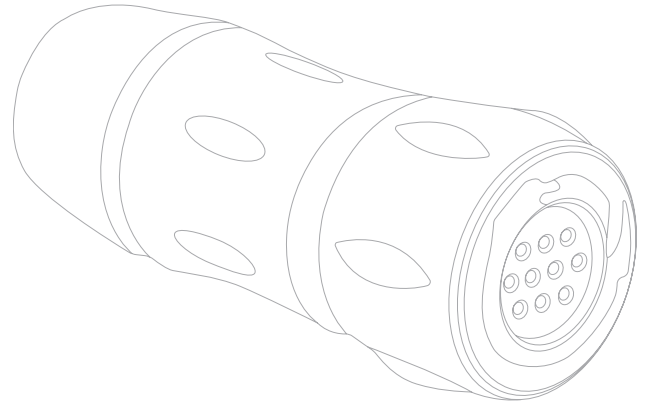


Metal circular connectors
Souriau TRIM TRIO® UTOX series



Powering Business Worldwide



UTOX series

Metal circular connectors

Typical applications



Designed to withstand the toughest conditions

The new UTOX series is a range of metal bayonet connectors that have been designed to **withstand severe mechanical and environmental conditions**, with a higher resistance to **shock and vibration** than plastic connectors. Ideal for both indoor and outdoor applications with a lifespan of up to 27 years in-application, the UL/IEC certified UTOX series connectors are **a safe and reliable solution**.

Its **waterproof performances** also enable it to withstand repeated pressure washing (IP69K) as well as **immersion** in 10m (30ft) of water during one week. The UTOX series is designed to withstand (up to 500 hours) climate ingress and exposure to **salt spray** or **corrosive atmospheres** while still maintaining mechanical and electrical functionality.

Signal shielding

One of the main advantages of using a metal connector is also to **protect the signal integrity** with shielded cables.

The UTOX series is **qualified for use in electromagnetic radiation** areas, ensuring the integrity of your signal and data transmission.

A wide range of configurations

The UTOX series can be used in a wide range of configurations and electrical layouts, allowing you **to save space on your equipment**.

The bayonet locking mechanism ensures a quick and secure connection and disconnection. Its design makes the UTOX series connectors **easier** than ever for operators **to handle quickly**.

You can also **combine both signal and power** within the same hybrid layouts to **simplify** your electrical systems and **save money** on installation and maintenance operations.



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Technical specifications

Materials

- Shell: zinc alloy
- Backshells and cable glands: zinc alloy and brass
- Coupling ring: brass
- Insert
 - Glass-filled thermoplastic (crimp)
 - Elastomer (hi-seal)
- Contacts: see **Page 104**
- Halogen free
- RoHS compliant

Environmental

- Temperature class: from -40°C to +105°C (-40°F to +221°F) per **IEC61984**
- Flammability rating: **UL94 V-0** for standard, **UL94 HB** for hi-seal
- Salt spray: per **EIA-364-26**
- Ageing validation **ISO 21207 Method B**, 5 cycles. Corresponding to 27 years in an industrial environment
- Flammability rating: UL94 V-0 I2F3 according to NFF 16101 and NFF 16102

- Sealing
 - **IP67**: UTOX single wire sealed
 - **IP68**: UTOX standard, sealed unmated version, single wire sealed with double dealing backshell, and/or screw termination contacts.
 - **IP69K** dynamic: UTOX standard mated, sealed unmated, single wire sealed and/or mated screw termination contacts.

Note: IP68=10 m underwater during 1 week

- Fluid resistance
 - Chlorine
- EMI/RFI shielded with MS backshell type.

Electrical

- In accordance with:
 - **UL 1977**: Certificate ECBT2, File number: E169916
 - **CSA C22.2**: Certificate ECBT8, File number: E169916
 - **IEC61984**: See **Pages 8-9** for voltage and current information

Mechanical

- Durability: 500 mating cycles per IEC 60512-9a
- Vibration sinus from 10 to 2000Hz; 20grms according to **IEC60512-6-4**
- Thermal shock: according to **EIA364 32**
- IK resistance See table below for shock resistance

Intermateability

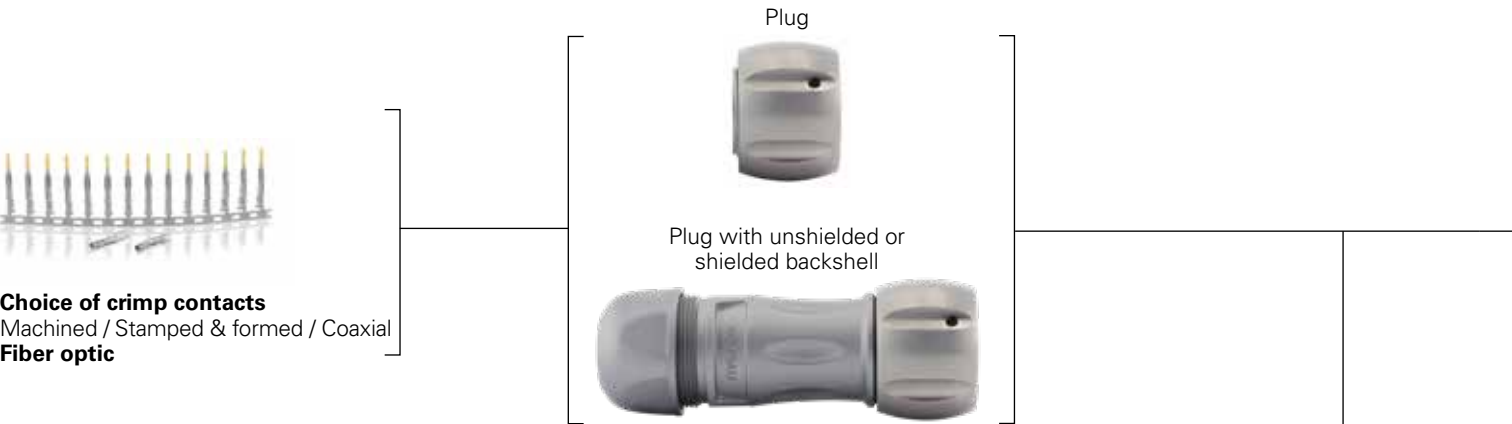
- UTSX range / Durability: 50 mating cycles
- UTGX range / Durability: 500 mating cycles

Connector type	Size 10	Size 12	Size 14
UT0X0 / UT0X6M*	IK07 (2J) according to IEC62262	IK07 (2J) according to IEC62262	IK07 (2J) according to IEC62262
UT0X7 / UT0X6M*	IK07 (2J) according to IEC62262	IK07 (2J) according to IEC62262	IK07 (2J) according to IEC62262
UT0X1M* / UT0X6M*	IK07 (2J) according to IEC62262	IK07 (2J) according to IEC62262	IK07 (2J) according to IEC62262

Souriau UTOX series

Range overview

Plug



Backshells

Unshielded backshell



Shielded backshell



UTOX hi seal plug



Overmolded cable assembly



Standard receptacle

Square flange



Jam nut low profile



Square flange with (shielded or unshielded) backshell



Free hanging with (shielded or unshielded) backshell



Jam nut with backshell



Choice of crimp contacts

Machined / Stamped & formed / Coaxial
Fiber optic

Sealed unmated receptacle

Square flange



Jam nut



**PCB
Or
Handsolder
contacts**

UTOX PCB contacts

Stand-offs to allow cleaning after soldering



Metal hold down clips lock the connector easily on the PCB and release stress on solder joints. They are also suitable for soldering the connector to the PCB through metal holes.

Pre-assembled PCB contacts
- Machined or stamped versions available

- Different solder tail lengths possible

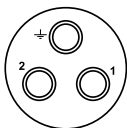
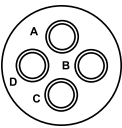
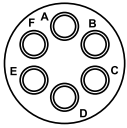
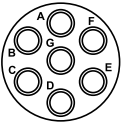
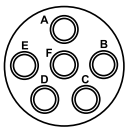
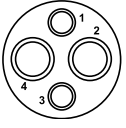
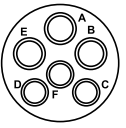
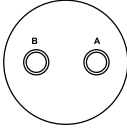
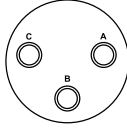
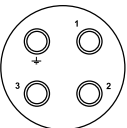
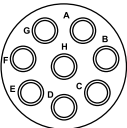
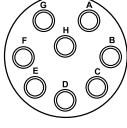
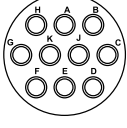
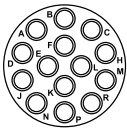
- Different plating options

Low profile housing to limit space between panel and PCB

Layouts face male contact

Electrical parameters according to IEC61984 for a pollution degree IV and over-voltage category III. A higher voltage can be applied by selecting the appropriate connectors and contacts..

Note: Layouts in blue text are UTOX sealed unmated (Hi-seal) condition

Contact #16 Ø 0.062"/1.6mm	Contact #20 Ø 0.039"/1.0mm	Hybrid & others
Size 10  103 16A/300V 2 + ground Page 11  104 13A/150V 4 contacts Page 35	 106 – 10E6/10D6 7A/32V 6 contacts Page 47  10E7/10D7 7A/50V 7 contacts Page 61  10E98/10D98 7A/50V 6 contacts Page 51	 102W2 25A/150Vw 4 contact 2 x Ø 2.4 (#12) + 2 x Ø 1.0 (#20) Page 31  103W3 5A/32V 6 contacts 3 x Ø 1.6 (#16) + 3 x Ø 1.0 (#20) Page 42
 12E2/12D2 16A/150V 2 contacts Page 11  12E3/12D3 16A/150V 3 contacts Page 21  124 – 12E4/12D4 16A/150V 3 + ground Page 28  128 10A/80V 8 contacts Page 64	 12E8/12D8 6A/32V 8 contacts Page 68  1210 – 12E10/12D10 6A/50V 10 contacts Page 75  12E14/12D14 5A/32V 14 contacts Page 90	

Contacts #20:
from AWG 26 to 18
0.005" to 0.036"²
0.13 to 0.93 mm²

Contacts #16:
from AWG 30 to 14
0.001" to 0.098"²
0.05 to 2.5 mm²

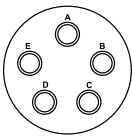
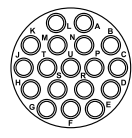
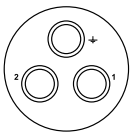
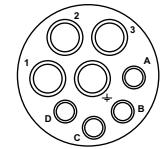
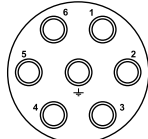
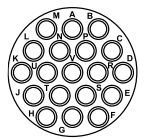
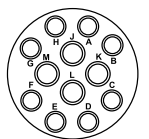
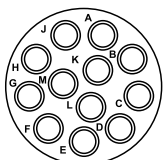
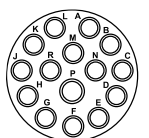
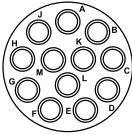
Contacts #12:
from AWG 20 to 12
0.005" to 0.157"²
0.13 to 4 mm²

Contacts #8:
from AWG 16 to 8
0.059" to 0.393"²
1.5 to 10 mm²

Layouts face male contact

Electrical parameters according to IEC61984 for a pollution degree IV and over-voltage category III. A higher voltage can be applied by selecting the appropriate connectors and contacts..

Note: Layouts in [blue text](#) are UTOX sealed unmated (Hi-seal) condition

Contact #16 Ø 0.062"/1.6mm	Contact #20 Ø 0.039"/1.0mm	Contact #8 Ø 0.141"/3.6 mm	Mixed power
Size 14  14E5/14D5 16A/150V 5 contacts Page 39	 14E18/14D18 5A/50V 18 contacts Page 97	 142G1 40A/300V 2 + ground Page 18	 148 17A/230V 8 contacts 4 x Ø 1.6 (#16) + 3 x Ø 2.4 (#12) + ground Page 71
 147 – 14E7/14D7 7A/150V 6 + ground Page 58	 1419 – 14E19/14D19 5A/32V 19 contacts Page 100		 14E12/14D12 4A/50V 12 contacts 4 x Ø 1.6 (#16) + 8 x Ø 1.0 (#20) Page 83
 1412 10A/63V 12 contacts Page 79			 14E15/14D15 4A/50V 15 contacts 1 x Ø 1.6 (#16) + 14 x Ø 1.0 (#20) Page 94
 1492 10A/63V 12 contacts Page 86			

Contacts #20:
from AWG 26 to 18
0.005" to 0.036"²
0.13 to 0.93 mm²

Contacts #16:
from AWG 30 to 14
0.001" to 0.098"²
0.05 to 2.5 mm²

Contacts #12:
from AWG 20 to 12
0.005" to 0.157"²
0.13 to 4 mm²

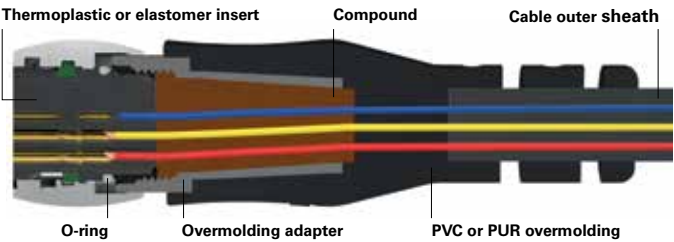
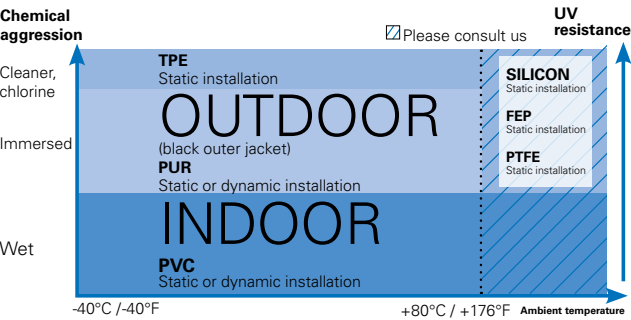
Contacts #8:
from AWG 16 to 8
0.059" to 0.393"²
1.5 to 10 mm²

Souriau UTOX series

Overmolded cable assembly

Overmolding is a technique that significantly improves the UTOX series' sealing characteristics, particularly when used over extended periods. It offers the flexibility to redirect the cable exit from a straight configuration to a 90° angle, effectively preventing undue strain on the cable terminated at the connector. Additionally, by enveloping the wires within the molding, overmolding establishes a protective barrier that effectively guards against the ingress of liquids into the equipment, even in the event of cable jacket damage.

How to choose the outer jacket material



Connector with cable gland backshell

REPAIRABLE

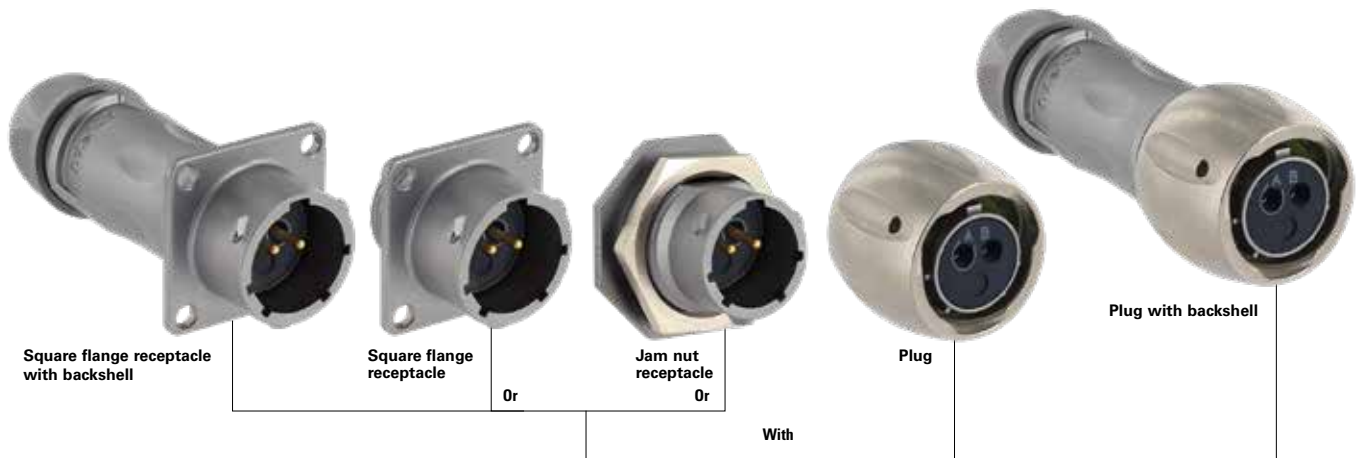


Overmolded connector

EXTRA WATER PROTECTION

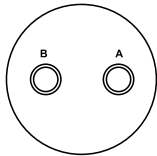


Please contact us directly for overmolded cable assemblies



Connector part numbers

UTOX 12E2/12D2



2 contacts
13A/600V per UL 1977 with
AWG16 wire

Contact type	Connector type	Backshell	Part number Male insert	Female insert
E: Handsolder electrical contacts loaded see Page 13	Square flange receptacle	Without (Fig. 1)	UT0X012E2P	UT0X012E2S
	Square flange receptacle	Cable gland unshielded version (Fig.1B)	UT0XM12E2P	UT0X6M12E2S
	Square flange receptacle	Cable gland shielded version (Fig.1B)	UT0XMS12E2P	UT0X6MS12E2S
	Plug	Without (Fig. 5) ^(Note 1)	UT0X612E2P	UT0X612E2S
	Plug	Cable gland unshielded version (Fig.1B)	UT0X6M12E2P	UT0X6M12E2S
	Plug	Cable gland shielded version (Fig.1B)	UT0X6MS12E2P	UT0X6MS12E2S
	Jam nut receptacle	Without (Fig. 4)	UT0X712E2P	UT0X712E2S
D: PCB contacts loaded see Page 13	Square flange receptacle	Without (Fig. 2)	UT0X012D2P	UT0X012D2S
	Jam nut receptacle with stand off and without hold down clip	Without (Fig. 5)	UT0X712D2P	UT0X712D2S
	Jam nut receptacle with stand off and with hold down clips	Without (Fig. 6)	UT0X712D2P32	UT0X712D2S32

For discrimination/keying methods see **Page 130**

Note 1 : You will absolutely have to add a backshell to your load. The plug cannot be left without it.

Sealed unmated



12E2/12D2 (Shell size 12, 2x#16)

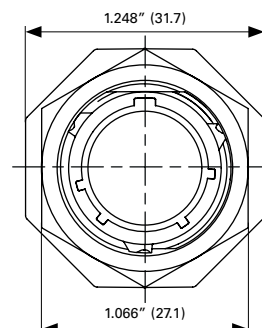
Square flange receptacle - UTOX0



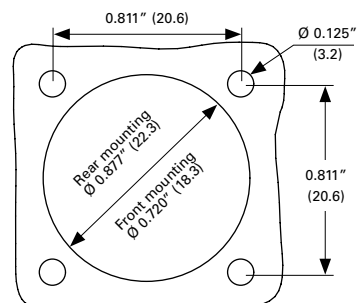
Fig. 2



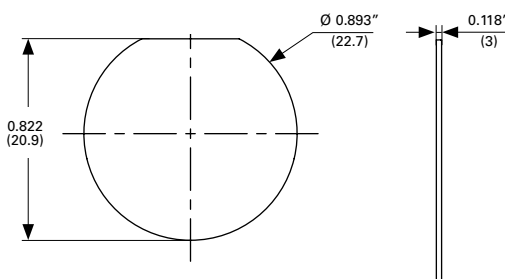
Fig. 4



Square flange receptacle - UT0X0, UT0X0M, UT0X0MS



Jam nut receptacle - UTOX7



Dimensions in inches (millimeters)

Accessories

Dustcap (Receptacle)



Description	Part number
-------------	-------------

IP68	UT012DCG*
*For dustcap without chain, omit "G", e.g. UT012DC	

Gasket



Part number

UTFD13B

Dustcap (Plug)



Description	Part number
-------------	-------------

IP68	UTG612DCG*
*For dustcap without chain, omit "G", e.g. UTG612DC	

Dummy contact #16



Part number

SMSPKE0

Note: See Page 131 for more information

Contacts #16

Contact type	Plating	Cable acceptance (AWG)	Cable acceptance		Wire stripping length	
			inch ²	mm ²	inch	mm
Handsolder loaded in the connector	Min 0.4μ gold over 0.8μ Ni	18-14	0.031"-0.098"	0.80-2.48	0.196"	5
PCB machined ⁽¹⁾	Min 0.4μ gold over 0.8μ Ni	—	—	—	—	—

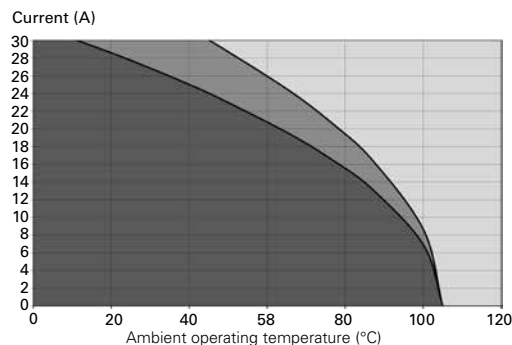
(1) For dimensions see Page 111

Electrical characteristics

UL	CSA	IEC
13A 600V with AWG16 wire	13A 600V with AWG16 wire	16A 150V 2.5kV 3

Electrical information according to the IEC 61984, with pollution degree IV and overvoltage category III.

UTOX 12E2/12D2 derating curves



- Current use
- Limited use
- Not recommended

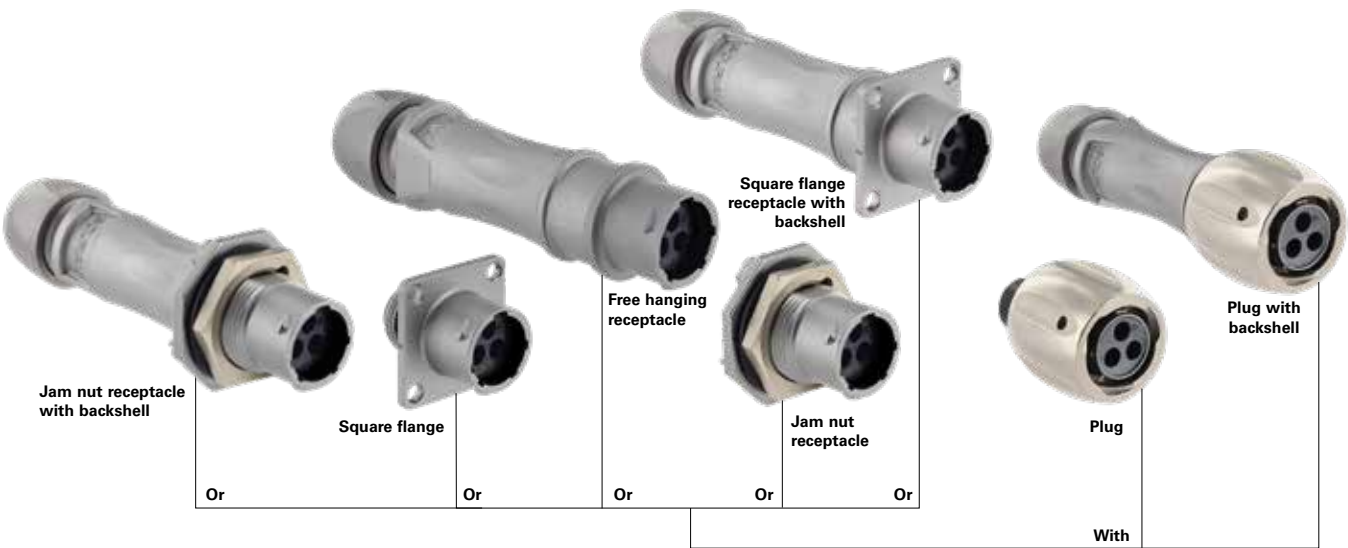
Test conditions

Contact used: machined contacts
Wires used: 16 AWG

Derating curves based on continuous current application.

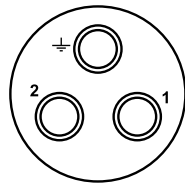
Souriau UTOX series

103 (Shell size 10, 2 + ground, 3x#16)



Connector part numbers

UTOX 103



2 contacts + ground
10A/500V per UL 1977
with AWG16 wire

Contact type	Connector type	Backshell	Part number Male insert	Female insert
Crimp contacts supplied separately see Page 17	Square flange receptacle	Without (Fig. 1)	UTOX0103P	UTOX0103S
	Square flange receptacle	Cable gland unshielded version (Fig. 2)	UTOX0M103P	UTOX0M103S
	Square flange receptacle	Cable gland shielded version (Fig. 2)	UTOX0MS103P	UTOX0MS103S
	Free hanging receptacle	Cable gland unshielded version (Fig. 3)	UTOX1M103P	UTOX1M103S
	Free hanging receptacle	Cable gland shielded version (Fig. 3)	UTOX1MS103P	UTOX1MS103S
	Plug	Without (Fig. 4) ^{Note 1}	UTOX6103P	UTOX6103S
	Plug	Cable gland unshielded version (Fig. 5)	UTOX6M103P	UTOX6M103S
	Plug	Cable gland shielded version (Fig. 5)	UTOX6MS103P	UTOX6MS103S
	Jam nut receptacle	Without (Fig. 6)	UTOX7103P	UTOX7103S
	Jam nut receptacle	Cable gland unshielded version (Fig.8)	UTOX7M103P	UTOX7M103S
	Jam nut receptacle	Cable gland shielded version (Fig. 8)	UTOX7MS103P	UTOX7MS103S
PCB contacts supplied separately see Page 17	Jam nut receptacle	Without (Fig. 7)	UTOX7103P	UTOX7103S

For discrimination/keying methods see **Page 130**
Note 1: It is required to add a backshell to the plug assembly

Dimensions (for mated connector length see Page 121)

Square flange receptacle - UTOX0

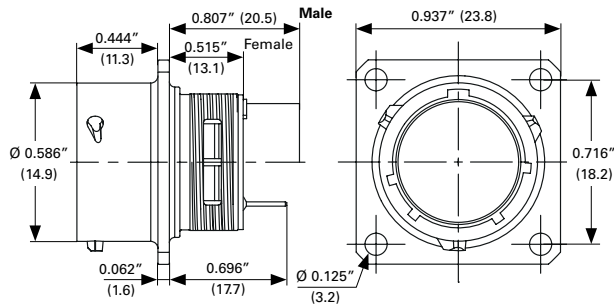


Fig. 1

Square flange receptacle with backshell - UTOX0M and UTOX0MS

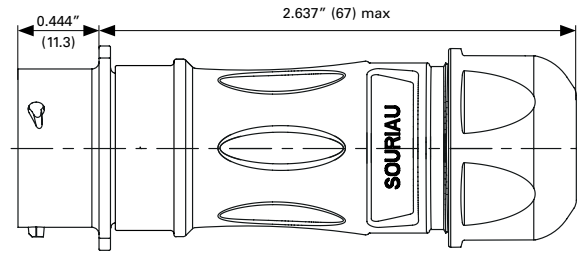


Fig. 2 Cable diameter acceptance from 0.157" to 0.275" (4 to 7)

Free hanging receptacle - UTOX1M and UTOX1MS

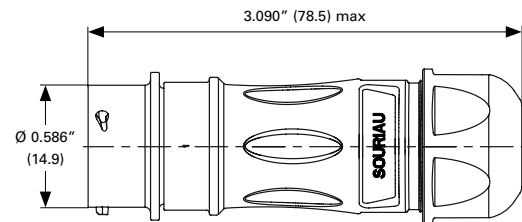


Fig. 3 Cable diameter acceptance from 0.157" to 0.275" (4 to 7)

Plug - UTOX6, UTOX6MS and UTOX6M

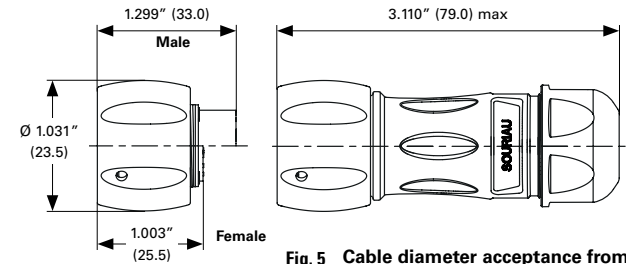


Fig. 4

Fig. 5 Cable diameter acceptance from 0.157" to 0.275" (4 to 7)

Jam nut receptacle UTOX7

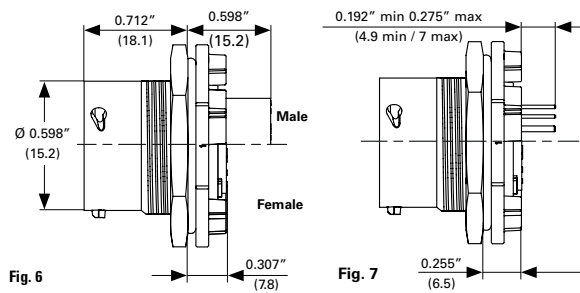


Fig. 6

Jam nut receptacle with backshell - UTOX7M, UTOX7MS

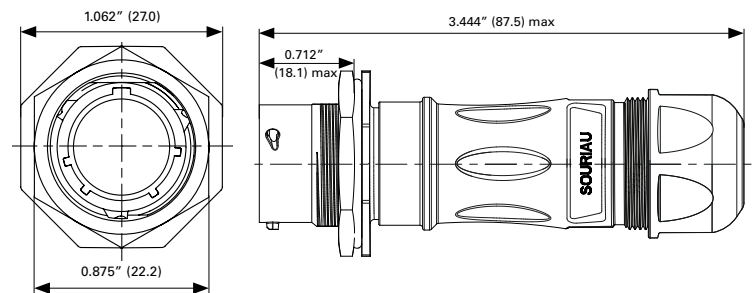
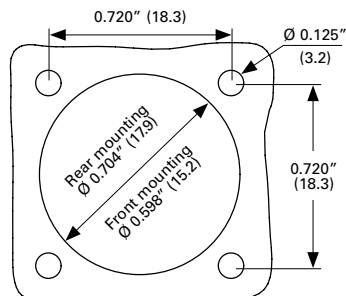


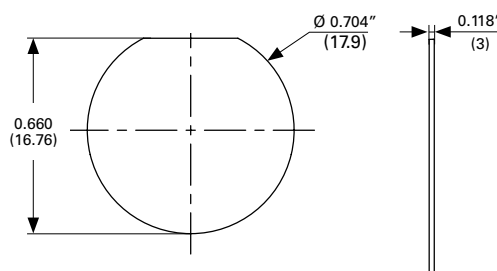
Fig. 7

Panel cut-out

Square flange receptacle - UTOX0, UTOX0M, UTOX0MS



Jam nut receptacle - UTOX7, UTOX7M, UTOX7MS



Dimensions in inches (millimeters)

Souriau UTOX series

103 (Shell size 10, 2 + ground, 3x#16)

Accessories

Dustcap (Receptacle)



Gasket



Description	Part number
-------------	-------------

*For dustcap without chain, omit "G",
e.g. UT010DC

Part number

UTFD12B

Dustcap (Plug)



Dummy contact #16



Description	Part number
-------------	-------------

For dustcap without chain, omit "G",
e.g. UT610DC

Part number

SMSPKE0

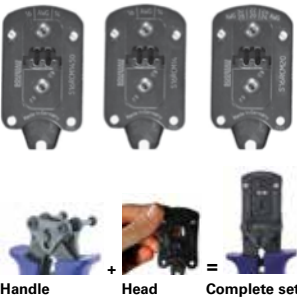
Note: See **Page 131** for more information

Tooling

#20 & #16 stamped and machined contacts



Crimp tooling (without Shandles)



Handle + Head = Complete set

Description	Part number
Handle (without head)	Shandles
Box containing handle and several crimp tooling	Toolkit

Contact size	Contacts	Part number of head
Standard contacts #16 Ø 0.062" (1.6)	RM/RC 28M1K ⁽¹⁾	S16RCM20*
	RM/RC 24M9K ⁽¹⁾	S16RCM20*
	RM/RC 20M13K ⁽¹⁾	S16RCM20*
	RM/RC 20M12K ⁽¹⁾	S16RCM20*
	RM/RC 16M23K ⁽¹⁾	S16RCM16*
	RM/RC 14M30K ⁽¹⁾	S16RCM14*
	SM/SC 24ML1TK6 ⁽¹⁾	S16SCM20*
	SM/SC 20ML1TK6 ⁽¹⁾	S16SCM20*
	SM/SC 16ML1TK6 ⁽¹⁾	S16SCML1*
	SM/SC 14ML1TK6 ⁽¹⁾	S16SCML1*
	SM/SC 16ML11TK6 ⁽¹⁾	S16SCML11*

(1) Example of plating, for other plating options see **Page 105**

* Heads to be used with handle PN: SHANDLES

#16, #12 and #8 machined contacts



Description	Part number
Crimp tool	M20S-1J
Die casts and stop bushings	See Page 117

Extraction tool #16

Fig. 1



Fig. 2



Description	Part number
Fig. 1	RX2025GE1
Fig. 2 - Long endurance tool	RX2031J

Contacts #16

Contact style	Contact type	Cable acceptance (AWG)		inch ²	mm ²	Part number		Max wire Ø		Max insulator Ø	
						Male	Female	inch	mm	inch	mm
Crimp contacts	Machined	30-28		0.001"-0.003"	0.02-0.07	RM28M1K ⁽¹⁾	RC28M1K ⁽¹⁾	0.021"	0.55	0.039"	1.00
	Machined	26-24		0.005"-0.009"	0.12-0.22	RM24M9K ⁽¹⁾	RC24M9K ⁽¹⁾	0.031"	0.80	0.062"	1.60
	Machined	22-20		0.012"-0.020"	0.30-0.50	RM20M13K ⁽¹⁾	RC20M13K ⁽¹⁾	0.045"	1.15	0.070"	1.80
	Machined	22-20		0.012"-0.020"	0.30-0.50	RM20M12K ⁽¹⁾	RC20M12K ⁽¹⁾	0.045"	1.15	0.086"	2.20
	Machined	20-16		0.020"-0.059"	0.50-1.49	RM16M23K ⁽¹⁾	RC16M23K ⁽¹⁾	0.070"	1.80	0.125"	3.20
	Machined	16-14		0.059"-0.098"	1.49-2.48	RM14M30K ⁽¹⁾	RC14M30K ⁽¹⁾	0.090"	2.30	0.125"	3.20
	Stamped & formed reeled contacts See note ⁽²⁾ for loose piece	26-24		0.005"-0.009"	0.12-0.22	SM24M1TK6 ⁽¹⁾⁽²⁾	SC24M1TK6 ⁽¹⁾⁽²⁾	—	—	0.035"-0.062"	0.90-1.60
		22-20		0.012"-0.020"	0.30-0.50	SM20M1TK6 ⁽¹⁾⁽²⁾	SC20M1TK6 ⁽¹⁾⁽²⁾	—	—	0.047"-0.082"	1.20-2.10
		18-16		0.031"-0.059"	0.82-1.49	SM16M1TK6 ⁽¹⁾⁽²⁾	SC16M1TK6 ⁽¹⁾⁽²⁾	—	—	0.125"	3.20
		18-16		0.031"-0.059"	0.82-1.49	SM16M11TK6 ⁽¹⁾⁽²⁾	SC16M11TK6 ⁽¹⁾⁽²⁾	—	—	0.118"	3.00
		14		0.098"	2.48	SM14M1TK6 ⁽¹⁾⁽²⁾	SC14M1TK6 ⁽¹⁾⁽²⁾	—	—	0.125"	3.20
PCB	Machined ⁽³⁾	—	—	—	—	RM20M12E83K ⁽¹⁾	RC20M12E84K ⁽¹⁾	—	—	—	—
Coaxial	Cable multipiece	see Pages 109 to 111				RMDXK10D28	RCDXK1D28	—	—	—	—
	Cable monocrimp	see Pages 109 to 111				RMDX60xxD28	RCDX60xxD28	—	—	—	—
	Twisted pair multipiece	see Pages 109 to 111				RMDXK10D28 + yorx090	RCDXK1D28 + yorx090	—	—	—	—
	Twisted pair monocrimp	see Pages 109 to 111				RMDX60xxD28	RCDX60xxD28	—	—	—	—
Fiber optic	POF contacts (Plastic Optical Fiber)	—	—	—	—	RMP0F1000	RCPOF1000B	—	—	—	—
Handsoldier	Loaded in the connector	14-18		0.098"-0.031"	2.48-0.80	—	—	—	—	—	—

(1) Example of plating, for other plating see **Page 105**

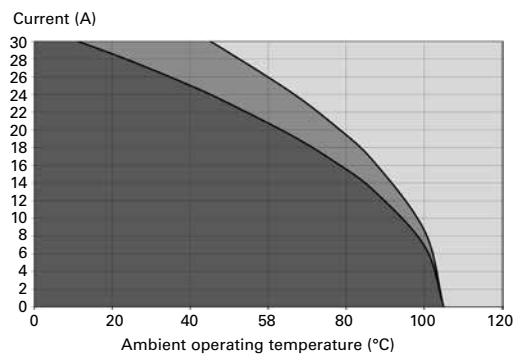
(2) Loose piece contact available by adding "L" after the "M" for the contact size and the plating. Example: SM20M1TK6 becomes SM20ML1TK6

(3) For dimensions see **Page 106**

Electrical characteristics

UL	CSA	IEC
16A 500V with AWG14 wire	16A 500V with AWG14 wire	16A 150V 2.5kV 3 temperature elevation: 50°C

UTOX 103 derating curves



- Current use
- Limited use
- Not recommended

Test conditions

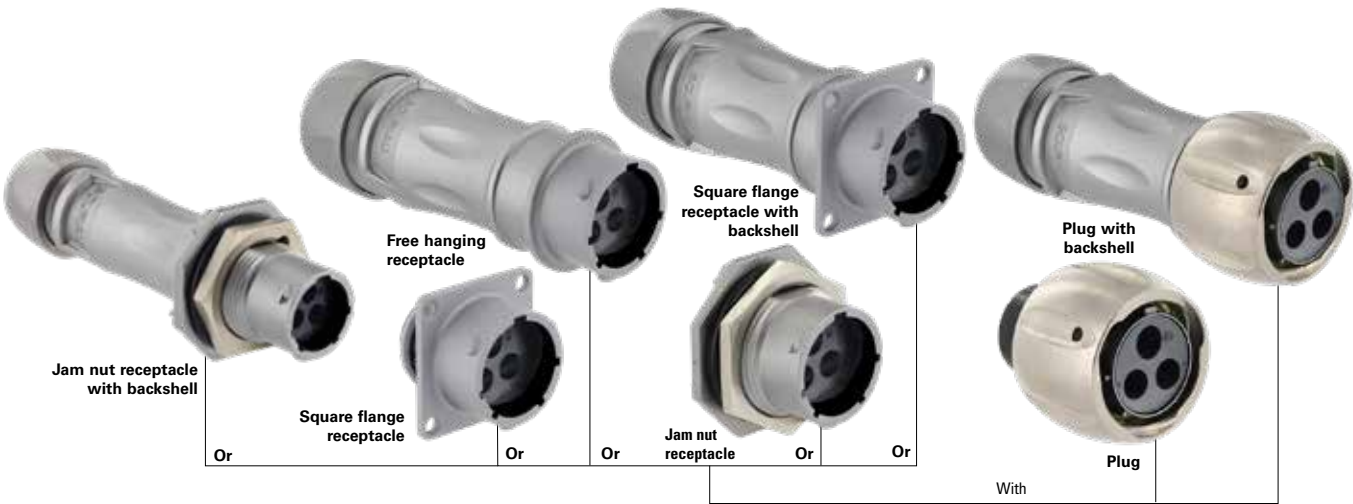
Contact used: machined contacts

Wires used: 16 AWG

Derating curves based on continuous current application.

