

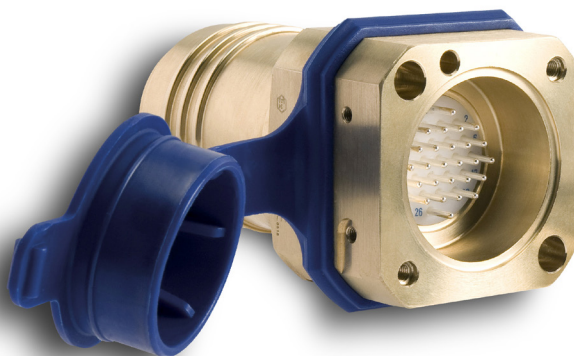
Ex d Connectors

Robust explosion-proof multi-pin connectors for heavy duty and hazardous area applications

Environments: Oil and gas offshore • Mining • Tunnelling • Marine applications • Steel processing • Process plants • Portable equipment • Mobile machinery

Features

- Fast and convenient interconnection of control circuits and power connections in hazardous areas
- Machined brass, stainless steel or aluminium construction with built-in shock protecting fenders for maximum impact resistance in extreme working environments
- Extremely tough moulded urethane weather caps permanently attached and ready to hand, incorporating shock fenders and IP67 captive ingress seals
- Linear, multi-contact connectors give exceptionally low insertion force and long term reliability
- Two body sizes with a choice of contacts from 3 up to 37
- High-voltage options up to 2000 V dc
- Direct panel connections into existing Ex d or Ex e enclosures, or can be configured as a cable line connector with the addition of a cover shell to the plug and socket
- Ex d component acceptance certification to simplify hazardous area equipment design and approval
- Simple to mate, no special tools required - two large easily accessible screw fasteners unite the connectors in seconds
- Utilises standard low cost Ex d cable glands with a choice of cable entry format
- Easy to disassemble - quick access by releasing two large cover shell screws



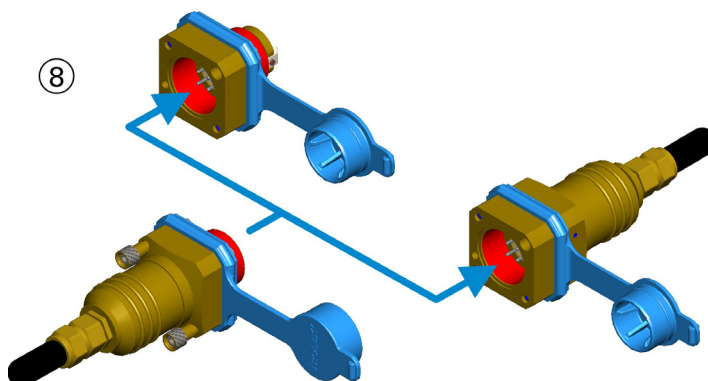
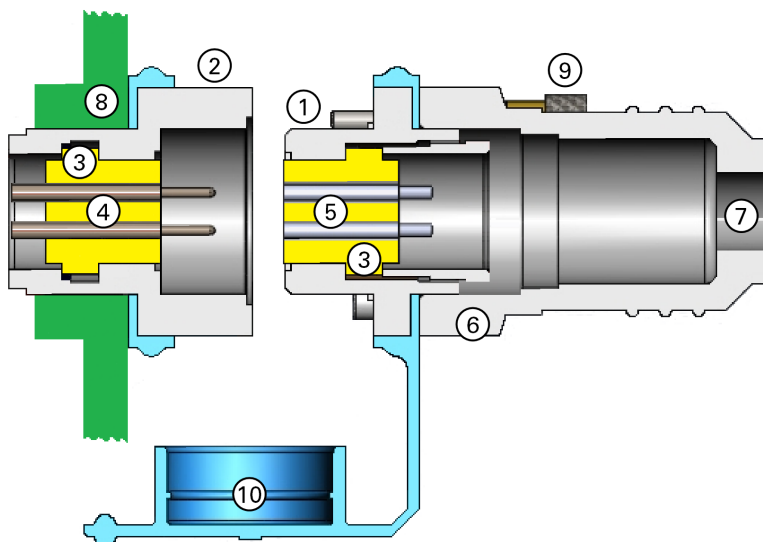


