



# Standard Overmolded Cable Assemblies for Europe

# The turnkey solution for a quick, reliable and secured installation

**Cost reduction** ■ Ready to install

Full interconnect solution composed of overmolded connectors and cables

**Easy & secured installation** ■ Easy handling

Audible click

Quick mating coupling systems

**Long outdoor life expectancy** ■ UV & corrosion resistance

**Human & environmental friendly** Halogen free solution RoHS compliant



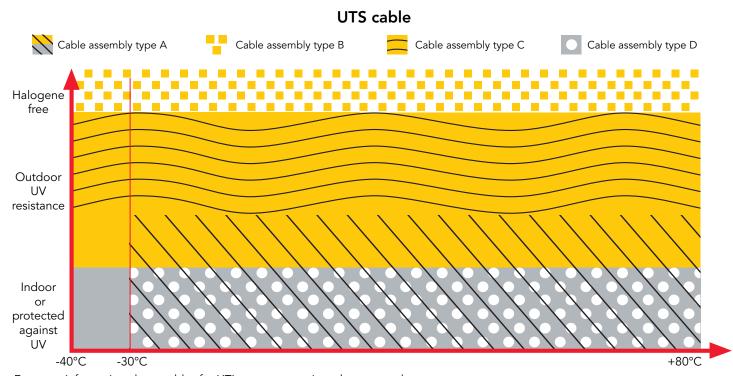
## **Overmoulded Cable Assembly**

SOURIAU has provided connectors for various applications for more than 90 years and has been used in the most extreme environments. Conscious about the difficulty in finding a quick and reliable harness manufacturer, we began our own in-house Overmoulded Cable Assembly production. It allows customers to reduce the number of suppliers and to take advantage of the "best in class" quality of the SOURIAU group. Overmoulding is a process that further enhances the sealing properties and helps to minimize stress on the cable termination to the connector. In addition, the wires are encapsulated inside the molding which creates a barrier preventing liquid/moisture from entering the equipment through the connector or cable jacket if breached.



#### How to choose the cable

The graph below can help guide you to cable type recommendations based on cable assembly use and operating temperature.



For more information about cables for UTL connector series, please consult us.



Connector type	Cable type	Length*	Overmolded style	Male insert*	Female insert*
Free hanging receptacle	PVC Black	PVC Black 1 m.	Straight	HAUTS1104PAS1M	HAUTS1104SAS1M
Free hanging receptacle			Right Angle	HAUTS1104PAR1M	HAUTS1104SAR1M
Plug			Straight	HAUTS6104PAS1M	HAUTS6104SAS1M
Plug			Right Angle	HAUTS6104PAR1M	HAUTS6104SAR1M

#### Cable Assemblies type B

Connector type	Cable type	Length*	Overmolded style	Male insert*	Female insert*	
Free hanging receptacle	Halogene Free			Straight	HAUTS1104PBS1M	HAUTS1104SBS1M
Free hanging receptacle		1	Right Angle	HAUTS1104PBR1M	HAUTS1104SBR1M	
Plug	Compound Black	1 m.	Straight	HAUTS6104PBS1M	HAUTS6104SBS1M	
Plug			Right Angle	HAUTS6104PBR1M	HAUTS6104SBR1M	

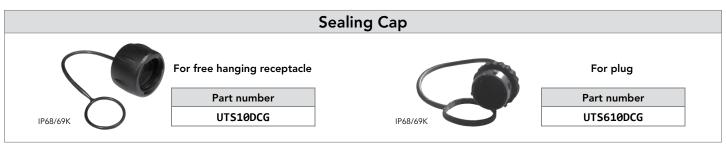
#### Cable Assemblies type C

Connector type	Cable type	Length*	Overmolded style	Male insert*	Female insert*
Free hanging receptacle	TPE Black	TDE DI L	Straight	HAUTS1104PCS1M	HAUTS1104SCS1M
Free hanging receptacle			Right Angle	HAUTS1104PCR1M	HAUTS1104SCR1M
Plug		1 m.	Straight	HAUTS6104PCS1M	HAUTS6104SCS1M
Plug			Right Angle	HAUTS6104PCR1M	HAUTS6104SCR1M

#### Cable Assemblies type D

Connector type	Cable type	Length*	Overmolded style	Male insert*	Female insert*
Free hanging receptacle	PVC Grey	y 1 m.	Straight	HAUTS1104PDS1M	HAUTS1104SDS1M
Free hanging receptacle			Right Angle	HAUTS1104PDR1M	HAUTS1104SDR1M
Plug			Straight	HAUTSØV104PST100	HAUTSØV104SST100
Plug			Right Angle	HAUTSØV104PRA100	HAUTSØV104SRA100

<sup>\*</sup> Part number for a length of 1 m, other lengths available on request.

