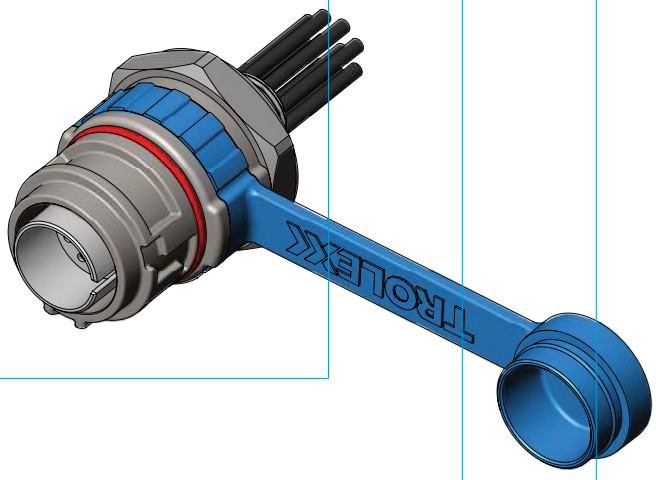


# Order Reference

| Line Plug | TX3706.1 |
|---|---|
| Line Receptacle | TX3706.2 |
| ATEX/IECEx Group I | .19 |
| ATEX/IECEx Group II | .20 |
| Aluminium (Group II only) | .02 |
| Stainless steel | .01 |
| Insert –4 way | .04 |
| Insert –10 way | .10 |
| Pins. Standard | .01 |
| Sockets | .02 |
| Pins. Live disconnect | .03 |
| Wire size –1.5mm² | .15 |
| Wire size –2.5mm² | .25 |
| Cable gland thread –M20 | .20 |
| Cable gland thread –M25 | .25 |



| Fixed Receptacle | TX3706.3 |
|---|---|
| ATEX/IECEx Group I | .19 |
| ATEX/IECEx Group II | .20 |
| Aluminium | .02 |
| Stainless steel | .01 |
| Insert –4 way (Position A) | .04 |
| Insert –4 way (Position B) | .05 |
| Insert –4 way (Position C) | .06 |
| Insert –4 way (Position D) | .07 |
| Insert –4 way (Position E) | .08 |
| Insert –10 way (Position A) | .10 |
| Insert –10 way (Position B) | .11 |
| Insert –10 way (Position C) | .12 |
| Insert –10 way (Position D) | .13 |
| Insert –10 way (Position E) | .14 |
| Pins. Standard | .01 |
| Sockets | .02 |
| Pins. Live disconnect | .03 |
| Wire size –1.5mm² | .15 |
| Wire size –2.5mm² | .25 |
| Wire Length L –1m | .01 |
| Wire Length L –2m | .02 |
| Wire Length L –3m | .03 |
| Mounting –M20 Bush | .20 |
| Mounting –M25 Bush | .25 |



# Order Reference

## Accessories

| **Mounting Clamp** | | |
|---|---|---|
| Stainless steel/polypropylene | TX3706.51 | |

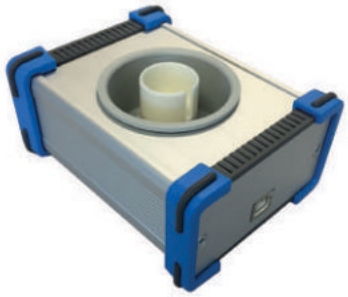
| **Earth pin** | 1.5mm² | 2.5mm² |
|---|---|---|
| Increased insertion length for 'first make –last break' safety earth protection | P5609.23.01 | P5609.16.01 |

| **Live disconnect /Pilot pin** | 1.5mm² | 2.5mm² |
|---|---|---|
| Reduced insertion length for 'first break –last make' pilot circuit interlocking | P5609.23.02 | P5609.16.02 |

| **Ex d Plug cap** | |
|---|---|
| Cover cap for combined Ex d and ingress protection after live disconnect or re–application of the power to a **Plug** | Aluminium<br>TX3706.41(Group II only) |
| | Stainless steel<br>TX3706.42 |