TX3700 • TX3701 • TX3710 • TX3711

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Features - continued

1. Machined metal plug unit with engagement plug forming the flame path
2. Machined metal socket unit with engagement receptacle forming the flame path
3. High grade co-polymer contact insert carrying slide-in contact pins and tubes
4. Silver plated contact pins suitable for solder or crimp connections
5. Silver plated contact tubes with longitudinal multi-contact springs for high reliability and low insertion force, providing exceptionally low contact resistance
6. Machined metal cover shell for terminating the incoming cable utilizing standard Exd cable glands of choice
7. Choice of cable gland entry thread to specification
8. Ex d or e enclosure with basic socket unit fitted or cable line-connector
9. Two large, hand operated, mating screws to quickly unite the connector with complete security
10. Extremely tough moulded urethane weather caps permanently attached and ready to hand, incorporating shock fenders and IP67 captive ingress seals





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Benefits

Design Simplicity

Simple, uncomplicated and extraordinarily strong, the TX3700/1/10/11 connectors are well able to tolerate the hard knocks of day-to-day use in extreme operating conditions. Solid machined metal housings with high tolerance fit to eliminate binding and jamming. Two body sizes accommodate up to 37 contacts with ingress seals and protective caps integrated into the compact design.

Superior Connectivity

The contact springs are arranged longitudinally along the axis of insertion, resulting in exceptionally low insertion force. This dramatically reduces the damaging wear and tear imposed by conventional lateral spring contacts and guarantees absolute vibration safety. Multi-point contact springs lie along the full length of the contact pins resulting in the lowest possible contact resistance and higher current carrying capacity. Linear expansion of the contact as a result of any temperature rise will increase the contact pressure.

Ease of Connection

Pins and tubes are freely removable during and after assembly of the connector. Conductors can be soldered or crimped directly to the contact without the need for vulnerable time consuming secondary connecting devices. Available also with a 'short pin' circuit for automatic pilot circuit isolation.

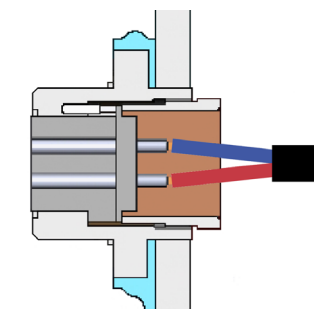
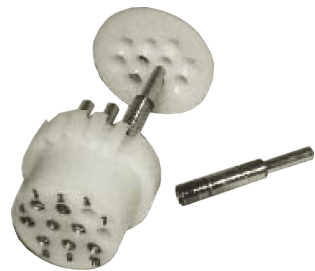
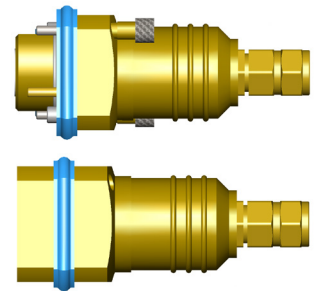
Security Coding

Up to five coding positions can be user-configured to prevent non-valid mating.

Increased Safety Version - Ex e

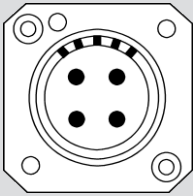
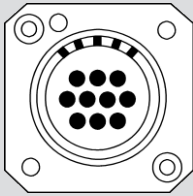
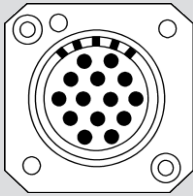
A special version of the connectors can be provided with resin encapsulated connections for use as an Ex d to Ex e interface. The encapsulation ensures that the Ex e side of the connector complies with Ex e clearance requirements.

The cable type and length will be specific to customer requirements, contact sales@trolex.com for further details.