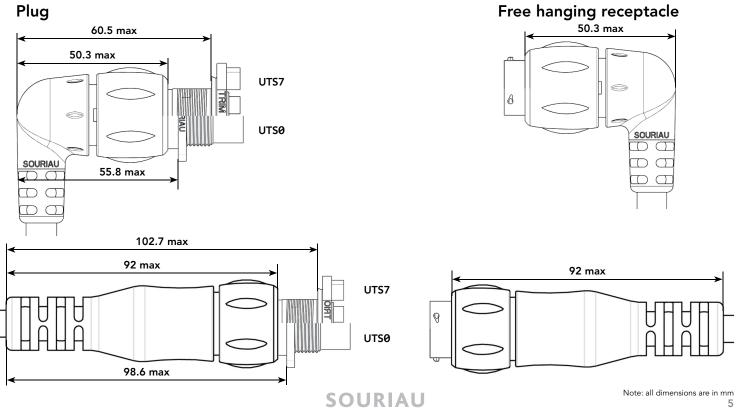


## **Technical Features**

	Cable Assemblies type A	Cable Assemblies type B	Cable Assemblies type C	Cable Assemblies type D
	High flexibility Sunlight resistance	Flame-retardant Halogen-free Low smoke density Oil-resistant	Excellent weather resistance Resistant to a wide range of chemical media	High flexibility and reduced diameter for space-saving installation
Operating temperature for fixed installation	-30° to +70°C	-40° to +80°C	-40° to +80°C	-40° to +80°C
IP level	IP68	IP68	IP68	IP68
Suitable for outdoor application	☆☆	☆	☆ ☆ ☆	☆
Flexing	☆ ☆ ☆	☆ ☆	☆ ☆	☆ ☆ ☆
Halogen free	-	☆ ☆ ☆	☆	-
Connector body	Thermoplastic	Thermoplastic	Thermoplastic	Thermoplastic
Coupling system	1/3 turn bayonet coupling	1/3 turn bayonet coupling	1/3 turn bayonet coupling	1/3 turn bayonet coupling
Contact type	Stamped and Formed	Stamped and Formed	Stamped and Formed	Stamped and Formed
Contact plating	Active part: Gold Flash over Ni Crimp aera: Nickel	Active part: Gold Flash over Ni Crimp aera: Nickel	Active part: Gold Flash over Ni Crimp aera: Nickel	Active part: Gold Flash over Ni Crimp aera: Nickel
Outer cable jacket material	PVC	Halogen Free Compound	TPE	PVC
Outer cable jacket color	Black	Grey	Black	Grey
Core section	1.5mm²	1.5mm²	1.5mm²	1.5mm²
Core coding	Number-coded according to VDE 0293-1	Number-coded according to VDE 0293-1	Number-coded according to VDE 0293-1	Colour-coded according to VDE 0293-308
Cable norm references*	VDE 0250-1	Based on IEC 60332 / IEC 60754 / IEC 61034	VDE 0250 / 0285	IEC 60227-5 and EN 50525-2-51

<sup>\*</sup> For more information please consult us

# **Dimensions**





#### Cable Assemblies type A

Connector type	Cable type	Length*	Overmolded style	Male insert*	Female insert*
Free hanging receptacle	PVC Black	) (C DI	Straight	HAUTS1128PAS1M	HAUTS1128SAS1M
Free hanging receptacle			Right Angle	HAUTS1128PAR1M	HAUTS1128SAR1M
Plug		1 m.	Straight	HAUTS6128PAS1M	HAUTS6128SAS1M
Plug			Right Angle	HAUTS6128PAR1M	HAUTS6128SAR1M

#### Cable Assemblies type B

Connector type	Cable type	Length*	Overmolded style	Male insert*	Female insert*
Free hanging receptacle		ogen Free	Straight	HAUTS1128PBS1M	HAUTS1128SBS1M
Free hanging receptacle	Halogen Free		Right Angle	HAUTS1128PBR1M	HAUTS1128SBR1M
Plug	Compound Black	1 m.	Straight	HAUTS6128PBS1M	HAUTS6128SBS1M
Plug			Right Angle	HAUTS6128PBR1M	HAUTS6128SBR1M