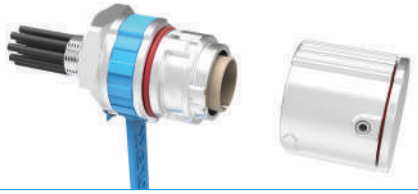
| **Ex d Receptacle cap** | |
|---|---|
| Cover cap for combined Ex d and ingress protection after live disconnect or re–application of the power to a **Receptacle** | Aluminium<br>TX3706.43 (Group II only) |
| | Stainless steel<br>TX3706.44 |

# Falcon 25 Flash
# TX3706.4



## USB data collection and storage in a convenient Ex d package

The Falcon 25 Flash can be temporarily connected to a standard pre-wired Falcon receptacle installed on Ex d or Ex e enclosures. Data can be collected via USB links from PCs and data systems in the hazardous area without the need to isolate the equipment power.



**1** Pre-wired USB connection to a standard Falcon 4 way receptacle. Fitted with an Ex d cap.

**2** The receptacle cap can be temporarily removed with system power still applied. Connect the Falcon Flash to collect data.

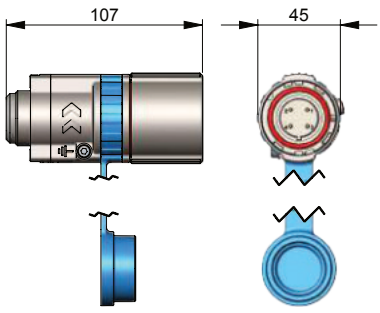
**3** Remove the flash drive and replace the receptacle cap.

# Technical Information

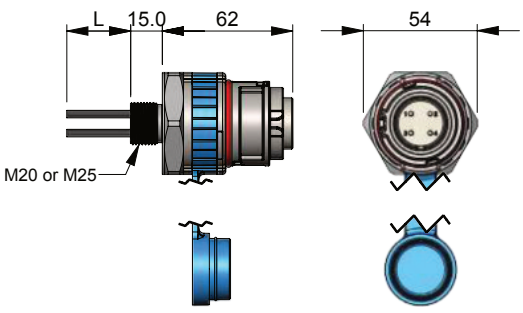
| | |
|---|---|
| **Data storage** | 32GB as standard |
| **Housing material** | Stainless Steel –ANC4B<br>Aluminium Alloy –LM25TF –With hard anodised protection (Group II only) |
| **Fixed receptacle mounting** | M20 into Ex d or Ex e housing<br>M25 into Ex d or Ex e housing |
| **Fixed receptacle wires** | 1.5mm² x 1m,2m or 3m long |
| **Ingress protection** | IP66 |
| **Temperature limits** | –10to +60°C |
| **Connections** | Pin 1: +V<br>Pin 2: D–<br>Pin 3: D+<br>Pin 4: GND |

# Dimensions

## TX3706.4 Falcon 25 Flash



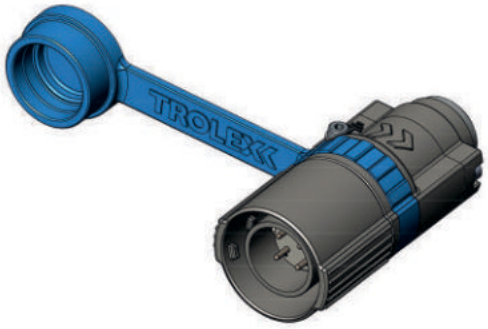

## TX3706.3 Fixed Receptacle




M20 or M25 gland entry mounting on Ex d or Ex e enclosures (standard Falcon fixed receptacle)

