



## Features & Specification

**Mating Cycles:** 250

**Ingress Protection:** IP67, IP68, IP69K

**Operating Temperature:** -40 to +105°C

**Salt Spray Resistance:** 500 hours

**Application:** Indoor, Outdoor

**Additional Attributes:** In-Line option

For many years, Northern Connectors have assisted the UK supply chain by assembling a variety of the connectors from Eaton's vast Souriau UTS series from the smaller piece parts that, when snapped together, form the finished options seen in the master catalogue.

Lots of UTS series connectors share the same components and the process of assembling the shells in-house on demand allows greater flexibility and can significantly reduce lead-times. This attribute is often used to the customers advantage and we regularly supply large quantities in 2-3 days.

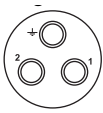
At Northern Connectors we understand that selecting connectors for specific applications can be a difficult and sometimes confusing process, so as a responsible Value-Added Distributor (VAD) of Souriau UTS Connectors, we have produced this supplementary brochure to assist in the process of choosing sizes, layouts and accessories, that can be quickly assembled from components held in stock at our UK distribution facility in St. Helens.

# Insert Configurations

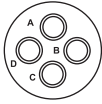
There are often a variety of pin arrangements (layouts) within a series of connectors and users have to consider which one would be best suited for their applications needs.

The UTS Series has 5 shell sizes with a total of 36 different pin configurations.

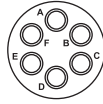
Here are the most popular layouts that we assemble in-house;



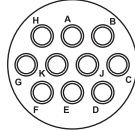
**103**  
16A 150V  
2 contacts  
+ ground  
3 x Ø1.6 (#16)



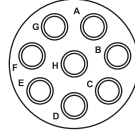
**104**  
13A 150V  
4 contacts  
4 x Ø1.6 (#16)



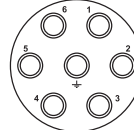
**106**  
7A 80V  
6 contacts  
6 x Ø1.0 (#20)



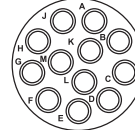
**1210**  
6A 40V  
10 contacts  
10 x Ø1.0 (#20)



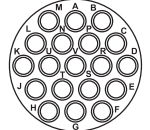
**128**  
10A 125V  
8 contacts  
8 x Ø1.6 (#16)



**147**  
16A 150V  
6 contacts  
+ ground  
7 x Ø1.6 (#16)



**1412**  
10A 150V  
12 contacts  
12 x Ø1.6 (#16)



**1419**  
5A 40V  
19 contacts  
19 x Ø1.0 (#20)

- Those layouts suggesting 1.6mm (#16) cavities are referred to as standard-density layouts whilst those suggesting 1.0mm (#20) cavities are referred to as high-density layouts and will therefore need smaller pin & socket contacts.
- Some layouts feature a dedicated PE cavity as noted by the ground symbol. With those layouts that don't feature a dedicated PE this can be achieved by using a leading contact.
- The above layouts are shown with IEC power ratings, see catalogue for further detail.

# Shell Types

Connector shells follow basic principles that make them compatible. They must share the same layout, shell size and locking mechanism, plus a mating pair must always be opposite genders.

To offer the user ultimate flexibility, shells often have lots of variations. On one hand this means that solutions can cater for a multitude of applications, on the other hand it often leaves engineers perplexed when they are looking to put together a bill of materials.

Here are the most popular types that we assemble from the UTS series;



Cable Connector



In-Line Cable Connector



Jam-Nut Panel Connector

Each shell type above is available in both male and female gender

# Connector Gender

UTS series connectors are available in male and female genders, therefore you must decide if the connector of choice should be fitted with male pin or female socket contacts.

The gender that you choose is determined by the direction of power that your application dictates. If the direction of power is from the cable side, you will want the cable connector to be designed to accept female socket contacts.

Conversely, if the power is flowing in the opposite direction, from the chassis mounted connector, you will want the cable connector to be fitted with male pin contacts.

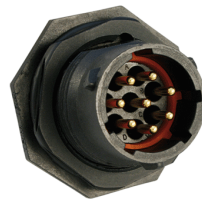
The gender you choose is indicated in the connector part number with either a P for male pins and S for female sockets as per the following examples;



UTS6JC128P



UTS6JC128S



UTS7128P



UTS7128S

# Crimp Contacts

Although some UTS series connectors arrive with pre-loaded solder or dip-solder contacts, the range is predominantly used with crimp contacts.