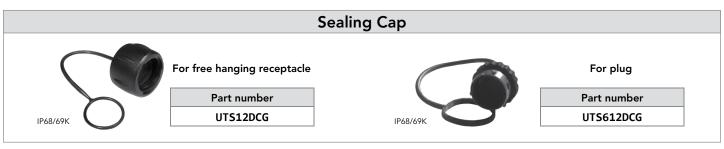
#### Cable Assemblies type C

Connector type	Cable type	Length*	Overmolded style	Male insert*	Female insert*
Free hanging receptacle	TPE Black	TPE Black 1 m.	Straight	HAUTS1128PCS1M	HAUTS1128SCS1M
Free hanging receptacle			Right Angle	HAUTS1128PCR1M	HAUTS1128SCR1M
Plug			Straight	HAUTS6128PCS1M	HAUTS6128SCS1M
Plug			Right Angle	HAUTS6128PCR1M	HAUTS6128SCR1M

#### Cable Assemblies type D

Connector type	Cable type	Length*	Overmolded style	Male insert*	Female insert*
Free hanging receptacle	PVC Grey	1 m.	Straight	HAUTS1128PDS1M	HAUTS1128SDS1M
Free hanging receptacle			Right Angle	HAUTS1128PDR1M	HAUTS1128SDR1M
Plug			Straight	HAUTSØV128PST100	HAUTSØV128SST100
Plug			Right Angle	HAUTSØV128PRA100	HAUTSØV128SRA100

<sup>\*</sup> Part number for a length of 1 m, other lengths available on request.



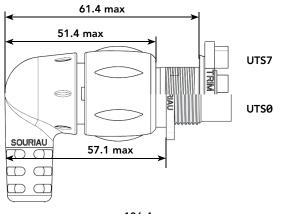
## **Technical Features**

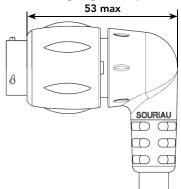
	Cable Assemblies type A	Cable Assemblies type B	Cable Assemblies type C	Cable Assemblies type D
	High flexibility Sunlight resistance	Flame-retardant Halogen-free Low smoke density Oil-resistant	Excellent weather resistance Resistant to a wide range of chemical media	High flexibility and reduced diameter for space-saving installation
Operating temperature for fixed installation	-30° to +70°C	-40° to +80°C	-40° to +80°C	-40° to +80°C
IP level	IP68	IP68	IP68	IP68
Suitable for outdoor application	☆☆	☆	☆ ☆ ☆	☆
Flexing	☆ ☆ ☆	☆ ☆	☆ ☆	☆ ☆ ☆
Halogen free	-	☆ ☆ ☆	☆	-
Connector body	Thermoplastic	Thermoplastic	Thermoplastic	Thermoplastic
Coupling system	1/3 turn bayonet coupling	1/3 turn bayonet coupling	1/3 turn bayonet coupling	1/3 turn bayonet coupling
Contact type	Stamped and Formed	Stamped and Formed	Stamped and Formed	Stamped and Formed
Contact plating	Active part: Gold Flash over Ni Crimp aera: Nickel	Active part: Gold Flash over Ni Crimp aera: Nickel	Active part: Gold Flash over Ni Crimp aera: Nickel	Active part: Gold Flash over Ni Crimp aera: Nickel
Outer cable jacket material	PVC	Halogen Free Compound	TPE	PVC
Outer cable jacket color	Black	Grey	Black	Grey
Core section	1.5mm²	1.5mm²	1.5mm²	1.5mm <sup>2</sup>
Core coding	Number-coded according to EN 50 334	Number-coded according to VDE 0293-1	Number-coded	Colour-coded
Cable norm references*	VDE 0250-1	Based on IEC 60332 / IEC 60754 / IEC 61034	VDE 0250 / 0285	IEC 60227-5 and EN 50525-2-51

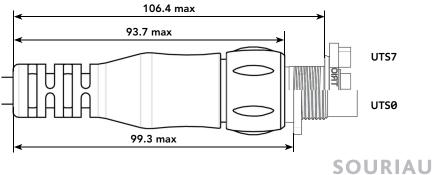
<sup>\*</sup> For more information please consult us

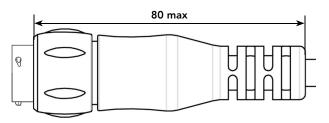
#### **Dimensions**

# Plug











#### Cable Assemblies type A

Connector type	Cable type	Length*	Overmolded style	Male insert*	Female insert*
Free hanging receptacle	PVC Black	(C.D. )	Straight	HAUTS11210PAS1M	HAUTS11210SAS1M
Free hanging receptacle			Right Angle	HAUTS11210PAR1M	HAUTS11210SAR1M
Plug		1 m.	Straight	HAUTS61210PAS1M	HAUTS61210SAS1M
Plug			Right Angle	HAUTS61210PAR1M	HAUTS61210SAR1M