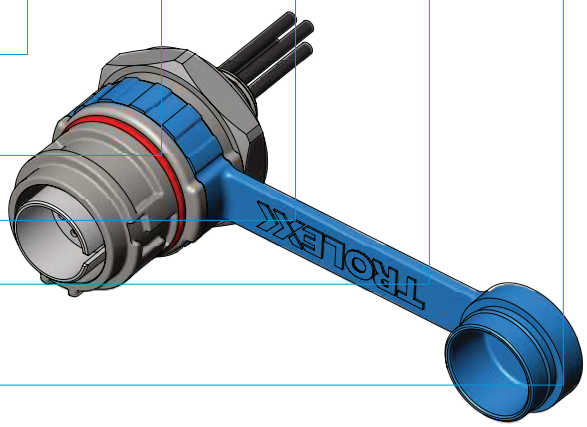
# Order Reference

TX3706.4 –Falcon 25 Flash. Complete with ingress protection cap




| | TX3706.4 |
|---|---|
| ATEX/IECEx Group I | .19 |
| ATEX/IECEx Group II | .20 |
| Aluminium (Group II only) | .02 |
| Stainless steel | .01 |

TX3706.3 –Fixed Receptacle

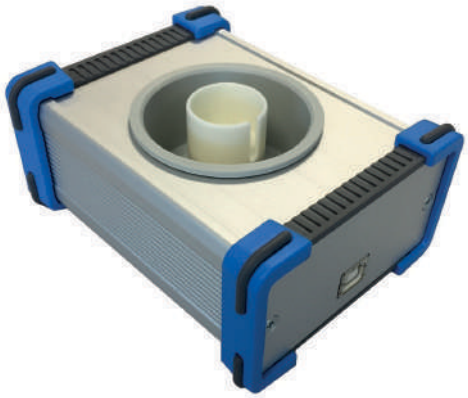



| | TX3706.3 |
|---|---|
| ATEX/IECEx Group I | .19 |
| ATEX/IECEx Group II | .20 |
| Aluminium (Group II only) | .02 |
| Stainless steel | .01 |
| Insert –4 way (Position C) | .06 |
| Sockets | .02 |
| Wire size –1.5mm² | .15 |
| Wire size –2.5mm² | .25 |
| Wire Length L –1m | .01 |
| Wire Length L –2m | .02 |
| Wire Length L –3m | .03 |
| Mounting –M20 | .20 |
| Mounting –M25 | .25 |

# TX3706.43 (Aluminium)
# TX3706.44 (Stainless Steel)
# Ex d receptacle cap

Cover cap for combined Ex d and ingress protection after live disconnect or reapplication of the power to a receptacle.

# TX3706.5 Falcon Connecting Dock accessory



Convenient direct connection of the Falcon 25 Flash to a PC USB dataport.

Complete with USB connection cable
Length: 1metre
Safe area only

# Certification for TX3706.4

Certified for use in underground mines and surface industry with explosive gas and dust atmospheres. For full certification details including certificate numbers, Ex marking and conditions of safe use refer to the product user manual –available at www.trolex.com.

# Falcon 25 Fibre Ex Connector TX3706.6, TX3706.7, TX3706.8


The Falcon 25 Series connector is equipped with Cinch expanded beam technology to provide fibre solutions for use in heavy duty applications and hazardous areas.

Cinch expanded beam fibre optic inserts are designed for use in harsh industrial environments offering high performance and cost effectiveness, combined with a simple termination process for rapid in-field termination or repair.

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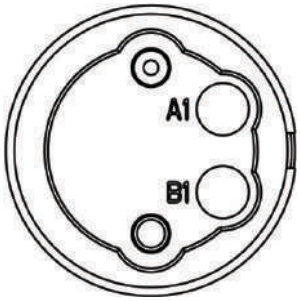
## Technical Information