To suit the aforementioned popular layouts, we have two contact diameters to choose from. 1.6mm (#16) contacts are suited for the standard-density configurations and the smaller 1mm (#20) contacts are designed to suit the high-density configurations.

These two contact sizes are available in lower cost stamped & formed (open barrel) types or a higher quality machined (closed barrel) option. The physical differences can be observed in the following examples;



1mm Stamped & Formed Crimp Pin Contact



1mm Stamped & Formed Crimp Socket Contact



1mm Machined Crimp Pin Contact



1mm Machined Crimp Socket Contact

Once you have chosen the contact type that will cater for the connector and application in question, its then just a matter of selecting the choice that will cater for the wire gauge that you intend on using.

## Accessories

Connector series often have a variety of additional accessories and peripherals that assist in making the solution more versatile.

Here we've simplified this offering by showcasing the most common UTS accessories that we stock and where a quick turnaround can be guaranteed.



Panel Connector  
Protection Cap



Cable Connector  
Protection Cap



Discrimination Pin



Colour Coding Rings

## Tooling

A great feature of the UTS series, and the other series that belong to the Souriau Trim-Trio connector portfolio, is that they share common tooling for crimping and extracting contacts.

The contact crimp tooling system works whereby a set of common handles has interchangeable crimp heads which are tailored to the crimp contacts in question.



Handles



Crimp Tool Head

The contact extraction tooling system uses one tool for any 1.6mm (#16) crimp contact and one tool for any 1mm (#20) crimp contact.



1.6mm (#16)  
Contact Extraction Tool



1mm (#20)  
Contact Extraction Tool

**Now that we have a better understanding of the core principles, let's explore the part numbers of the most readily available options that Northern Connectors stock and assemble in the UK.**