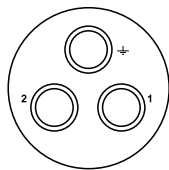
Souriau UTOX series

142G1 (Shell size 14, 2 + ground, 3x#8)



Connector part numbers

UTOX 14



2 contacts + ground
Up to 44A/600V
per UL 1977
with AWG8 wire

Contact type	Connector type	Backshell	Part number Male insert	Female insert
Crimp contacts supplied separately see Page 19	Square flange receptacle	Without (Fig. 1)	UT0X0142G1P	UT0X0142G1S
	Square flange receptacle	Cable gland unshielded version (Fig. 2)	UT0X0M142G1P	UT0X0M142G1S
	Square flange receptacle	Cable gland shielded version (Fig. 2)	UT0X0MS142G1P	UT0X0MS142G1S
	Free hanging receptacle	Cable gland unshielded version (Fig. 3)	UT0X1M142G1P	UT0X1M142G1S
	Free hanging receptacle	Cable gland shielded version (Fig. 3)	UT0X1MS142G1P	UT0X1MS142G1S
	Plug	Without (Fig. 4) ^{Note 1}	UT0X6142G1P	UT0X6142G1S
	Plug	Cable gland unshielded version (Fig. 5)	UT0X6M142G1P	UT0X6M142G1S
	Plug	Cable gland shielded version (Fig. 5)	UT0X6MS142G1P	UT0X6MS142G1S
	Jam nut receptacle	Without (Fig. 6)	UT0X7142G1P	UT0X7142G1S
	Jam nut receptacle	Cable gland unshielded version (Fig. 8)	UT0X7M142G1P	UT0X7M142G1S
	Jam nut receptacle	Cable gland shielded version (Fig. 8)	UT0X7MS142G1P	UT0X7MS142G1S
PCB contacts supplied separately see Page 19	Jam nut receptacle	Without (Fig. 7)	UT0X7142G1P	UT0X7142G1S

For discrimination/keying methods see **Page 120**

Note 1: It is necessary to add a backshell to the plug assembly.

Dimensions (for mated connector length see Page 121)

Square flange receptacle - UTOX0, UTOX0M and UTOX0MS

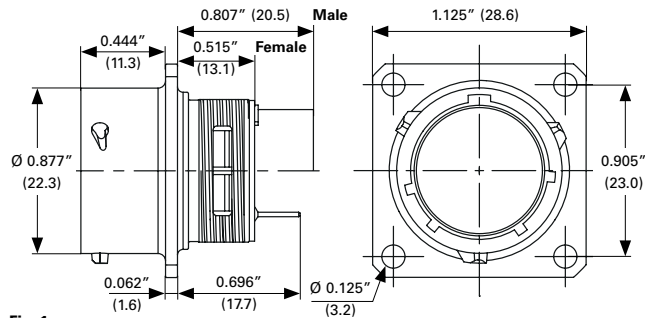


Fig. 1

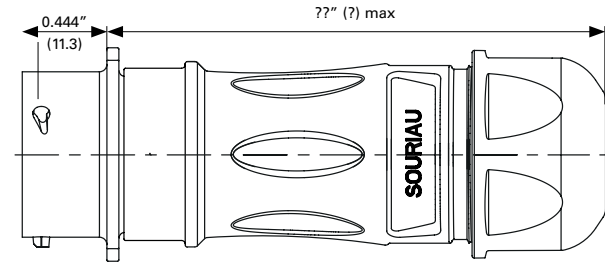


Fig. 2 Cable diameter acceptance from 0.393" to 0.511" (10 to 13)

Free hanging - UTOX1M and UTOX1MS

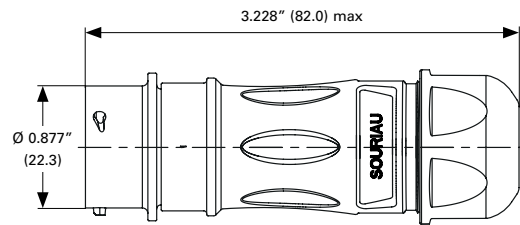


Fig. 3 Cable diameter acceptance from 0.393" to 0.511" (10 to 13)

Plug - UTOX6, UTOX6M and UTOX6MS

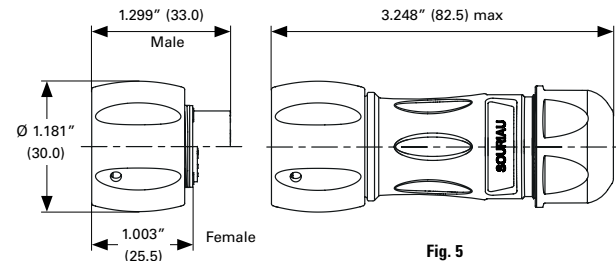


Fig. 4 Cable diameter acceptance from 0.393" to 0.511" (10 to 13)

Jam nut receptacle UTOX7

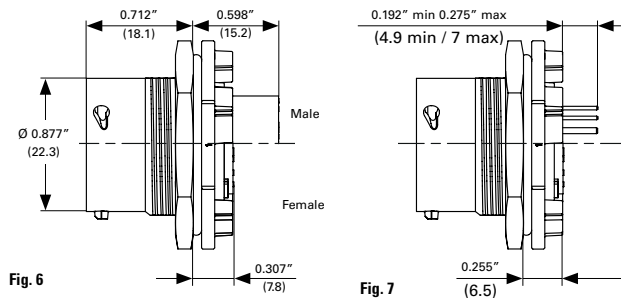


Fig. 6

Jam nut receptacle with backshell - UTOX7M, UTOX7MS

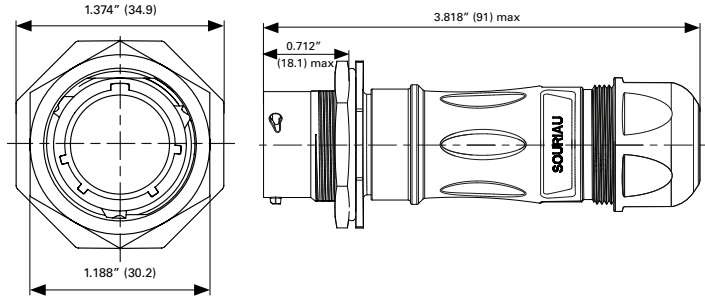
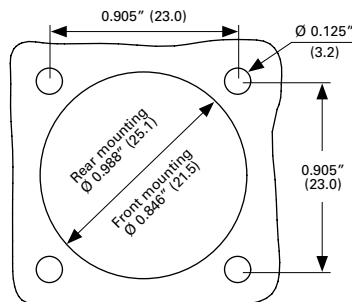


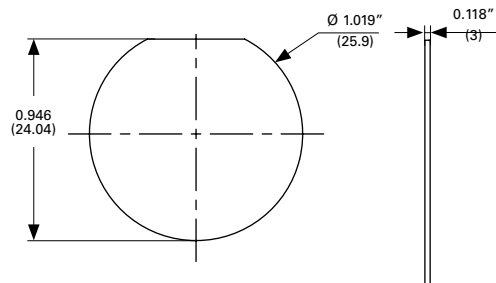
Fig. 7

Panel cut-out

Square flange receptacle - UTOX0



Jam nut receptacle - UTOX7



Dimensions in inches (millimeters)

Souriau UTOX series

142G1 (Shell size 14, 2 + ground, 3x#8)

Accessories

Dustcap (Receptacle)



Description	Part number
IP68	UT014DCG*
*For dustcap without chain, omit "G", e.g. UT014DC	

Gasket



Part number
UTFD14B

Tooling

Crimp tooling #8



Contact size	Part number hand tool	Part number positioner + locator setting
For crimp contacts #8 Ø 0.141" (3.6)	M317	VGE10078A

Dustcap (Plug)



Description	Part number
IP68	UTG614DCG*
For dustcap without chain, omit "G", e.g. UTG614DC	

Extraction tool #8



Description	Part number
For crimp contacts #8 Ø 0.141" (3.6)	51060210936

#16, #12 and #8 machined contacts



Description	Part number
Crimp tool	M20S-1J
Die casts and stop bushings	See Page 133

Contacts #8

Contact style	Contact type	Cable acceptance AWG	Cable acceptance inch ²	Cable acceptance mm ²	Part number Male	Female	Wire Ø max inch	Wire Ø max mm	Insulator Ø max inch	Insulator Ø max mm
Crimp contacts	Machined	16	0.059"	1.48	82913601A⁽¹⁾	82913600A⁽¹⁾	0.067"	1.72	0.255"	6.5
Crimp contacts	Machined	14	0.098"	2.48	82913603A⁽¹⁾	82913602A⁽¹⁾	0.087"	2.20	0.255"	6.5
Crimp contacts	Machined	12	0.157"	4.00	82913605A⁽¹⁾	82913604A⁽¹⁾	0.111"	2.82	0.255"	6.5
Crimp contacts	Machined	10	0.236"	6.00	82913607A⁽¹⁾	82913606A⁽¹⁾	0.137"	3.48	0.255"	6.5
Crimp contacts	Machined	8	0.393"	10.00	82913609A⁽¹⁾	82913608A⁽¹⁾	0.171"	4.35	0.255"	6.5
PCB	Machined ⁽²⁾	—	—	—	82911685NPC⁽¹⁾	82911684NPC⁽¹⁾	—	—	—	—

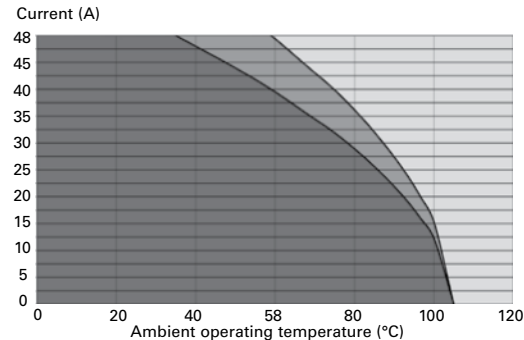
(1) Example of plating, for other plating see **Page 105**

(2) for dimensions see **Page 106**

Electrical characteristics

UL	CSA	IEC
44A 600V with AWG8 wire	34A 600V with AWG8 wire	40A 300V 4kV 3

UTOX 142G1 derating curves



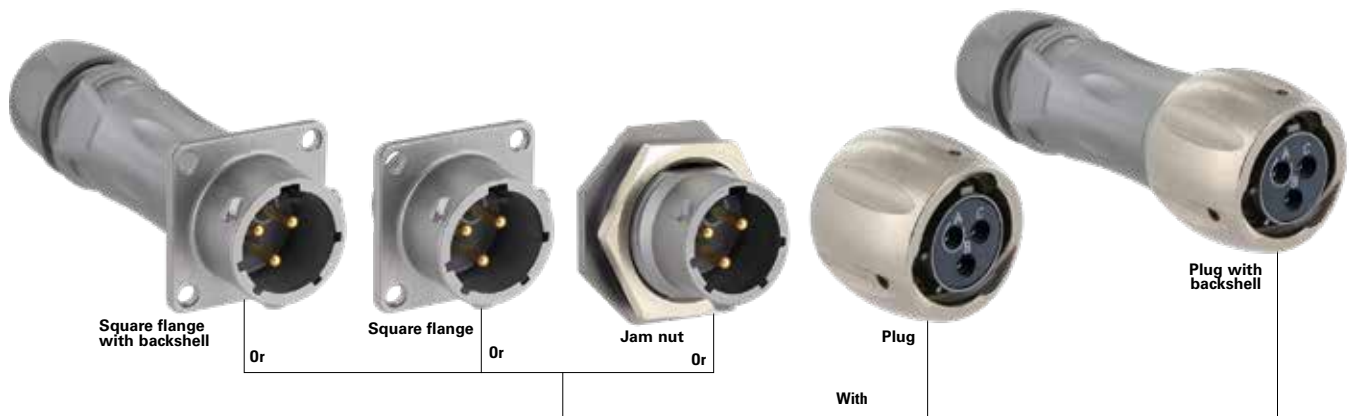
- Current use
- Limited use
- Not recommended

Test conditions

Contact used: machined contacts
Wires used: 16 AWG

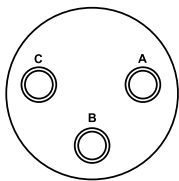
Derating curves based on continuous current application.

Dimensions in inches (millimeters)



Connector part numbers

UTOX 12E3/12D3



3 contacts
13A/600V
per UL 1977
with AWG16 wire

Contact type	Connector type	Backshell	Part number Male insert	Female insert
Hand solder electrical contacts loaded see Page 30	Square flange receptacle	Without (Fig. 1)	UTOX012E3P	UTOX012E3S
	Square flange receptacle	Cable gland unshielded version (Fig. 1B)	UTOX0M12E3P	UTOX0M12E3S
	Square flange receptacle	Cable gland shielded version (Fig. 1B)	UTOX0MS12E3P	UTOX0MS12E3S
	Plug	Without (Fig. 2) ^{Note 1}	UTOX612E3P	UTOX612E3S
	Plug	Cable gland unshielded version (Fig. 3)	UTOX6M12E3P	UTOX6M12E3S
	Plug	Cable gland shielded version (Fig. 3)	UTOX6MS12E3P	UTOX6MS12E3S
	Jam nut receptacle	Without (Fig. 4)	UTOX712E3P	UTOX712E3S
PCB contacts loaded see Page 30	Square flange receptacle	Without (Fig. 2)	UTOX012D3P	UTOX012D3S
	Jam nut receptacle with stand off and without hold down clip	Without (Fig. 5)	UTOX712D3P	UTOX712D3S
	Jam nut receptacle with stand off and with hold down clips	Without (Fig. 6)	UTOX712D3P32	UTOX712D3S32

For discrimination/keying methods see **Page 130**

Note 1: it is necessary to add a backshell to the plug assembly.

Sealed unmated



Souriau UTOX series

12E3/12D3 (Shell size 12, 3x#16)

Dimensions (for mated connector length see Page 121)

Square flange receptacle - UTOX0

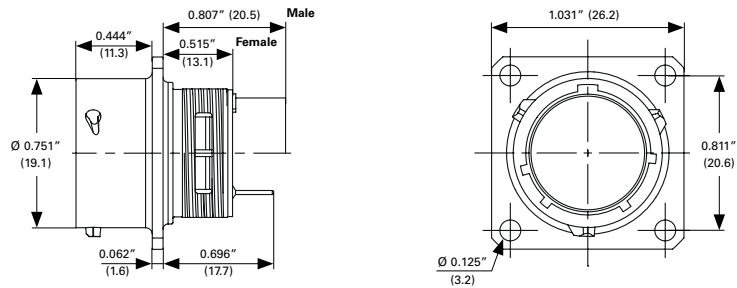


Fig. 1

Square flange receptacle with backshell - UTOX0M and UTOX0MS

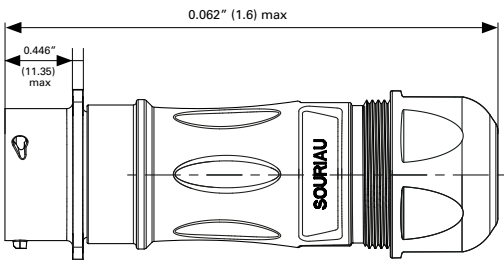


Fig. 1B

Plug - UTOX6, UTOX6M and UTOX6MS

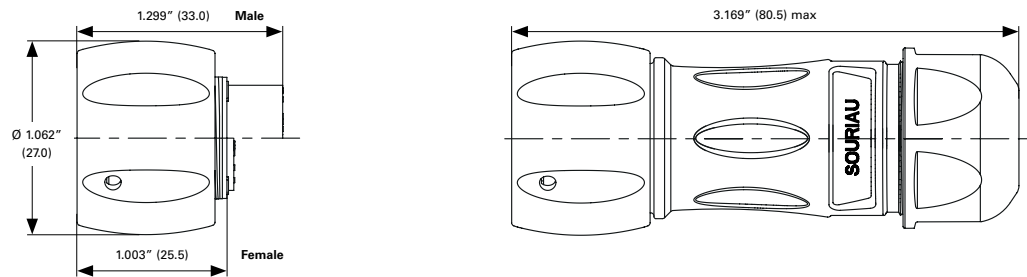


Fig. 2

Fig.3 Cable diameter acceptance: standard seal from 0.275" to 0.393" (7 to 10)

Jam nut receptacle UTOX7

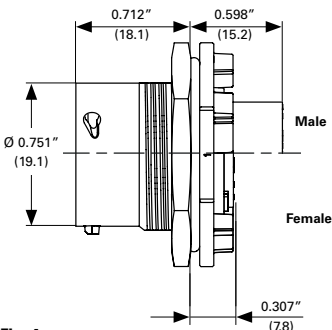


Fig. 4

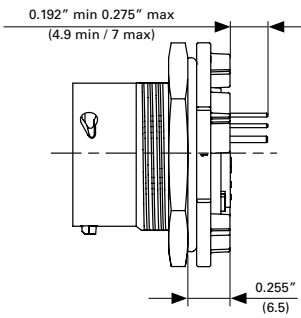


Fig. 5

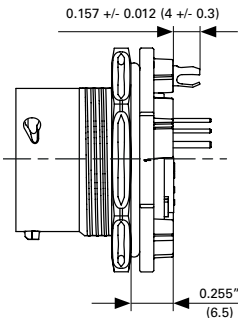
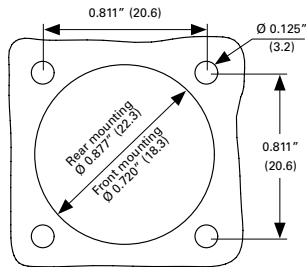


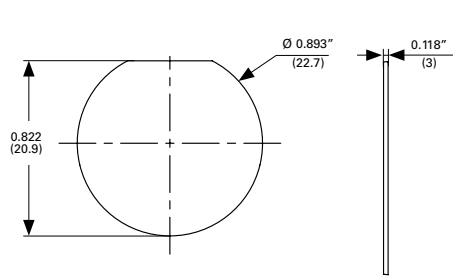
Fig. 6

Panel cut-out

Square flange receptacle - UTOX0



Jam nut receptacle - UTOX7



Dimensions in inches (millimeters)

Accessories

Dustcap (Receptacle)



Description	Part number
-------------	-------------

IP68	UT012DCG*
------	-----------

*For dustcap without chain, omit "G",
e.g. UT012DC

Dustcap (Plug)



Description	Part number
-------------	-------------

IP68	UTG612DCG*
------	------------

*For dustcap without chain, omit "G",
e.g. UTG612DC

Gasket



Part number

UTFD13B

Dummy contact #16



Part number

SMSPK0

Note: See **Page 132** for more information

Contacts #16

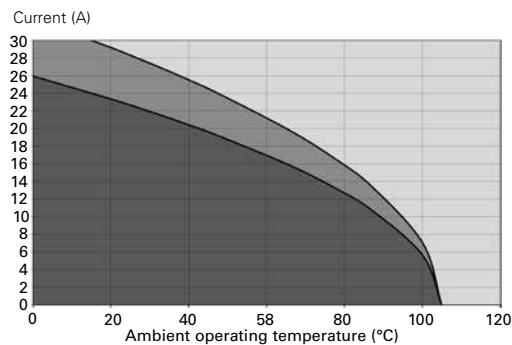
Contact type	Plating	Cable acceptance		Wire stripping length	
		(AWG)	inch ²	mm ²	inch mm
Handsolder loaded in the connector	Min 0.4μ gold over 0.8μ Ni	18-14	0.031"-0.098"	0.82-2.48	0.196" 5
PCB machined ⁽¹⁾	Min 0.4μ gold over 0.8μ Ni	—	—	—	—

(1) For dimensions see **Pages 106**

Electrical characteristics

UL	CSA	IEC
13A 600V with AWG16 wire	13A 600V with AWG16 wire	16A 150V 2.5kV 3

UTOX 12E3/12D3 derating curves



- Current use
- Limited use
- Not recommended

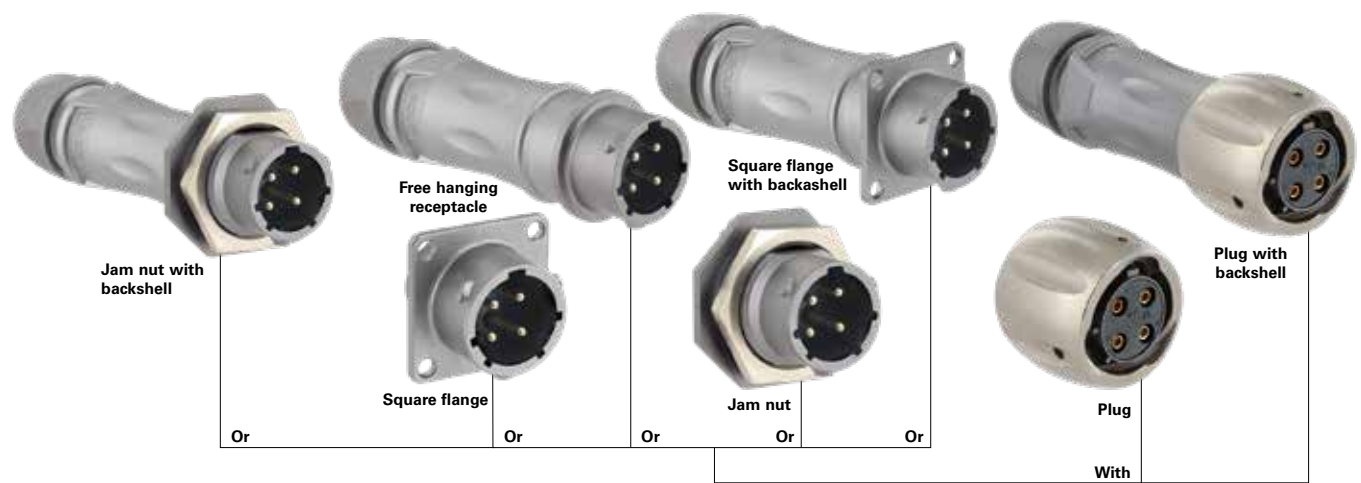
Test conditions

Contact used: machined contacts
Wires used: 16 AWG

Derating curves based on continuous current application.

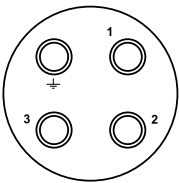
Souriau UTOX series

124 (Shell size 12, 3 + ground, 4x#16)



Connector part numbers

UTOX 124



3 contacts + ground
16A/500V
per UL 1977
with AWG14 wire

Contact type	Connector type	Backshell	Part number Male insert	Female insert
Crimp contacts supplied separately see Page 28	Square flange receptacle	Without (Fig. 1)	UTOX0124P	UTOX0124S
	Square flange receptacle	Cable gland unshielded version (Fig. 2)	UTOX0M124P	UTOX0M124S
	Square flange receptacle	Cable gland shielded version (Fig. 2)	UTOX0MS124P	UTOX0MS124S
	Free hanging receptacle	Cable gland unshielded version (Fig. 3)	UTOX1M124P	UTOX1M124S
	Free hanging receptacle	Cable gland shielded version (Fig. 3)	UTOX1MS124P	UTOX1MS124S
	Plug	Without (Fig. 4) ^{Note 1}	UTOX6124P	UTOX6124S
	Plug	Cable gland unshielded version (Fig. 5)	UTOX6M124P	UTOX6M124S
	Plug	Cable gland shielded version (Fig. 5)	UTOX6MS124P	UTOX6MS124S
	Jam nut receptacle	Without (Fig. 6)	UTOX7124P	UTOX7124S
	Jam nut receptacle	Cable gland unshielded version (Fig. 8)	UTOX7M142G1P	UTOX7M142G1S
	Jam nut receptacle	Cable gland shielded version (Fig. 8)	UTOX7MS142G1P	UTOX7MS142G1S
	Jam nut receptacle	Without (Fig. 9)	UTOX7124PSCR	UTOX7124SSCR
Screw contacts loaded	Square flange receptacle	Without (Fig. 1)	UTOX0124P	UTOX0124S
PCB contacts supplied separately see Page 28	Jam nut receptacle	Without (Fig. 7)	UTOX7124P	UTOX7124S

For discrimination/keying methods see **Page 132**

Note 1: it is necessary to add a backshell to the plug assembly.

Dimensions (for mated connector length see Page 121)

Square flange receptacle - UTOX0, UTOX0M and UTOX0MS

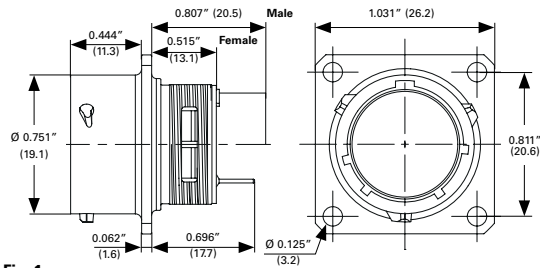


Fig. 1

Square flange receptacle with backshell - UTOX0M and UTOX0MS

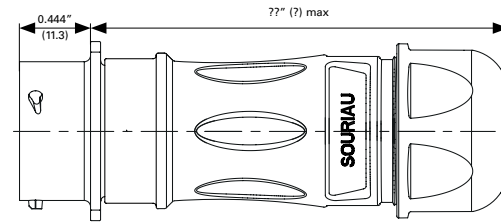


Fig. 2 Cable diameter acceptance from 0.275" to 0.393" (7 to 10)

Free hanging - UTOX1M and UTOX1MS

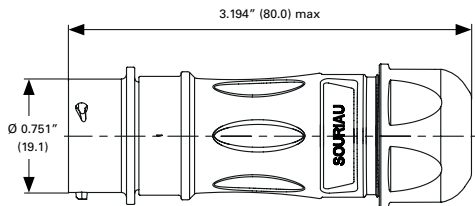


Fig. 3 Cable diameter acceptance from 0.275" to 0.393" (7 to 10)

Plug - UTOX6, UTOX6M and UTOX6MS

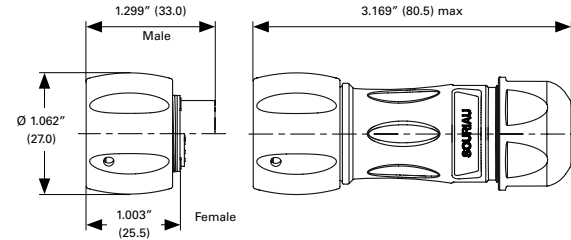


Fig. 4

Fig. 5 Cable diameter acceptance: from 0.275" to 0.393" (7 to 10)

Jam nut receptacle UTOX7

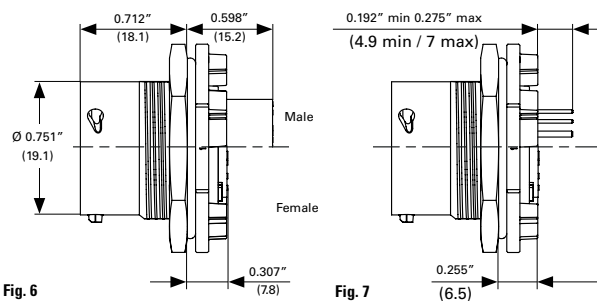


Fig. 6

Jam nut receptacle with backshell - UTOX7M, UTOX7MS

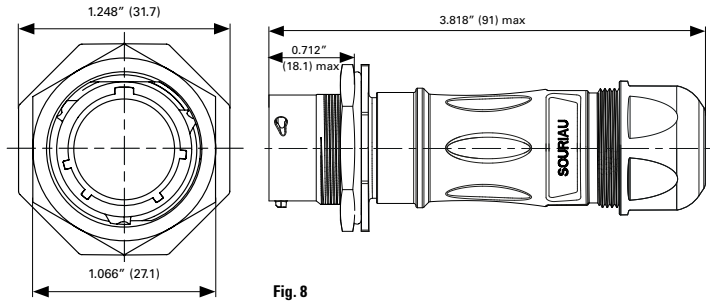


Fig. 8

Jam nut receptacle with screw contacts

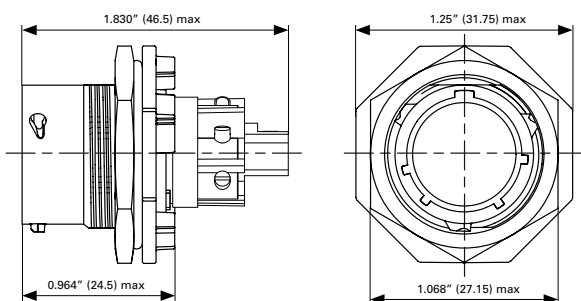
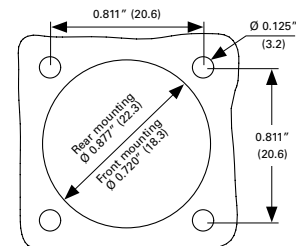


Fig. 9

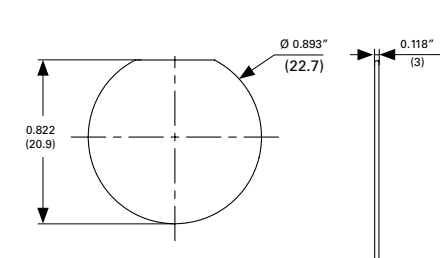
Dimensions in inches (millimeters)

Panel cut-out

Square flange receptacle - UTOX0



Jam nut receptacle - UTOX7



Souriau UTOX series

124 (Shell size 12, 3 + ground, 4x#16)

Accessories

Dustcap (Receptacle)



Description	Part number
-------------	-------------

IP68	UT012DCG*
------	-----------

*For dustcap without chain, omit "G",
e.g. UT012DC

Part number

UTFD13B

Gasket



Dustcap (Plug)



Description	Part number
-------------	-------------

IP68	UTG612DCG*
------	------------

*For dustcap without chain, omit "G",
e.g. UTG612DC

Part number

SMSPK0

Note: See Page 132 for more information

Tooling

Tooling for #16 and #20 stamped and machined contacts



Description	Part number
-------------	-------------

Handle (without head)	Shandles
-----------------------	----------

Box containing handle and several crimp tooling	Toolkit
---	---------

Crimp tooling (without Shandles)



Contact size	Contacts	Part number of head
--------------	----------	---------------------

Standard contacts #16 Ø 0.062" (1.6)		
--	--	--

RM/RC 28M1K ⁽¹⁾	S16RCM20*
----------------------------	-----------

RM/RC 24M9K ⁽¹⁾	S16RCM20*
----------------------------	-----------

RM/RC 20M13K ⁽¹⁾	S16RCM20*
-----------------------------	-----------

RM/RC 20M12K ⁽¹⁾	S16RCM20*
-----------------------------	-----------

RM/RC 16M23K ⁽¹⁾	S16RCM16*
-----------------------------	-----------

RM/RC 14M30K ⁽¹⁾	S16RCM14*
-----------------------------	-----------

SM/SC 24ML1TK6 ⁽¹⁾	S16SCM20*
-------------------------------	-----------

SM/SC 20ML1TK6 ⁽¹⁾	S16SCM20*
-------------------------------	-----------

SM/SC 16ML1TK6 ⁽¹⁾	S16SCML1*
-------------------------------	-----------

SM/SC 14ML1TK6 ⁽¹⁾	S16SCML1*
-------------------------------	-----------

SM/SC 16ML11TK6 ⁽¹⁾	S16SCML11*
--------------------------------	------------

--	--

(1) Example of plating, for other plating options see Page 126

* Heads to be used with handle PN: SHANGLES

#16, #12 and #8 machined contacts



Description	Part number
-------------	-------------

Crimp tool	M20S-1J
------------	---------

Die casts and stop bushings	See Page 133
-----------------------------	--------------