| | |
|---|---|
| **Housing format** | 25mm Fibre Insert |
| **Housing material** | Stainless Steel –ANC4B<br>Aluminium Alloy –LM25TF –with hard anodised protection (Group II only) |
| **Cable entry** | Choice of threaded cable entry sizes for standard Ex d cable glands: M20 and M25 |
| **Fixed receptacle mounting** | M20 into Ex d or Ex e housing<br>M25 into Ex d or Ex e housing |
| **Optical fibres** | To specification |
| **Mating cycles** | 1000 |
| **Security coding** | 5 selectable positions |
| **Ingress protection** | IP66 |
| **Temperature limits** | –40 to +60°C |
| **Weight**<br>TX3706.6 Fibre Line Plug<br>TX3706.7 Fibre Line Receptacle<br>TX3706.8 Fibre Fixed Receptacle | <br>0.5kg<br>0.43kg<br>0.4kg |
| **Conformity** | EN 61984:2009 –Safety Requirements<br>EN 60664: 2007 –Insulation Co-ordination<br>EN60079-0: 2012+A11:2013–General Requirements<br>EN60079-1:2014 –Flame-proof enclosures<br>EN 60079-7:2015–Explosive atmospheres. Equipment protection by increased safety “e”<br>EN 60079-28:2015–Explosive atmospheres. Protection of equipment and transmission systems using optical radiation<br>EN60079-31:2014–Equipment Dust Ignition Protection by Enclosure “t” |

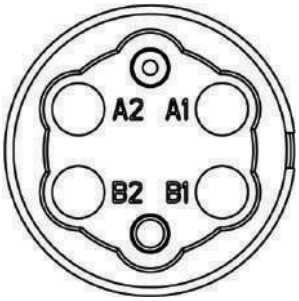
Certified for use in underground mines and surface industry with explosive gas and dust atmospheres. For full certification details including certificate numbers, Ex marking and conditions of safe use refer to the product user manual –available at www.trolex.com.

| | |
|---|---|
| **Optical fibres** | Arrangements below |
| **Insertion loss** | Multi Mode: <–1.0dB<br>Single Mode: <–1.5dB |
| **Return loss** | Single Mode: >32dB |
| **Insert material** | Glass Filled Polymer /Stainless Steel |
| **Cable assembly** | Custom as specified |

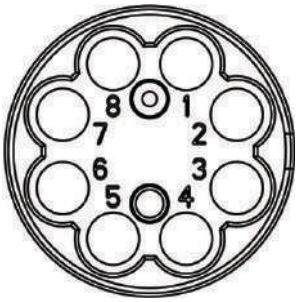
## Optical inserts




2 Channel



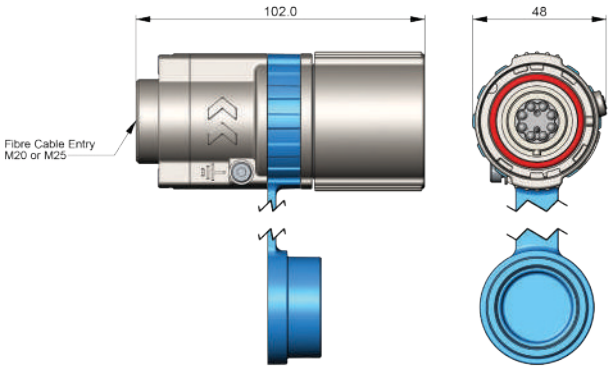

4 Channel



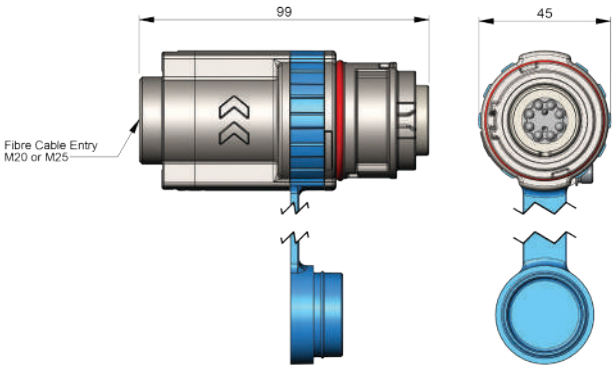

8 Channel

# Dimensions

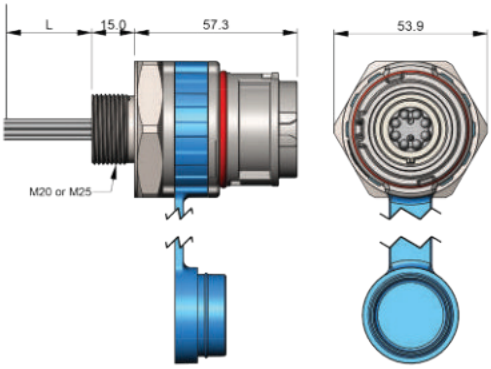
## TX3706.6 –Fibre Line Plug




## TX3706.7 –Fibre Line Receptacle




## TX3706.8 –Fibre Fixed Receptacle




# Ordering

Please contact our technical support team for assistance in specifying your exact format and for any pre–assembled optical fibre cable that may be required.