#### Cable Assemblies type B

Connector type	Cable type	Length*	Overmolded style	Male insert*	Female insert*
Free hanging receptacle			Straight	HAUTS11210PBS1M	HAUTS11210SBS1M
Free hanging receptacle	Halogen Free		Right Angle	HAUTS11210PBR1M	HAUTS11210SBR1M
Plug	Compound Black		Straight	HAUTS61210PBS1M	HAUTS61210SBS1M
Plug			Right Angle	HAUTS61210PBR1M	HAUTS61210SBR1M

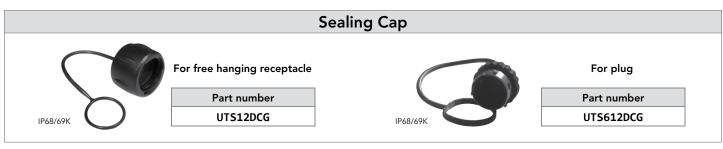
#### Cable Assemblies type C

• •					
Connector type	Cable type	Length*	Overmolded style Male insert*		Female insert*
Free hanging receptacle			Straight	HAUTS11210PCS1M	HAUTS11210SCS1M
Free hanging receptacle	TPE Black	1	Right Angle	HAUTS11210PCR1M	HAUTS11210SCR1M
Plug	I PE Black	1 m.	Straight	HAUTS61210PCS1M	HAUTS61210SCS1M
Plug			Right Angle	HAUTS61210PCR1M	HAUTS61210SCR1M

#### Cable Assemblies type D

Connector type	Cable type	Length*	Overmolded style	Male insert*	Female insert*
Free hanging receptacle			Straight	HAUTS11210PDS1M	HAUTS11210SDS1M
Free hanging receptacle	DVC C	1 m.	Right Angle	HAUTS11210PDR1M	HAUTS11210SDR1M
Plug	PVC Grey		Straight	HAUTSØV1210PST100	HAUTSØV1210SST100
Plug			Right Angle	HAUTSØV1210PRA100	HAUTSØV1210SRA100

<sup>\*</sup> Part number for a length of 1 m, other lengths available on request.



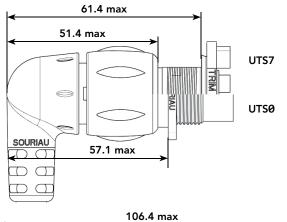
## **Technical Features**

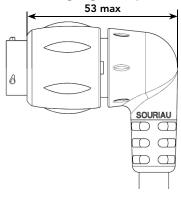
	Cable Assemblies type A	Cable Assemblies type B	Cable Assemblies type C	Cable Assemblies type D
	High flexibility Sunlight resistance	Flame-retardant Halogen-free Low smoke density Oil-resistant	Excellent weather resistance Resistant to a wide range of chemical media	High flexibility and reduced diameter for space-saving installation
Operating temperature for fixed installation	-30° to +70°C	-40° to +80°C	-40° to +80°C	-40° to +80°C
IP level	IP68	IP68	IP68	IP68
Suitable for outdoor application	☆☆	☆	☆ ☆ ☆	☆
Flexing	☆ ☆ ☆	☆ ☆	☆ ☆	☆ ☆ ☆
Halogen free	-	☆ ☆ ☆	☆	-
Connector body	Thermoplastic	Thermoplastic	Thermoplastic	Thermoplastic
Coupling system	1/3 turn bayonet coupling	1/3 turn bayonet coupling	1/3 turn bayonet coupling	1/3 turn bayonet coupling
Contact type	Stamped and Formed	Stamped and Formed	Stamped and Formed	Stamped and Formed
Contact plating	Active part: Gold Flash over Ni Crimp aera: Nickel	Active part: Gold Flash over Ni Crimp aera: Nickel	Active part: Gold Flash over Ni Crimp aera: Nickel	Active part: Gold Flash over Ni Crimp aera: Nickel
Outer cable jacket material	PVC	Halogen Free Compound	TPE	PVC
Outer cable jacket color	Black	Grey	Black	Grey
Core section	0.5mm²	0.5mm²	0.5mm²	0.5mm²
Core coding	Number-coded according to VDE 0293-1	Number-coded according to VDE 0293-1	Number-coded according to VDE 0293-1	Number-coded according to VDE 0293-1
Cable norm references*	VDE 0250-1	Based on IEC 60332 / IEC 60754 / IEC 61034	VDE 0250 / 0285	IEC 60227-5 and EN 50525-2-51