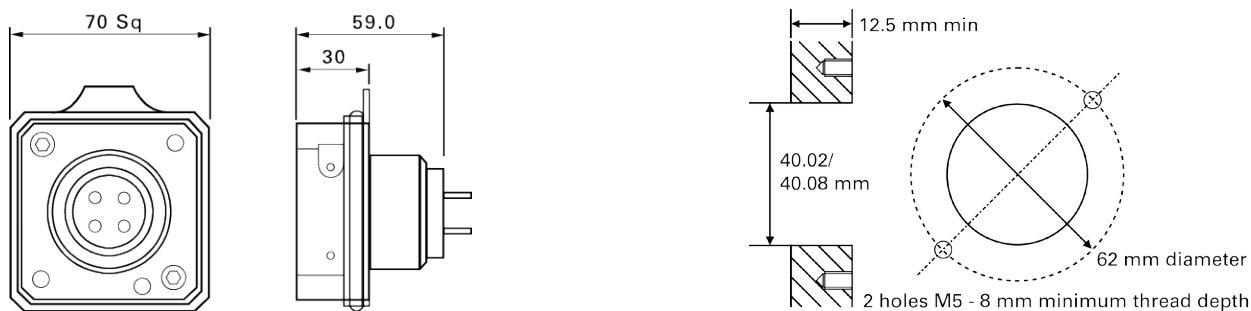
TX3700 • TX3701 • TX3710 • TX3711 **Data Sheet**

Technical Information - TX3700 & TX3710 Series

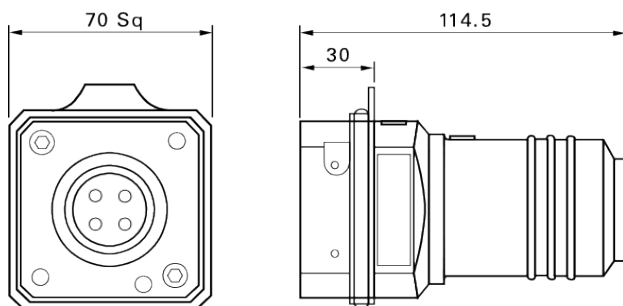
	4 contacts	10 contacts	14 contacts
			
Maximum current per pin:	25 A	25 A	20 A
Maximum total current:	100 A	100 A	100 A
Contact resistance:	400 μ ohms	400 μ ohms	400 μ ohms
Contact diameter:	2.3 mm	2.3 mm	2.0 mm
Maximum conductor size:	2.5 mm ²	2.5 mm ²	2.0 mm ²
Maximum insulation diameter:	3.5 mm	3.5 mm	3.0 mm
Maximum voltage:	240 V ac/300 V dc		
Test voltage:	2000 V		
Termination:	The contacts are suitable for both solder or 8 point crimp termination		
Contact material:	Silver plated brass		
Contact insulator:	Acetal co-polymer		
Ingress protection:	Dust and water proof to IP67		
Maximum temperature:	-20°C to +55°C		

Dimensions - TX3700 & TX3710 Series

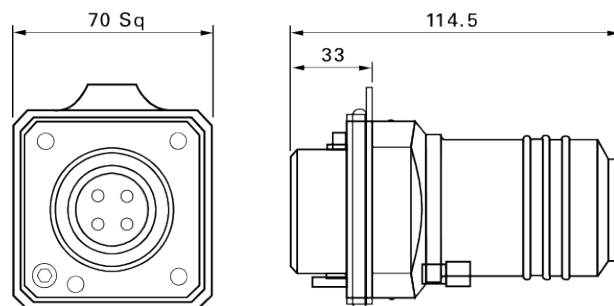
TX3700.S & TX3710.S Basic Socket Unit - for mounting on to explosion proof enclosures



TX3700.SS & TX3710.SS Socket Unit - with cover shell

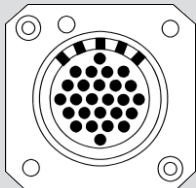
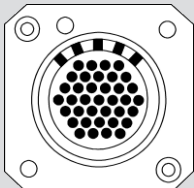