# Order Reference

**Line Plug** TX3706.1

**Line Receptacle** TX3706.2

| | |
|---|---|
| Aluminium Connector W/Brass Gland | 01 |
| Stainless Steel Connector and Gland | 02 |

| | |
|---|---|
| Two Core Connector /Armoured Cable | 02 |
| Four Core Connector W/Armoured Cable | 04 |
| Eight Core Connector W/Armoured Cable | 08 |

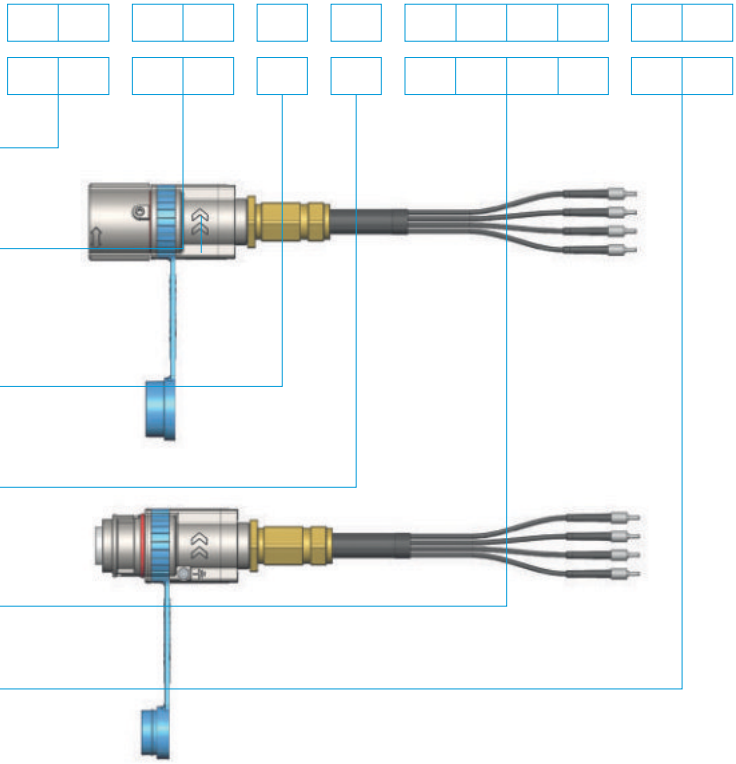
| | |
|---|---|
| Standard Keyway Coding | C |
| Refer ToFactory For Keyway Coding | A-E |

| | |
|---|---|
| 62.5/125 (Multi-Mode) | 1 |
| 50/125 (Multi-Mode) | 2 |
| 9/125(Single-Mode) | 3 |

| | |
|---|---|
| In 0.1mIncrements (Min. 3m) | E.G. 0031=3.1m |

| | |
|---|---|
| TX3706.1Line Plug -Aluminium (Group II Only) | A1 |
| TX3706.1Line Plug -Stainless Steel | S1 |
| TX3706.2 Line Receptacle -Aluminium(Group II Only) | A2 |
| TX3706.2 Line Receptacle -Stainless Steel | S2 |
| Breakout (100mmWith M20 Gland) | B# |
| Breakout (250mmWith M20 Gland) | C# |
| Breakout (500mmWith M20 Gland) | D# |
| Breakout (1000mmWith M20 Gland) | E# |