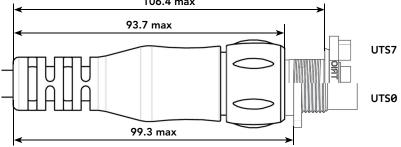
**SOURIAU** 

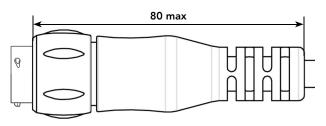
#### **Dimensions**

Plug









<sup>\*</sup> For more information please consult us



#### Cable Assemblies type A

Connector type	Cable type	Length*	Overmolded style	Male insert*	Female insert*
Free hanging receptacle		1 m.	Straight	HAUTS11412PAS1M	HAUTS11412SAS1M
Free hanging receptacle	DVC Dissi.		Right Angle	HAUTS11412PAR1M	HAUTS11412SAR1M
Plug	PVC Black		Straight	HAUTS61412PAS1M	HAUTS61412SAS1M
Plug			Right Angle	HAUTS61412PAR1M	HAUTS61412SAR1M

#### Cable Assemblies type B

Connector type	Cable type	Length*	Overmolded style	Male insert*	Female insert*
Free hanging receptacle	Halogen Free		Straight	HAUTS11412PBS1M	HAUTS11412SBS1M
Free hanging receptacle			Right Angle	HAUTS11412PBR1M	HAUTS11412SBR1M
Plug	Compound Black		Straight	HAUTS61412PBS1M	HAUTS61412SBS1M
Plug			Right Angle	HAUTS61412PBR1M	HAUTS61412SBR1M

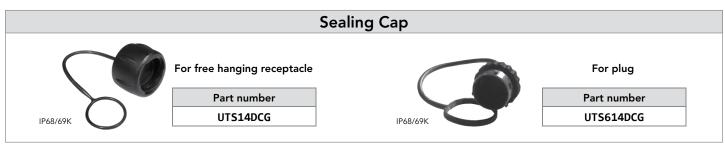
#### Cable Assemblies type C

Connector type	Cable type	Length*	Overmolded style	Male insert*	Female insert*
Free hanging receptacle			Straight	HAUTS11412PCS1M	HAUTS11412SCS1M
Free hanging receptacle	TPE Black	1	Right Angle	HAUTS11412PCR1M	HAUTS11412SCR1M
Plug	I PE BIACK	1 m.	Straight	HAUTS61412PCS1M	HAUTS61412SCS1M
Plug			Right Angle	HAUTS61412PCR1M	HAUTS61412SCR1M

#### Cable Assemblies type D

Connector type	Cable type	Length*	Overmolded style	Male insert*	Female insert*
Free hanging receptacle			Straight	HAUTS11412PDS1M	HAUTS11412SDS1M
Free hanging receptacle	DVC C	1 m.	Right Angle	HAUTS11412PDR1M	HAUTS11412SDR1M
Plug	PVC Grey		Straight	HAUTSØV1412PST100	HAUTSØV1412SST100
Plug			Right Angle	HAUTSØV1412PRA100	HAUTSØV1412SRA100

<sup>\*</sup> Part number for a length of 1 m, other lengths available on request.



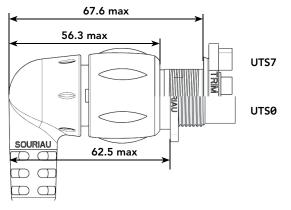
## **Technical Features**

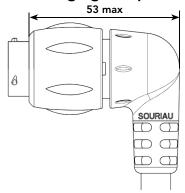
	Cable Assemblies type A	Cable Assemblies type B	Cable Assemblies type C	Cable Assemblies type D
	High flexibility Sunlight resistance	Flame-retardant Halogen-free Low smoke density Oil-resistant	Halogen-free by smoke density  Excellent weather resistance Resistant to a wide range of	
Operating temperature for fixed installation	-30° to +70°C	-40° to +80°C	-40° to +80°C	-40° to +80°C
IP level	IP68	IP68	IP68	IP68
Suitable for outdoor application	☆☆	☆	☆☆☆	☆
Flexing	☆ ☆ ☆	☆ ☆	☆ ☆	☆ ☆ ☆
Halogen free	-	☆ ☆ ☆	☆	-
Connector body	Thermoplastic	Thermoplastic	Thermoplastic	Thermoplastic
Coupling system	1/3 turn bayonet coupling	1/3 turn bayonet coupling	1/3 turn bayonet coupling	1/3 turn bayonet coupling
Contact type	Stamped and Formed	Stamped and Formed	Stamped and Formed	Stamped and Formed
Contact plating	Active part: Gold Flash over Ni Crimp aera: Nickel	Active part: Gold Flash over Ni Crimp aera: Nickel	Active part: Gold Flash over Ni Crimp aera: Nickel	Active part: Gold Flash over Ni Crimp aera: Nickel
Outer cable jacket material	PVC	Halogen Free Compound	TPE	PVC
Outer cable jacket color	Black	Grey	Black	Grey
Core section	1.5mm²	1.5mm²	1.5mm²	1.5mm²
Core coding	Number-coded according to VDE 0293-1	Number-coded according to VDE 0293-1	Number-coded according to VDE 0293-1	Number-coded according to VDE 0293-1
Cable norm references*	VDE 0250-1	Based on IEC 60332 / IEC 60754 / IEC 61034	VDE 0250 / 0285	IEC 60227-5 and EN 50525-2-51