Extraction tool #16

Fig. 1



Fig. 2



Description	Part number
-------------	-------------

Fig. 1	RX2025GE1
--------	-----------

Fig. 2 - Long endurance tool	RX2031J
------------------------------	---------

Contacts #16

Contact style	Contact type	Cable acceptance AWG	Cable acceptance		Part number Male	Female	Wire Ø max		Insulator Ø max	
			inch ²	mm ²			inch	mm	inch	mm
Crimp contacts	Machined	30-28	0.001"-0.003"	0.06-0.08	RM28M1K ⁽¹⁾	RC28M1K ⁽¹⁾	0.021"	0.55	0.039"	1.00
Crimp contacts	Machined	26-24	0.005"-0.009"	0.13-0.25	RM24M9K ⁽¹⁾	RC24M9K ⁽¹⁾	0.031"	0.80	0.062"	1.58
Crimp contacts	Machined	22-20	0.012"-0.020"	0.32-0.50	RM20M13K ⁽¹⁾	RC20M13K ⁽¹⁾	0.045"	1.15	0.070"	1.80
Crimp contacts	Machined	22-20	0.012"-0.020"	0.32-0.50	RM20M12K ⁽¹⁾	RC20M12K ⁽¹⁾	0.045"	1.15	0.086"	2.20
Crimp contacts	Machined	20-16	0.020"-0.059"	0.50-1.48	RM16M23K ⁽¹⁾	RC16M23K ⁽¹⁾	0.070"	1.80	0.125"	3.20
Crimp contacts	Machined	16-14	0.059"-0.098"	1.48-2.48	RM14M30K ⁽¹⁾	RC14M30K ⁽¹⁾	0.090"	2.30	0.125"	3.20
	Stamped and formed reeled contacts See note ⁽²⁾ for loose piece	26-24	0.005"-0.009"	0.13-0.25	SM24M1TK6 ⁽¹⁾⁽²⁾	SC24M1TK6 ⁽¹⁾⁽²⁾	—	—	0.035"-0.062"	0.90-1.58
		22-20	0.012"-0.020"	0.32-0.52	SM20M1TK6 ⁽¹⁾⁽²⁾	SC20M1TK6 ⁽¹⁾⁽²⁾	—	—	0.047"-0.082"	1.20-2.10
		18-16	0.031"-0.059"	0.82-1.48	SM16M1TK6 ⁽¹⁾⁽²⁾	SC16M1TK6 ⁽¹⁾⁽²⁾	—	—	0.125"	3.20
		18-16	0.031"-0.059"	0.82-1.48	SM16M11TK6 ⁽¹⁾⁽²⁾	SC16M11TK6 ⁽¹⁾⁽²⁾	—	—	0.118"	3.00
		14	0.098"	2.48	SM14M1TK6 ⁽¹⁾⁽²⁾	SC14M1TK6 ⁽¹⁾⁽²⁾	—	—	0.125"	3.20
PCB	Machined ⁽³⁾	—			RM20M12E83K ⁽¹⁾	RC20M12E84K ⁽¹⁾	—	—	—	—
Coaxial	Cable multipiece	see Pages 130 to 132			RMDXK10D28	RCDXK1D28	—	—	—	—
Coaxial	Cable monocrimp	see Pages 130 to 132			RMDX60xxD28	RCDX60xxD28	—	—	—	—
Coaxial	Twisted pair multipiece	see Pages 130 to 132			RMDXK10D28 + yorr090	RCDXK1D28 + yorr090	—	—	—	—
Coaxial	Twisted pair monocrimp	see Pages 130 to 132			RMDX60xxD28	RCDX60xxD28	—	—	—	—
Fiber optic	POF contacts (Plastic optical fiber)	—			RMP0F1000	RCPOF1000B	—	—	—	—
Handsoldier	Loaded in the connector	14-18	0.098"-0.031"	2.48-0.82	—	—	—	—	—	—

(1) Example of plating, for other plating see **Page 126**

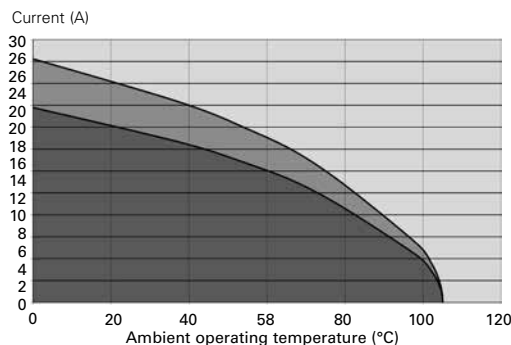
(2) Loose piece contact available by adding "L" after the "M" for the contact size and the plating. Example: SM20M1TK6 becomes SM20ML1TK6

(3) For dimensions see **Page 133**

Electrical characteristics

UL	CSA	IEC
16A 500V with AWG14 wire	16A 500V with AWG14 wire	16A 150V 2.5kV 3 temperature elevation: 50°C

UTOX 124 derating curves



- Current use
- Limited use
- Not recommended

Test conditions

Contact used: machined contacts
Wires used: 16 AWG

Derating curves based on continuous current application.

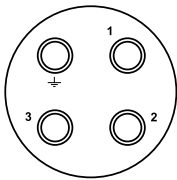
Souriau UTOX series

12E4/12D4 (Shell size 12, 3 + ground, 4x#16)



Connector part numbers

UTOX 12E4/12D4



3 contacts + ground
10A/600V
per UL 1977
with AWG16 wire

Contact type	Connector type	Backshell	Part number Male insert	Female insert
Handsolder electrical contacts loaded see Page 31	Square flange receptacle	Without (Fig. 1)	UTOX012E4P	UTOX012E4S
	Plug	Without (Fig. 2) ^{Note 1}	UTOX612E4P	UTOX612E4S
	Plug	Cable gland unshielded version (Fig. 2)	UTOX6M12E4P	UTOX6M12E4S
	Plug	Cable gland shielded version (Fig. 2)	UTOX6MS12E4P	UTOX6MS12E4S
	Jam nut receptacle	Without (Fig. 2)	UTOX712E4P	UTOX712E4S
PCB contacts loaded	Square flange receptacle	Without (Fig. 2)	UTOX012D4P	UTOX012D4S
	Jam nut receptacle with stand off and without hold down clip	Without (Fig.5)	UTOX712D4P	UTOX712D4S
	Jam nut receptacle with stand off and with hold down clips	Without (Fig. 6)	UTOX712D4P32	UTOX712D4S32

For discrimination/keying methods see **Page 132**

Sealed unmated

Note 1: it is necessary to add a backshell to the plug assembly.

Dimensions (for mated connector length see Page 121)

Square flange receptacle - UTOX0

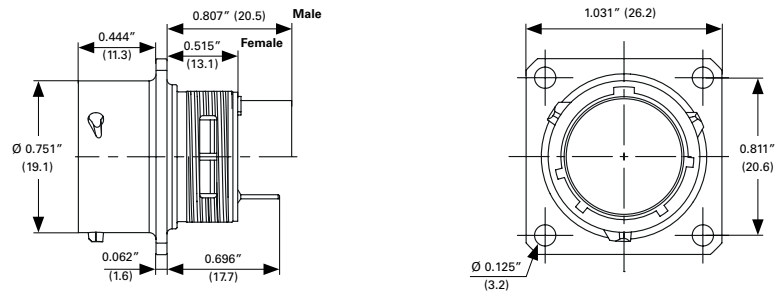


Fig. 1

Plug - UTOX6, UTOX6M and UTOX6MS

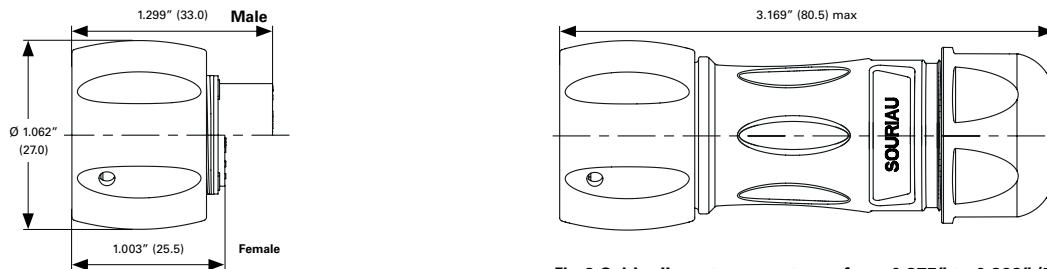


Fig. 2

Fig. 3 Cable diameter acceptance from 0.275" to 0.393" (7 to 10)

Jam nut receptacle UTOX7

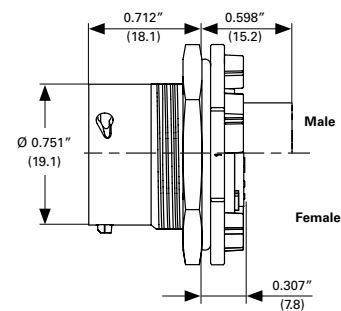


Fig. 4

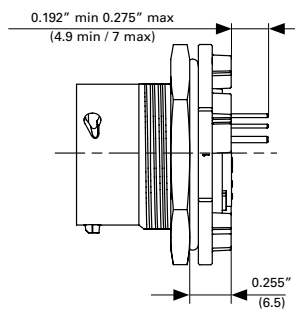


Fig. 5

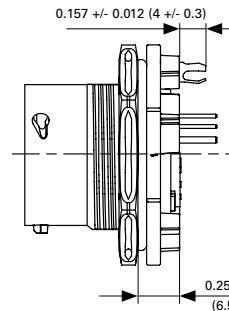
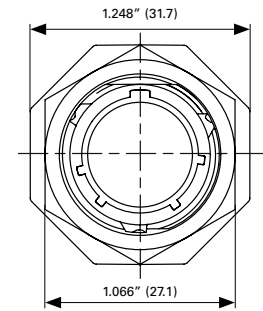
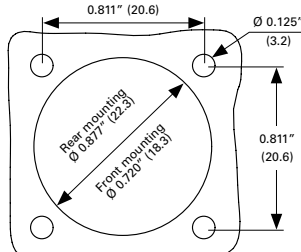


Fig. 6

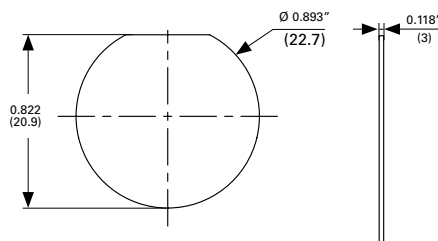


Panel cut out

Square flange receptacle - UTOX0



Jam nut receptacle - UTOX7



Dimensions in inches (millimeters)

Souriau UTOX series

12E4/12D4 (Shell size 12, 3 + ground, 4x#16)

Accessories

Dustcap (Receptacle)



Description	Part number
IP68	UT012DCG*
*For dustcap without chain, omit "G", e.g. UT012DC	

Dustcap (Plug)



Description	Part number
IP68	UTG612DCG*
*For dustcap without chain, omit "G", e.g. UT612DC	

Gasket



Part number
UTFD13B

Contacts #16

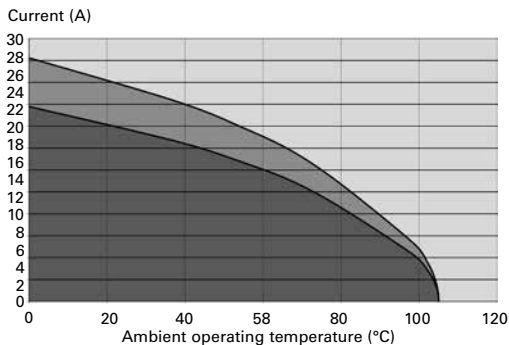
Contact type	Plating	Cable acceptance (AWG)	Cable acceptance inch ²	mm ²	Wire stripping length inch	mm
Handsolder loaded in the connector	Min 0.4µ gold over 0.8µ Ni	18-14	0.031"-0.098"	0.82-2.48	0.196"	5
PCB machined ⁽¹⁾	Min 0.4µ gold over 0.8µ Ni	—	—	—	—	—

(1) For dimensions see **Pages 133 or 134**

Electrical characteristics

UL	CSA	IEC
10A 600V with AWG16 wire	10A 600V with AWG16 wire	16A 150V 2.5kV 3 temperature elevation: 50°C

UTOX 12E4/12D4 derating curves

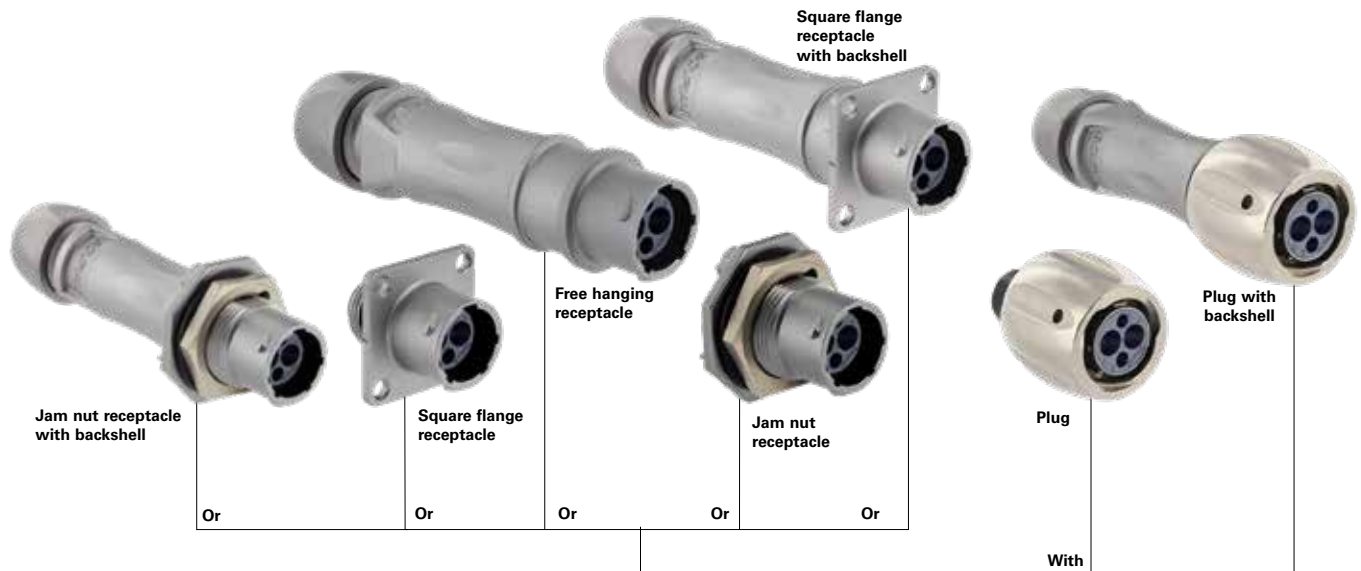


- Current use
- Limited use
- Not recommended

Test conditions

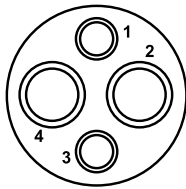
Contact used: machined contacts
Wires used: 16 AWG

Derating curves based on continuous current application.



Connector part numbers

UTOX 102W2



4 contacts
 26A/600V per UL1977 with AWG12 wire
 (2 power poles with crimp contacts 829114)
 7.5A/250V per UL1977 with AWG20 wire
 (2 signal poles with crimp contacts RM/RC20W)

Contact type	Connector type	Backshell	Part number Male insert	Female insert
Crimp contacts supplied separately see Page 35	Square flange receptacle	Without (Fig. 1)	UT0X0102W2P	UT0X0102W2S
	Square flange receptacle	Cable gland unshielded version (Fig. 2)	UT0X0M102W2P	UT0X0M102W2S
	Square flange receptacle	Cable gland shielded version (Fig. 2)	UT0X0MS102W2P	UT0X0MS102W2S
	Free hanging receptacle	Cable gland unshielded version (Fig. 3)	UT0X1M102W2P	UT0X1M102W2S
	Free hanging receptacle	Cable gland shielded version (Fig. 3)	UT0X1MS102W2P	UT0X1MS102W2S
	Plug	Without (Fig. 4) ^{Note 1}	UT0X6102W2P	UT0X6102W2S
	Plug	Cable gland unshielded version (Fig. 5)	UT0X6M102W2P	UT0X6M102W2S
	Plug	Cable gland shielded version (Fig. 5)	UT0X6MS102W2P	UT0X6MS102W2S
	Jam nut receptacle	Without (Fig. 6)	UT0X7102W2P	UT0X7102W2S
	Jam nut receptacle	Cable gland unshielded version (Fig. 7)	UT0X7M102W2P	UT0X7M102W2S
	Jam nut receptacle	Cable gland shielded version (Fig. 7)	UT0X7MS102W2P	UT0X7MS102W2S

For discrimination/keying methods see **Page 132**

Note 1: It is necessary to add a backshell to the plug assembly.

Souriau UTOX series

102W2 (Shell size 10, 2x#20, 2x12)

Dimensions (for mated connector length see Page 121)

Square flange receptacle - UTOX0, UTOX0M and UTOX0MS

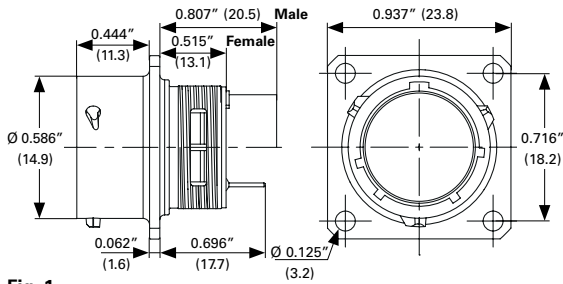


Fig. 1

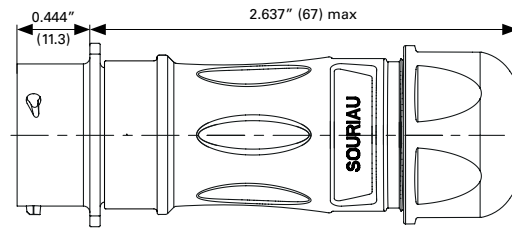


Fig. 2 Cable diameter acceptance from 0.157" to 0.10.275" (4 to 7)

Free hanging - UTOX1M and UTOX1MS

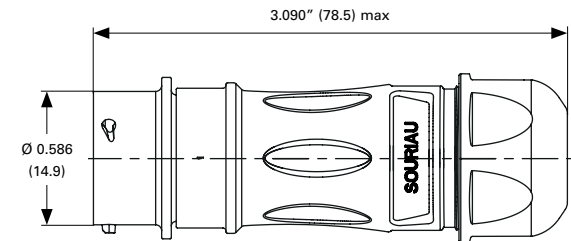


Fig. 3 Cable diameter acceptance from 0.157" to 0.10.275" (4 to 7)

Plug - UTOX6, UTOX6M and UTOX6MS

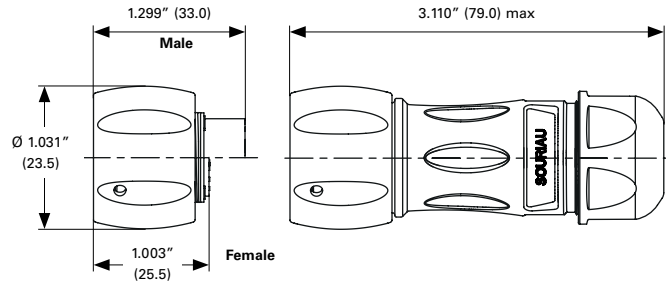


Fig. 4

Fig. 5 Cable diameter acceptance from 0.157" to 0.10.275" (4 to 7)

Jam nut receptacle UTOX7

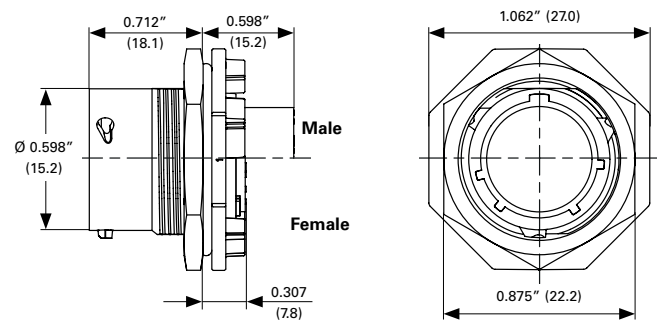
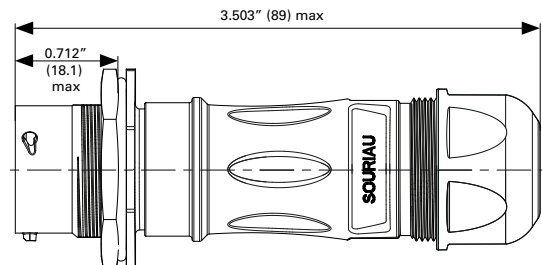


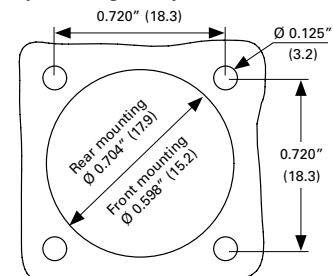
Fig. 6

Jam nut receptacle with backshell - UTOX7M, UTOX7MS

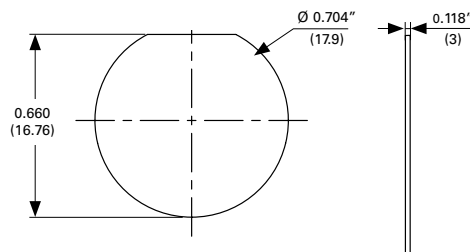


Panel cut-out

Square flange receptacle - UTOX0



Jam nut receptacle - UTOX7



Dimensions in inches (millimeters)

Accessories

Dustcap (Receptacle)



Description	Part number
-------------	-------------

IP68	UT010DCG*
------	-----------

*For dustcap without chain, omit "G",
e.g. UT010DC

Part number

UTFD12B

Gasket



Dustcap (Plug)



Description	Part number
-------------	-------------

IP68	UTG610DCG
------	-----------

*For dustcap without chain, omit "G",
e.g. UTG610DC

Tooling

Tooling



Description	Part number
-------------	-------------

Handle (without head)	Shandles
-----------------------	----------

Box containing handle and several crimp tooling	Toolkit
---	---------

Crimp tooling (without Shandles)



Contact size	Contacts	Part number of Head
--------------	----------	---------------------

Standard contacts #20 Ø 0.039" (1)	RM/RC 24W3K ⁽¹⁾	S20RCM*
--	----------------------------	---------

	RM/RC 20W3K ⁽¹⁾	S20RCM*
--	----------------------------	---------

	RM/RC 18W3K ⁽¹⁾	S20RCM*
--	----------------------------	---------

	SM/SC 24WL3 ⁽¹⁾⁽²⁾	S20SCM20*
--	-------------------------------	-----------

	SM/SC 20WL3 ⁽¹⁾⁽²⁾	S20SCM20*
--	-------------------------------	-----------

(1) Example of plating, for other plating options see **Page 126**

(2) Loose contact

* Heads to be used with handle

PN: SHANGLES

Description	Part number
-------------	-------------

Crimp tool	M20S-1J
------------	---------

Die casts and stop bushings	See Page 133
-----------------------------	---------------------

#16, #12 and #8 machined contacts



Crimp tooling #12



Contact size	Part number	Part number positioner + locator setting
--------------	-------------	--

Standard contacts #12 Ø 0.094" (2.4)	M317	VGE10077A
--	------	-----------

Extraction tool

Description	Part number
-------------	-------------

Fig. 1 - Contacts #20 Ø 0.039" (1)	RX20D44
--	---------

Fig. 2 - Contacts #12 Ø 0.094" (2.4)	51060210924
--	-------------

Souriau UTOX series

102W2 (Shell size 10, 2x#20, 2x12)

Contacts #20

Contact style	Contact type	Cable acceptance		Part number	Male	Female	Wire Ø max		Insulator Ø max	
		AWG	inch ²				inch	mm	inch	mm
Crimp contacts	Machined	26-24	0.005"-0.009"	0.13-0.25	RM24W3K	RC24W3K	0.031"	0.80	0.062"	1.58
	Machined	22-20	0.012"-0.020"	0.32-0.50	RM20W3K	RC20W3K	0.045"	1.15	0.070"	1.80
	Machined	20-18	0.020"-0.031"	0.50-0.82	RM18W3K	RC18W3K	0.051"	1.30	0.082"	2.10
	Stamped and formed reeled contacts See note (2) for loose piece	26-24	0.005"-0.009"	0.13-0.25	SM24W3TK6 ⁽¹⁾⁽²⁾	SC24W3TK6 ⁽¹⁾⁽²⁾	—	—	0.035"-0.062"	0.90-1.58
		26-24	0.005"-0.009"	0.13-0.25	SM24W3S26 ⁽¹⁾⁽²⁾	SC24W3S25 ⁽¹⁾⁽²⁾	—	—	0.035"-0.062"	0.90-1.58
		22-20	0.012"-0.020"	0.32-0.50	SM20W3TK6 ⁽¹⁾⁽²⁾	SC20W3TK6 ⁽¹⁾⁽²⁾	—	—	0.047"-0.082"	1.20-2.10
		22-20	0.012"-0.020"	0.32-0.50	SM20W3S26 ⁽¹⁾⁽²⁾	SC20W3S25 ⁽¹⁾⁽²⁾	—	—	0.047"-0.082"	1.20-2.10

(1) Example of plating, for other plating see **Page 105**

(2) Loose piece contact available by adding "L" after the "M" for the contact size and the plating. Example: SM20W3TK6 becomes SM20WL3TK6

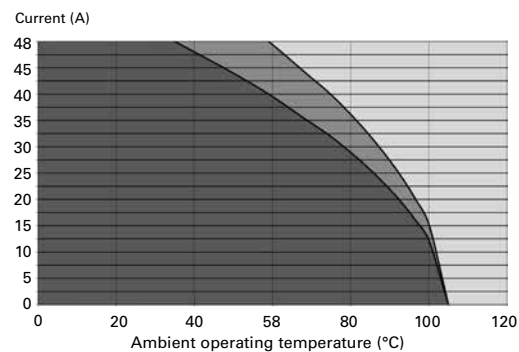
Contacts #12

Contact style	Contact type	Cable acceptance		Part number	Male	Female	Wire Ø max		Insulator Ø max	
		AWG	inch ²				inch	mm	inch	mm
Crimp contacts	Machined	20	0.020"	0.52	82911457NA	82911456A	0.034"	0.87	0.192"	4.90
	Machined	20	0.020"	0.50	82911459NA	82911458A	0.044"	1.12	0.192"	4.90
	Machined	18	0.031"	0.82	82911461NA	82911460A	0.055"	1.42	0.192"	4.90
	Machined	16	0.059"	1.48	82911463NA	82911462A	0.067"	1.72	0.192"	4.90
	Machined	14	0.098"	2.48	82911465NA	82911464A	0.087"	2.20	0.192"	4.90
	Machined	12	0.157"	4.00	82911467NA	82911466A	0.111"	2.82	0.192"	4.90

Electrical characteristics

UL	CSA	IEC
20A 600V with AWG12* (2 power poles with crimp contacts 829114)	20A 600V with AWG12* (2 power poles with crimp contacts 829114)	25A 150V 2.5kV 3 temperature elevation: 50°C
7.5A 250V with AWG20* (2 signal poles with crimp contacts RM/RC20W)	2.5A 250V with AWG20* (2 signal poles with crimp contacts RM/RC20W)	

UTOX 102W2 derating curves

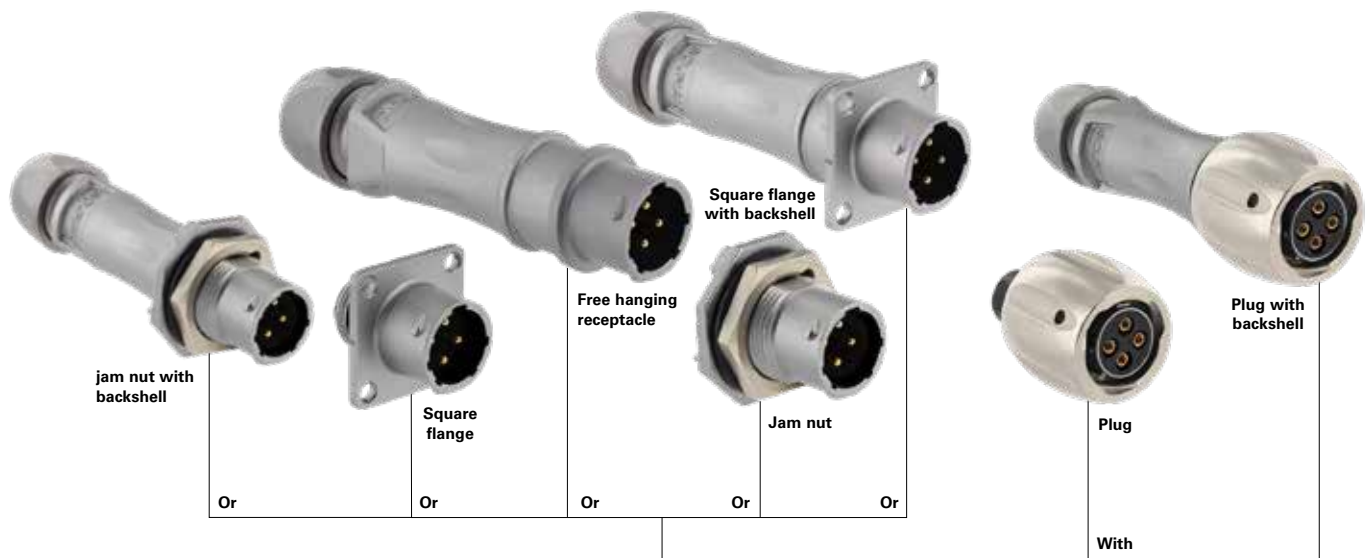


- Current use
- Limited use
- Not recommended

Test conditions

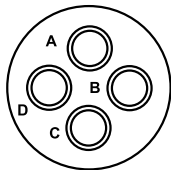
Contact used: machined contacts
Wires used: 20 AWG

Derating curves based on continuous current application.



Connector part numbers

UTOX 104



4 contacts
10A/500V
per UL 1977
with AWG16 wire

Contact type	Connector type	Backshell	Part number Male insert	Female insert
Crimp contacts supplied separately see Page 39	Square flange receptacle	Without (Fig. 1)	UTOX0104P	UTOX0104S
	Square flange receptacle	Cable gland unshielded version (Fig. 2)	UTOX0M104P	UTOX0M104S
	Square flange receptacle	Cable gland shielded version (Fig. 2)	UTOX0MS104P	UTOX0MS104S
	Free hanging receptacle	Cable gland (Fig. 3)	UTOX1M104P	UTOX1MS104S
	Plug	Without (Fig. 4) ^{Note 1}	UTOX6104P	UTOX6104S
	Plug	Cable gland unshielded version (Fig. 5)	UTOX6M104P	UTOX6M104S
	Plug	Cable gland shielded version (Fig. 5)	UTOX6MS104P	UTOX6MS104S
	Jam nut receptacle	Without (Fig. 6)	UTOX7104P	UTOX7104S
	Jam nut receptacle	Cable gland unshielded version (Fig. 8)	UTOX7M104P	UTOX7M104S
	Jam nut receptacle	Cable gland shielded version (Fig. 8)	UTOX7MS104P	UTOX7MS104S
PCB contacts supplied separately see Page 39	Jam nut receptacle	Without (Fig. 7)	UTOX7104P	UTOX7104S

For discrimination/keying methods see **Page 132**

Note 1: It is necessary to add a backshell to the plug assembly.