Where # =L For LC's /T For ST's /C For SC's



**Fixed Receptacle** TX3706.3

| | |
|---|---|
| Aluminium Connector W/Brass Gland | 01 |
| Stainless Steel Connector And Gland | 02 |

| | |
|---|---|
| Two Core Connector W/2 x Simplex Fibres | 02 |
| Four Core Connector W/4 x Simplex Fibres | 04 |
| Eight Core Connector W/8 x Simplex Fibres | 08 |

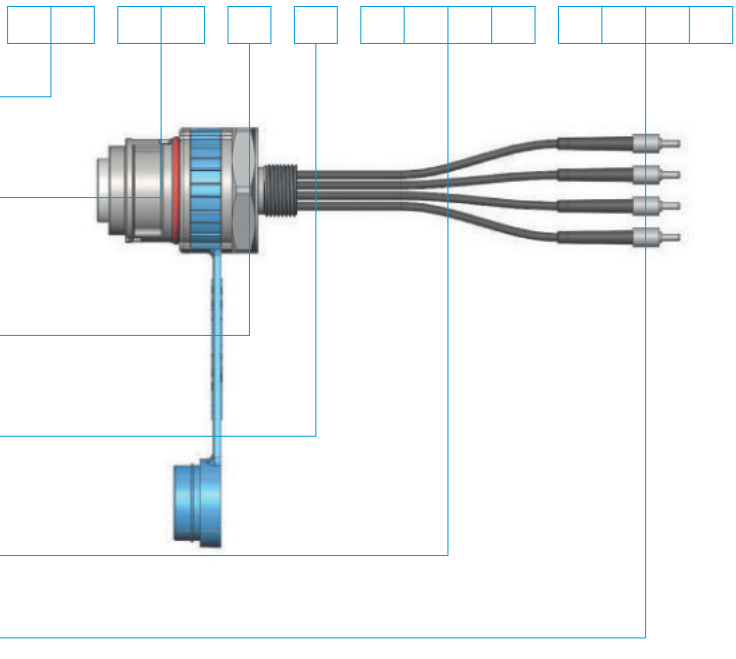
| | |
|---|---|
| Standard Keyway Coding | C |
| Refer ToFactory For Keyway Coding | A-E |

| | |
|---|---|
| 62.5/125 (Multi-Mode -Grey Fibres) | 1 |
| 50/125(Multi-Mode -Orange Fibres) | 2 |
| 9/125(Single-Mode -Yellow Fibres) | 3 |

| | |
|---|---|
| In 0.1mIncrements (Min. 3m) | E.G. 0031=3.1m |

| | |
|---|---|
| Fixed Receptacle With M20 Thread | M20 |
| Fixed Receptacle With M25 Thread | M25 |