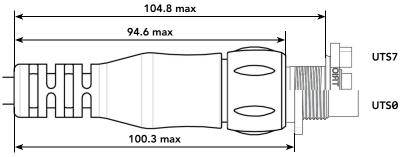
**SOURIAU** 

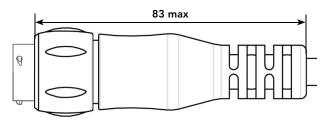
#### **Dimensions**

# Plug









<sup>\*</sup> For more information please consult us

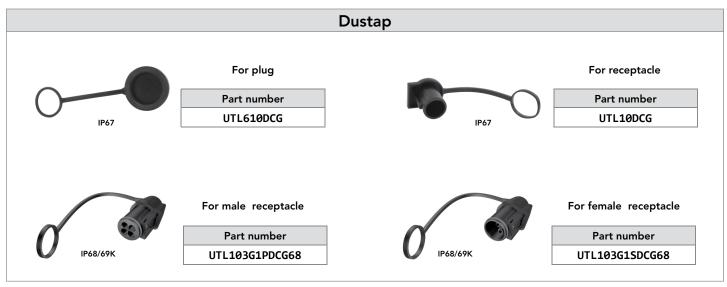


# UTL 103G1 (Shell size 10 & 4x#16 - 3+ground)

#### Connector with H07RNF Cable

Design	Cable score section	Length*	Male insert	Female insert	Length*	Male insert	Female insert
Free hanging straight overmolded	2.5 mm²	1 m	HAUTL13G1PS1M	HAUTL13G1SS1M	2 m	HAUTL13G1PS2M	HAUTL13G1SS2M
Free hanging right angle overmolded	2.5 mm²	1 m	HAUTL13G1PR1M	HAUTL13G1SR1M	2 m	HAUTL13G1PR2M	HAUTL13G1SR2M
Plug straight overmolded	2.5 mm <sup>2</sup>	1 m	HAUTL63G1PS1M	HAUTL63G1SS1M	2 m	HAUTL63G1PS2M	HAUTL63G1SS2M
Plug right angle overmolded	2.5 mm <sup>2</sup>	1 m	HAUTL63G1PR1M	HAUTL63G1SR1M	2 m	HAUTL63G1PR2M	HAUTL63G1SR2M

<sup>\*</sup> Other lengths available on request.



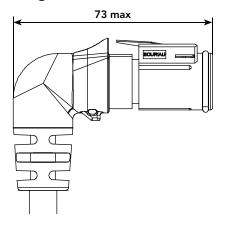
# **Technical Features**

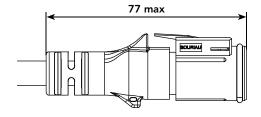
	Connector with H07RNF Cable
	Heavy standard & Harmonised (HAR) cable. Current breaking capacity
Operating temperature for fixed installation	-25° to +60°C
IP level	IP68
Suitable for outdoor application	<b>☆ ☆</b>
Flexing	$\stackrel{\star}{\sim}\stackrel{\star}{\sim}\stackrel{\star}{\sim}$
Halogen free	-
Connector body	Thermoplastic
Coupling system	Push and press to release
Contact type	Stamped and Formed
Contact plating	Active part: Gold Flash over Ni - Crimp aera: Nickel
Outer cable jacket material	Rubber Compound
Outer cable jacket color	Black
Core section	2.5 mm²
Core coding	Number-coded according to VDE 0293-308
Cable norm references*	VDE 0298-300
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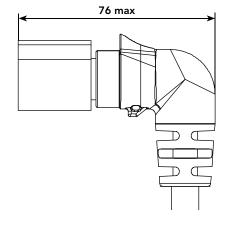
<sup>\*</sup> For more information please consult us