Souriau UTOX series

104 (Shell size 10, 4x#16)

Dimensions (for mated connector length see Page 121)

Square flange receptacle - UTOX0, UTOX0M and UTOX0MS

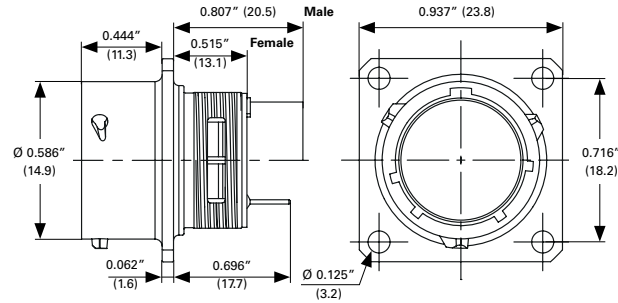


Fig. 1

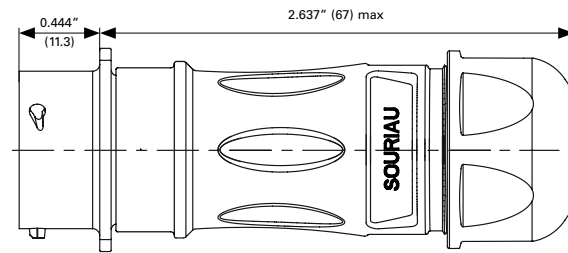


Fig. 2 Cable diameter acceptance from 0.157" to 0.10.275" (4 to 7)

Free hanging - UTOX1M and UTOX1MS

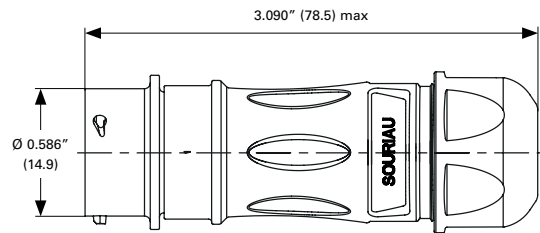


Fig. 3 Cable diameter acceptance from 0.157" to 0.10.275" (4 to 7)

Plug - UTOX6, UTOX6M and UTOX6MS

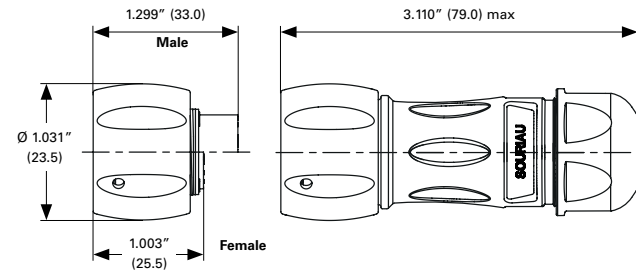


Fig. 4

Fig. 5 Cable diameter acceptance from 0.157" to 0.10.275" (4 to 7)

Jam nut receptacle UTOX7

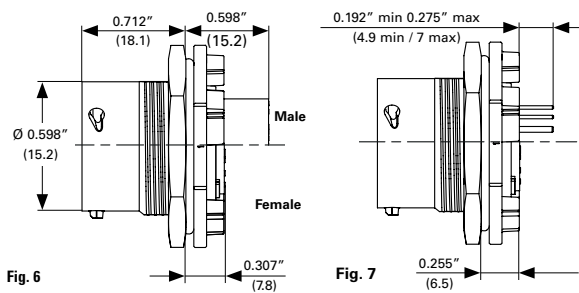


Fig. 6

Jam nut receptacle with backshell - UTOX7M, UTOX7MS

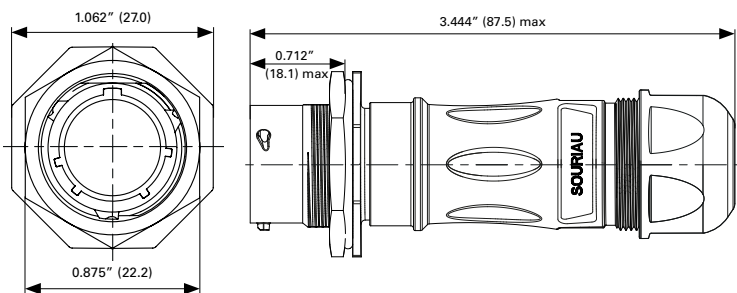
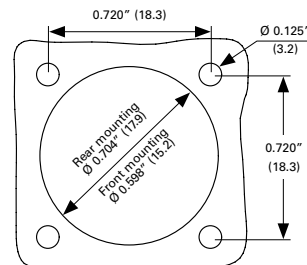


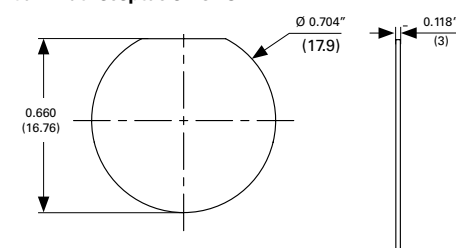
Fig. 7

Panel cut-out

Square flange receptacle - UTOX0



Jam nut receptacle - UTOX7



Dimensions in inches (millimeters)

Accessories

Dustcap (Receptacle)



Gasket



Description	Part number
-------------	-------------

IP68	UT010DCG*
------	-----------

*For dustcap without chain, omit "G",
e.g. UT012DC

Part number

UTFD12B

Dustcap (Plug)



Description	Part number
-------------	-------------

IP68	UTG610DCG*
------	------------

*For dustcap without chain, omit "G",
e.g. UT612DC

Part number

SMSPKE0

Note: See Page 132 for more information

Dummy contact #16



Tooling

Tooling for #16 / #20 stamped and machined contacts



Crimp tooling (without Shandles)



#16, #12 and #8 machined contacts



Extraction tool #16

Fig. 1



Fig. 2



Contact size	Contacts	Part number of head
Standard contacts #16 Ø 0.062" (1.6)	RM/RC 28M1K ⁽¹⁾	S16RCM20*
	RM/RC 24M9K ⁽¹⁾	S16RCM20*
	RM/RC 20M13K ⁽¹⁾	S16RCM20*
	RM/RC 20M12K ⁽¹⁾	S16RCM20*
	RM/RC 16M23K ⁽¹⁾	S16RCM16*
	RM/RC 14M30K ⁽¹⁾	S16RCM14*
	SM/SC 24ML1TK6 ⁽¹⁾	S16SCM20*
	SM/SC 20ML1TK6 ⁽¹⁾	S16SCM20*
	SM/SC 16ML1TK6 ⁽¹⁾	S16SCML1*
	SM/SC 14ML1TK6 ⁽¹⁾	S16SCML1*
	SM/SC 16ML11TK6 ⁽¹⁾	S16SCML11*

(1) Example of plating, for other plating options see Page 126

* Heads to be used with handle PN: SHANDLES

Description	Part number
-------------	-------------

Crimp tool	M20S-1J
------------	---------

Die casts and stop bushings	See Page 133
-----------------------------	--------------

Description	Part number
-------------	-------------

Fig. 1	RX2025GE1
--------	-----------

Fig. 2 - Long endurance tool	RX2031J
------------------------------	---------

Description	Part number
-------------	-------------

Fig. 1	RX2025GE1
--------	-----------

Fig. 2 - Long endurance tool	RX2031J
------------------------------	---------

Contacts #16

Contact style	Contact type	Cable acceptance	Cable acceptance		Part number		Wire Ø max		Insulator Ø max	
		AWG	inch ²	mm ²	Male	Female	inch	mm	inch	mm
Crimp contacts	Machined	30-28	0.001"-0.003"	0.06-0.08	RM28M1K ⁽¹⁾	RC28M1K ⁽¹⁾	0.021"	0.55	0.039"	1.00
	Machined	26-24	0.005"-0.009"	0.13-0.25	RM24M9K ⁽¹⁾	RC24M9K ⁽¹⁾	0.031"	0.80	0.062"	1.58
	Machined	22-20	0.012"-0.020"	0.32-0.50	RM20M13K ⁽¹⁾	RC20M13K ⁽¹⁾	0.045"	1.15	0.070"	1.80
	Machined	22-20	0.012"-0.020"	0.32-0.50	RM20M12K ⁽¹⁾	RC20M12K ⁽¹⁾	0.045"	1.15	0.086"	2.20
	Machined	20-16	0.020"-0.059"	0.50-1.48	RM16M23K ⁽¹⁾	RC16M23K ⁽¹⁾	0.070"	1.80	0.125"	3.20
	Machined	16-14	0.059"-0.098"	1.48-2.48	RM14M30K ⁽¹⁾	RC14M30K ⁽¹⁾	0.090"	2.30	0.125"	3.20
	Stamped and formed reeled contacts See note ⁽²⁾ for loose piece	26-24	0.005"-0.009"	0.13-0.25	SM24M1TK6 ⁽¹⁾⁽²⁾	SC24M1TK6 ⁽¹⁾⁽²⁾	—	—	0.035"-0.062"	0.90-1.58
		22-20	0.012"-0.020"	0.32-0.50	SM20M1TK6 ⁽¹⁾⁽²⁾	SC20M1TK6 ⁽¹⁾⁽²⁾	—	—	0.047"-0.082"	1.20-2.10
		18-16	0.031"-0.059"	0.82-1.48	SM16M1TK6 ⁽¹⁾⁽²⁾	SC16M1TK6 ⁽¹⁾⁽²⁾	—	—	0.125"	3.20
		18-16	0.031"-0.059"	0.82-1.48	SM16M11TK6 ⁽¹⁾⁽²⁾	SC16M11TK6 ⁽¹⁾⁽²⁾	—	—	0.118"	3.00
	14	0.098"	2.48	SM14M1TK6 ⁽¹⁾⁽²⁾	SC14M1TK6 ⁽¹⁾⁽²⁾	—	—	0.125"	3.20	
PCB	Machined ⁽³⁾	—			RM20M12E83K ⁽¹⁾	RC20M12E84K ⁽¹⁾	—	—	—	—
Coaxial	Cable multipiece	see Pages 130 to 132			RMDXK10D28	RCDXK1D28	—	—	—	—
	Cable monocrimp	see Pages 130 to 132			RMDX60xxD28	RCDX60xxD28	—	—	—	—
	Twisted pair multipiece	see Pages 130 to 132			RMDXK10D28 + yorx090	RCDXK1D28 + yorx090	—	—	—	—
	Twisted pair monocrimp	see Pages 130 to 132			RMDX60xxD28	RCDX60xxD28	—	—	—	—
Fiber optic	POF contacts (Plastic Optical Fiber)	—			RMPOF1000	RCPOF1000B	—	—	—	—

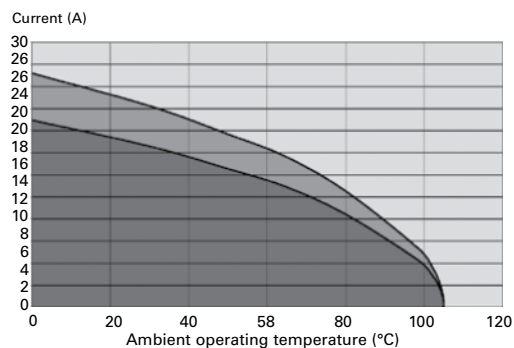
(1) Example of plating, for other plating see

(2) Loose piece contact available by adding "L" after the "M" for the contact size and the plating. Example: SM20M1TK6 becomes SM20ML1TK6

Electrical characteristics

UL	CSA	IEC
10A 500V with AWG16 wire	7A 500V with AWG16 wire	13A 150V 2.5kV 3

UTOX 104 derating curves

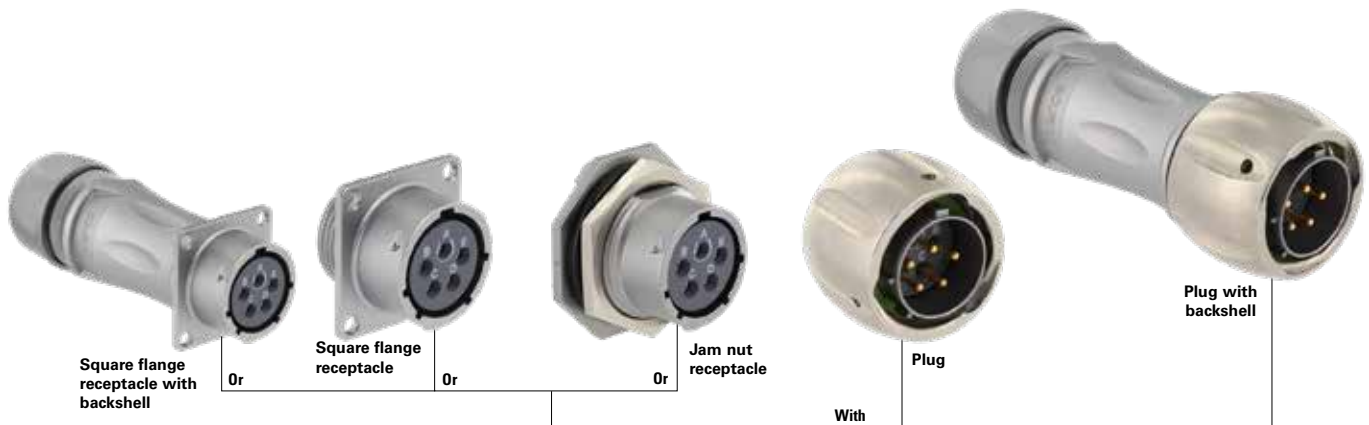


- Current use
- Limited use
- Not recommended

Test conditions

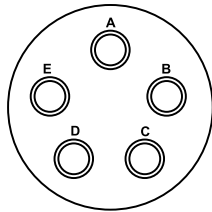
Contact used: machined contacts
Wires used: 16 AWG

Derating curves based on continuous current application.



Connector part numbers

UTOX 14E5/14D5



5 contacts
10A/600V
per UL 1977
with AWG16 wire

Contact type	Connector type	Backshell	Part number Male insert	Female insert
Handsolder electrical contacts loaded see Page 49	Square flange receptacle	Without (Fig. 1)	UTOX014E5P	UTOX014E5S
	Square flange receptacle	Cable gland unshielded version (Fig. 1B)	UTOX0M14E5P	UTOX0M14E5S
	Square flange receptacle	Cable gland shielded version (Fig. 1B)	UTOX0MS14E5P	UTOX0MS14E5S
	Plug	Without (Fig. 2) ^{Note 1}	UTOX614E5P	UTOX614E5S
	Plug	Cable gland unshielded version (Fig. 3)	UTOX6M14E5P	UTOX6M14E5S
	Plug	Cable gland shielded version (Fig. 3)	UTOX6MS14E5P	UTOX6MS14E5S
	Jam nut receptacle	Without (Fig. 4)	UTOX714E5P	UTOX714E5S
PCB contacts loaded see Page 49	Square flange receptacle	Without (Fig. 2)	UTOX014D5P	UTOX014D5S
	Jam nut receptacle with stand off and without hold down clip	Without (Fig. 5)	UTOX714D5P	UTOX714D5S
	Jam nut receptacle with stand off and with hold down clips	Without (Fig. 6)	UTOX714D5P32	UTOX714D5S32

For discrimination/keying methods see **Page 150**

Sealed unmated

Note 1: It is necessary to add a backshell to the plug assembly.

Souriau UTOX series

14E5/14D5 (Shell size 14, 5x#16)

Dimensions (for mated connector length see Page 121)

Square flange receptacle - UTOX0

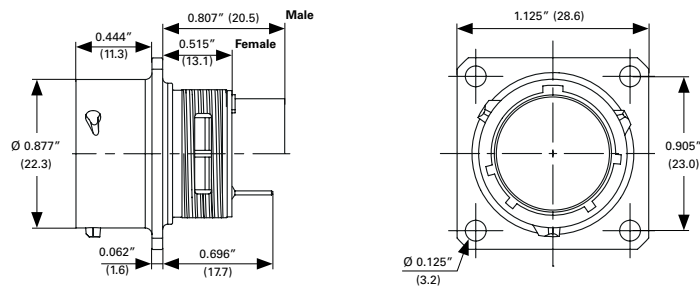


Fig. 1

Square flange receptacle with backshell - UTOX0M, UTOX0MS

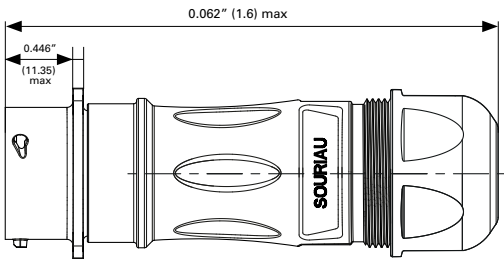


Fig. 1B

Plug - UTOX6, UTOX6M and UTOX6MS

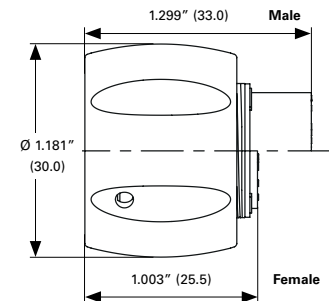


Fig. 2

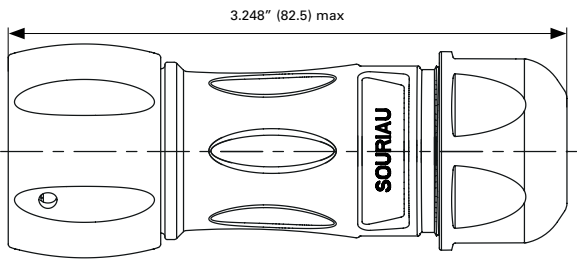


Fig.3 Cable diameter acceptance from 0.393" to 0.511" (10 to 13)

Jam nut receptacle UTOX7

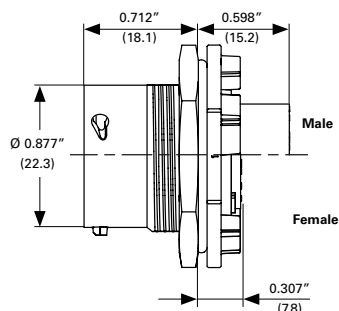


Fig. 4

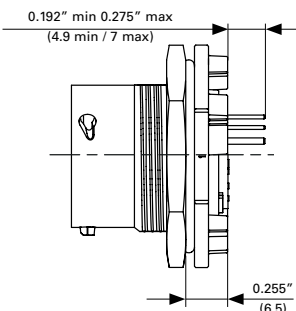


Fig. 5

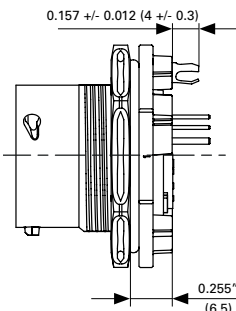
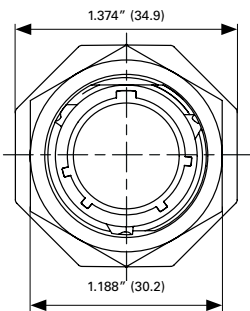
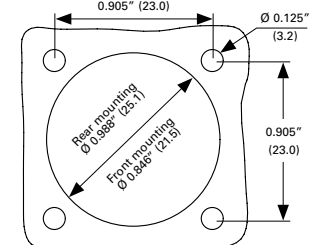


Fig. 6



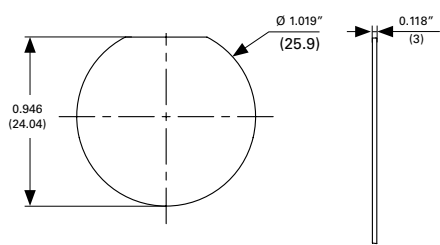
Panel cut-out

Square flange receptacle - UTOX0



Dimensions in inches (millimeters)

Jam nut receptacle - UTOX7



Accessories

Dustcap (Receptacle)



Description	Part number
-------------	-------------

IP68	UT014DCG*
------	-----------

*For dustcap without chain, omit "G", e.g. UT014DC

Dustcap (Plug)



Description	Part number
-------------	-------------

IP68	UTG614DCG*
------	------------

*For dustcap without chain, omit "G", e.g. UTG614DC

Gasket



Part number

UTFD14B

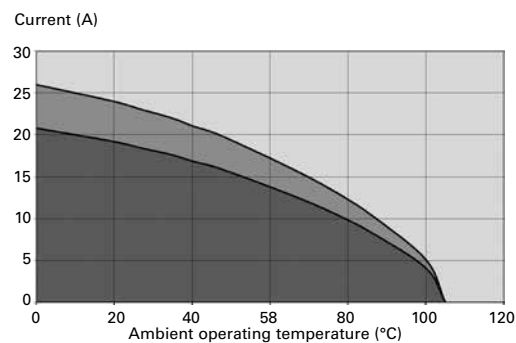
Contacts

Contact size	Contact type	Plating	Cable acceptance AWG	Cable acceptance inch ²	mm ²	Wire stripping length inch	mm
#16	Handsolder loaded in the connector	Min 0.4μ gold over 0.8μ Ni	18 - 14	0.031"-0.098"	0.82 - 2.48	0.196"	5
	PCB machined ⁽¹⁾	Min 0.4μ gold over 0.8μ Ni	—	—	—	—	—

Electrical characteristics

UL	CSA	IEC
10A 600V with AWG16 wire	10A 600V with AWG16 wire	16A 150V 2.5kV 3

UTOX 14E5/14D5 derating curves



- Current use
- Limited use
- Not recommended

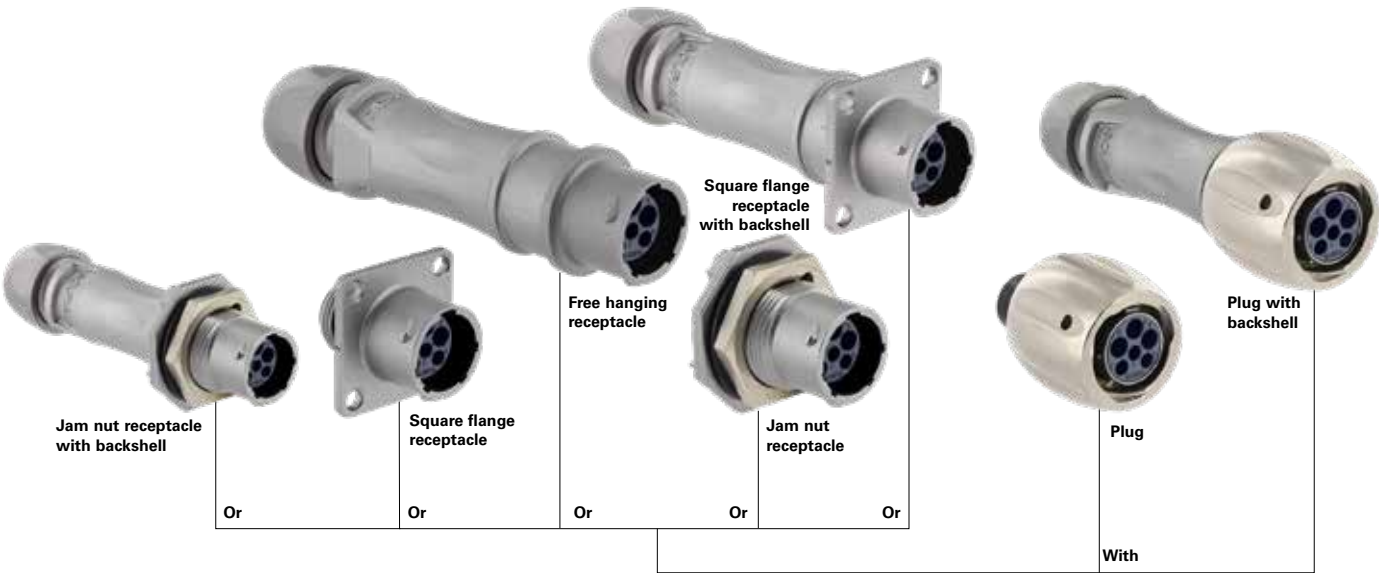
Test conditions

Contact used: machined contacts
Wires used: 20 AWG

Derating curves based on continuous current application.

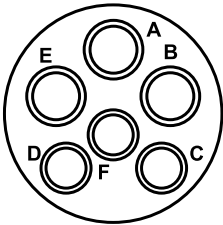
Souriau UTOX series

103W3 (Shell size 10, 3x#20, 3x#16)



Connector part numbers

UTOX 103W3



6 contacts
13A/500V per UL1977 with AWG16
wire (3 signal poles with crimp
contacts RM/RC20W and SM/SC20W)

7.5A/250V per UL1977 with AWG20
wire (3 power poles with crimp
contacts RM/RC16 SM/SC16M)

Contact type	Connector type	Backshell	Part number Male insert	Female insert
Crimp contacts supplied separately see Page 46	Square flange receptacle	Without (Fig. 1)	UTOX0103W3P	UTOX0103W3S
	Square flange receptacle	Cable gland unshielded version (Fig. 2)	UTOX0M103P	UTOX0M103S
	Square flange receptacle	Cable gland shielded version (Fig. 2)	UTOX0MS103P	UTOX0MS103S
	Free hanging receptacle	Cable gland unshielded version (Fig. 3)	UTOX1M103W3P	UTOX1M103W3S
	Free hanging receptacle	Cable gland shielded version (Fig. 3)	UTOX1MS103W3P	UTOX1MS103W3S
	Plug	Without (Fig. 4) ^{Note 1}	UTOX6103W3P	UTOX6103W3S
	Plug	Cable gland shielded version (Fig. 5)	UTOX6MS103W3P	UTOX6MS103W3S
	Plug	Cable gland unshielded version (Fig. 5)	UTOX6M103W3P	UTOX6M103W3S
	Jam nut receptacle	Without (Fig. 6)	UTOX7103W3P	UTOX7103W3S
	Jam nut receptacle	Cable gland unshielded version (Fig. 8)	UTOX7M10W3P	UTOX7M10W3S
	Jam nut receptacle	Cable gland shielded version (Fig. 8)	UTOX7MS10W3P	UTOX7MS10W3S
PCB contacts supplied separately see Page 46	Jam nut receptacle with stand off and without hold down clip	Without (Fig. 7)	UTOX7103W3P	UTOX7103W3S

For discrimination/keying methods see **Page 132**

Note 1: It is necessary to add a backshell to the plug assembly.

Dimensions (for mated connector length see Page 121)

Square flange receptacle - UTOX0, UTOX0M and UTOX0MS

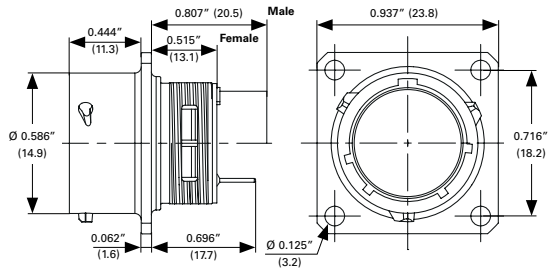


Fig. 1

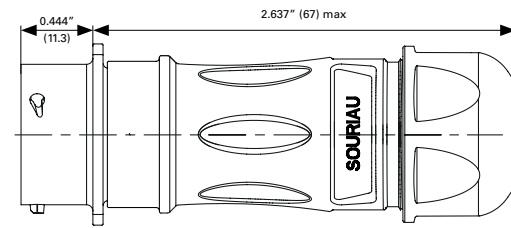


Fig. 2 Cable diameter acceptance from 0.157" to 0.275" (4 to 7)

Free hanging - UTOX1M and UTOX1MS

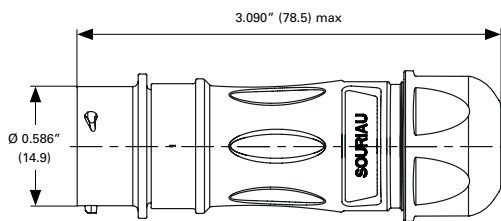


Fig. 3 Cable diameter acceptance from 0.157" to 0.275" (4 to 7)

Plug - UTOX6, UTOX6M and UTOX6MS

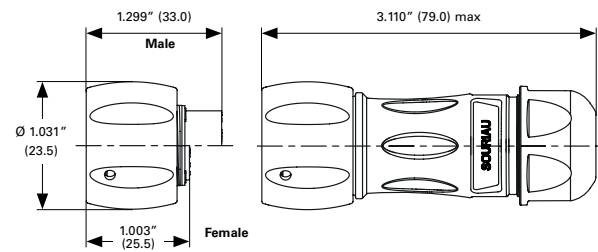


Fig. 4

Fig.5 Cable diameter acceptance from 0.157" to 0.275" (4 to 7)

Jam nut receptacle UTOX7

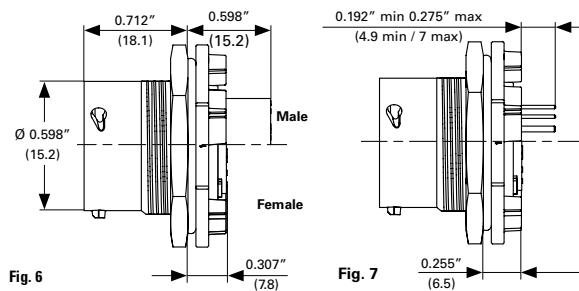


Fig. 6

Jam nut receptacle with backshell - UTOX7M, UTOX7MS

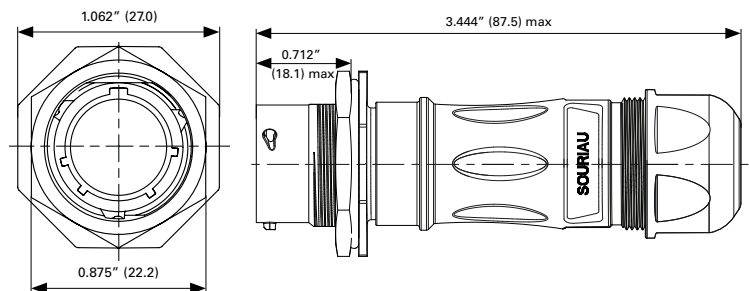
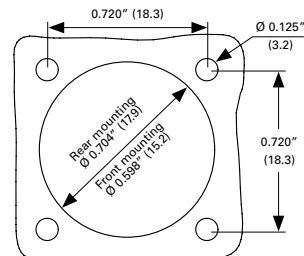


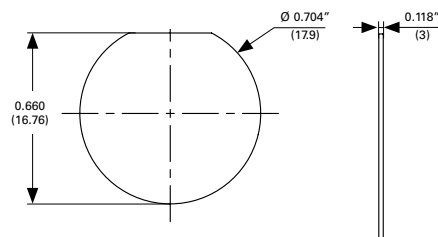
Fig. 8

Panel cut-out

Square flange receptacle - UTOX0



Jam nut receptacle - UTOX7



Dimensions in inches (millimeters)

Souriau UTOX series

103W3 (Shell size 10, 3x#20, 3x#16)

Accessories

Dustcap (Receptacle)



Description	Part number
-------------	-------------

IP68	UT010DCG*
*For dustcap without chain, omit "G", e.g. UT012DC	

Part number

UTFD12B

Gasket



Dustcap (Plug)



Description	Part number
-------------	-------------

IP68	UTG610DCG*
*For dustcap without chain, omit "G", e.g. UT612DC	

Part number

SMSPKE0

Note: See Page 132 for more information

Dummy contact #16



Tooling

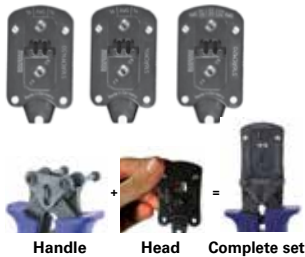
Tooling for #20 and #16 stamped and machined contacts



Description	Part number
-------------	-------------

Handle (without head)	Shandles
Box containing handle and several crimp tooling	Toolkit

Crimp tooling (without Shandles)



Contact size	Contacts	Part number of head
--------------	----------	---------------------

Standard contacts #16 Ø 0.062" (1.6)	RM/RC 28M1K ⁽¹⁾	S16RCM20*
	RM/RC 24M9K ⁽¹⁾	S16RCM20*
	RM/RC 20M13K ⁽¹⁾	S16RCM20*
	RM/RC 20M12K ⁽¹⁾	S16RCM20*
	RM/RC 16M23K ⁽¹⁾	S16RCM16*
	RM/RC 14M30K ⁽¹⁾	S16RCM14*
	SM/SC 24ML1TK6 ⁽¹⁾	S16SCM20*
	SM/SC 20ML1TK6 ⁽¹⁾	S16SCM20*
	SM/SC 16ML1TK6 ⁽¹⁾	S16SCML1*
	SM/SC 14ML1TK6 ⁽¹⁾	S16SCML1*
	SM/SC 16ML11TK6 ⁽¹⁾	S16SCML11*

Standard contacts #20 Ø 0.039" (1.0)	RM/RC 24W3K ⁽¹⁾	S20RCM*
	RM/RC 20W3K ⁽¹⁾	S20RCM*
	RM/RC 18W3K ⁽¹⁾	S20RCM*
	SM/SC 24WL3 ⁽¹⁾⁽²⁾	S20SCM20*
	SM/SC 20WL3 ⁽¹⁾⁽²⁾	S20SCM20*

(1) Example of plating, for other plating options see Page 126

(2) Loose contact

* Heads to be used with handle PN: SHANDLES

Description	Part number
-------------	-------------

Crimp tool	M20S-1J
Die casts and stop bushings	See Page 133

#16, #12 and #8 machined contacts



Extraction tool #16g

Fig. 1



Fig. 2



Dimensions in inches (millimeters)

Description	Part number
-------------	-------------

Fig. 1	RX2025GE1
Fig. 2 - Long endurance tool	RX2031J

Extraction tool #20



Description	Part number
-------------	-------------

Contacts #20 Ø 0.039" (1.0)	RX20D44
--------------------------------	---------

Contacts #16

Contact style	Contact type	Cable acceptance AWG	Cable acceptance		Part number Male	Female	Wire Ø max		Insulator Ø max	
			inch ²	mm ²			inch	mm	inch	mm
Crimp contacts	Machined	30-28	0.001"-0.003"	0.06-0.08	RM28M1K ⁽¹⁾	RC28M1K ⁽¹⁾	0.021"	0.55	0.039"	1.00
	Machined	26-24	0.005"-0.009"	0.13-0.25	RM24M9K ⁽¹⁾	RC24M9K ⁽¹⁾	0.031"	0.80	0.062"	1.58
	Machined	22-20	0.012"-0.020"	0.32-0.50	RM20M13K ⁽¹⁾	RC20M13K ⁽¹⁾	0.045"	1.15	0.070"	1.80
	Machined	22-20	0.012"-0.020"	0.32-0.50	RM20M12K ⁽¹⁾	RC20M12K ⁽¹⁾	0.045"	1.15	0.086"	2.20
	Machined	20-16	0.020"-0.059"	0.50-1.48	RM16M23K ⁽¹⁾	RC16M23K ⁽¹⁾	0.070"	1.80	0.125"	3.20
	Machined	16-14	0.059"-0.098"	1.48-2.48	RM14M30K ⁽¹⁾	RC14M30K ⁽¹⁾	0.090"	2.30	0.125"	3.20
	Stamped and formed reeled contacts See note ⁽²⁾ for loose piece	26-24	0.005"-0.009"	0.13-0.25	SM24M1TK6 ⁽¹⁾⁽²⁾	SC24M1TK6 ⁽¹⁾⁽²⁾	—	—	0.035"-0.062"	0.90-1.58
		22-20	0.012"-0.020"	0.32-0.50	SM20M1TK6 ⁽¹⁾⁽²⁾	SC20M1TK6 ⁽¹⁾⁽²⁾	—	—	0.047"-0.082"	1.20-2.10
		18-16	0.031"-0.059"	0.82-1.48	SM16M1TK6 ⁽¹⁾⁽²⁾	SC16M1TK6 ⁽¹⁾⁽²⁾	—	—	0.125"	3.20
		18-16	0.031"-0.059"	0.82-1.48	SM16M11TK6 ⁽¹⁾⁽²⁾	SC16M11TK6 ⁽¹⁾⁽²⁾	—	—	0.118"	3.00
		14	0.098"	2.48	SM14M1TK6 ⁽¹⁾⁽²⁾	SC14M1TK6 ⁽¹⁾⁽²⁾	—	—	0.125"	3.20
PCB	Machined ⁽³⁾	—	—	—	RM20M12E83K ⁽¹⁾	RC20M12E84K ⁽¹⁾	—	—	—	—
Coaxial	Cable multipiece	see Pages 130 to 132			RMDXK10D28	RCDXK1D28	—	—	—	—
	Cable monocrimp	see Pages 130 to 132			RMDX60xxD28	RCDX60xxD28	—	—	—	—
	Twisted pair multipiece	see Pages 130 to 132			RMDXK10D28 + yox090	RCDXK1D28 + yox090	—	—	—	—
	Twisted pair monocrimp	see Pages 130 to 132			RMDX60xxD28	RCDX60xxD28	—	—	—	—
Fiber optic	POF contacts (Plastic optical fiber)	—	—	—	RMPOF1000	RCPOF1000B	—	—	—	—

(1) Example of plating, for other plating see Page 126

(2) Loose piece contact available by adding "L" after the "M" for the contact size and the plating. Example: SM20M1TK6 becomes SM20ML1TK6

(3) For dimensions see Pages 133 or 134

Contacts #20

Contact style	Contact type	Cable acceptance AWG	Cable acceptance		Part number Male	Female	Wire Ø max		Insulator Ø max	
			inch ²	mm ²			inch	mm	inch	mm
Crimp contacts	Machined	26-24	0.005"-0.009"	0.13-0.25	RM24W3K	RC24W3K	0.031"	0.82	0.062"	1.58
	Machined	22-20	0.012"-0.020"	0.32-0.50	RM20W3K	RC20W3K	0.045"	1.15	0.070"	1.80
	Machined	20-18	0.020"-0.031"	0.50-0.82	RM18W3K	RC18W3K	0.051"	1.30	0.082"	2.10
	Stamped and formed reeled contacts See note ⁽²⁾ for loose piece	26-24	0.005"-0.009"	0.13-0.25	SM24W3TK6 ⁽¹⁾⁽²⁾	SC24W3TK6 ⁽¹⁾⁽²⁾	—	—	0.035"-0.062"	0.90-1.58
		26-24	0.005"-0.009"	0.13-0.25	SM24W3S26 ⁽¹⁾⁽²⁾	SC24W3S25 ⁽¹⁾⁽²⁾	—	—	0.035"-0.062"	0.90-1.58
		22-20	0.012"-0.020"	0.32-0.50	SM20W3TK6 ⁽¹⁾⁽²⁾	SC20W3TK6 ⁽¹⁾⁽²⁾	—	—	0.047"-0.082"	1.20-2.10
		22-20	0.012"-0.020"	0.32-0.50	SM20W3S26 ⁽¹⁾⁽²⁾	SC20W3S25 ⁽¹⁾⁽²⁾	—	—	0.047"-0.082"	1.20-2.10

(1) Example of plating, for other plating see Page 126

(2) Loose piece contact available by adding "L" after the "M" for the contact size and the plating. Example: SM20W3TK6 becomes SM20WL3TK6

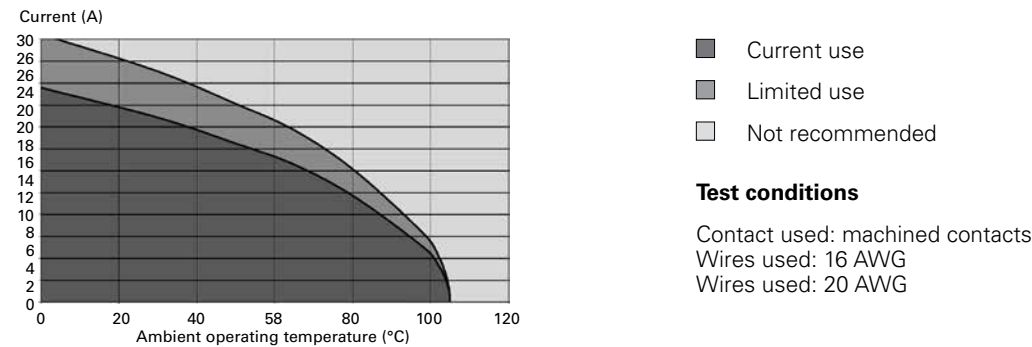
Souriau UTOX series

103W3 (Shell size 10, 3x#20, 3x#16)

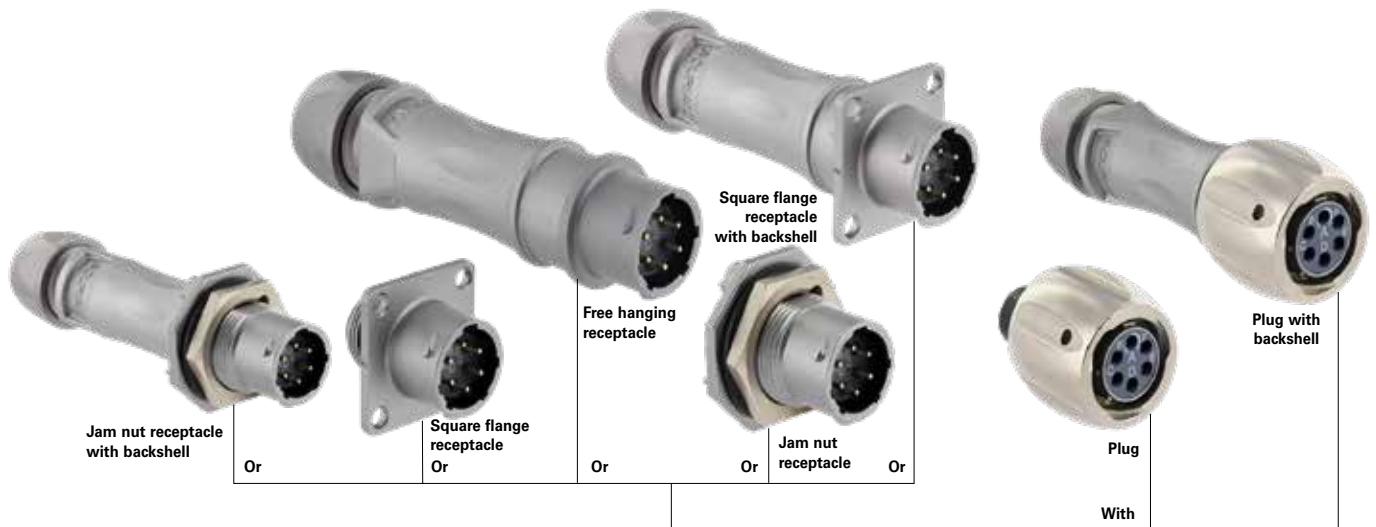
Electrical characteristics

UL	CSA	IEC
(3 signal poles with crimp contacts RM/RC20W and SM/SC20W)	(3 signal poles with crimp contacts RM/RC20W and SM/SC20W)	5A 32V 1.5kV 3 temperture elevation: 50°C
(3 power poles with crimp contacts RM/RC16M and SM/SC16M)	(3 power poles with crimp contacts RM/RC16M and SM/SC16M)	

UTOX 103W3 derating curves



Derating curves based on continuous current application.