# Connector Part Numbers

Item Code	Item Description
<b>Cable Connector</b>	
<b>Standard Density</b>	
UTS6JC103P	3 Way Cable Connector for Pin Contacts, 1.5-8mm Straight Cable Entry, IP68 & IP69K
UTS6JC103S	3 Way Cable Connector for Socket Contacts, 1.5-8mm Straight Cable Entry, IP68 & IP69K
UTS6JC104P	4 Way Cable Connector for Pin Contacts, 1.5-8mm Straight Cable Entry, IP68 & IP69K
UTS6JC104S	4 Way Cable Connector for Socket Contacts, 1.5-8mm Straight Cable Entry, IP68 & IP69K
UTS6JC128P	8 Way Cable Connector for Pin Contacts, 3-12mm Straight Cable Entry, IP68 & IP69K
UTS6JC128S	8 Way Cable Connector for Socket Contacts, 3-12mm Straight Cable Entry, IP68 & IP69K
UTS6JC147P	7 Way Cable Connector for Pin Contacts, 5-14mm Straight Cable Entry, IP68 & IP69K
UTS6JC147S	7 Way Cable Connector for Socket Contacts, 5-14mm Straight Cable Entry, IP68 & IP69K
UTS6JC1412P	12 Way Cable Connector for Pin Contacts, 5-14mm Straight Cable Entry, IP68 & IP69K
UTS6JC1412S	12 Way Cable Connector for Socket Contacts, 5-14mm Straight Cable Entry, IP68 & IP69K
<b>High Density</b>	
UTS6JC106P	6 Way Cable Connector for Pin Contacts, 1.5-8mm Straight Cable Entry, IP68 & IP69K
UTS6JC106S	6 Way Cable Connector for Socket Contacts, 1.5-8mm Straight Cable Entry, IP68 & IP69K
UTS6JC1210P	10 Way Cable Connector for Pin Contacts, 3-12mm Straight Cable Entry, IP68 & IP69K
UTS6JC1210S	10 Way Cable Connector for Socket Contacts, 3-12mm Straight Cable Entry, IP68 & IP69K
UTS6JC1419P	19 Way Cable Connector for Pin Contacts, 5-14mm Straight Cable Entry, IP68 & IP69K
UTS6JC1419S	19 Way Cable Connector for Socket Contacts, 5-14mm Straight Cable Entry, IP68 & IP69K
<b>In-Line Cable Connector</b>	
<b>Standard Density</b>	
UTS1JC103P	3 Way In-Line Cable Connector for Pin Contacts, 1.5-8mm Straight Cable Entry, IP68 & IP69K
UTS1JC103S	3 Way In-Line Cable Connector for Socket Contacts, 1.5-8mm Straight Cable Entry, IP68 & IP69K
UTS1JC104P	4 Way In-Line Cable Connector for Pin Contacts, 1.5-8mm Straight Cable Entry, IP68 & IP69K
UTS1JC104S	4 Way In-Line Cable Connector for Socket Contacts, 1.5-8mm Straight Cable Entry, IP68 & IP69K
UTS1JC128P	8 Way In-Line Cable Connector for Pin Contacts, 3-12mm Straight Cable Entry, IP68 & IP69K
UTS1JC128S	8 Way In-Line Cable Connector for Socket Contacts, 3-12mm Straight Cable Entry, IP68 & IP69K
UTS1JC147P	7 Way In-Line Cable Connector for Pin Contacts, 5-14mm Straight Cable Entry, IP68 & IP69K
UTS1JC147S	7 Way In-Line Cable Connector for Socket Contacts, 5-14mm Straight Cable Entry, IP68 & IP69K
UTS1JC1412P	12 Way In-Line Cable Connector for Pin Contacts, 5-14mm Straight Cable Entry, IP68 & IP69K
UTS1JC1412S	12 Way In-Line Cable Connector for Socket Contacts, 5-14mm Straight Cable Entry, IP68 & IP69K
<b>High Density</b>	
UTS1JC106P	6 Way In-Line Cable Connector for Pin Contacts, 1.5-8mm Straight Cable Entry, IP68 & IP69K
UTS1JC106S	6 Way In-Line Cable Connector for Socket Contacts, 1.5-8mm Straight Cable Entry, IP68 & IP69K
UTS1JC1210P	10 Way In-Line Cable Connector for Pin Contacts, 3-12mm Straight Cable Entry, IP68 & IP69K
UTS1JC1210S	10 Way In-Line Cable Connector for Socket Contacts, 3-12mm Straight Cable Entry, IP68 & IP69K
UTS1JC1419P	19 Way In-Line Cable Connector for Pin Contacts, 5-14mm Straight Cable Entry, IP68 & IP69K
UTS1JC1419S	19 Way In-Line Cable Connector for Socket Contacts, 5-14mm Straight Cable Entry, IP68 & IP69K
<b>Jam-Nut Panel Connector</b>	
<b>Standard Density</b>	
UTS7103P	3 Way Jam-Nut Panel Connector for Pin Contacts, IP68 & IP69K
UTS7103S	3 Way Jam-Nut Panel Connector for Socket Contacts, IP68 & IP69K
UTS7104P	4 Way Jam-Nut Panel Connector for Pin Contacts, IP68 & IP69K
UTS7104S	4 Way Jam-Nut Panel Connector for Socket Contacts, IP68 & IP69K
UTS7128P	8 Way Jam-Nut Panel Connector for Pin Contacts, IP68 & IP69K
UTS7128S	8 Way Jam-Nut Panel Connector for Socket Contacts, IP68 & IP69K
UTS7147P	7 Way Jam-Nut Panel Connector for Pin Contacts, IP68 & IP69K
UTS7147S	7 Way Jam-Nut Panel Connector for Socket Contacts, IP68 & IP69K
UTS71412P	12 Way Jam-Nut Panel Connector for Pin Contacts, IP68 & IP69K
UTS71412S	12 Way Jam-Nut Panel Connector for Socket Contacts, IP68 & IP69K
<b>High Density</b>	
UTS7106P	6 Way Jam-Nut Panel Connector for Pin Contacts, IP68 & IP69K
UTS7106S	6 Way Jam-Nut Panel Connector for Socket Contacts, IP68 & IP69K
UTS71210P	10 Way Jam-Nut Panel Connector for Pin Contacts, IP68 & IP69K
UTS71210S	10 Way Jam-Nut Panel Connector for Socket Contacts, IP68 & IP69K
UTS71419P	19 Way Jam-Nut Panel Connector for Pin Contacts, IP68 & IP69K
UTS71419S	19 Way Jam-Nut Panel Connector for Socket Contacts, IP68 & IP69K