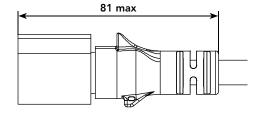
## **Dimensions**

## Plug











## UTL 102G1W3 (Shell size 10 & 3x#16 + 3x#20)



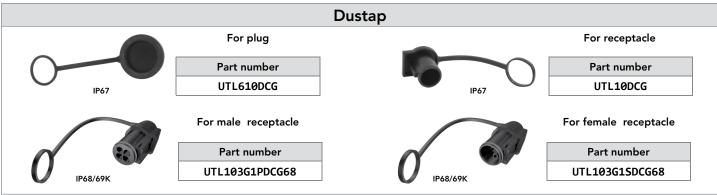


Design	Cable score section	Length*	Male insert	Female insert	Length*	Male insert	Female insert
Free hanging straight overmolded	3 x 1.5 mm <sup>2</sup> + 2 x 0.22 mm <sup>2</sup>	1 m	HAUTL12G1W3PS1M	HAUTL12G1W3SS1M	2 m	HAUTL12G1W3PS2M	HAUTL12G1W3SS2M
Free hanging right angle overmolded	3 x 1.5 mm <sup>2</sup> + 2 x 0.22 mm <sup>2</sup>	1 m	HAUTL12G1W3PR1M	HAUTL12G1W3SR1M	2 m	HAUTL12G1W3PR2M	HAUTL12G1W3SR2M
Plug straight overmolded	3 x 1.5 mm <sup>2</sup> + 2 x 0.22 mm <sup>2</sup>	1 m	HAUTL62G1W3PS1M	HAUTL62G1W3SS1M	2 m	HAUTL62G1W3PS2M	HAUTL62G1W3SS2M
Plug right angle overmolded	3 x 1.5 mm <sup>2</sup> + 2 x 0.22 mm <sup>2</sup>	1 m	HAUTL62G1W3PR1M	HAUTL62G1W3SR1M	2 m	HAUTL62G1W3PR2M	HAUTL62G1W3SR2M

#### Connector with PUR Power + Control Cable (3 x 2.5 mm<sup>2</sup> + 2 x 0.22 mm<sup>2</sup>)

Design	Cable score section	Length*	Male insert	Female insert	Length*	Male insert	Female insert
Free hanging straight overmolded	3 x 2.5 mm <sup>2</sup> + 2 x 0.22 mm <sup>2</sup>	1 m	HAUTL12G1W3PS1MB	HAUTL12G1W3SS1MB	2 m	HAUTL12G1W3PS2MB	HAUTL12G1W3SS2MB
Free hanging right angle overmolded	3 x 2.5 mm <sup>2</sup> + 2 x 0.22 mm <sup>2</sup>	1 m	HAUTL12G1W3PR1MB	HAUTL12G1W3SR1MB	2 m	HAUTL12G1W3PR2MB	HAUTL12G1W3SR2MB
Plug straight overmolded	3 x 2.5 mm <sup>2</sup> + 2 x 0.22 mm <sup>2</sup>	1 m	HAUTL62G1W3PS1MB	HAUTL62G1W3SS1MB	2 m	HAUTL62G1W3PS2MB	HAUTL62G1W3SS2MB
Plug right angle overmolded	3 x 2.5 mm <sup>2</sup> + 2 x 0.22 mm <sup>2</sup>	1 m	HAUTL62G1W3PR1MB	HAUTL62G1W3SR1MB	2 m	HAUTL62G1W3PR2MB	HAUTL62G1W3SR2MB

## Accessories



<sup>\*</sup> Other lengths available on request.

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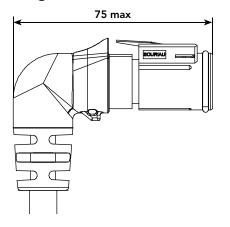
## **Technical Features**

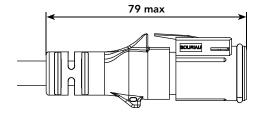
	Connector with PUR Power + Control Cable	
	DMX - RS485	
Operating temperature for fixed installation	-30° to +70°C	
IP level	IP68	
Suitable for outdoor application	☆ ☆	
Flexing	☆ ☆ ☆	
Halogen free	-	
Connector body	Thermoplastic	
Coupling system	Push and press to release	
Contact type	Stamped and Formed	
Contact plating	Active part: Gold Flash over Ni - Crimp aera: Nickel	
Outer cable jacket material	PUR	
Outer cable jacket color	Black	
Core section	3 x 1.5 mm <sup>2</sup> + 2 x 0.22 mm or 3 x 2.5 mm <sup>2</sup> + 2 x 0.22 mm	
Core coding	Number-coded according to VDE 0293-308	
Cable norm references*	VDE 0298-300	

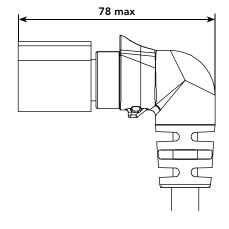
<sup>\*</sup> For more information please consult us

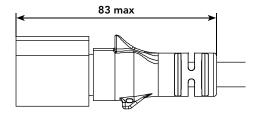
## **Dimensions**

## Plug









#### **UV** Resistance

#### **UV Resistance**

Solar radiation affects all materials, but plastics can be susceptible to extreme degradation over time.