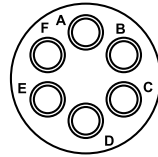


Connector part numbers

UTOX 106

6 contacts
4.5A/250V
per UL 1977 with
AWG20 wire

10E6/10D6 (Sealed unmated)



6 contacts
6A/250V
per UL 1977 with
AWG20 wire

Contact type	Connector type	Backshell	Part number Male insert	Female insert
Crimp contacts supplied separately see Page 60	Square flange receptacle	Without (Fig. 1)	UTOX0106P	UTOX0106S
	Square flange receptacle	Cable gland unshielded version (Fig. 2)	UTOX0M106P	UTOX0M106S
	Square flange receptacle	Cable gland shielded version (Fig. 2)	UTOX0MS106P	UTOX0MS106S
	Free hanging receptacle	Cable gland unshielded version (Fig. 3)	UTOX1M106P	UTOX1M106S
	Free hanging receptacle	Cable gland shielded version (Fig. 3)	UTOX1MS106P	UTOX1MS106S
	Plug	Without (Fig. 4)	UTOX6106P	UTOX6106S
	Plug	Cable gland unshielded version (Fig. 5)	UTOX6M106P	UTOX6M106S
	Plug	Cable gland shielded version (Fig. 5)	UTOX6MS106P	UTOX6MS106S
	Jam nut receptacle	Without (Fig. 6)	UTOX7106P	UTOX7106S
	Jam nut receptacle	Cable gland unshielded version (Fig. 3)	UTOX7M106P	UTOX7M106S
	Jam nut receptacle	Cable gland shielded version (Fig. 3)	UTOX7MS106P	UTOX7MS106S
PCB contacts supplied separately see Page 60	Jam nut receptacle	Without (Fig. 7)	UTOX7106P	UTOX7106S
Handsolder electrical contacts loaded	Square flange receptacle	Without (Fig. 1)	UTOX010E6P	UTOX010E6S
	Plug	Without (Fig. 4) ^{Note 1}	UTOX610E6P	UTOX610E6S
	Plug	Cable gland unshielded version (Fig. 5)	UTOX6M10E6P	UTOX6M10E6S
	Plug	Cable gland shielded version (Fig. 5)	UTOX6MS10E6P	UTOX6MS10E6S
	Jam nut receptacle	Without (Fig. 6)	UTOX710E6P	UTOX710E6S
PCB contacts supplied separately see Page 60	Jam nut receptacle	Without (Fig.7)	UTOX710E6P	UTOX710E6S
PCB contacts loaded see Page 60	Square flange receptacle	Without (Fig.1)	UTOX010D6P	UTOX010D6S
	Jam nut receptacle with stand off and without hold down clip	Without (Fig.8)	UTOX710D6P	UTOX710D6S
	Jam nut receptacle with stand off and with hold down clips	Without (Fig.8)	UTOX710D6P32	UTOX710D6S32

For discrimination/keying methods see **Page 150**

Note 1: It is necessary to add a backshell to the plug assembly.

Sealed unmated

Souriau UTOX series

106 - 10E6/10D6 (Shell size 10, 6x#20)

Dimensions (for mated connector lengths see Page 121)

Square flange receptacle - UTOX0, UTOX0M and UTOX0MS

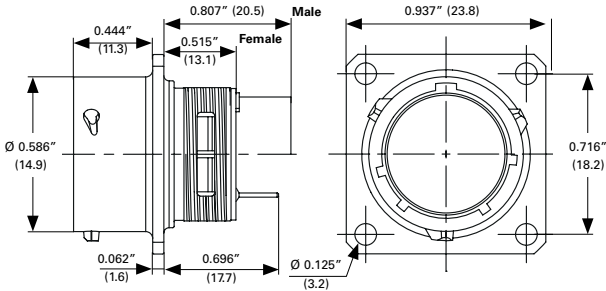


Fig. 1

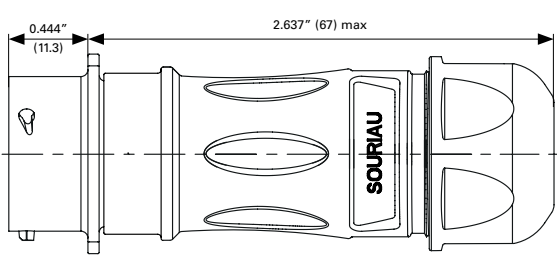


Fig. 2 Cable diameter acceptance from 0.157" to 0.275" (4 to 7)

Free hanging - UTOX1M and UTOX1MS

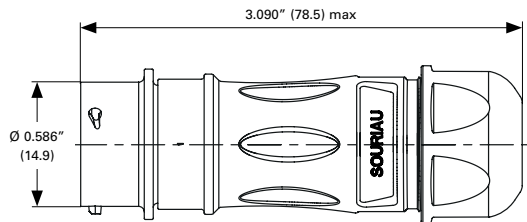


Fig. 3 Cable diameter acceptance from 0.157" to 0.275" (4 to 7)

Plug - UTOX6, UTOX6M and UTOX6MS

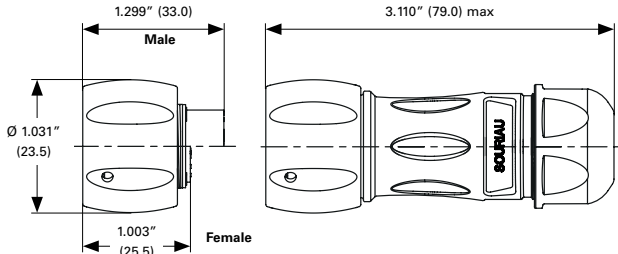


Fig. 4

Fig. 5 Cable diameter acceptance from 0.157" to 0.275" (4 to 7)

Jam nut receptacle UTOX7

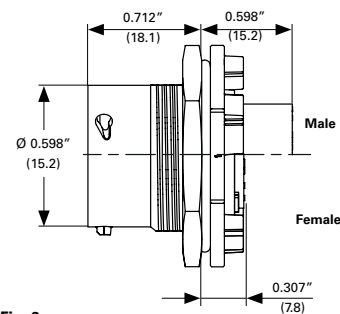


Fig. 6

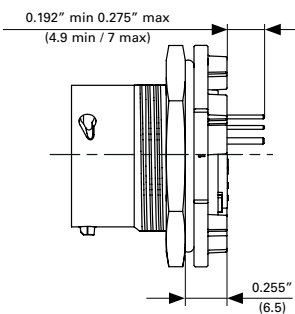


Fig. 7

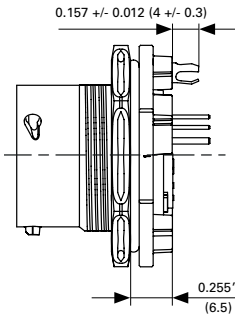
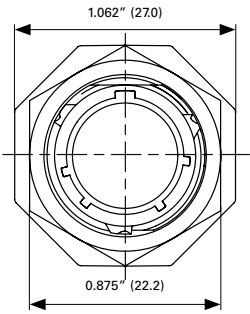


Fig. 8



Jam nut receptacle with backshell - UTOX7M, UTOX7MS

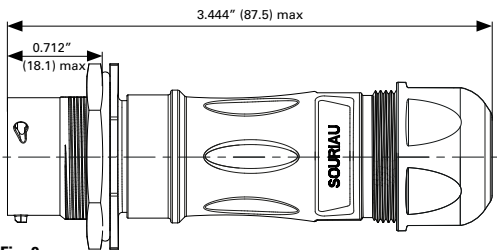
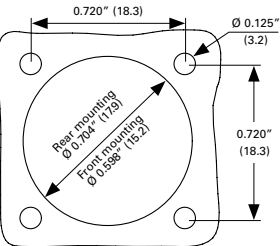


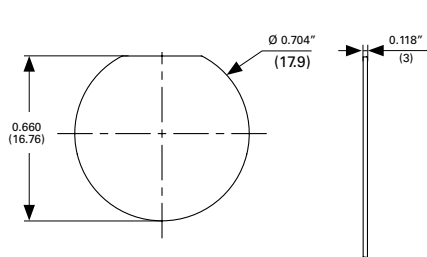
Fig. 9

Panel cut-out

Square flange receptacle - UTOX0



Jam nut receptacle - UTOX7



Dimensions in inches (millimeters)

Accessories

Dustcap (Receptacle)



Description	Part number
-------------	-------------

IP68	UT010DCG*
------	-----------

*For dustcap without chain, omit "G",
e.g. UT010DC

Dustcap (Plug)



Description	Part number
-------------	-------------

IP68	UTG610DCG*
------	------------

*For dustcap without chain, omit "G",
e.g. UT610DC

Gasket



Part number

UTFD12B

Tooling

#20 & #16 stamped and machined contacts



Description	Part number
-------------	-------------

Handle (without head)	SHANDLES
-----------------------	----------

Box containing handle and several crimp tooling	Toolkit
---	---------

Crimp tooling (without Shandles)



Handle

Head

Complete set

Contact size	Contacts	Part number of Head
--------------	----------	---------------------

Standard contacts	RM/RC 24W3K ^{(1)w}	S20RCM*
#20	RM/RC 20W3K ⁽¹⁾	S20RCM*
Ø 0.039" (1.0)	RM/RC 18W3K ⁽¹⁾	S20RCM*
	SM/SC 24WL3 ⁽¹⁾⁽²⁾	S20SCM20*
	SM/SC 20WL3 ⁽¹⁾⁽²⁾	S20SCM20*

(1) Example of plating, for other plating options see **Page 126**

(2) Loose contact

* Heads to be used with handle PN: SHANDLES

Extraction tool #20



Description	Part number
-------------	-------------

Contacts #20 Ø 0.039" (1.0)	RX20D44
--------------------------------	---------

Souriau UTOX series

106 - 10E6/10D6 (Shell size 10, 6x#20)

Contacts #20

Contact style	Contact type	Cable acceptance	Cable acceptance		Part number		Wire Ø max		Insulator Ø max	
		AWG	inch ²	mm ²	Male	Female	inch	mm	inch	mm
Crimp contacts	Machined	26-24	0.005"-0.009"	0.13-0.25	RM24W3K	RC24W3K	0.031"	0.80	0.062"	1.58
	Machined	22-20	0.012"-0.020"	0.32-0.50	RM20W3K	RC20W3K	0.045"	1.15	0.070"	1.80
	Machined	20-18	0.020"-0.031"	0.50-0.82	RM18W3K	RC18W3K	0.051"	1.30	0.082"	2.10
	Stamped and formed reeled contacts See note ⁽²⁾ for loose piece	26-24	0.005"-0.009"	0.13-0.25	SM24W3TK6 ⁽¹⁾⁽²⁾	SC24W3TK6 ⁽¹⁾⁽²⁾	—	—	0.035"-0.062"	0.90-1.58
		26-24	0.005"-0.009"	0.13-0.25	SM24W3S26 ⁽¹⁾⁽²⁾	SC24W3S25 ⁽¹⁾⁽²⁾	—	—	0.035"-0.062"	0.90-1.58
		22-20	0.012"-0.020"	0.32-0.50	SM20W3TK6 ⁽¹⁾⁽²⁾	SC20W3TK6 ⁽¹⁾⁽²⁾	—	—	0.047"-0.082"	1.20-2.10
		22-20	0.012"-0.020"	0.32-0.50	SM20W3S26 ⁽¹⁾⁽²⁾	SC20W3S25 ⁽¹⁾⁽²⁾	—	—	0.047"-0.082"	1.20-2.10

(1) Example of plating, for other plating see **Page 126**

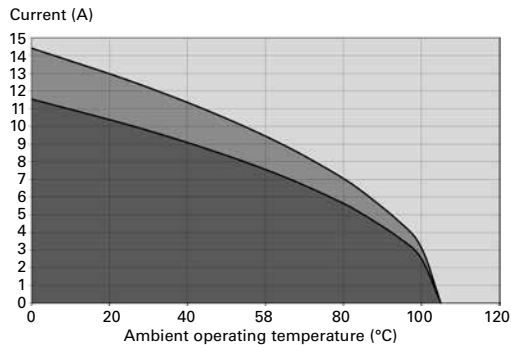
2): Loose piece contact available by adding "L" after the "W" for the contact size and the plating. Example: SM20W3TK6 becomes SM20WL3TK6

Contact style	Contact type	Plating	Cable acceptance (AWG)	Wire stripping length	
				inch	mm
Hand solder	Loaded in the connector	Min 0.4µ gold over 0.8µ Ni	20 to 18	0.149"	3.8

Electrical characteristics

UL	CSA	IEC
UTOX 106		
4.5A 250V with AWG20 wire	3A 250V with AWG20 wire	7A 32V 1.5kV 3
UTOX 10E6/10D6		
6A 250V with AWG20 wire	6A 250V with AWG20 wire	7A 32V 1.5kV 3

UTOX 106 - 10E6/10D6 derating curves



- Current use
- Limited use
- Not recommended

Test conditions

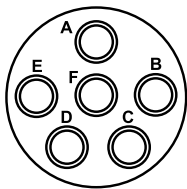
Contact used: machined contacts
Wires used: 20 AWG

Derating curves based on continuous current application.



Connector part numbers

UTOX 10E98/10D98



6 contacts
6A/250V
per UL 1977
with AWG20 wire

Contact type	Connector type	Backshell	Part number Male insert	Female insert
Handsolder electrical contacts loaded see Page 65	Square flange receptacle	Without (Fig. 1)	UTOX010E98P	UTOX010E98S
	Square flange receptacle	Cable gland unshielded version (Fig. 1B)	UTOX0M10E98P	UTOX0M10E98S
	Square flange receptacle	Cable gland shielded version (Fig. 1B)	UTOX0MS10E98P	UTOX0MS10E98S
	Plug	Without (Fig. 5) ^{Note 1}	UTOX610E98P	UTOX610E98S
	Plug	Cable gland unshielded version (Fig. 3)	UTOX6M10E98P	UTOX6M10E98S
	Plug	Cable gland shielded version (Fig. 3)	UTOX6MS10E98P	UTOX6MS10E98S
	Jam nut receptacle	Without (Fig. 4)	UTOX710E98P	UTOX710E98S
PCB contacts loaded see Page 65	Square flange receptacle	Without (Fig. 2)	UTOX010D98P	UTOX010D98S
	Jam nut receptacle with stand off and without hold down clip	Without (Fig. 5)	UTOX710D98P	UTOX710D98S
	Jam nut receptacle with stand off and with hold down clips	Without (Fig. 6)	UTOX710D98P32	UTOX710D98S32

For discrimination/keying methods see **Page 150**

Sealed unmated

Note 1: It is necessary to add a backshell to the plug assembly.

Souriau UTOX series

10E98/10D98 (Shell size 10, 6x#20)

Dimensions (for mated connector lengths see Page 121)

Square flange receptacle - UTOX0

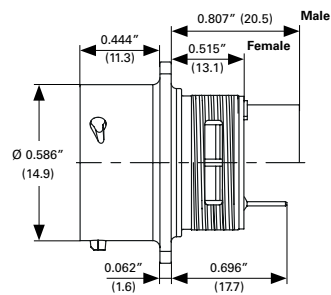


Fig. 1

Square flange receptacle with backshell - UTOX0M, UTOX0MS

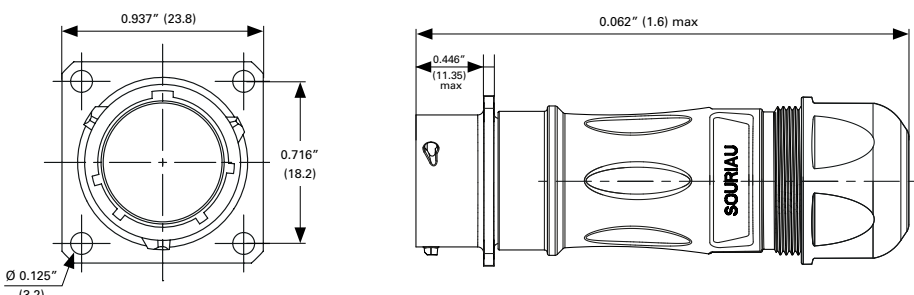


Fig. 1B

Plug - UTOX6, UTOX6M and UTOX6MS

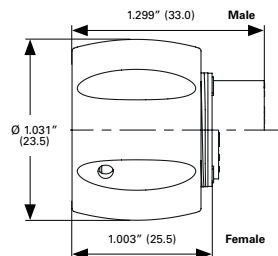


Fig. 2

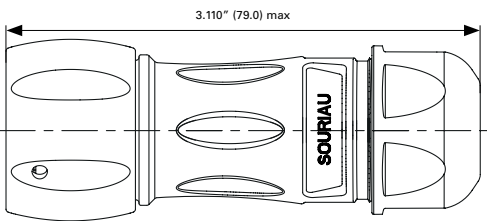


Fig.3 Cable diameter acceptance from 0.157" to 0.275" (4 to 7)

Jam nut receptacle UTOX7

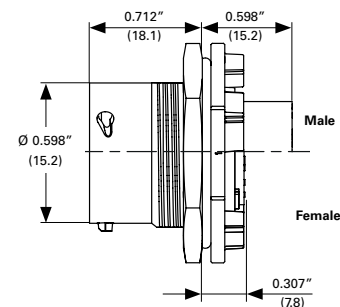


Fig. 4

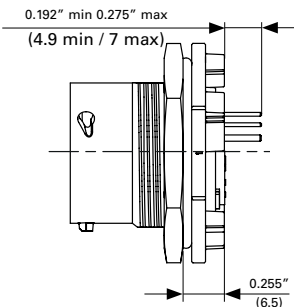


Fig. 5

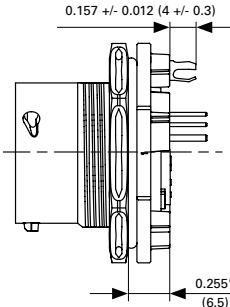
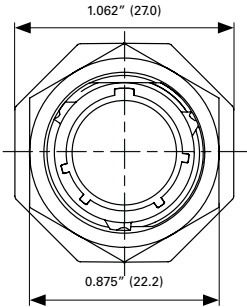
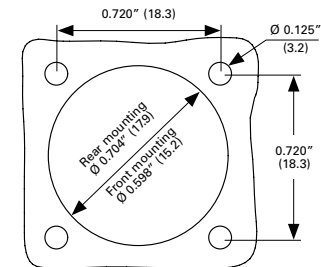


Fig. 6

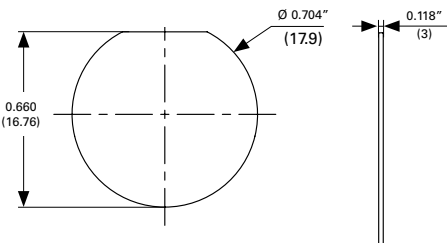


Panel cut out

Square flange receptacle - UTOX0



Jam nut receptacle - UTOX7



Dimensions in inches (millimeters)

Accessories

Dustcap (Receptacle)



Description	Part number
-------------	-------------

IP68	UT010DCG*
------	-----------

*For dustcap without chain, omit "G", e.g. UT012DC

Dustcap (Plug)



Description	Part number
-------------	-------------

IP68	UTG610DCG*
------	------------

*For dustcap without chain, omit "G", e.g. UT612DC

Gasket



Part number

UTFD12B

Contacts #20

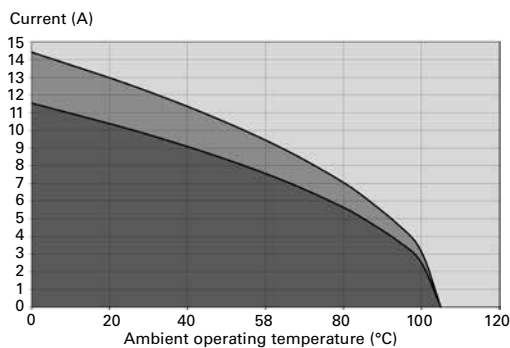
Contact style	Contact type	Plating	Cable acceptance (AWG)	Wire stripping length	
				inch	mm
Handsolder	Loaded in the connector	Min 0.4μ gold over 0.8μ Ni	20 to 18	0.149"	3.8

Electrical characteristics

UL	CSA	IEC
6A 250V with AWG20 wire	6A 250V with AWG20 wire	7A 50V 1.5kV 3

Electrical information according to the IEC 61984, with pollution degree IV and overvoltage category III.

UTOX 10E98/10D98 derating curves



- Current use
- Limited use
- Not recommended use

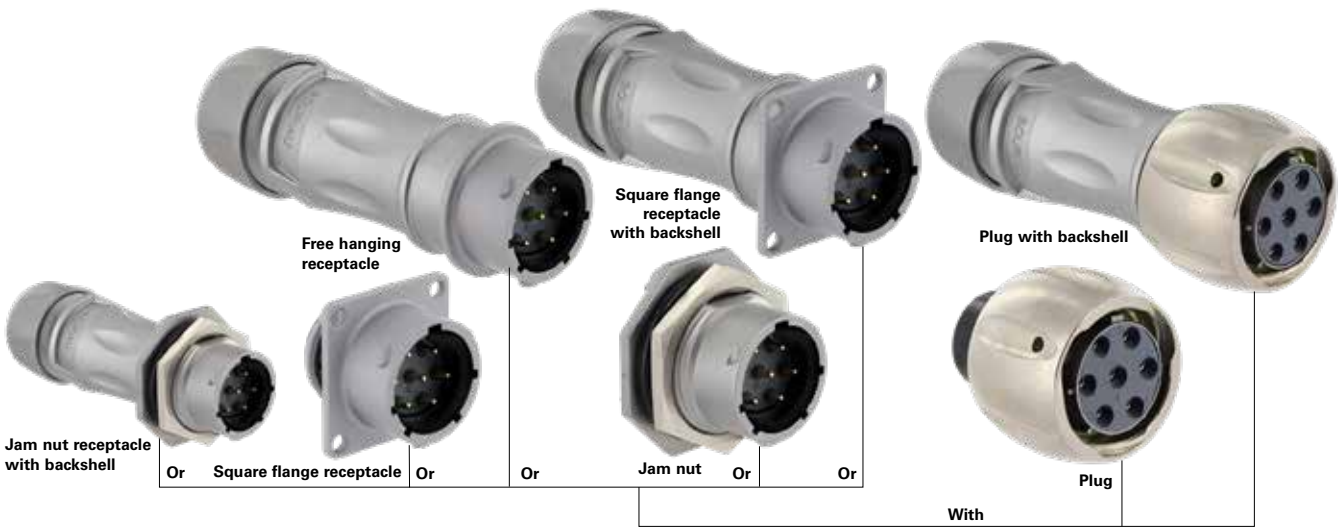
Test conditions

Contact used: machined contacts
Wires used: 16 AWG
Wires used: 20 AWG

Derating curves based on continuous current application.

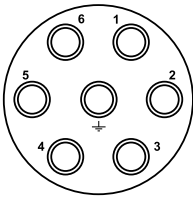
Souriau UTOX series

147 (Shell size 14, 6 + ground, 7x#16)



Connector part numbers

UTOX 147



6 contacts + ground
10A/500V
per UL 1977
with AWG16 wire

Contact type	Connector type	Backshell	Part number Male insert	Female insert
Crimp contacts supplied separately see Page 70	Square flange receptacle	Without (Fig. 1)	UTOX0147P	UTOX0147S
	Square flange receptacle	Cable gland unshielded version (Fig. 2)	UTOX0M147P	UTOX0M147S
	Square flange receptacle	Cable gland shielded version (Fig. 2)	UTOX0MS147P	UTOX0MS147S
	Free hanging receptacle	Cable gland unshielded version (Fig. 3)	UTOX1M147P	UTOX1M147S
	Free hanging receptacle	Cable gland shielded version (Fig. 3)	UTOX1MS147P	UTOX1MS147S
	Plug	Without (Fig. 4) ^{Note 1}	UTOX6147P	UTOX6147S
	Plug	Cable gland unshielded version (Fig. 5)	UTOX6M147P	UTOX6M147S
	Plug	Cable gland shielded version (Fig. 5)	UTOX6MS147P	UTOX6MS147S
	Jam nut receptacle	Without (Fig. 6)	UTOX7147P	UTOX7147S
	Jam nut receptacle	Cable gland unshielded version (Fig. 10)	UTOX7M147P	UTOX7M147S
Screw contacts loaded	Jam nut receptacle	Cable gland shielded version (Fig. 10)	UTOX7MS147P	UTOX7MS147S
	Jam nut receptacle	Without (Fig. 9)	UTOX7147PSCR	UTOX7147SSCR
PCB contacts Loaded	Jam nut receptacle with stand off and with hold down clips	Without (Fig 10)	UTOX7147PSEK9	–

For discrimination/keying methods see **Page 150**

Note 1: It is necessary to add a backshell to the plug assembly.

Dimensions (for mated connector lengths see Page 121)

Square flange receptacle - UTOX0, UTOX0M and UTOX0MS

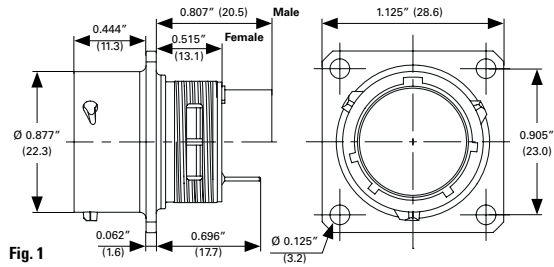


Fig. 1

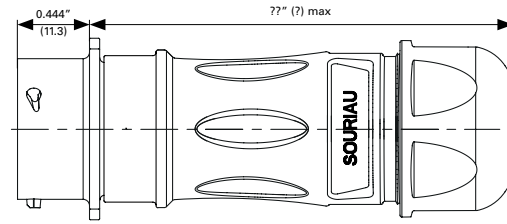


Fig. 2 Cable diameter acceptance from 0.393" to 0.511" (10 to 13)

Free hanging - UTOX1M and UTOX1MS

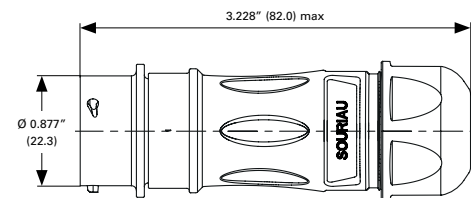


Fig. 3 Cable diameter acceptance from 0.393" to 0.511" (10 to 13)

Plug - UTOX6, UTOX6M and UTOX6MS

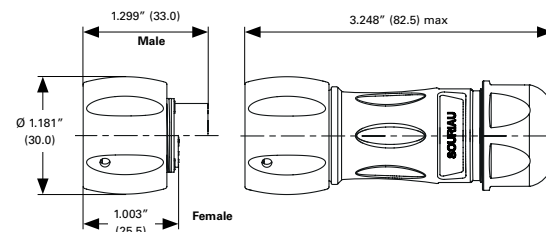


Fig. 4

Fig. 5 Cable diameter acceptance from 0.393" to 0.511" (10 to 13)

Jam nut receptacle UTOX7

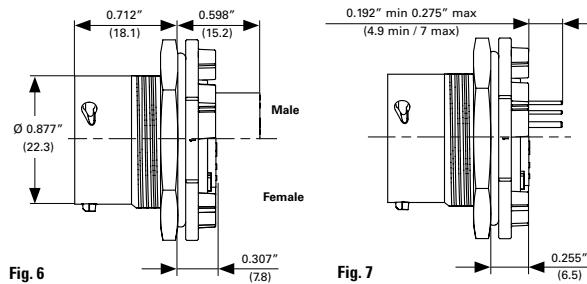


Fig. 6

Fig. 7

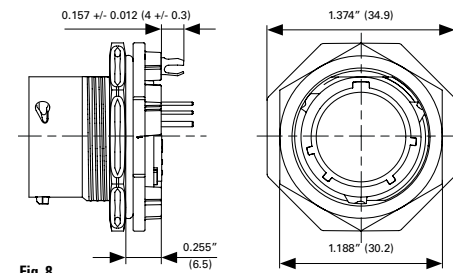


Fig. 8

Jam nut receptacle with screw contact (SCR) :

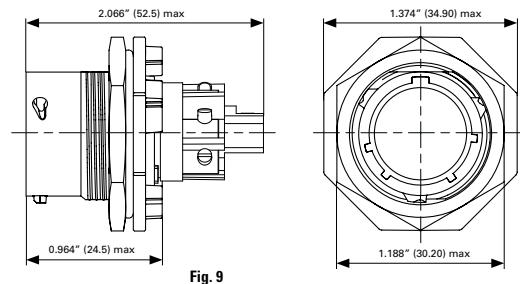


Fig. 9

Jam nut receptacle with backshell - UTOX7M, UTOX7MS

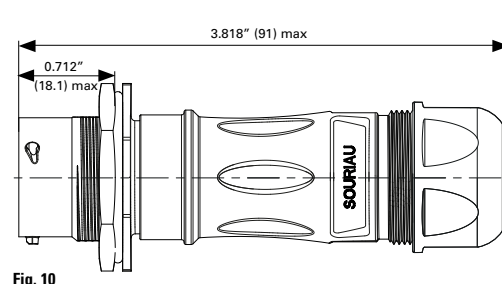
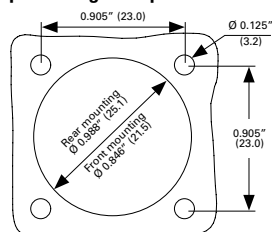


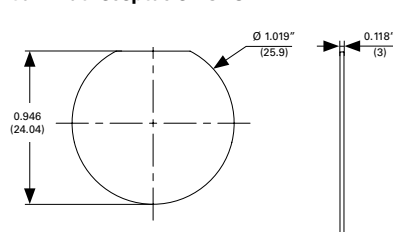
Fig. 10

Panel cut out

Square flange receptacle - UTOX0



Jam nut receptacle - UTOX7



Dimensions in inches (millimeters)

Souriau UTOX series

147 (Shell size 14, 6 + ground, 7x#16)

Accessories

Dustcap (Receptacle)



Description	Part number
-------------	-------------

IP68	UT014DCG*
------	-----------

*For dustcap without chain, omit "G", e.g. UT012DC

Part number

UTFD14B

Dustcap (Plug)



Description	Part number
-------------	-------------

IP68	UTG614DCG*
------	------------

*For dustcap without chain, omit "G", e.g. UT612DC

Gasket



Tooling

Tooling for #20 and #16 stamped & machined contacts



Description	Part number
-------------	-------------

Handle (without head)	Shandles
Box containing handle and several crimp tooling	Toolkit

Crimp tooling (without Shandles)



Contact size	Contacts	Part number of Head
--------------	----------	---------------------