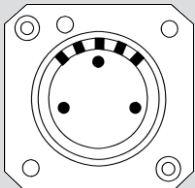


TX3700.PS & TX3710.SS Plug Unit - with cover shell



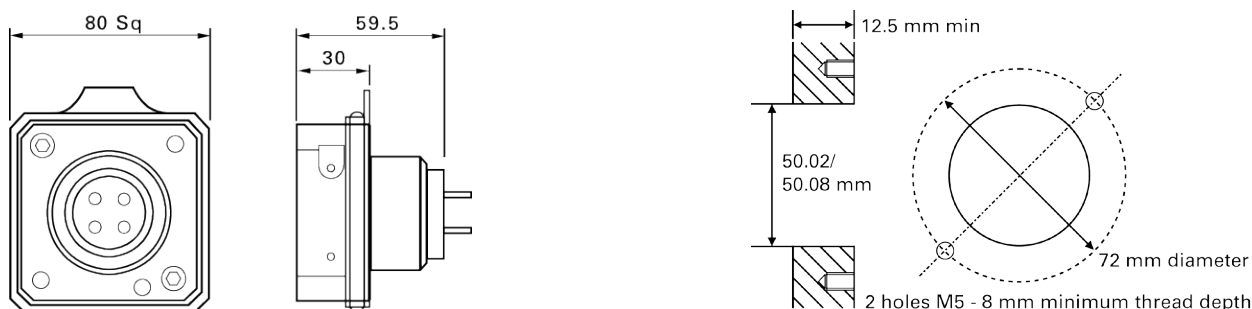
TX3700 • TX3701 • TX3710 • TX3711 **Data Sheet**

Technical Information - TX3701 & TX3711 Series

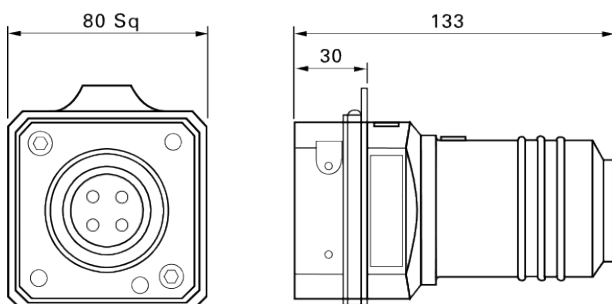
			High Voltage Contacts	
	26 contacts	37 contacts	8 contacts	3 contacts
				
Maximum current per pin:	20 A	20 A	20 A	20 A
Maximum total current:	100 A	100 A	100 A	100 A
Contact resistance:	400 μ ohms	400 μ ohms	400 μ ohms	400 μ ohms
Contact diameter:	2.0 mm	2.0 mm	2.0 mm	2.0 mm
Maximum conductor size:	2.0 mm ²	2.0 mm ²	2.0 mm ²	2.0 mm ²
Maximum insulation diameter:	3.0 mm	3.0 mm	3.0 mm	3.0 mm
Maximum voltage:	240 V ac/300 V dc		1500 V ac/2200 V dc	
Test voltage:	2000 V		4000 V ac/5400 V dc	
Termination:	The contacts are suitable for both solder or 8 point crimp termination		The contacts are suitable for solder connection only	
Contact material:	Silver plated brass			
Contact insulator:	Acetal co-polymer			
Ingress protection:	Dust and water proof to IP67			
Maximum temperature:	-20°C to +55°C		-20°C to +70°C	

Dimensions - TX3701 & TX3711 Series

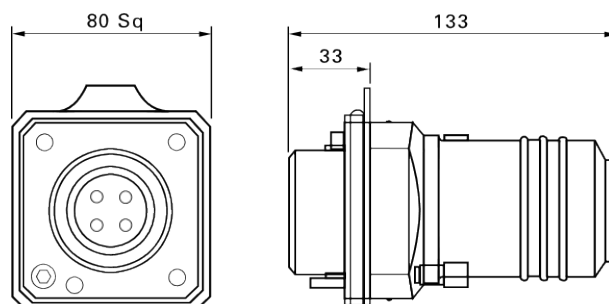
TX3701.S & TX3711.S - Basic Socket Unit - for mounting on to explosion proof enclosures



TX3701.SS & TX3711.SS - Socket Unit - with cover shell



TX3701.PS & TX3711.PS - Plug Unit - with cover shell





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Order Reference - TX3700 & TX3710 Series