# Accessory Part Numbers

## Protection Caps

UTS10DCG	Shell Size 10 Protection Cover for UTS Series Jam-Nut Panel Connector, with Fixing Rope, IP68 & IP69K
UTS12DCG	Shell Size 12 Protection Cover for UTS Series Jam-Nut Panel Connector, with Fixing Rope, IP68 & IP69K
UTS14DCG	Shell Size 14 Protection Cover for UTS Series Jam-Nut Panel Connector, with Fixing Rope, IP68 & IP69K
UTS610DCG	Shell Size 10 Protection Cover for UTS Series Cable Connector, with Fixing Rope, IP68 & IP69K
UTS612DCG	Shell Size 12 Protection Cover for UTS Series Cable Connector, with Fixing Rope, IP68 & IP69K
UTS614DCG	Shell Size 14 Protection Cover for UTS Series Cable Connector, with Fixing Rope, IP68 & IP69K

## Coding

SMSPKE0	Dummy Pin Contact for Souriau Trim-Trio 1.6mm Connector Cavity
UTS610CCRG	Shell Size 10 Colour Coding Ring for UTS Series Cable Connector, Green Version
UTS610CCRR	Shell Size 10 Colour Coding Ring for UTS Series Cable Connector, Red Version
UTS610CCRY	Shell Size 10 Colour Coding Ring for UTS Series Cable Connector, Yellow Version
UTS710CCRG	Shell Size 10 Colour Coding Ring for UTS Series Panel Mount Connectors, Green Version
UTS710CCRR	Shell Size 10 Colour Coding Ring for UTS Series Panel Mount Connectors, Red Version
UTS710CCRY	Shell Size 10 Colour Coding Ring for UTS Series Panel Mount Connectors, Yellow Version
UTS612CCRG	Shell Size 12 Colour Coding Ring for UTS Series Cable Connector, Green Version
UTS612CCRR	Shell Size 12 Colour Coding Ring for UTS Series Cable Connector, Red Version
UTS612CCRY	Shell Size 12 Colour Coding Ring for UTS Series Cable Connector, Yellow Version
UTS712CCRG	Shell Size 12 Colour Coding Ring for UTS Series Panel Mount Connectors, Green Version
UTS712CCRR	Shell Size 12 Colour Coding Ring for UTS Series Panel Mount Connectors, Red Version
UTS712CCRY	Shell Size 12 Colour Coding Ring for UTS Series Panel Mount Connectors, Yellow Version
UTS614CCRG	Shell Size 14 Colour Coding Ring for UTS Series Cable Connector, Green Version
UTS614CCRR	Shell Size 14 Colour Coding Ring for UTS Series Cable Connector, Red Version
UTS614CCRY	Shell Size 14 Colour Coding Ring for UTS Series Cable Connector, Yellow Version
UTS714CCRG	Shell Size 14 Colour Coding Ring for UTS Series Panel Mount Connectors, Green Version
UTS714CCRR	Shell Size 14 Colour Coding Ring for UTS Series Panel Mount Connectors, Red Version
UTS714CCRY	Shell Size 14 Colour Coding Ring for UTS Series Panel Mount Connectors, Yellow Version

# Crimp Contact & Tooling Part Numbers

## Stamped & Formed (Open Barrel)

### Standard Density (1.6mm)

Item Code	Item Description	Crimp Tool Handles	Crimp Tool Head	Contact Extraction Tool
SM24ML1S31	1.6mm Crimp Pin Contact, Stamped & Formed Construction, Gold Plating, 0.12-0.25mm <sup>2</sup>	SHANDLES	S16SCM20	RX2025GE1
SC24ML1S31	1.6mm Crimp Socket Contact, Stamped & Formed Construction, Gold Plating, 0.12-0.25mm <sup>2</sup>	SHANDLES	S16SCM20	RX2025GE1
SM20ML1S31	1.6mm Crimp Pin Contact, Stamped & Formed Construction, Gold Plating, 0.32-0.50mm <sup>2</sup>	SHANDLES	S16SCM20	RX2025GE1
SC20ML1S31	1.6mm Crimp Socket Contact, Stamped & Formed Construction, Gold Plating, 0.32-0.50mm <sup>2</sup>	SHANDLES	S16SCM20	RX2025GE1
SM16ML1S31	1.6mm Crimp Pin Contact, Stamped & Formed Construction, Gold Plating, 0.82-1.50mm <sup>2</sup>	SHANDLES	S16SCML11	RX2025GE1
SC16ML1S31	1.6mm Crimp Socket Contact, Stamped & Formed Construction, Gold Plating, 0.82-1.50mm <sup>2</sup>	SHANDLES	S16SCML11	RX2025GE1
SM14ML1S31	1.6mm Crimp Pin Contact, Stamped & Formed Construction, Gold Plating, 2.10-2.50mm <sup>2</sup>	SHANDLES	S16SCML1	RX2025GE1
SC14ML1S31	1.6mm Crimp Socket Contact, Stamped & Formed Construction, Gold Plating, 2.10-2.50mm <sup>2</sup>	SHANDLES	S16SCML1	RX2025GE1