Standard contacts	RM/RC 28M1K ⁽¹⁾	S16RCM20*
#16	RM/RC 24M9K ⁽¹⁾	S16RCM20*
Ø 0.062" (1.6)	RM/RC 20M13K ⁽¹⁾	S16RCM20*
	RM/RC 20M12K ⁽¹⁾	S16RCM20*
	RM/RC 16M23K ⁽¹⁾	S16RCM16*
	RM/RC 14M30K ⁽¹⁾	S16RCM14*
	SM/SC 24ML1TK6 ⁽¹⁾	S16SCM20*
	SM/SC 20ML1TK6 ⁽¹⁾	S16SCM20*
	SM/SC 16ML1TK6 ⁽¹⁾	S16SCML1*
	SM/SC 14ML1TK6 ⁽¹⁾	S16SCML1*
	SM/SC 16ML11TK6 ⁽¹⁾	S16SCML11*

(1) Example of plating, for other plating options see **Page 126**

* Heads to be used with handle PN: SHANDLES

#16, #12 and #8 machined contacts



Description	Part number
-------------	-------------

Crimp tool	M20S-1J
Die casts and stop bushings	See Page 133

Extraction tool #16

Fig. 1



Fig. 2



Description	Part number
-------------	-------------

Fig. 1	RX2025GE1
Fig. 2 - Long endurance tool	RX2031J

Contacts #16

Contact style	Contact type	Cable acceptance AWG	Cable acceptance		Part number Male	Female	Wire Ø		Insulator Ø	
			inch ²	mm ²			max inch	mm	max inch	mm
Crimp contacts	Machined	30-28	0.001"-0.003"	0.06-0.08	RM28M1K ⁽¹⁾	RC28M1K ⁽¹⁾	0.021"	0.55	0.039"	1.00
	Machined	26-24	0.005"-0.009"	0.13-0.25	RM24M9K ⁽¹⁾	RC24M9K ⁽¹⁾	0.031"	0.80	0.062"	1.58
	Machined	22-20	0.012"-0.020"	0.32-0.50	RM20M13K ⁽¹⁾	RC20M13K ⁽¹⁾	0.045"	1.15	0.070"	1.80
	Machined	22-20	0.012"-0.020"	0.32-0.50	RM20M12K ⁽¹⁾	RC20M12K ⁽¹⁾	0.045"	1.15	0.086"	2.20
	Machined	20-16	0.020"-0.059"	0.50-1.48	RM16M23K ⁽¹⁾	RC16M23K ⁽¹⁾	0.070"	1.80	0.125"	3.20
	Machined	16-14	0.059"-0.098"	1.48-2.48	RM14M30K ⁽¹⁾	RC14M30K ⁽¹⁾	0.090"	2.30	0.125"	3.20
	Stamped and formed reeled contacts See note ⁽²⁾ for loose piece	26-24	0.005"-0.009"	0.13-0.25	SM24M1TK6 ⁽¹⁾⁽²⁾	SC24M1TK6 ⁽¹⁾⁽²⁾	—	—	0.035"-0.062"	0.90-1.58
		22-20	0.012"-0.020"	0.32-0.50	SM20M1TK6 ⁽¹⁾⁽²⁾	SC20M1TK6 ⁽¹⁾⁽²⁾	—	—	0.047"-0.082"	1.20-2.10
		18-16	0.031"-0.059"	0.82-1.48	SM16M1TK6 ⁽¹⁾⁽²⁾	SC16M1TK6 ⁽¹⁾⁽²⁾	—	—	0.125"	3.20
		18-16	0.031"-0.059"	0.82-1.48	SM16M11TK6 ⁽¹⁾⁽²⁾	SC16M11TK6 ⁽¹⁾⁽²⁾	—	—	0.118"	3.00
		14	0.098"	2.48	SM14M1TK6 ⁽¹⁾⁽²⁾	SC14M1TK6 ⁽¹⁾⁽²⁾	—	—	0.125"	3.20
PCB	Machined ⁽³⁾	—			RM20M12E83K ⁽¹⁾	RC20M12E84K ⁽¹⁾	—	—	—	—
Coaxial	Cable multipiece	see Pages 130 to 132			RMDXK10D28	RCDXK1D28	—	—	—	—
	Cable monocrimp	see Pages 130 to 132			RMDX60xxD28	RCDX60xxD28	—	—	—	—
	Twisted pair multipiece	see Pages 130 to 132			RMDXK10D28 + yorx090	RCDXK1D28 + yorx090	—	—	—	—
	Twisted pair monocrimp	see Pages 130 to 132			RMDX60xxD28	RCDX60xxD28	—	—	—	—
Fiber optic	POF contacts (Plastic Optical Fiber)	—			RMPOF1000	RCPOF1000B	—	—	—	—
Handsold	Loaded in the connector	14-18	0.098"-0.031"	2.48-0.80	—	—	—	—	—	—

(1) Example of plating, for other plating see **Page 126**

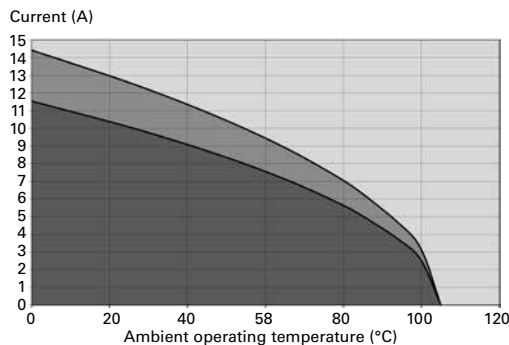
(2) Loose piece contact available by adding "L" after the "M" for the contact size and the plating. Example: SM20M1TK6 becomes SM20ML1TK6

(3) For dimensions see **Page 133**

Electrical characteristics

UL	CSA	IEC
10A 500V with AWG16 wire	7A 500V with AWG16 wire	10A 80V 1.5kV 3

UTOX 147 derating curves



- Current use
- Limited use
- Not recommended

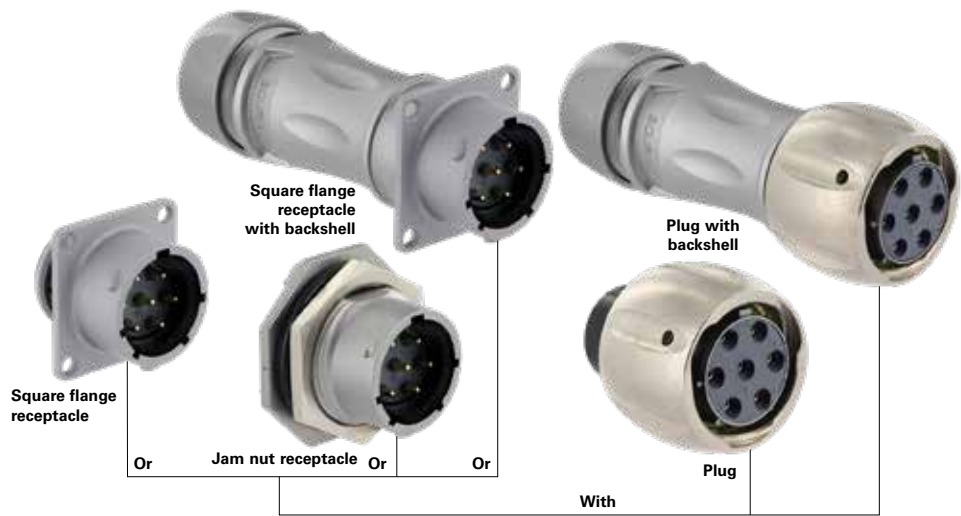
Test conditions

Contact used: machined contacts
Wires used: 16 AWG

Derating curves based on continuous current application.

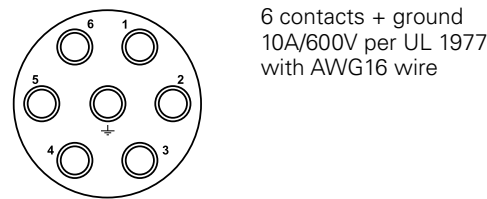
Souriau UTOX series

14E7/14D7 (Shell size 14, 6 + ground, 7x#16)



Connector part numbers

14E7/14D7



6 contacts + ground
10A/600V per UL 1977
with AWG16 wire

Contact type	Connector type	Backshell	Part number Male insert	Female insert
Hand solder electrical contacts loaded see Page 70	Square flange receptacle	Without (Fig. 1)	UTOX014E7P	UTOX014E7S
	Square flange receptacle	Cable gland unshielded version (Fig. 1B)	UTOX0M14E7P	UTOX0M14E7S
	Square flange receptacle	Cable gland shielded version (Fig. 1B)	UTOX0MS14E7P	UTOX0MS14E7S
	Plug	Without (Fig. 2) ^{Note1}	UTOX614E7P	UTOX614E7S
	Plug	Cable gland unshielded version (Fig. 3)	UTOX6M14E7P	UTOX6M14E7S
	Plug	Cable gland shielded version (Fig. 3)	UTOX6MS14E7P	UTOX6MS14E7S
PCB contacts loaded	Jam nut receptacle	Without (Fig. 4)	UTOX714E7P	UTOX714E7S
	Square flange receptacle	Without (Fig. 2)	UTOX014D7P	UTOX014D7S
	Jam nut receptacle with stand off and without hold down clip	Without (Fig. 5)	UTOX714D7P	UTOX714D7S
	Jam nut receptacle with stand off and with hold down clips	Without (Fig. 6)	UTOX714D7P32	UTOX714D7S32

For discrimination/keying methods see **Page 150**

Sealed unmated

Note 1: It is necessary to add a backshell to the plug assembly.

Dimensions (for mated connector lengths see Page 121)

Square flange receptacle - UTOX0

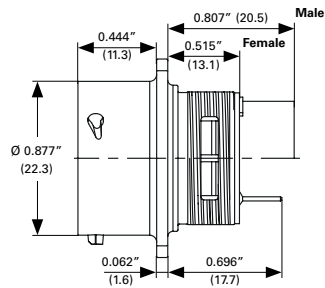


Fig. 1

Square flange receptacle with backshell - UTOX0M, UTOX0MS

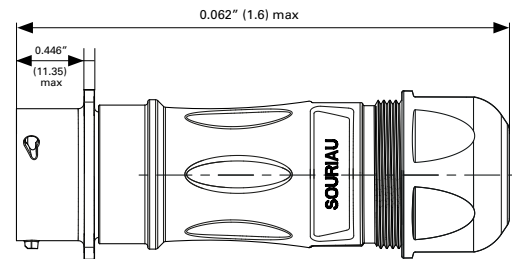


Fig. 1B

Plug - UTOX6, UTOX6M and UTOX6MS

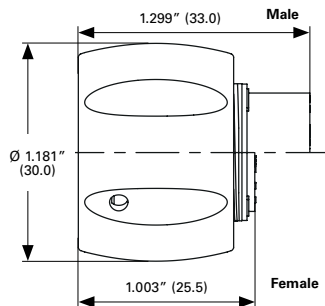


Fig. 2

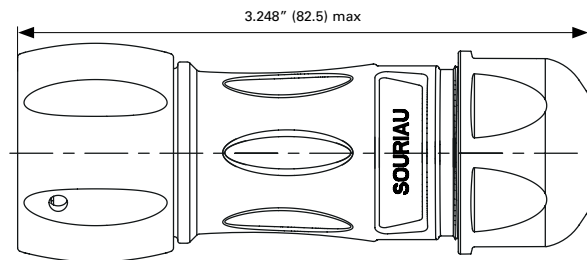


Fig.3 Cable diameter acceptance from 0.393" to 0.511" (10 to 13)

Jam nut receptacle UTOX7

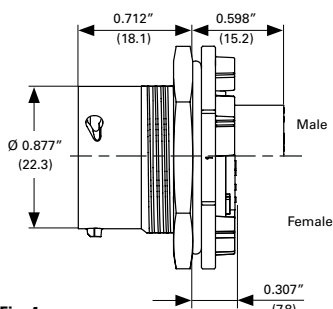


Fig. 4

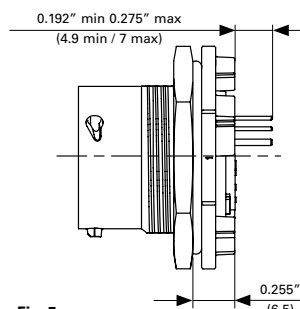


Fig. 5

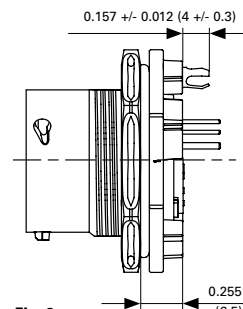
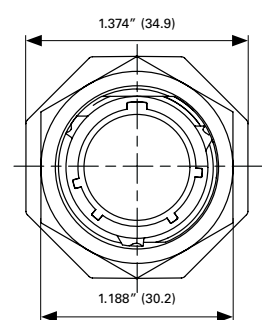
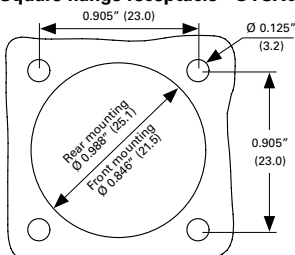


Fig. 6

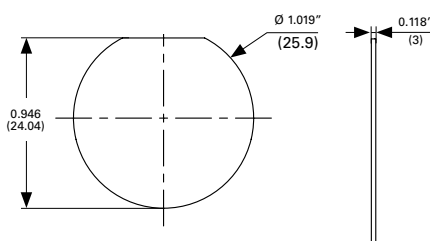


Panel cut out

Square flange receptacle - UTOX0



Jam nut receptacle - UTOX7



Dimensions in inches (millimeters)

Souriau UTOX series

14E7/14D7 (Shell size 14, 6 + ground, 7x#16)

Accessories

Dustcap (Receptacle)



Description Part number

IP68

UT014DCG*

*For dustcap without chain, omit "G",
e.g. UT012DC

Dustcap (Plug)



Description Part number

IP68

UTG614DCG*

*For dustcap without chain, omit "G",
e.g. UTG612DC

Gasket



Part number

UTFD14B

Contacts

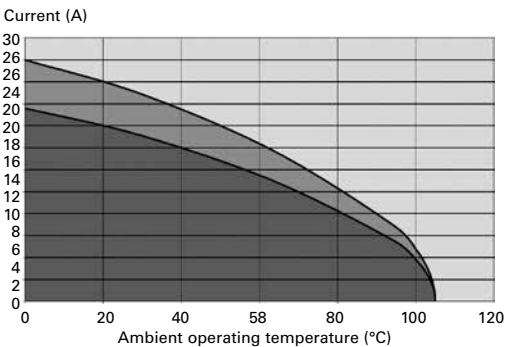
Contact size	Contact type	Plating	Cable acceptance AWG	Cable acceptanceinch ²	mm ²	Wire stripping length inch	mm
#16	Hand solder loaded in the connector	Min 0.4µ gold over 0.8µ Ni	18 - 14	0.031"-0.098"	0.82 - 2.48	0.196"	5
	PCB Machined ⁽¹⁾	Min 0.4µ gold over 0.8µ Ni	—	—	—	—	—

(1) For dimensions see **Pages 133 or 134**

Electrical characteristics

UL	CSA	IEC
UTOX 14E7/14D7		
10A 600V with AWG16 wire	10A 600V with AWG16 wire	7A 150V 1.5kV 3

UTOX 14E7/14D7 derating curves

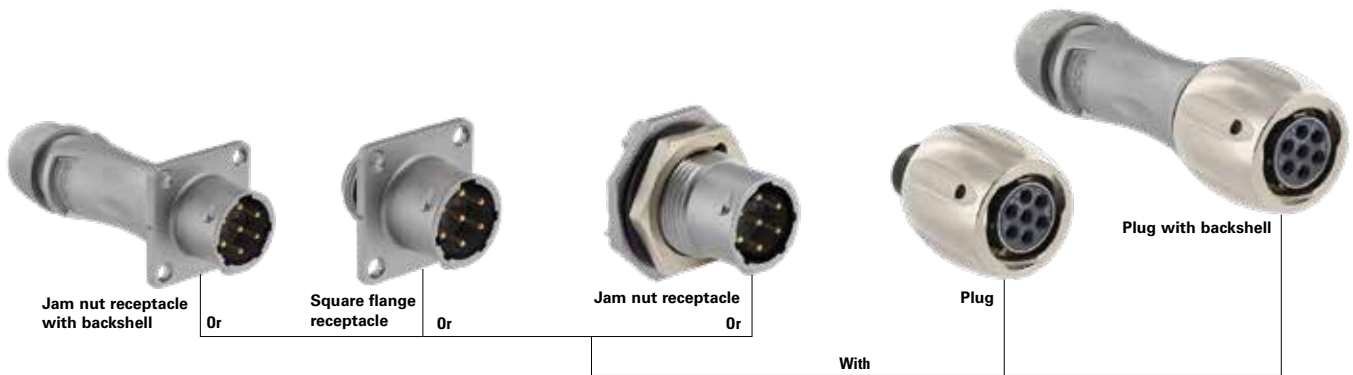


- Current use
- Limited use
- Not recommended use

Test conditions

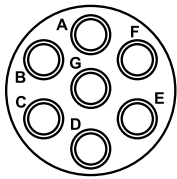
Contact used: machined contacts
Wires used: 16 AWG
Wires used: 20 AWG

Derating curves based on continuous current application.



Connector part numbers

UTOX 10E7/10D7



7 contacts
6A/250V per UL 1977
with AWG20 wire

Contact type	Connector type	Backshell	Part number Male insert	Female insert
Handsolder electrical contacts loaded see Page 73	Square flange receptacle	Without (Fig. 1)	UTOX010E7P	UTOX010E7S
	Square flange receptacle	Cable gland unshielded version (Fig. 1B)	UTOX0M10E7P	UTOX0M10E7S
	Square flange receptacle	Cable gland shielded version (Fig. 1B)	UTOX0MS10E7P	UTOX0MS10E7S
	Plug	Without (Fig. 5) ^{Note1}	UTOX610E7P	UTOX610E7S
	Plug	Cable gland unshielded version (Fig. 3)	UTOX6M10E7P	UTOX6M10E7S
	Plug	Cable gland shielded version (Fig. 3)	UTOX6MS10E7P	UTOX6MS10E7S
	Jam nut receptacle	Without (Fig. 4)	UTOX710E7P	UTOX710E7S
PCB contacts loaded see Page 73	Square flange receptacle	Without (Fig. 2)	UTOX010D7P	UTOX010D7S
	Jam nut receptacle with stand off and without hold down clip	Without (Fig. 5)	UTOX710D7P	UTOX710D7S
	Jam nut receptacle with stand off and with hold down clips	Without (Fig. 6)	UTOX710D7P32	UTOX710D7S32

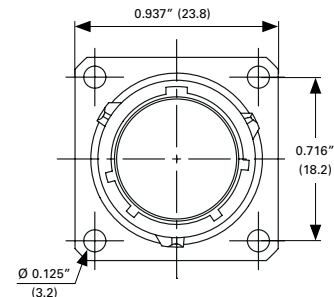
For discrimination/keying methods see **Page 150**

Sealed unmated

Nota 1: it is necessary to add a backshell to the plug assembly.

10E7/10D7 (Shell size 10, 7x#20)

Square flange receptacle - UTOX0



Square flange receptacle with backshell - UTOX0M, UTOX0MS

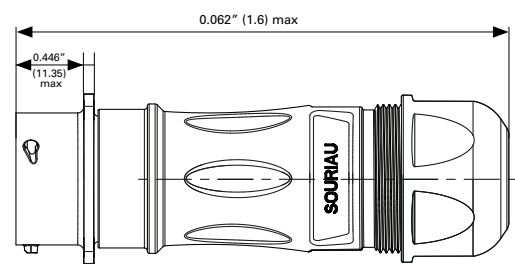


Fig. 1B

Fig. 2

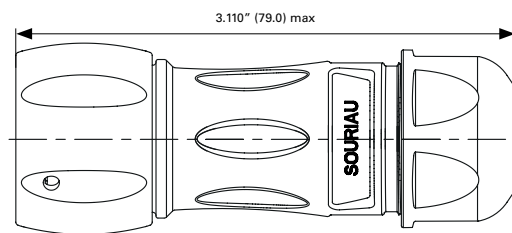


Fig.3 Cable diameter acceptance from 0.157" to 0.275" (4 to 7)

Fig. 4

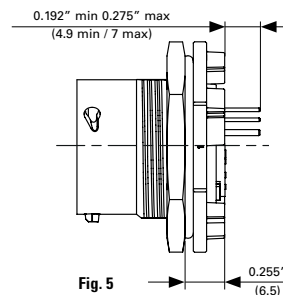


Fig. 5

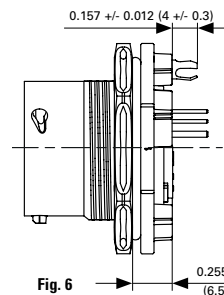
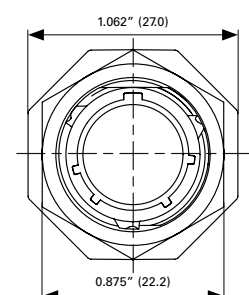
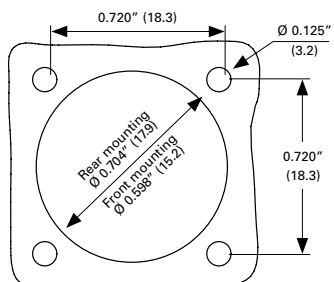


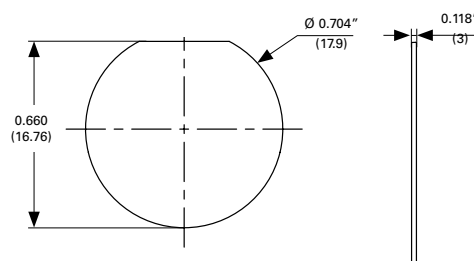
Fig. 6



Square flange receptacle - UTOX0



Jam nut receptacle - UTOX7

62 **UTOX series** eaton.com/interconnect

Accessories

Dustcap (Receptacle)



Description Part number

IP68 **UT010DCG****For dustcap without chain, omit "G",
e.g. UT012DC

Dustcap (Plug)



Description Part number

IP68 **UTG610DCG****For dustcap without chain, omit "G",
e.g. UT612DC

Gasket



Part number

UTFD12B

Contacts #20

Contact style	Contact type	Cable acceptance AWG	Cable acceptance inch ²	Cable acceptance mm ²	Part number Male	Female	Wire Ø max inch	mm	Insulator Ø max inch	mm
Crimp contacts	Machined	26-24	0.005"-0.009"	0.13-0.25	RM24W3K	RC24W3K	0.031"	0.80	0.062"	1.58
	Machined	22-20	0.012"-0.020"	0.32-0.50	RM20W3K	RC20W3K	0.045"	1.15	0.070"	1.80
	Machined	20-18	0.020"-0.031"	0.50-0.82	RM18W3K	RC18W3K	0.051"	1.30	0.082"	2.10
	Stamped and formed reeled contacts See note ⁽²⁾ for loose piece	26-24	0.005"-0.009"	0.13-0.25	SM24W3TK6 ⁽¹⁾⁽²⁾	SC24W3TK6 ⁽¹⁾⁽²⁾	—	—	0.035"-0.062"	0.90-1.58
		26-24	0.005"-0.009"	0.13-0.25	SM24W3S26 ⁽¹⁾⁽²⁾	SC24W3S25 ⁽¹⁾⁽²⁾	—	—	0.035"-0.062"	0.90-1.58
		22-20	0.012"-0.020"	0.32-0.50	SM20W3TK6 ⁽¹⁾⁽²⁾	SC20W3TK6 ⁽¹⁾⁽²⁾	—	—	0.047"-0.082"	1.20-2.10
		22-20	0.012"-0.020"	0.32-0.50	SM20W3S26 ⁽¹⁾⁽²⁾	SC20W3S25 ⁽¹⁾⁽²⁾	—	—	0.047"-0.082"	1.20-2.10

(1) Example of plating, for other plating see **Page 126**

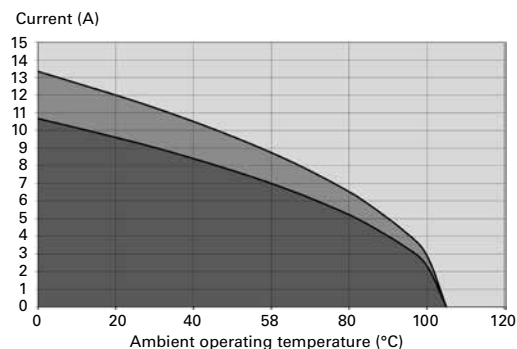
(2) Loose piece contact available by adding "L" after the "M" for the contact size and the plating. Example: SM20W3TK6 becomes SM20WL3TK6

Contact style	Contact type	Plating	Cable acceptance (AWG)	Wire stripping length inch	mm
Handsolder	Loaded in the connector	Min 0.4µ gold over 0.8µ Ni	20 to 18	0.149"	3.8

Electrical characteristics

UL	CSA	IEC
6A 250V with AWG20 wire	6A 250V with AWG20 wire	7A 50V 1.5kV 3

UTOX 10E7/10D7 derating curves



- Current use
- Limited use
- Not recommended use

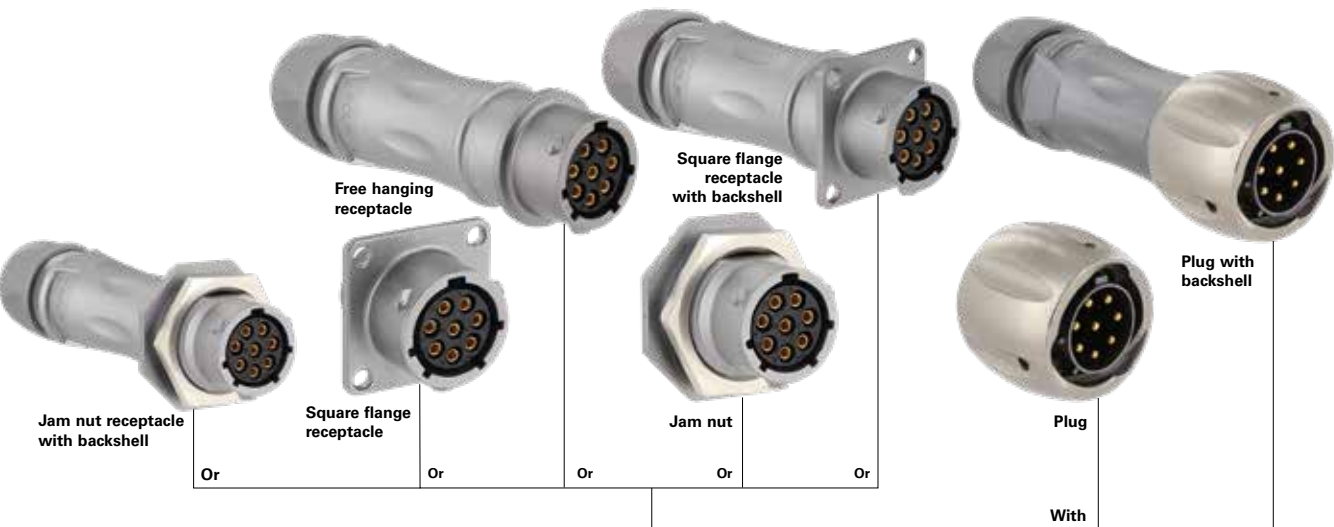
Test conditions

Contact used: machined contacts
Wires used: 20 AWG

Derating curves based on continuous current application.

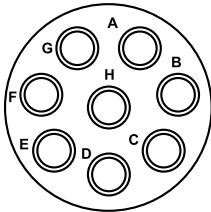
Souriau UTOX series

128 (Shell size 12, 8x16)



Connector part numbers

UTOX 128



8 contacts
10A/500V
per UL 1977 with
AWG16 wire

Contact type	Connector type	Backshell	Part number Male insert	Female insert
Crimp contacts supplied separately see Page 78	Square flange receptacle	Without (Fig. 1)	UTOX0128P	UTOX0128S
	Square flange receptacle	Cable gland unshielded version (Fig. 2)	UTOX0M128P	UTOX0M128S
	Square flange receptacle	Cable gland shielded version (Fig. 2)	UTOX0MS128P	UTOX0MS128S
	Free hanging receptacle	Cable gland unshielded version (Fig. 3)	UTOX1M128P	UTOX1M128S
	Free hanging receptacle	Cable gland shielded version (Fig. 3)	UTOX1MS128P	UTOX1MS128S
	Plug	Without (Fig. 4) ^{Note 1}	UTOX6128P	UTOX6128S
	Plug	Cable gland unshielded version (Fig. 5)	UTOX6M128P	UTOX6M128S
	Plug	Cable gland shielded version (Fig. 5)	UTOX6MS128P	UTOX6MS128S
	Jam nut receptacle	Without (Fig. 6)	UTOX7128P	UTOX7128S
	Jam nut receptacle	Cable gland unshielded version (Fig. 9)	UTOX7M128P	UTOX7M128S
PCB contacts supplied separately see Page 78	Jam nut receptacle	Cable gland shielded version (Fig. 9)	UTOX7MS128P	UTOX7MS128S
	Jam nut receptacle with stand off and without hold down clip	Without (Fig. 7)	UTOX7128P	UTOX7128S
PCB contacts loaded see Page 78	Jam nut receptacle with stand off and hold down clip	Without (Fig 10)	UTOX7128PSEK9	—

For discrimination/keying methods see **Page 150**

Nota 1: You will absolutely have to add a backshell to your load. The plug cannot be left without it.

Dimensions (for mated connector lengths see Page 121)

Square flange receptacle - UTOX0, UTOX0M and UTOX0MS

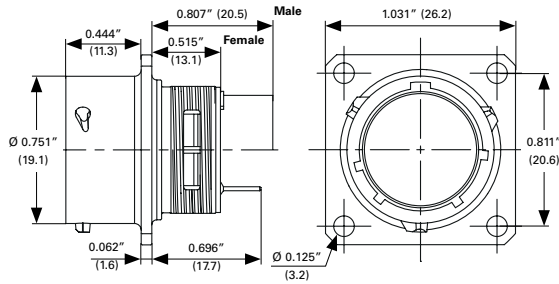


Fig. 1

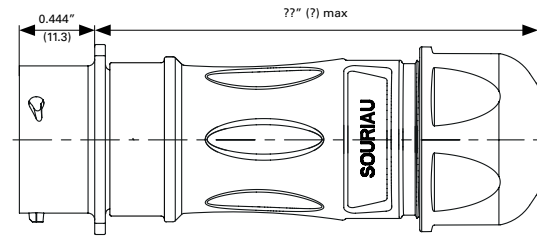


Fig. 2 Cable diameter acceptance from 0.275" to 0.393" (7 to 10)

Free hanging - UTOX1 and UTOX1MS

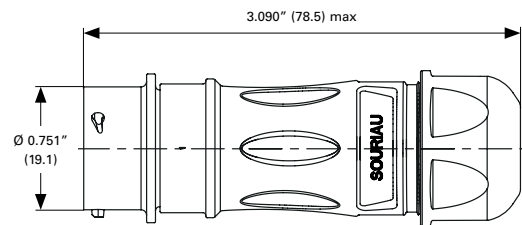


Fig. 3 Cable diameter acceptance from 0.275" to 0.393" (7 to 10)

Plug - UTOX6, UTOX6M and UTOX6MS

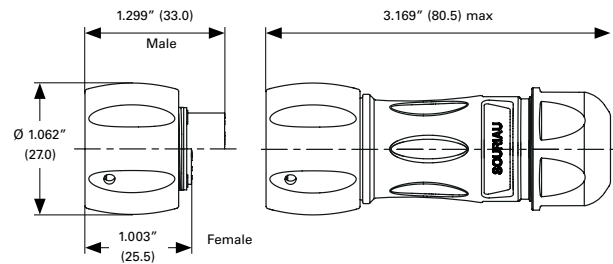


Fig. 4

Fig. 5 Cable diameter acceptance from 0.275" to 0.393" (7 to 10)

Jam nut receptacle UTOX7

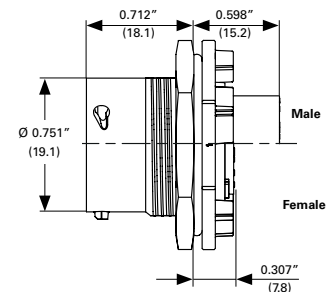


Fig. 6

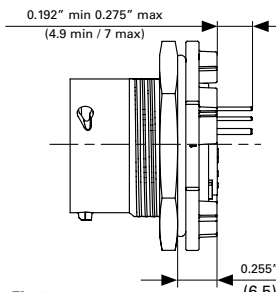


Fig. 7

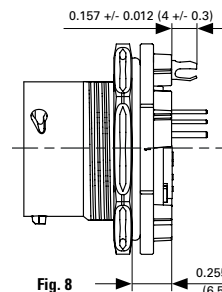
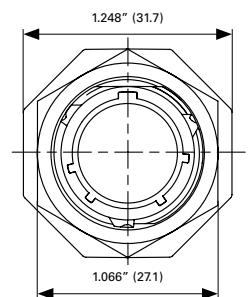
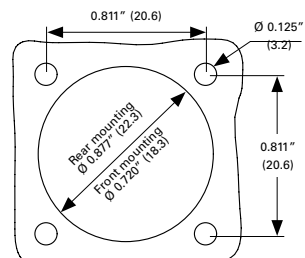


Fig. 8

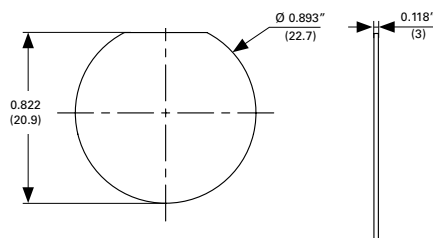


Panel cut out

Square flange receptacle - UTOX0



Jam nut receptacle - UTOX7



Jam nut receptacle with backshell - UTOX7M, UTOX7MS

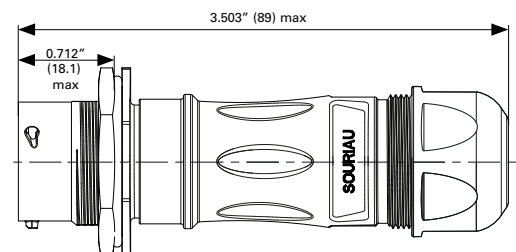


Fig. 9

Dimensions in inches (millimeters)

Souriau UTOX series

128 (Shell size 12, 8x16)

Accessories

Dustcap (Receptacle)



Description	Part number
-------------	-------------

IP68	UT012DCG*
------	-----------

*For dustcap without chain, omit "G",
e.g. UT012DC

Part number

UTFD14B

Gasket



Dustcap (Plug)



Description	Part number
-------------	-------------

IP68	UTG614DCG*
------	------------

*For dustcap without chain, omit "G",
e.g. UTG612DC

Tooling

#20 and #16 stamped and machined contacts



Description	Part number
-------------	-------------

Handle (without head)	Shandles
-----------------------	----------

Box containing handle and several crimp tooling	Toolkit
---	---------

Crimp tooling (without Shandles)



Contact size	Contacts	Part number of Head
--------------	----------	---------------------