Basic Socket Unit	Brass	Stainless Steel	Aluminium
4 pins	TX3700.S.11.21.48	TX3700.S.11.21.49	TX3710.S.11.21
10 pins	TX3700.S.12.21.48	TX3700.S.12.21.49	TX3710.S.12.21
14 pins	TX3700.S.13.21.48	TX3700.S.13.21.49	TX3710.S.13.21



Socket Unit with cover shell	Brass	Stainless Steel	Aluminium
4 pins	TX3700.SS.11.21.48	TX3700.SS.11.21.49	TX3710.SS.11.21
10 pins	TX3700.SS.12.21.48	TX3700.SS.12.21.49	TX3710.SS.12.21
14 pins	TX3700.SS.13.21.48	TX3700.SS.13.21.49	TX3710.SS.13.21

Cable gland entry options:

- M20 - add suffix .31
- M25 - add suffix .32
- Specific - please specify



Plug Unit with cover shell	Brass	Stainless Steel	Aluminium
4 tubes	TX3700.PS.11.22.48	TX3700.PS.11.22.49	TX3710.PS.11.22
10 tubes	TX3700.PS.12.22.48	TX3700.PS.12.22.49	TX3710.PS.12.22
14 tubes	TX3700.PS.13.22.48	TX3700.PS.13.22.49	TX3710.PS.13.22

Cable gland entry options:

- M20 - add suffix .31
- M25 - add suffix .32
- Specific - please specify



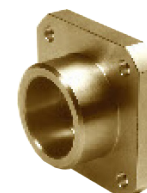
Plug Blank	Brass	Stainless Steel	Aluminium
-	TX3700.BP.48	TX3700.BP.49	TX3710.BP

The Exd plug blank enables power to be re-applied to a plug unit when it has been de-coupled.



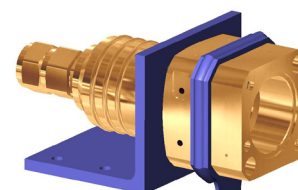
Socket Blank	Brass	Stainless Steel	Aluminium
-	TX3700.BS.48	TX3700.BS.49	TX3710.BS

The Exd socket blank enables power to be re-applied to a socket unit when it has been de-coupled.



Mounting Bracket	Stainless Steel
-	TX3700.01

To anchor a socket unit when it is being used as half of a line connector. Material - powder coated stainless steel.





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Data Sheet

Order Reference - TX3701 & TX3711 Series

Basic Socket Unit	Brass	Stainless Steel	Aluminium
3 pins	TX3701.S.19.21.48	TX3701.S.19.21.49	TX3711.S.19.21
8 pins	TX3701.S.18.21.48	TX3701.S.18.21.49	TX3711.S.18.21
26 pins	TX3701.S.16.21.48	TX3701.S.16.21.49	TX3711.S.16.21
37 pins	TX3701.S.17.21.48	TX3701.S.17.21.49	TX3711.S.17.21

Socket Unit with cover shell	Brass	Stainless Steel	Aluminium
3 pins	TX3701.SS.19.21.48	TX3701.SS.19.21.49	TX3711.SS.19.21
8 pins	TX3701.SS.18.21.48	TX3701.SS.18.21.49	TX3711.SS.18.21
26 pins	TX3701.SS.16.21.48	TX3701.SS.16.21.49	TX3711.SS.16.21
37 pins	TX3701.SS.17.21.48	TX3701.SS.17.21.49	TX3711.SS.17.21

Cable gland entry options:

- M20 - add suffix .31
- M25 - add suffix .32
- M32 - add suffix .33
- M40 - add suffix .34
- Specific - please specify

Plug Unit with cover shell	Brass	Stainless Steel	Aluminium
3 tubes	TX3701.PS.19.22.48	TX3701.PS.19.22.49	TX3711.PS.19.22
8 tubes	TX3701.PS.18.22.48	TX3701.PS.18.22.49	TX3711.PS.18.22
26 tubes	TX3701.PS.16.22.48	TX3701.PS.16.22.49	TX3711.PS.16.22
37 tubes	TX3701.PS.17.22.48	TX3701.PS.17.22.49	TX3711.PS.17.22

Cable gland entry options:

- M20 - add suffix .31
- M25 - add suffix .32
- M32 - add suffix .33
- M40 - add suffix .34
- Specific - please specify