### High Density (1mm)

SM24WL3S26	1mm Crimp Pin Contact, Stamped & Formed Construction, Gold Plating, 0.12-0.25mm <sup>2</sup>	SHANDLES	S20SCM20	RX20D44
SC24WL3S26	1mm Crimp Socket Contact, Stamped & Formed Construction, Gold Plating, 0.12-0.25mm <sup>2</sup>	SHANDLES	S20SCM20	RX20D44
SM20WL3S25	1mm Crimp Pin Contact, Stamped & Formed Construction, Gold Plating, 0.32-0.50mm <sup>2</sup>	SHANDLES	S20SCM20	RX20D44
SC20WL3S25	1mm Crimp Socket Contact, Stamped & Formed Construction, Gold Plating, 0.32-0.50mm <sup>2</sup>	SHANDLES	S20SCM20	RX20D44

## Machined (Closed Barrel)

### Standard Density (1.6mm)

Item code	Item description	Crimp Tool Handles	Crimp Tool Head	Contact Extraction Tool
RM24M9K	1.6mm Crimp Pin Contact, Machined Construction, Gold Plating, 0.12-0.25mm <sup>2</sup>	SHANDLES	S16RCM20	RX2025GE1
RC24M9K	1.6mm Crimp Socket Contact, Machined Construction, Gold Plating, 0.12-0.25mm <sup>2</sup>	SHANDLES	S16RCM20	RX2025GE1
RM20M12K	1.6mm Crimp Pin Contact, Machined Construction, Gold Plating, 0.32-0.50mm <sup>2</sup>	SHANDLES	S16RCM20	RX2025GE1
RC20M12K	1.6mm Crimp Socket Contact, Machined Construction, Gold Plating, 0.32-0.50mm <sup>2</sup>	SHANDLES	S16RCM20	RX2025GE1
RM16M23K	1.6mm Crimp Pin Contact, Machined Construction, Gold Plating, 0.50-1.50mm <sup>2</sup>	SHANDLES	S16RCM16	RX2025GE1
RC16M23K	1.6mm Crimp Socket Contact, Machined Construction, Gold Plating, 0.50-1.50mm <sup>2</sup>	SHANDLES	S16RCM16	RX2025GE1
RM14M30K	1.6mm Crimp Pin Contact, Machined Construction, Gold Plating, 1.50-2.50mm <sup>2</sup>	SHANDLES	S16RCM14	RX2025GE1
RC14M30K	1.6mm Crimp Socket Contact, Machined Construction, Gold Plating, 1.50-2.50mm <sup>2</sup>	SHANDLES	S16RCM14	RX2025GE1

### High Density (1mm)

RM24W3K	1mm Crimp Pin Contact, Machined Construction, Gold Plating, 0.12-0.25mm <sup>2</sup>	SHANDLES	S20RCM	RX20D44
RC24W3K	1mm Crimp Socket Contact, Machined Construction, Gold Plating, 0.12-0.25mm <sup>2</sup>	SHANDLES	S20RCM	RX20D44
RM20W3K	1mm Crimp Pin Contact, Machined Construction, Gold Plating, 0.32-0.50mm <sup>2</sup>	SHANDLES	S20RCM	RX20D44
RC20W3K	1mm Crimp Socket Contact, Machined Construction, Gold Plating, 0.32-0.50mm <sup>2</sup>	SHANDLES	S20RCM	RX20D44
RM18W3K	1mm Crimp Pin Contact, Machined Construction, Gold Plating, 0.50-0.82mm <sup>2</sup>	SHANDLES	S20RCM	RX20D44
RC18W3K	1mm Crimp Socket Contact, Machined Construction, Gold Plating, 0.50-0.82mm <sup>2</sup>	SHANDLES	S20RCM	RX20D44

*Contacts with alternative platings available on request*

*Reeled stamped & formed versions for higher production volumes available on request*



For information on any of our products and services or for a personalised quotation please contact our dedicated team on the below telephone number or email [sales@northern-connectors.co.uk](mailto:sales@northern-connectors.co.uk)