Standard contacts	RM/RC 28M1K ⁽¹⁾	S16RCM20*
#16	RM/RC 24M9K ⁽¹⁾	S16RCM20*
Ø 0.062" (1.6)	RM/RC 20M13K ⁽¹⁾	S16RCM20*
	RM/RC 20M12K ⁽¹⁾	S16RCM20*
	RM/RC 16M23K ⁽¹⁾	S16RCM16*
	RM/RC 14M30K ⁽¹⁾	S16RCM14*
	SM/SC 24ML1TK6 ⁽¹⁾	S16SCM20*
	SM/SC 20ML1TK6 ⁽¹⁾	S16SCM20*
	SM/SC 16ML1TK6 ⁽¹⁾	S16SCML1*
	SM/SC 14ML1TK6 ⁽¹⁾	S16SCML1*
	SM/SC 16ML11TK6 ⁽¹⁾	S16SCML11*

(1) Example of plating, for other plating options see **Page 126**

* Heads to be used with handle PN: SHANDLES

#16, #12 and #8 machined contacts



Description	Part number
-------------	-------------

Crimp tool	M20S-1J
------------	---------

Die casts and stop bushings	See Page 133
-----------------------------	---------------------

Extraction tool #16

Fig. 1



Fig. 2



Description	Part number
-------------	-------------

Fig. 1	RX2025GE1
--------	-----------

Fig. 2 - Long endurance tool	RX2031J
------------------------------	---------

Contacts #16

Contact style	Contact type	Cable acceptance AWG	Cable acceptance		Part number		Wire Ø		Insulator Ø	
			inch ²	mm ²	Male	Female	max inch	mm	max inch	mm
Crimp contacts	Machined	30-28	0.001"-0.003"	0.06-0.08	RM28M1K ⁽¹⁾	RC28M1K ⁽¹⁾	0.021"	0.55	0.039"	1.00
	Machined	26-24	0.005"-0.009"	0.13-0.25	RM24M9K ⁽¹⁾	RC24M9K ⁽¹⁾	0.031"	0.80	0.062"	1.58
	Machined	22-20	0.012"-0.020"	0.32-0.50	RM20M13K ⁽¹⁾	RC20M13K ⁽¹⁾	0.045"	1.15	0.070"	1.80
	Machined	22-20	0.012"-0.020"	0.32-0.50	RM20M12K ⁽¹⁾	RC20M12K ⁽¹⁾	0.045"	1.15	0.086"	2.20
	Machined	20-16	0.020"-0.059"	0.50-1.48	RM16M23K ⁽¹⁾	RC16M23K ⁽¹⁾	0.070"	1.80	0.125"	3.20
	Machined	16-14	0.059"-0.098"	1.48-2.48	RM14M30K ⁽¹⁾	RC14M30K ⁽¹⁾	0.090"	2.30	0.125"	3.20
	Stamped and formed reeled contacts See note ⁽²⁾ for loose piece	26-24	0.005"-0.009"	0.13-0.25	SM24M1TK6 ⁽¹⁾⁽²⁾	SC24M1TK6 ⁽¹⁾⁽²⁾	—	—	0.035"-0.062"	0.90-1.58
		22-20	0.012"-0.020"	0.32-0.50	SM20M1TK6 ⁽¹⁾⁽²⁾	SC20M1TK6 ⁽¹⁾⁽²⁾	—	—	0.047"-0.082"	1.20-2.10
		18-16	0.031"-0.059"	0.82-1.48	SM16M1TK6 ⁽¹⁾⁽²⁾	SC16M1TK6 ⁽¹⁾⁽²⁾	—	—	0.125"	3.20
		18-16	0.031"-0.059"	0.82-1.48	SM16M11TK6 ⁽¹⁾⁽²⁾	SC16M11TK6 ⁽¹⁾⁽²⁾	—	—	0.118"	3.00
		14	0.098"	2.48	SM14M1TK6 ⁽¹⁾⁽²⁾	SC14M1TK6 ⁽¹⁾⁽²⁾	—	—	0.125"	3.20
PCB	Machined ⁽³⁾	—	—	—	RM20M12E83K ⁽¹⁾	RC20M12E84K ⁽¹⁾	—	—	—	—
Coaxial	Cable multipiece	see Pages 130 to 132			RMDXK10D28	RCDXK1D28	—	—	—	—
	Cable monocrimp	see Pages 130 to 132			RMDX60xxD28	RCDX60xxD28	—	—	—	—
	Twisted pair multipiece	see Pages 130 to 132			RMDXK10D28 + yox090	RCDXK1D28 + yox090	—	—	—	—
	Twisted pair monocrimp	see Pages 130 to 132			RMDX60xxD28	RCDX60xxD28	—	—	—	—
Fiber optic	POF contacts (Plastic optical fiber)	—	—	—	RMPOF1000	RCPOF1000B	—	—	—	—
Handsolder	Loaded in the connector	14-18	0.098"-0.031"	2.48-0.80	—	—	—	—	—	—

(1) Example of plating, for other plating see **Page 126**

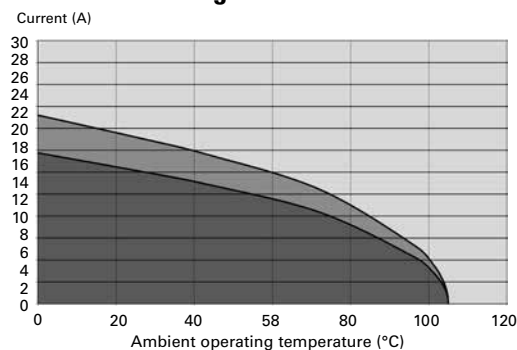
(2) Loose piece contact available by adding "L" after the "M" for the contact size and the plating. Example: SM20M1TK6 becomes SM20ML1TK6

(3) For dimensions see **Page 133**

Electrical characteristics

UL	CSA	IEC
10A 500V with AWG16 wire	7A 500V with AWG16 wire	10A 80V 1.5kV 3

UTOX 128 derating curves



- Current use
- Limited use
- Not recommended

Test conditions

Contact used: machined contacts
Wires used: 16 AWG

Derating curves based on continuous current application.

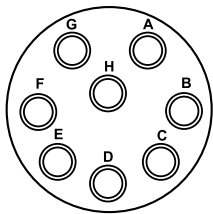
Souriau UTOX series

12E8/12D8 (Shell size 12, 8x20)



Connector part numbers

UTOX 12E8/12D8



8 contacts 4.5A/250V
per UL 1977 with
AWG20 wire

Contact type	Connector type	Backshell	Part number Male insert	Female insert
Handsolder electrical contacts loaded see Page 82	Square flange receptacle	Without (Fig. 1)	UTOX012E8P	UTOX012E8S
	Square flange receptacle	Cable gland unshielded version (Fig. 1B)	UTOX0M12E8P	UTOX0M12E8S
	Square flange receptacle	Cable gland shielded version (Fig. 1B)	UTOX0MS12E8P	UTOX0MS12E8S
	Plug	Without (Fig. 2) ^{Note1}	UTOX612E8P	UTOX612E8S
	Plug	Cable gland unshielded version (Fig. 3)	UTOX6M12E8P	UTOX6M12E8S
	Plug	Cable gland shielded version (Fig. 3)	UTOX6MS12E8P	UTOX6MS12E8S
	Jam nut receptacle	Without (Fig. 4)	UTOX712E8P	UTOX712E8S
PCB contacts loaded see Page 82	Square flange receptacle	Without (Fig. 1)	UTOX012D8P	UTOX012D8S
	Jam nut receptacle with stand off and without hold down clip	Without (Fig. 5)	UTOX712D8P	UTOX712D8S
	Jam nut receptacle with stand off and with hold down clips	Without (Fig. 6)	UTOX712D8P32	UTOX712D8S32

For discrimination/keying methods see **Page 150**

Nota 1: it is necessary to add a backshell to the plug assembly.

Sealed unmated

Dimensions (for mated connector lengths see Page 121)

Square flange receptacle - UTOX0

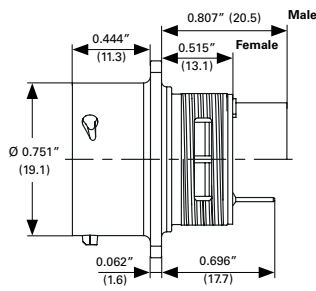
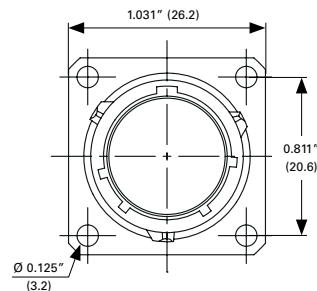


Fig. 1



Square flange receptacle with backshell - UTOX0M, UTOX0MS

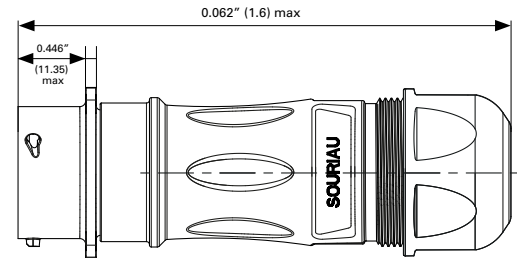


Fig. 1B

Plug - UTOX6, UTOX6M and UTOX6MS

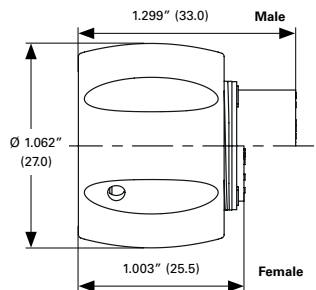


Fig. 2

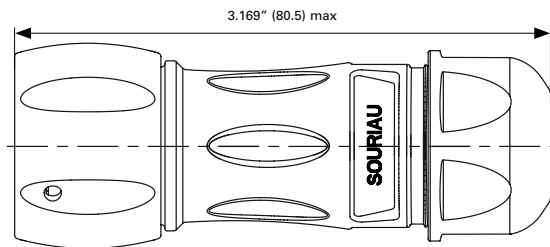


Fig.3 Cable diameter acceptance from 0.275" to 0.393" (7 to 10)

Jam nut receptacle UTOX7

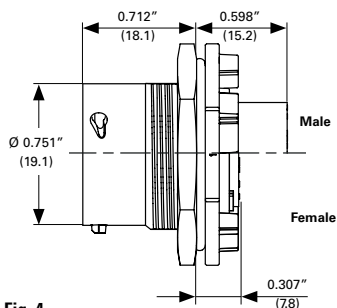


Fig. 4

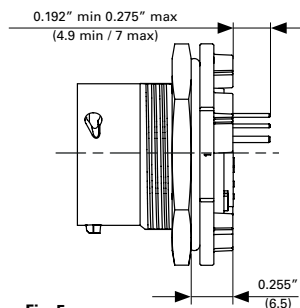


Fig. 5

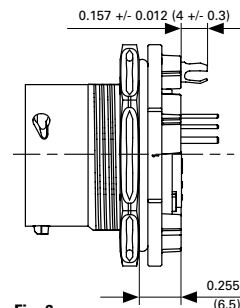
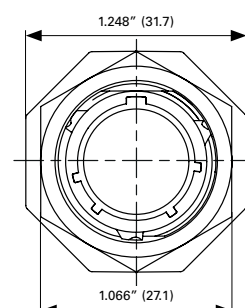
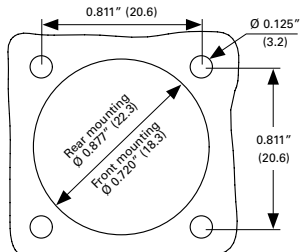


Fig. 6

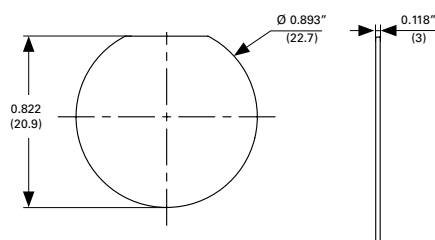


Panel cut-out

Square flange receptacle - UTOX0



Jam nut receptacle - UTOX7



Souriau UTOX series

12E8/12D8 (Shell size 12, 8x20)

Accessories

Dustcap (Receptacle)



Description	Part number
IP68	UT012DCG*
*For dustcap without chain, omit "G", e.g. UT012DC	

Gasket



Part number
UTFD13B

Dustcap (Plug)



Description	Part number
IP68	UTG612DCG*
*For dustcap without chain, omit "G", e.g. UT612DC	

Dummy contact #16



Part number
SMSPKE0
Note: See Page 132 for more information

Contacts #20

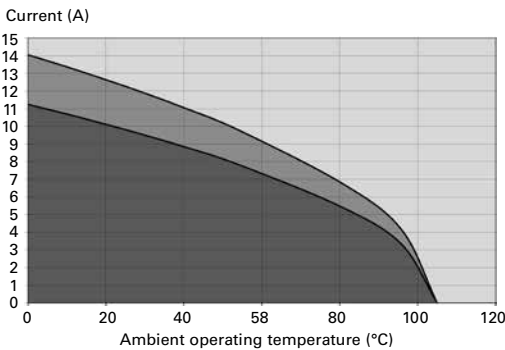
Contact type	Plating	Cable acceptance (AWG)	Cable acceptance inch ²	mm ²	Wire stripping length inch	mm
Hand solder loaded in the connector	Min 0.4µ gold over 0.8µ Ni	20-18	0.020"-0.031"	0.32-0.82	0.149"	3.8
PCB Machined ⁽¹⁾	Min 0.4µ gold over 0.8µ Ni	—	—	—	—	—

(1) For dimensions see Pages 133 or 134

Electrical characteristics

UL	CSA	IEC
4.5A 250V with AWG20 wire	4.5A 250V with AWG20 wire	6A 32V 1.5kV 3

UTOX 12E8/12D8 derating curves

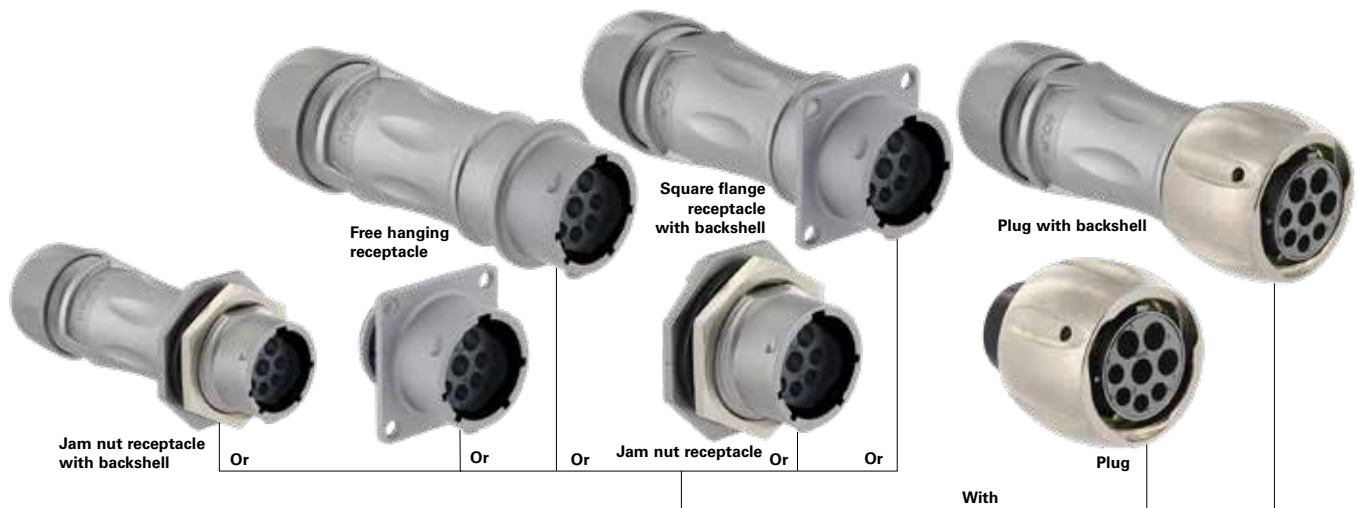


Derating curves based on continuous current application.

- Current use
- Limited use
- Not recommended

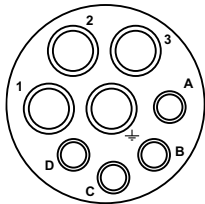
Test conditions

Contact used: machined contacts
Wires used: 20 AWG



Connector part numbers

UTOX 148



8 contacts
IEC 17A 230V 1.5kV3
AWG14 wire /
AWG20 wire
(Not UL certified)

Contact type	Connector type	Backshell	Part number Male insert	Female insert
Crimp contacts supplied separately see Page 87	Square flange receptacle	Without (Fig. 1)	UTOX0148P	UTOX0148S
	Square flange receptacle	Cable gland unshielded version (Fig. 2)	UTOX0M148P	UTOX0M148S
	Square flange receptacle	Cable gland shielded version (Fig. 2)	UTOX0MS148P	UTOX0MS148S
	Free hanging receptacle	Cable gland unshielded version (Fig. 3)	UTOX1M148P	UTOX1M148S
	Free hanging receptacle	Cable gland shielded version (Fig. 3)	UTOX1MS148P	UTOX1MS148S
	Plug	Without (Fig. 4) ^{Note 1}	UTOX6148P	UTOX6148S
	Plug	Cable gland unshielded version (Fig. 5)	UTOX6M148P	UTOX6M148S
	Plug	Cable gland shielded version (Fig. 5)	UTOX6MS148P	UTOX6MS148S
	Jam nut receptacle	Without (Fig. 6)	UTOX7148P	UTOX7148S
	Jam nut receptacle	Cable gland unshielded version (Fig. 7)	UTOX7M148P	UTOX7M148S
	Jam nut receptacle	Cable gland shielded version (Fig. 7)	UTOX7MS148P	UTOX7MS148S

For discrimination/keying methods see **Page 150**

Nota 1: it is necessary to add a backshell to the plug assembly.

Souriau UTOX series

148 (Shell size 14, 4x#16, 4x#12)

Dimensions (for mated connector lengths see Page 121)

Square flange receptacle - UTOX0, UTOX0M and UTOX0MS

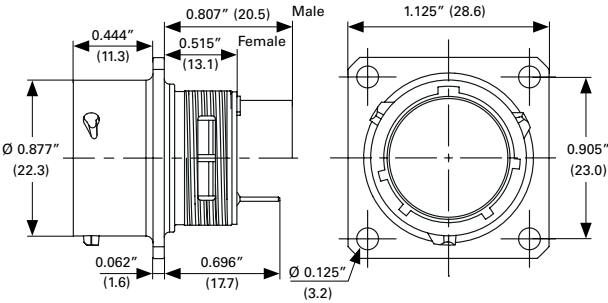


Fig. 1

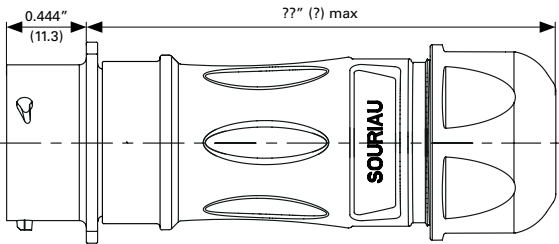


Fig. 2 Cable diameter acceptance from 0.393" to 0.511" (10 to 13)

Free hanging - UTOX1M and UTOX1MS

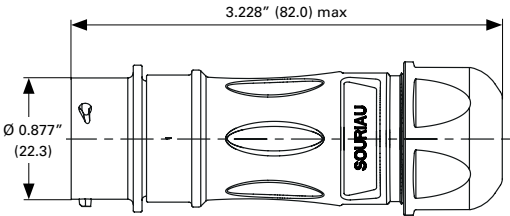


Fig. 3 Cable diameter acceptance from 0.393" to 0.511" (10 to 13)

Plug - UTOX6, UTOX6M and UTOX6MS

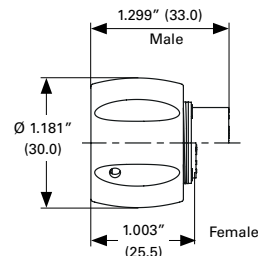


Fig. 4

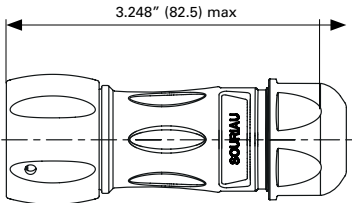


Fig. 5 Cable diameter acceptance from 0.393" to 0.511" (10 to 13)

Jam nut receptacle UTOX7

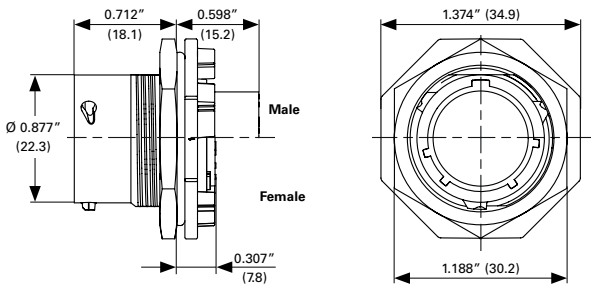


Fig. 6

Jam nut receptacle with backshell - UTOX7M, UTOX7MS

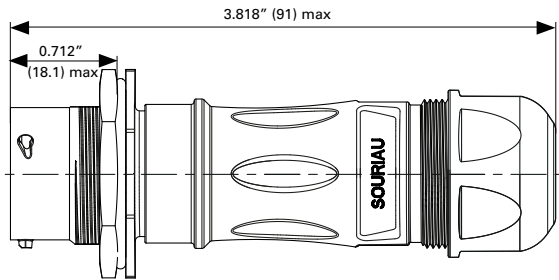
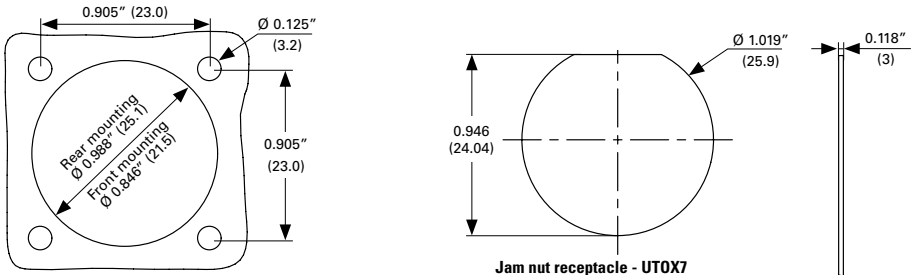


Fig. 7

Panel cut out



Square flange receptacle - UTOX0

Jam nut receptacle - UTOX7

Accessories

Dustcap (Receptacle)



Gasket



Description	Part number
-------------	-------------

IP68	UT014DCG*
------	-----------

*For dustcap without chain, omit "G",
e.g. UT012DC

Part number

UTFD14B

Dustcap (Plug)



Dummy contact #16



Description	Part number
-------------	-------------

IP68	UTG614DCG*
------	------------

*For dustcap without chain, omit "G",
e.g. UTG612DC

Part number

SMSPKE0

Note: See Page 132 for more information

Tooling

#20 and #16 stamped and machined contacts



Crimp tooling (without Shandles)



Description	Part number
-------------	-------------

Handle (without head)	
-----------------------	--

Box containing handle and several crimp tooling	
---	--

Part number

Shandles

Toolkit

Contact size	Contacts	Part number of Head
Standard contacts #16 Ø 0.062" (1.6)	RM/RC 28M1K ⁽¹⁾	S16RCM20*
	RM/RC 24M9K ⁽¹⁾	S16RCM20*
	RM/RC 20M13K ⁽¹⁾	S16RCM20*
	RM/RC 20M12K ⁽¹⁾	S16RCM20*
	RM/RC 16M23K ⁽¹⁾	S16RCM16*
	RM/RC 14M30K ⁽¹⁾	S16RCM14*
	SM/SC 24ML1TK6 ⁽¹⁾	S16SCM20*
	SM/SC 20ML1TK6 ⁽¹⁾	S16SCM20*
	SM/SC 16ML1TK6 ⁽¹⁾	S16SCML1*
	SM/SC 14ML1TK6 ⁽¹⁾	S16SCML1*
	SM/SC 16ML11TK6 ⁽¹⁾	S16SCML11*
	SM/SC 16ML11TK6 ⁽¹⁾	S16SCML11*

(1) Example of plating, for other plating options see Page 126

* Heads to be used with handle PN: SHANDLES

#16, #12 and #8 machined contacts



Extraction tool #16

Fig. 1



Fig. 2



Description	Part number
-------------	-------------

Crimp tool	M20S-1J
------------	---------

Die casts and stop bushings	See Page 133
-----------------------------	--------------

Part number

M20S-1J

See Page 133

Crimp tooling #12



Extraction tool #12



Contact size	Part number	Part number positioner hand tool + locator setting
Standard contacts #12 Ø 0.094" (2.4)	M317	VGE10077A

Description	Part number
-------------	-------------

Contacts #12 Ø 0.094" (2.4)	51060210924
--------------------------------	-------------

Souriau UTOX series

148 (Shell size 14, 4x#16, 4x#12)

Contacts #16

Contact style	Contact type	Cable acceptance AWG	Cable acceptance		Part number Male	Female	Wire Ø max		Insulator Ø max	
			inch ²	mm ²			inch	mm	inch	mm
Crimp contacts	Machined	30-28	0.001"-0.003"	0.06-0.08	RM28M1K ⁽¹⁾	RC28M1K ⁽¹⁾	0.021"	0.55	0.039"	1.00
		26-24	0.005"-0.009"	0.13-0.25	RM24M9K ⁽¹⁾	RC24M9K ⁽¹⁾	0.031"	0.80	0.062"	1.58
		22-20	0.012"-0.020"	0.32-0.50	RM20M13K ⁽¹⁾	RC20M13K ⁽¹⁾	0.045"	1.15	0.070"	1.80
		22-20	0.012"-0.020"	0.32-0.50	RM20M12K ⁽¹⁾	RC20M12K ⁽¹⁾	0.045"	1.15	0.086"	2.20
		20-16	0.020"-0.059"	0.50-1.48	RM16M23K ⁽¹⁾	RC16M23K ⁽¹⁾	0.070"	1.80	0.125"	3.20
		16-14	0.059"-0.098"	1.48-2.48	RM14M30K ⁽¹⁾	RC14M30K ⁽¹⁾	0.090"	2.30	0.125"	3.20
	Stamped and formed reeled contacts See note ⁽²⁾ for loose piece	26-24	0.005"-0.009"	0.13-0.25	SM24M1TK6 ⁽¹⁾⁽²⁾	SC24M1TK6 ⁽¹⁾⁽²⁾	—	—	0.035"-0.062"	0.90-1.58
		22-20	0.012"-0.020"	0.32-0.50	SM20M1TK6 ⁽¹⁾⁽²⁾	SC20M1TK6 ⁽¹⁾⁽²⁾	—	—	0.047"-0.082"	1.20-2.10
		18-16	0.031"-0.059"	0.82-1.48	SM16M1TK6 ⁽¹⁾⁽²⁾	SC16M1TK6 ⁽¹⁾⁽²⁾	—	—	0.125"	3.20
		18-16	0.031"-0.059"	0.82-1.48	SM16M11TK6 ⁽¹⁾⁽²⁾	SC16M11TK6 ⁽¹⁾⁽²⁾	—	—	0.118"	3.00
		14	0.098"	2.48	SM14M1TK6 ⁽¹⁾⁽²⁾	SC14M1TK6 ⁽¹⁾⁽²⁾	—	—	0.125"	3.20
PCB	Machined ⁽³⁾	—			RM20M12E83K ⁽¹⁾	RC20M12E84K ⁽¹⁾	—	—	—	—
Coaxial	Cable multipiece	see Pages 130 to 132			RMDXK10D28	RCDXK1D28	—	—	—	—
	Cable monocrimp	see Pages 130 to 132			RMDX60xxD28	RCDX60xxD28	—	—	—	—
	Twisted pair multipiece	see Pages 130 to 132			RMDXK10D28 + yorx090	RCDXK1D28 + yorx090	—	—	—	—
	Twisted pair monocrimp	see Pages 130 to 132			RMDX60xxD28	RCDX60xxD28	—	—	—	—

(1) Example of plating, for other plating see **Page 126**

(2) Loose piece contact available by adding "L" after the "M" for the contact size and the plating. Example: SM20M1TK6 becomes SM20ML1TK6

Contacts #12

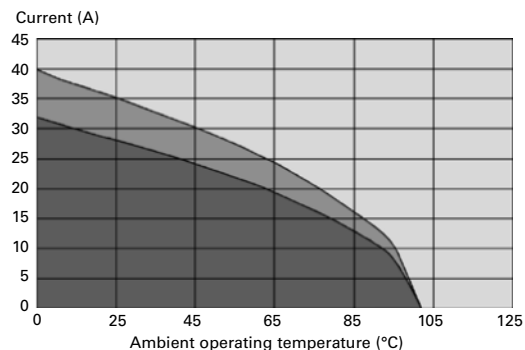
Contact style	Contact type	Cable acceptance AWG	Cable acceptance		Part number Male	Female	Wire Ø max		Insulator Ø max	
			inch ²	mm ²			inch	mm	inch	mm
Crimp contacts	Machined	22	0.012"	0.32	82911457NA ⁽¹⁾	82911456A ⁽¹⁾	0.027"	0.7	0.192"	4.90
	Machined	20	0.020"	0.50	82911459NA ⁽¹⁾	82911458A ⁽¹⁾	0.044"	1.12	0.192"	4.90
	Machined	18	0.031"	0.82	82911461NA ⁽¹⁾	82911460A ⁽¹⁾	0.055"	1.42	0.192"	4.90
	Machined	16	0.059"	1.48	82911463NA ^v	82911462A ⁽¹⁾	0.067"	1.72	0.192"	4.90
	Machined	14	0.098"	2.48	82911465NA ⁽¹⁾	82911464A ⁽¹⁾	0.087"	2.20	0.192"	4.90
	Machined	12	0.157"	4.00	82911467NA ⁽¹⁾	82911466A ⁽¹⁾	0.111"	2.82	0.192"	4.90

(1) Example of plating, for other plating see **Page 126**

Electrical characteristics

			IEC
Not UL certified	Not UL certified		17A 230V 1.5kV 3

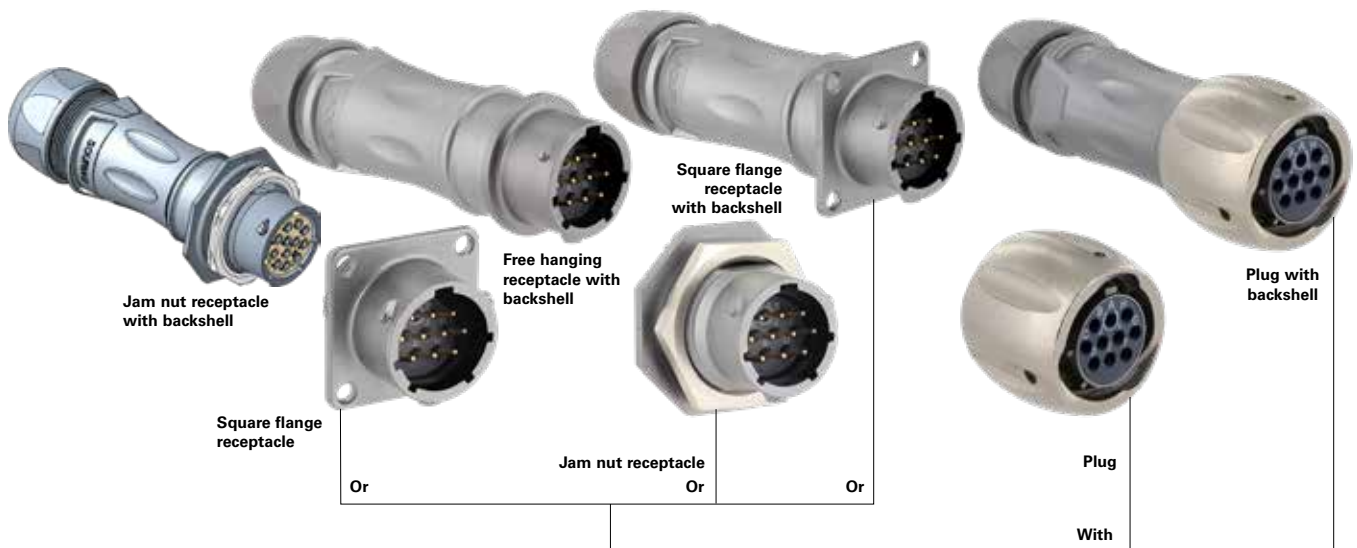
UTOX 148 derating curves



- Current use
- Limited use
- Not recommended

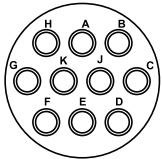
Test conditions

Contact used: machined contacts
Wires used: 20 AWG



Connector part numbers

UTOX 1210 - Or 12E10/12D10 (Sealed unmated)



10 contacts
4.5A/250V
per UL 1977
with AWG20 wire

Contact type	Connector type	Backshell	Part number Male insert	Female insert
Crimp contacts supplied separately see Page 93	Square flange receptacle	Without (Fig. 1)	UTOX01210P	UTOX01210S
	Square flange receptacle	Cable gland unshielded version (Fig. 2)	UTOX0M1210P	UTOX0M1210S
	Square flange receptacle	Cable gland shielded version (Fig. 2)	UTOX0MS1210P	UTOX0MS1210S
	Free hanging receptacle	Cable gland unshielded version (Fig. 3)	UTOX1M1210P	UTOX1M1210S
	Free hanging receptacle	Cable gland shielded version (Fig. 3)	UTOX1MS1210P	UTOX1MS1210S
	Plug	Without (Fig. 4) ^{Note1}	UTOX61210P	UTOX61210S
	Plug	Cable gland unshielded version (Fig. 5)	UTOX6M1210P	UTOX6M1210S
	Plug	Cable gland shielded version (Fig. 5)	UTOX6MS1210P	UTOX6MS1210S
	Jam nut receptacle	Without (Fig. 6)	UTOX71210P	UTOX71210S
	Jam nut receptacle	Cable gland unshielded version (Fig. 9)	UTOX7M1210P	UTOX7M1210S
	Jam nut receptacle	Cable gland shielded version (Fig. 9)	UTOX7MS1210P	UTOX7MS1210S
Handsolder electrical contacts loaded see Page 93	Square flange receptacle	Without (Fig. 1)	UTOX012E10P	UTOX012E10S
	Plug	Without (Fig. 4)	UTOX612E10P	UTOX612E10S
	Plug	Cable gland unshielded version (Fig. 5)	UTOX6M12E10P	UTOX6M12E10S
	Plug	Cable gland shielded version (Fig. 5)	UTOX6MS12E10P	UTOX6MS12E10S
	Jam nut receptacle	Without (Fig. 6)	UTOX712E10P	UTOX712E10S
PCB contacts loaded	Square flange receptacle	Without (Fig. 3)	UTOX012D10P	UTOX012D10S
	Jam nut receptacle with stand off and without hold down clip	Without (Fig. 7)	UTOX712D10P	UTOX712D10S
	Jam nut receptacle with stand off and with hold down clips	Without (Fig. 8)	UTOX712D10P32	UTOX712D10S32

For discrimination/keying methods see **Page 150**

Sealed unmated

Nota 1: it is necessary to add a backshell to the plug assembly.