Plug Blank	Brass	Stainless Steel	Aluminium
-	TX3701.BP.48	TX3701.BP.49	TX3701.BP

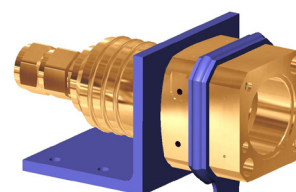
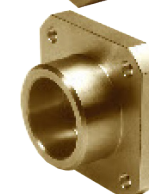
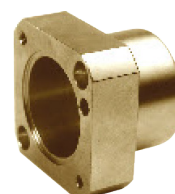
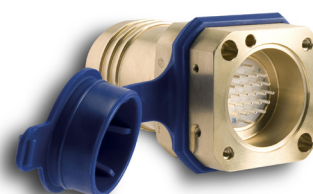
The Exd plug blank enables power to be re-applied to a plug unit when it has been de-coupled.

Socket Blank	Brass	Stainless Steel	Aluminium
-	TX3701.BS.48	TX3701.BS.49	TX3701.BS

The Exd socket blank enables power to be re-applied to a socket unit when it has been de-coupled.

Mounting Bracket	Stainless Steel
-	TX3701.01

To anchor a socket unit when it is being used as half of a line connector
Material - powder coated stainless steel





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Certifications

For full TX3700, TX3701, TX3710 and TX3711 certification information, including certificate numbers, downloads and conditions of safe use, refer to the Trolex website.



ATEX directive 94/9/EC



1. Europe:

ATEX Certification - for use in Group I and Group II hazardous areas

- Ex Equipment Approval
- Ex Component Approval

The Ex component approval certificate number simplifies the certification procedure of equipment to which a connector will be fitted. This means that the connector is accepted as being suitable for use on other Group I and Group IIB flameproof equipment. It will not be necessary to submit documentation or connector samples for repeat examination and testing when it is incorporated into new flameproof designs.

Product Code	Group	Equipment Approval	Component Approval
TX3700 Series	Group I	I M2 Ex db I Mb	I M2 Ex db I Mb
TX3701 Series	Group I		
TX3700 Series	Group II	II 2G Ex db IIB T6 Gb	II 2G Ex db IIB Gb
TX3701 Series	Group II		
TX3710 Series	Group II	II 2G Ex db IIB T6 Gb	II 2G Ex db IIB Gb
TX3711 Series	Group II		
TX3700.ES	Group I	I M2 Ex db e I Mb	I M2 Ex db e I Mb
TX3701.ES	Group I		
TX3700.ES	Group II	II 2G Ex db e IIB T6 Gb	II 2G Ex db e IIB Gb
TX3701.ES	Group II		
TX3710.ES	Group II	II 2G Ex db e IIB T6 Gb	II 2G Ex db e IIB Gb
TX3711.ES	Group II		



2. International:

IECEx Certification - for use in Group I and Group II hazardous areas

- Ex Equipment Approval
- Ex Component Approval

Product Code	Group	Equipment Approval	Component Approval
TX3700 Series	Group I	Ex db I Mb	Ex db I Mb
TX3701 Series	Group I		
TX3700 Series	Group II	Ex db IIB T6 Gb	Ex db IIB Gb
TX3701 Series	Group II		
TX3710 Series	Group II	Ex db IIB T6 Gb	Ex db IIB Gb
TX3711 Series	Group II		
TX3700.ES	Group I	Ex db e I Mb	Ex db e I Mb
TX3701.ES	Group I		
TX3700.ES	Group II	Ex db e IIB T6 Gb	Ex db e IIB Gb
TX3701.ES	Group II		
TX3710.ES	Group II	Ex db e IIB T6 Gb	Ex db e IIB Gb
TX3711.ES	Group II		



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Certifications - continued

For full TX3700, TX3701, TX3710 and TX3711 certification information, including certificate numbers, downloads and conditions of safe use, refer to the Trolex website.



3. GOST-R (Russia):

Product Code

TX3700 Series

TX3700.ES

Group

Group II

Group II

Ex d IIB T6 - POCC GB ГБ05.B03980

Ex de IIB T6 - POCC GB ГБ05.B03980

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