Where # =L For LC's /T For ST's /C For SC's



# Falcon 40 Ex Connector TX3740

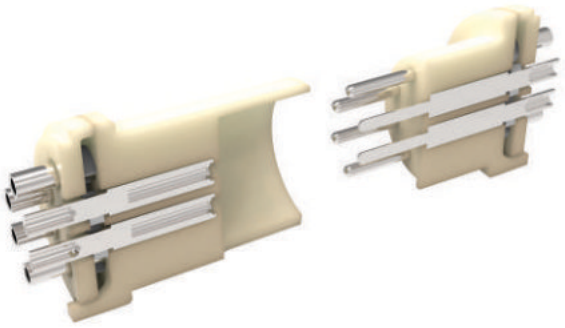
## Technical Information

| | |
|---|---|
| **Housing format** | 40mm contact insert |
| **Housing material** | Stainless Steel –ANC4B<br>Aluminium Alloy –LM25TF –with hard anodised protection (Group II only) |
| **Cable entry** | Choice of threaded cable entry sizes for standard Ex d cable glands: M32 and M40 |
| **Fixed receptacle mounting** | M32 into Ex d or Ex e housing<br>M40 into Ex d or Ex e housing |
| **Fixed receptacle wires** | 1.5mm$^2$ x 1m,2m or 3m (L) flexible insulated wire<br>2.5mm$^2$ x 1m,2m or 3m (L) flexible insulated wire |
| **Mating cycles** | 10,000 no load<br>(Limited to 200 for live disconnect) |
| **Security coding** | 6 Selectable positions |
| **Ingress protection** | IP66 |
| **Temperature limits** | ATEX/IECEx certified to –50to +60°C |
| **Contacts** | Multi–springwire socket and solid pins |
| **Cable terminations** | 4, 6 or 8 point crimp or solder –IEC 60352–2 |
| **Contact protection** | Passivated silver plate |
| **Insert material** | Glass filled polymer |
| **Fire rating** | UL 94 V–0 |
| **Insulation** | Class II double insulated |
| **Protective earth connections** | Screw clamp terminals for 2.5mm$^2$ conductor |

| **Weight** | Stainless Steel | Aluminium |
|---|---|---|
| TX3740.1 Line Plug | 1.2kg | 0.65kg |
| TX3740.2 Line Receptacle | 1.1kg | 0.5kg |
| TX3740.3 Fixed Receptacle | 1kg | 0.45kg |

| | |
|---|---|
| **Conformity** | EN 61984:2009 –Safety Requirements<br>EN 60664: 2007 –Insulation Co–ordination<br>EN60079–0: 2012+A11:2013–General Requirements<br>EN60079–1:2014 –Flame–proof enclosures<br>EN60079–7:2015–Explosive atmospheres. Equipment protected by increased safety “e”<br>EN60079–31:2014–Equipment Dust Ignition Protection by Enclosure “t” |

# Contact Inserts



The contact inserts are moulded in a high-gradeglass filled polymer. Mechanically interlocked pairs of inserts ensure maximumprotection for the pins and sockets during engagement. They can be fitted in either orientation in the plug housing or the receptacle housing and all pins are fully shrouded in all configurations.

## Pins & Sockets

Pins or sockets can be inserted into either the male or female inserts according to application preference. Connections can be crimped or soldered, in two available wire sizes 1.5or 2.5mm$^2$.

## Protective Earth

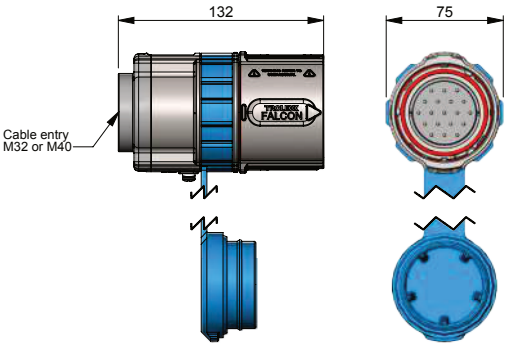
A leading earth pin can be loaded into an insert, this is slightly longer than the standard pin and provides a firstmake, last break safety earth connection. Internal earth terminals also permit the use of non-armouredcables.

## Pilot Circuit Interlocking

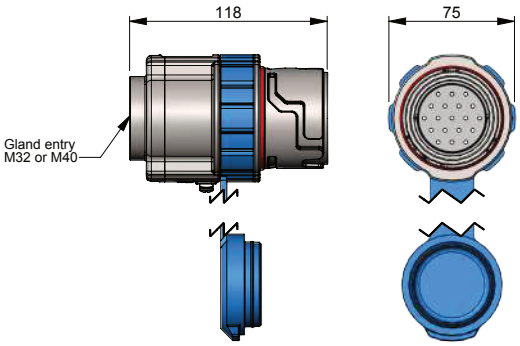
A lagging or short pilot pin can be loaded into a pin contact insert. This may be interconnected with the system control circuits to isolate the system power and ensure that all contacts are dead on final separation.