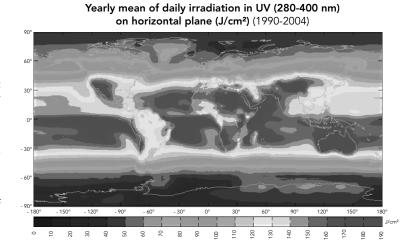
The choice of materials for the UTL series was therefore a critical consideration.

All over the world we are not exposed to the same amount of energy given by the sun. The chart shown here clearly illustrates this.

So we performed test according to the ISO 4892-2 and simulated 5 years exposure to outdoor environments (temperature, humidity, etc...).

After this period there was no significant colour variation, no crazing, no cracking and no major variation of mechanical properties.

In addition, to that we asked UL to perform UV test per the UL746C. Our material has been rated F1 which is the highest level in this standard.



## RS-485 for the Layman

RS-485 signals are used in a wide range of applications (from computers and networks to building automation and stage lighting). In addition, it may be used to control video surveillance systems or to interconnect security control panels and devices such as access control card readers.

#### **RS-485 Basics**

RS-485 only specifies electrical characteristics of the generator and the receiver. It does not specify or recommend any communications protocol, only the physical layer. A RS-485 network consists of a single controller (the master) and one or up to 32 slave devices (the receivers). For example, a lighting console is frequently employed as the controller for a network of slave devices like dimmers, fog machines and intelligent lights.

#### Physical layer

The standard transmission medium is twisted-pair cable of either #22 or #24 AWG solid wire. Typically, a minimum of two lines are used but a third reference wire may be accommodated. Four-wire cables can also be used if full-duplex operation is desired. The cables may be shielded or unshielded, with unshielded the most common.

The nominal characteristic impedance is 100 or 120  $\Omega$ . It also defines three generator interface points (signal lines); "A", "B" and "C". The data is transmitted on "A" and "B" with "C" being used as a ground reference.

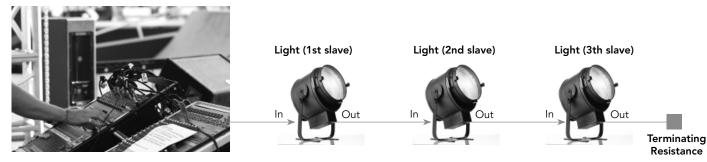
Terminating load resistors are required to ensure a matched line condition. Without terminating load resistors, reflections of fast driver edges can cause multiple data edges and subsequent data/signal corruption.

#### What is DMX?

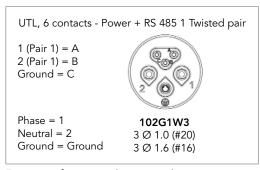
The DMX for Digital Multiplex is the protocol for stage lighting applications using RS-485 standard.

#### Example of a DMX simple network

#### Controller (the master)



#### **SOURIAU** offering:



For more information please consult us



# **UTS Mating Procedure**

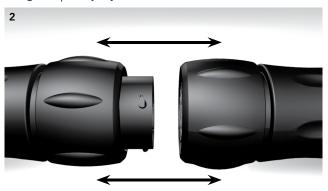
## **UTS Coupling Procedure**

The pictures below provide step by step instructions on how to mate a plug and receptacle connector in order to avoid damaging any of the contacts.

• Identify the primary key of each connector.



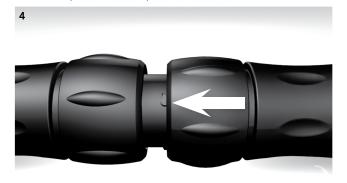
• Align the primary keys of the connectors.



Non correct positioning:



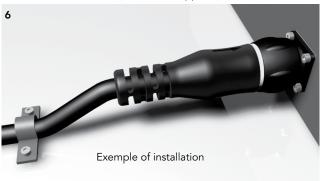
• Offer the plug to the receptacle.



• Turn coupling ring until you hear a 'click'



Fastening of cable: In order to avoid any mechanical stress on the connection, cable could be clamp closed to the connector in such a way there is no bending or traction applying on the connector.



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