# Dimensions

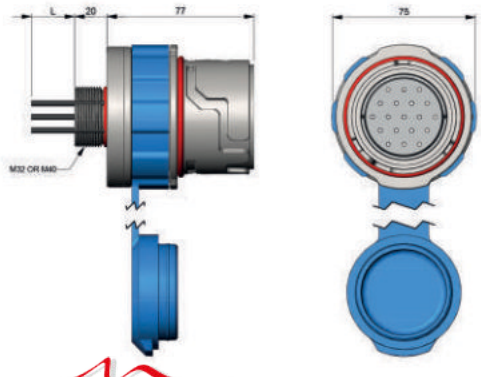
## TX3740.1-Line Plug




## TX3740.2 -Line Receptacle



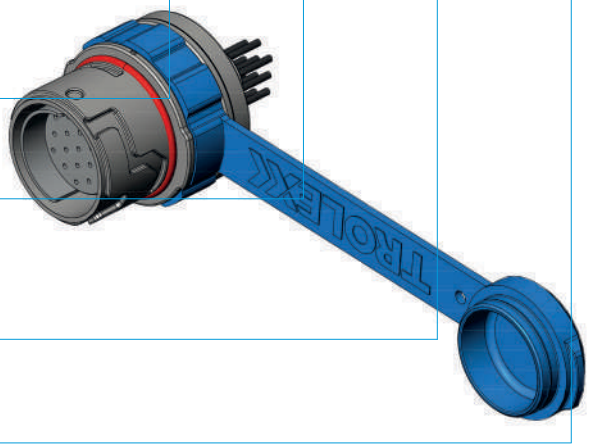

## TX3740.3 -Fixed Receptacle



# Order Reference

| | |
|---|---|
| **Line Plug** | **TX3740.1** |
| **Line Receptacle** | **TX3740.2** |
| ATEX/IECEx Group I | .19 |
| ATEX/IECEx Group II | .20 |
| Aluminium (Group II only) | .02 |
| Stainless steel | .01 |
| Insert –19 way | .19 |
| Insert –37 way | .37 |
| Pins | .01 |
| Sockets | .02 |
| Pins.standard Live disconnect | .03 |
| Wire size –1.5mm² | .15 |
| Wire size –2.5mm² | .25 |
| Cable gland thread –M32 | .32 |
| Cable gland thread –M40 | .40 |

| | |
|---|---|
| **Fixed Receptacle** | **TX3740.3** |
| ATEX/IECEx Group I | .19 |
| ATEX/IECEx Group II | .20 |
| Aluminium (Group II only) | .02 |
| Stainless steel | .01 |
| Insert –19 way | .19 |
| Insert –37 way | .37 |
| Pins | .01 |
| Sockets | .02 |
| Pins.standard Live disconnect | .03 |
| Wire size –1.5mm² | .15 |
| Wire size –2.5mm² | .25 |
| Wire Length L –1m | .01 |
| Wire Length L –2m | .02 |
| Wire Length L –3m | .03 |
| Cable gland thread –M32 | .32 |
| Cable gland thread –M40 | .40 |



# Order Reference

## Accessories

| | | | |
|---|---|---|---|
| **Mounting Clamp** | | |  |
| Stainless steel/polypropylene | TX3740.51 | | |
| **Earth pin** | 1.5mm² | 2.5mm² |  |
| Increased insertion length for 'first make –last break' safety earth protection | P5623.23.01 | P5623.16.01 | |
| **Live disconnect /Pilot pin** | 1.5mm² | 2.5mm² |  |
| Reduced insertion length for 'first break –last make' pilot circuit interlocking | P5623.23.02 | P5623.16.02 | |
| **Ex d Plug cap** | | |  |
| Cover cap for combined Ex d and ingress protection after live disconnect or re–application of the power to a **Plug.** Integrated with the flexible cover cap. | Aluminium (Group II only) TX3740.41 | | |
| | Stainless steel TX3740.42 | | |
| **Ex d Receptacle cap** | | |  |
| Cover cap for combined Ex d and ingress protection after live disconnect or re–application of the power to a **Receptacle**. Integrated with the flexible cover cap. | Aluminium (Group II only) TX3740.43 | | |
| | Stainless steel TX3740.44 | | |

# Customised Falcons

The unique design and construction flexibility of Falcon means that we can offer a whole range of contact configurations and hybrid power and data combinations for specific or bespoke applications.

Connectors can be supplied complete with dedicated fitted cable systems.