Souriau UTOX series

1210 - 12E10/12D10 (Shell size 12, 10x#20)

Dimensions (for mated connector lengths see Page 121)

Square flange receptacle - UTOX0, UTOX0M and UTOX0MS

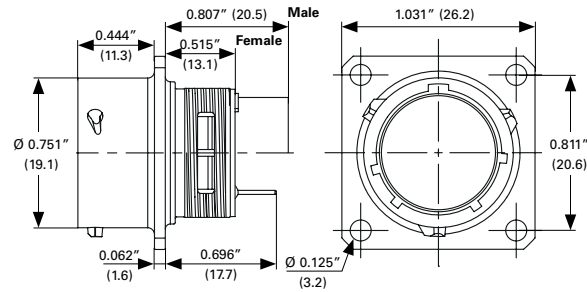


Fig. 1

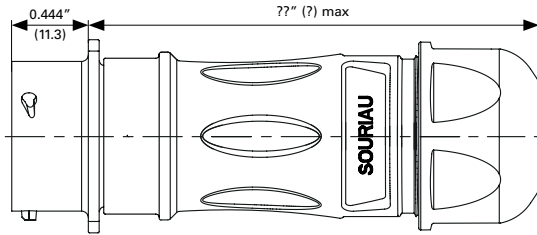


Fig. 2: Cable diameter acceptance from 0.275" to 0.393" (7 to 10)

Free hanging - UTOX1M and UTOX1MS

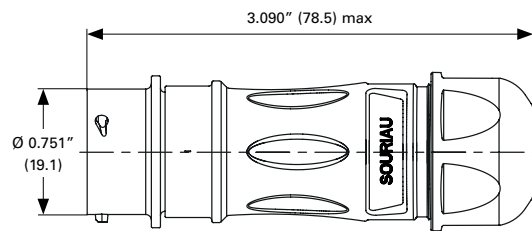


Fig. 3 : Cable diameter acceptance from 0.275" to 0.393" (7 to 10)

Plug - UTOX6, UTOX6M and UTOX6MS

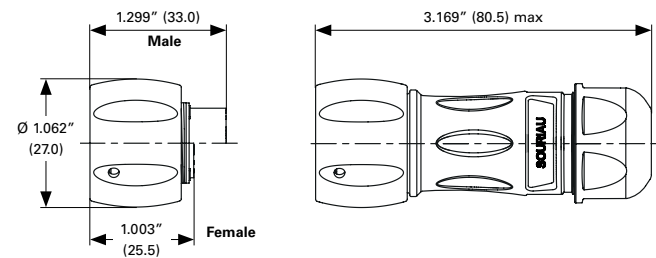


Fig. 4

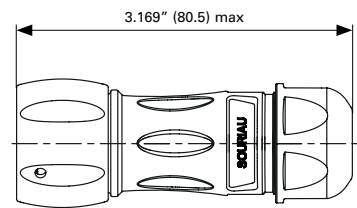


Fig. 5 : Cable diameter acceptance from 0.275" to 0.393" (7 to 10)

Jam nut receptacle UTOX7

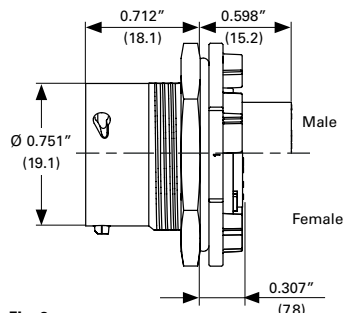


Fig. 6

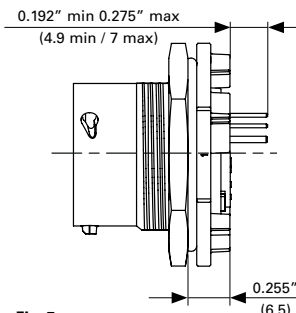


Fig. 7

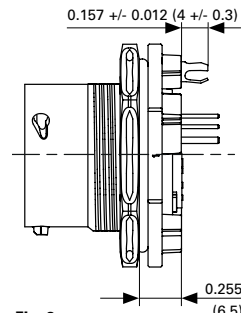
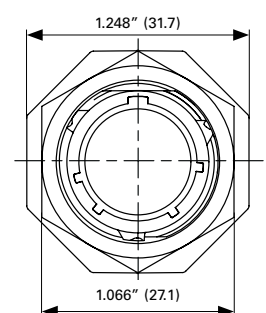
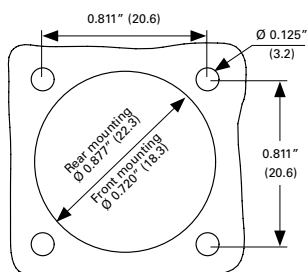


Fig. 8



Jam nut receptacle with backshell - UTOX7M, UTOX7MS

Square flange receptacle - UTOX0



Jam nut receptacle - UTOX7

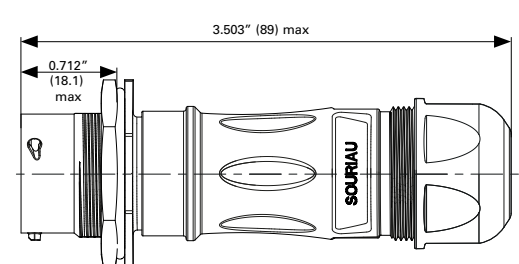
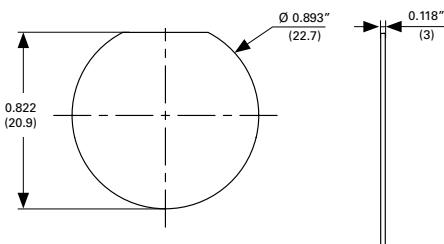


Fig. 9

Accessories

Dustcap (Receptacle)



Description	Part number
-------------	-------------

IP68	UT012DCG*
------	-----------

*For dustcap without chain, omit "G",
e.g. UT012DC

Dustcap (Plug)



Description	Part number
-------------	-------------

IP68	UTG614DCG*
------	------------

*For dustcap without chain, omit "G",
e.g. UT612DC

Gasket



Part number

UTFD13B

Dummy contact #16



Part number

SMSPK0

Note: See Page 132 for more information

Tooling

#20 & #16 stamped and machined contacts



Description	Part number
-------------	-------------

Handle (without head)	Shandles
-----------------------	----------

Box containing handle and several crimp tooling	Toolkit
---	---------

Crimp tooling (without Shandles)



Handle

Head

Complete set

Contact size	Contacts	Part number of Head
--------------	----------	---------------------

Standard contacts #20 Ø 0.039" (1)	RM/RC 24W3K ⁽¹⁾	S20RCM*
--	----------------------------	---------

	RM/RC 20W3K ⁽¹⁾	S20RCM*
--	----------------------------	---------

	RM/RC 18W3K ⁽¹⁾	S20RCM*
--	----------------------------	---------

	SM/SC 24WL3 ⁽¹⁾⁽²⁾	S20SCM20*
--	-------------------------------	-----------

	SM/SC 20WL3 ⁽¹⁾⁽²⁾	S20SCM20*
--	-------------------------------	-----------

(1) Example of plating, for other plating options see Page 126

(2) Loose contact

* Heads to be used with handle PN: SHANDLES

Extraction tool #20



Description	Part number
-------------	-------------

Contacts #20 Ø 0.039" (1)	RX20D44
------------------------------	---------

Souriau UTOX series

1210 - 12E10/12D10 (Shell size 12, 10x#20)

Contacts #20

Contact style	Contact type	Cable acceptance AWG	Cable acceptance inch ²	mm ²	Part number Male	Female	Wire Ø max inch	mm	Insulator Ø max inch	mm
Crimp contacts	Machined	26-24	0.005"-0.009"	0.13-0.25	RM24W3K	RC24W3K	0.031"	0.80	0.062"	1.58
	Machined	22-20	0.012"-0.020"	0.32-0.50	RM20W3K	RC20W3K	0.045"	1.15	0.070"	1.80
	Machined	20-18	0.020"-0.031"	0.50-0.82	RM18W3K	RC18W3K	0.051"	1.30	0.082"	2.10
	Stamped and formed reeled contacts See note ⁽²⁾ for loose piece	26-24	0.005"-0.009"	0.13-0.25	SM24W3TK6 ⁽¹⁾⁽²⁾	SC24W3TK6 ⁽¹⁾⁽²⁾	—	—	0.035"-0.062"	0.90-1.58
		26-24	0.005"-0.009"	0.13-0.25	SM24W3S26 ⁽¹⁾⁽²⁾	SC24W3S25 ⁽¹⁾⁽²⁾	—	—	0.035"-0.062"	0.90-1.58
		22-20	0.012"-0.020"	0.32-0.50	SM20W3TK6 ⁽¹⁾⁽²⁾	SC20W3TK6 ⁽¹⁾⁽²⁾	—	—	0.047"-0.082"	1.20-2.10
		22-20	0.012"-0.020"	0.32-0.50	SM20W3S26 ⁽¹⁾⁽²⁾	SC20W3S25 ⁽¹⁾⁽²⁾	—	—	0.047"-0.082"	1.20-2.10
PCB	Machined ⁽³⁾	—	—	—	RMW5016K	RCW5016K	—	—	—	—

(1) Example of plating, for other plating see **Page 126**

(2) Loose piece contact available by adding "L" after the "M" for the contact size and the plating. Example: SM20W3TK6 becomes SM20WL3TK6

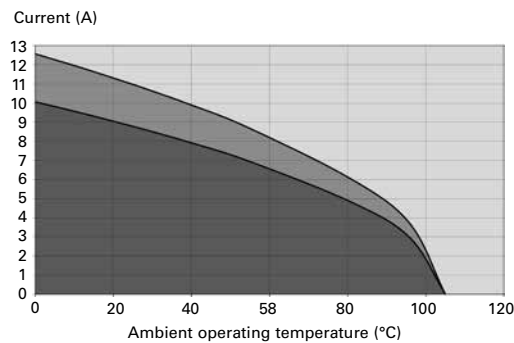
(3) For dimensions see **Pages 133 or 134**

Contact style	Contact type	Plating	Cable acceptance (AWG)	mm ²	Wire stripping length inch	mm
Hand solder	Loaded in the connector	Min 0.4µ gold over 0.8µ Ni	20 to 18	0.50 - 0.82	0.149"	3.8

Electrical characteristics

UL	CSA	IEC
UTOX 1210		
4.5A 250V with AWG20 wire	3A 250V with AWG20 wire	6A 50V 1.5kV 3
UTOX 12E10/12D10		
4.5A 250V with AWG20 wire	4.5A 250V with AWG20 wire	6A 50V 1.5kV 3

UTOX 1210 - 12E10/12D10 derating curves

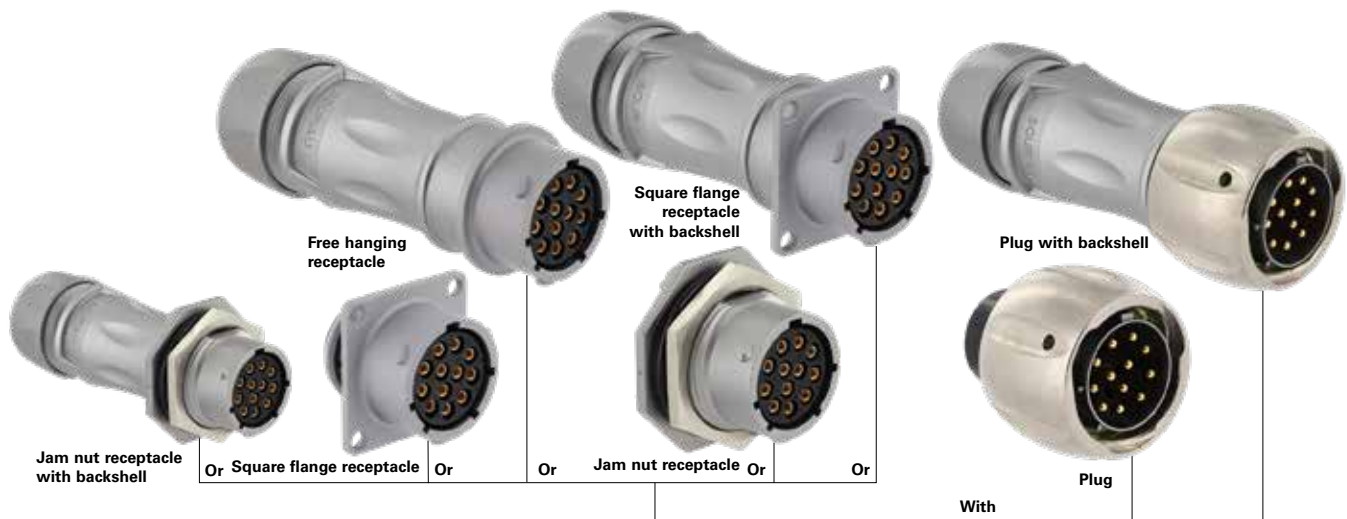


- Current use
- Limited use
- Not recommended

Test conditions

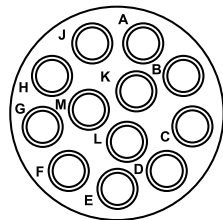
Contact used: machined contacts
Wires used: 20 AWG

Derating curves based on continuous current application.



Connector part numbers

UTOX 1412



12 contacts
16A/500V per UL 1977
with AWG14 wire

Contact type	Connector type	Backshell	Part number Male insert	Female insert
Crimp contacts supplied separately See Page 98	Square flange receptacle	Without (Fig. 1)	UTOX01412P	UTOX01412S
	Square flange receptacle	Cable gland unshielded version (Fig. 2)	UTOX0M1412P	UTOX0M1412S
	Square flange receptacle	Cable gland shielded version (Fig. 2)	UTOX0MS1412P	UTOX0MS1412S
	Free hanging receptacle	Cable gland unshielded version (Fig. 3)	UTOX1M1412P	UTOX1M1412S
	Free hanging receptacle	Cable gland shielded version (Fig. 3)	UTOX1MS1412P	UTOX1MS1412S
	Plug	Without (Fig. 4) ^{Note 1}	UTOX61412P	UTOX61412S
	Plug	Cable gland unshielded version (Fig. 5)	UTOX6M1412P	UTOX6M1412S
	Plug	Cable gland shielded version (Fig. 5)	UTOX6MS1412P	UTOX6MS1412S
	Jam nut receptacle	Without (Fig. 6)	UTOX71412P	UTOX71412S
	Jam nut receptacle	Cable gland unshielded version (Fig. 7)	UTOX7M1412P	UTOX7M1412S
	Jam nut receptacle	Cable gland shielded version (Fig. 7)	UTOX7MS1412P	UTOX7MS1412S
PCB contacts supplied separately See Page 98	Square flange receptacle	Without (Fig. 1)	UTOX01412P	UTOX01412S
	Jam nut receptacle	Without (Fig. 6)	UTOX71412P	UTOX71412S

For discrimination/keying methods see **Page 150**

Note 1: it is necessary to add a backshell to the plug assembly.

Souriau UTOX series

1412 (Shell size 14, 12x#16)

Dimensions (for mated connector lengths see Page 121)

Square flange receptacle - UTOX0, UTOX0M and UTOX0MS

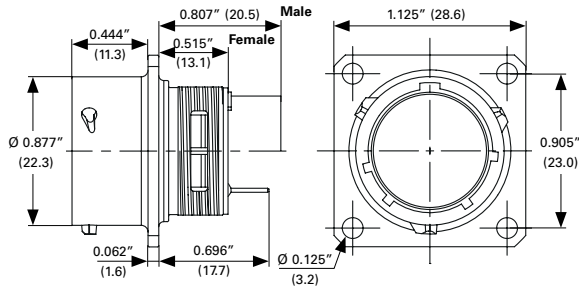


Fig. 1

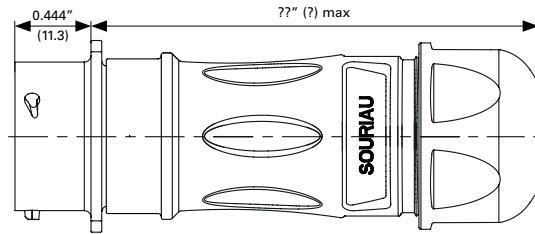


Fig. 2 Cable diameter acceptance from 0.393" to 0.511" (10 to 13)

Free hanging - UTOX1M and UTOX1MS

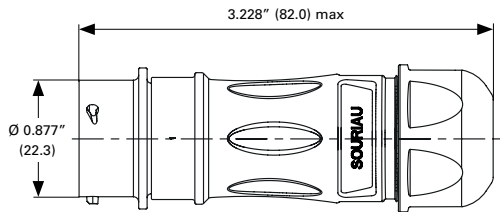


Fig. 3 Cable diameter acceptance from 0.393" to 0.511" (10 to 13)

Plug - UTOX6, UTOX6M and UTOX6MS

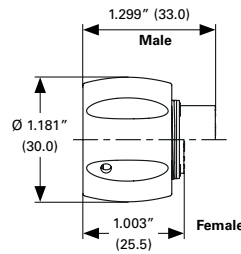


Fig. 4

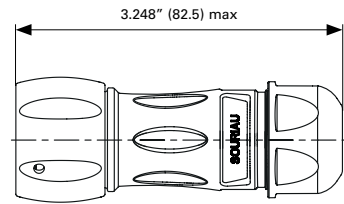


Fig. 5 Cable diameter acceptance from 0.393" to 0.511" (10 to 13)

Jam nut receptacle UTOX7

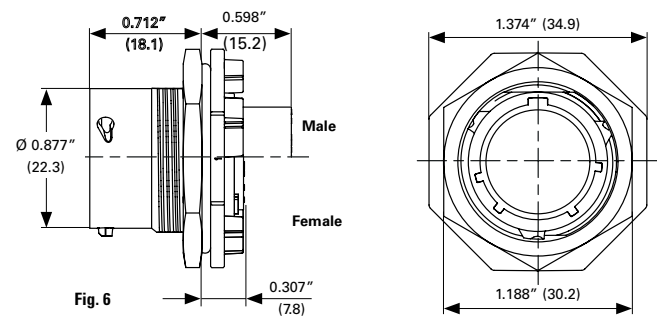


Fig. 6

Jam nut receptacle with backshell - UTOX7M, UTOX7MS

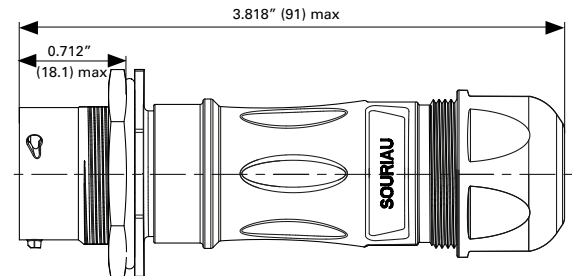
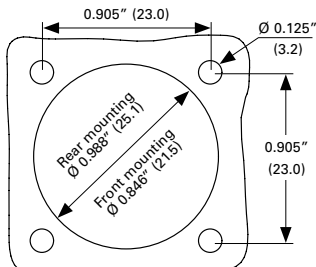


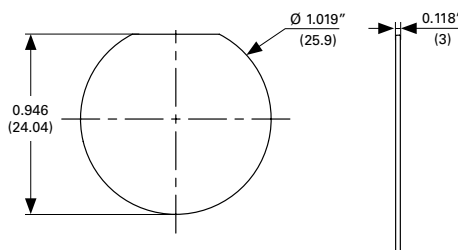
Fig. 7

Panel cut out

Square flange receptacle - UTOX0



Jam nut receptacle - UTOX7



Dimensions in inches (millimeters)

Accessories

Dustcap (Receptacle)



Gasket



Description	Part number
-------------	-------------

IP68	UT014DCG*
------	-----------

*For dustcap without chain, omit "G",
e.g. UT012DC

Part number

UTFD14B

Dustcap (Plug)



Description	Part number
-------------	-------------

IP68	UTG614DCG*
------	------------

*For dustcap without chain, omit "G",
e.g. UTG612DC

Part number

SMSPKE0

Note: See **Page 132** for more information

Dummy contact #16

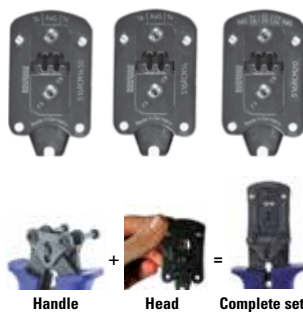


Tooling

#20 & #16 stamped and machined contacts



Crimp tooling (without Shandles)



Description	Part number
-------------	-------------

Handle (without head)	Shandles
-----------------------	----------

Box containing handle and several crimp tooling	Toolkit
---	---------

Contact size	Contacts	Part number of Head
--------------	----------	---------------------

Standard contacts	RM/RC 28M1K ⁽¹⁾	S16RCM20*
#16	RM/RC 24M9K ⁽¹⁾	S16RCM20*
Ø 0.062" (1.6)	RM/RC 20M13K ⁽¹⁾	S16RCM20*
	RM/RC 20M12K ⁽¹⁾	S16RCM20*
	RM/RC 16M23K ⁽¹⁾	S16RCM16*
	RM/RC 14M30K ⁽¹⁾	S16RCM14*
	SM/SC 24ML1TK6 ⁽¹⁾	S16SCM20*
	SM/SC 20ML1TK6 ⁽¹⁾	S16SCM20*
	SM/SC 16ML1TK6 ⁽¹⁾	S16SCML1*
	SM/SC 14ML1TK6 ⁽¹⁾	S16SCML1*
	SM/SC 16ML11TK6 ⁽¹⁾	S16SCML11*

(1) Example of plating, for other plating options see **Page 126**

* Heads to be used with handle PN: SHANDLES

#16, #12 and #8 machined contacts



Description	Part number
-------------	-------------

Crimp tool	M20S-1J
------------	---------

Die casts and stop bushings	See Page 133
-----------------------------	---------------------

Extraction tool #16

Fig. 1



Fig. 2



Dimensions in inches (millimeters)

Description	Part number
-------------	-------------

Fig. 1	RX2025GE1
--------	-----------

Fig. 2 - Long endurance tool	RX2031J
------------------------------	---------

Contacts #16

Contact style	Contact type	Cable acceptance AWG	Cable acceptance		Part number Male	Female	Wire Ø		Insulator Ø	
			inch ²	mm ²			max inch	mm	max inch	mm
Crimp contacts	Machined	30-28	0.001"-0.003"	0.06-0.08	RM28M1K ⁽¹⁾	RC28M1K ⁽¹⁾	0.021"	0.55	0.039"	1.00
	Machined	26-24	0.005"-0.009"	0.13-0.25	RM24M9K ⁽¹⁾	RC24M9K ⁽¹⁾	0.031"	0.80	0.062"	1.58
	Machined	22-20	0.012"-0.020"	0.32-0.50	RM20M13K ⁽¹⁾	RC20M13K ⁽¹⁾	0.045"	1.15	0.070"	1.80
	Machined	22-20	0.012"-0.020"	0.32-0.50	RM20M12K ⁽¹⁾	RC20M12K ⁽¹⁾	0.045"	1.15	0.086"	2.20
	Machined	20-16	0.020"-0.059"	0.50-1.48	RM16M23K ⁽¹⁾	RC16M23K ⁽¹⁾	0.070"	1.80	0.125"	3.20
	Machined	16-14	0.059"-0.098"	1.48-2.48	RM14M30K ⁽¹⁾	RC14M30K ⁽¹⁾	0.090"	2.30	0.125"	3.20
	Stamped and formed reeled contacts See note ⁽²⁾ for loose piece	26-24	0.005"-0.009"	0.13-0.25	SM24M1TK6 ⁽¹⁾⁽²⁾	SC24M1TK6 ⁽¹⁾⁽²⁾	—	—	0.035"-0.062"	0.90-1.58
		22-20	0.012"-0.020"	0.32-0.50	SM20M1TK6 ⁽¹⁾⁽²⁾	SC20M1TK6 ⁽¹⁾⁽²⁾	—	—	0.047"-0.082"	1.20-2.10
		18-16	0.031"-0.059"	0.82-1.48	SM16M1TK6 ⁽¹⁾⁽²⁾	SC16M1TK6 ⁽¹⁾⁽²⁾	—	—	0.125"	3.20
		18-16	0.031"-0.059"	0.82-1.48	SM16M11TK6 ⁽¹⁾⁽²⁾	SC16M11TK6 ⁽¹⁾⁽²⁾	—	—	0.118"	3.00
		14	0.098"	2.48	SM14M1TK6 ⁽¹⁾⁽²⁾	SC14M1TK6 ⁽¹⁾⁽²⁾	—	—	0.125"	3.20
PCB	Machined ⁽³⁾	—	—	—	RM20M12E83K ⁽¹⁾	RC20M12E84K ⁽¹⁾	—	—	—	—
Coaxial	Cable multipiece	see Pages 130 to 132			RMDXK10D28	RCDXK1D28	—	—	—	—
	Cable monocrimp	see Pages 130 to 132			RMDX60xxD28	RCDX60xxD28	—	—	—	—
	Twisted pair multipiece	see Pages 130 to 132			RMDXK10D28 + yorx090	RCDXK1D28 + yorx090	—	—	—	—
	Twisted pair monocrimp	see Pages 130 to 132			RMDX60xxD28	RCDX60xxD28	—	—	—	—
Fiber optic	POF contacts (Plastic optical fiber)	—	—	—	RMPOF1000	RCPOF1000B	—	—	—	—
Handsoldier	Loaded in the connector	14-18	0.098"-0.031"	2.48-0.80	—	—	—	—	—	—

(1) Example of plating, for other plating see **Page 126**

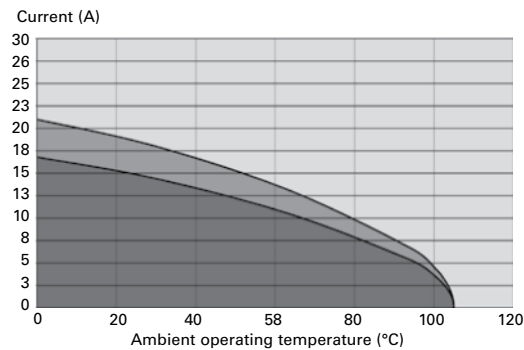
(2) Loose piece contact available by adding "L" after the "M" for the contact size and the plating. Example: SM20M1TK6 becomes SM20ML1TK6

(3) For dimensions see **Pages 133 or 134**

Electrical characteristics

UL	CSA	IEC
16A 500V with AWG14 wire	16A 500V with AWG14 wire	10A 63V 1.5kV 3

UTOX 1412 derating curves

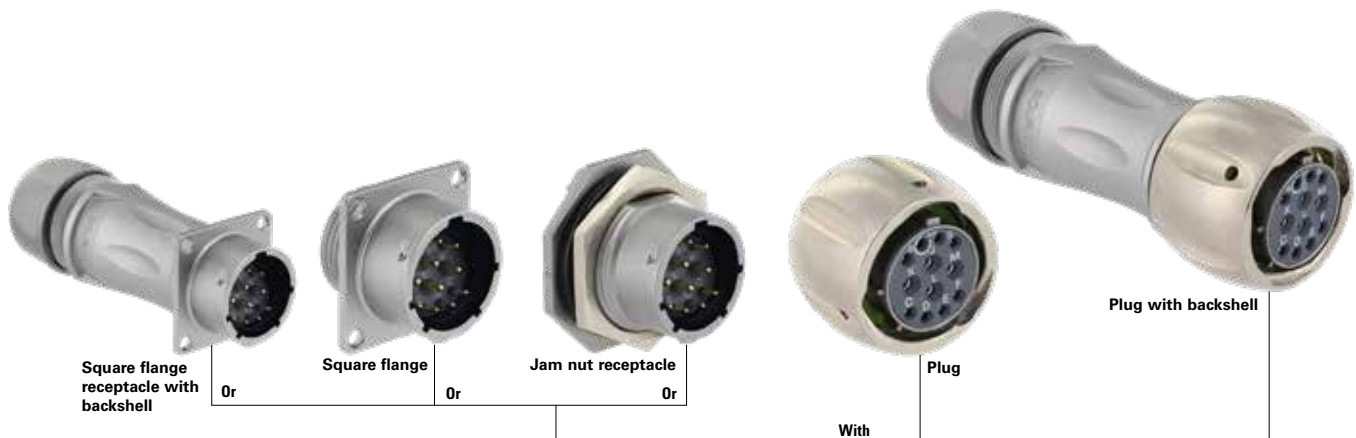


- Current use
- Limited use
- Not recommended

Test conditions

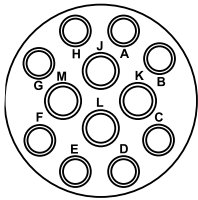
Contact used: machined contacts
Wires used: 16 AWG

Derating curves based on continuous current application.



Connector part numbers

UTOX 14E12/14D12



12 contacts
5A 250V per UL1977 with
AWG20 wire
10A 600V per UL1977 with
AWG16 wire

Contact type	Connector type	Backshell	Part number Male insert	Female insert
Hand solder electrical contacts loaded see Page 102	Square flange receptacle	Without (Fig. 1)	UTOX014E12P	UTOX014E12S
	Square flange receptacle	Cable gland unshielded version (Fig. 1B)	UTOX0M14E12P	UTOX0M14E12S
	Square flange receptacle	Cable gland shielded version (Fig. 1B)	UTOX0MS14E12P	UTOX0MS14E12S
	Plug	Without (Fig. 2) ^{Nota 1}	UTOX614E12P	UTOX614E12S
	Plug	Cable gland unshielded version (Fig. 3)	UTOX6M14E12P	UTOX6M14E12S
	Plug	Cable gland shielded version (Fig. 3)	UTOX6MS14E12P	UTOX6MS14E12S
	Jam nut receptacle	Without (Fig. 4)	UTOX714E12P	UTOX714E12S
PCB contacts loaded see Page 102	Square flange receptacle	Without (Fig. 2)	UTOX014D12P	UTOX014D12S
	Jam nut receptacle with stand off and without hold down clip	Without (Fig. 5)	UTOX714D12P	UTOX714D12S
	Jam nut receptacle with stand off and with hold down clips	Without (Fig. 6)	UTOX714D12P32	UTOX714D12S32

For discrimination/keying methods see **Page 150**

Nota 1: it is necessary to add a backshell to the plug assembly.

Sealed unmated

Souriau UTOX series

14E12/14D12 (Shell size 14, 8x#20, 4#16)

Dimensions (for mated connector lengths see Page 121)

Square flange receptacle - UTOX0

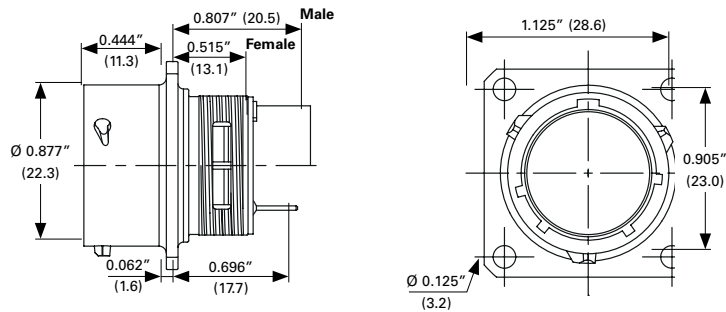


Fig. 1

Square flange receptacle with backshell - UTOX0M, UTOX0MS

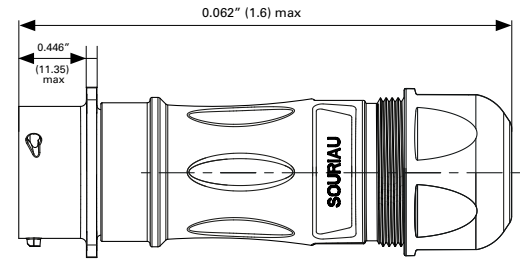


Fig. 1B

Plug - UTOX6, UTOX6M and UTOX6MS

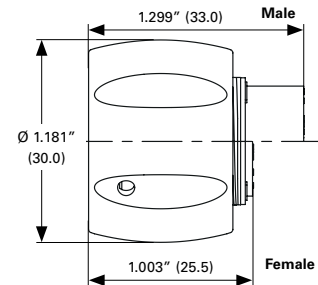


Fig. 2

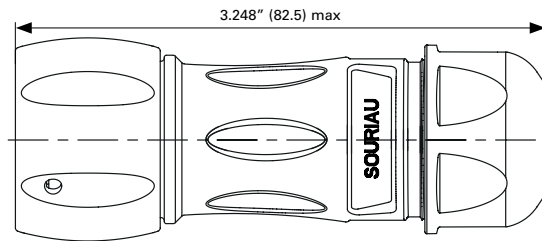


Fig. 3 Cable diameter acceptance from 0.393" to 0.511" (10 to 13)

Jam nut receptacle UTOX7

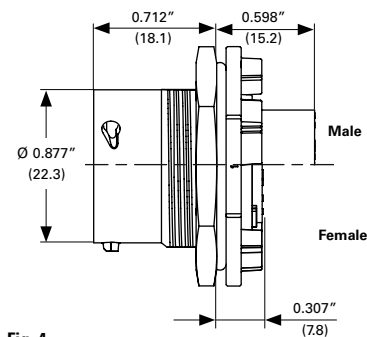


Fig. 4

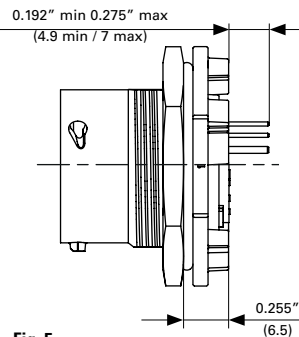


Fig. 5

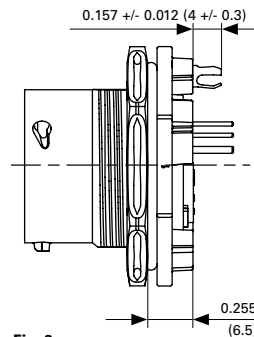
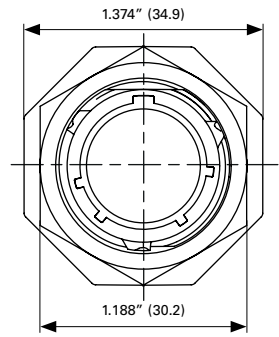
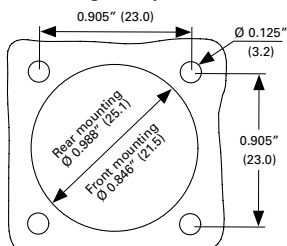


Fig. 6

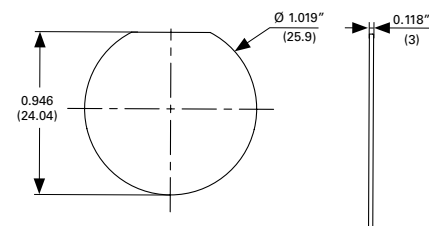


Panel cut out

Square flange receptacle - UTOX0



Jam nut receptacle - UTOX7



Dimensions in inches (millimeters)

Accessories

Dustcap (Receptacle)



Description	Part number
-------------	-------------

IP68	UT014DCG*
------	-----------

*For dustcap without chain, omit "G",
e.g. UT012DC

Dustcap (Plug)



Description	Part number
-------------	-------------

IP68	UTG614DCG*
------	------------

*For dustcap without chain, omit "G",
e.g. UT612DC

Gasket



Part number

UTFD14B

Contacts

Contact size	Contact type	Plating	Cable acceptance (AWG)	Cable acceptance inch ²	mm ²	Wire stripping length inch	mm
#16	Hand solder loaded in the connector	Min 0.4μ gold over 0.8μ Ni	18 - 14	0.032"-0.081"	0.823 - 2.08	0.196"	5
	PCB machined ⁽¹⁾	Min 0.4μ gold over 0.8μ Ni	—	—	—	—	—
#20	Hand solder loaded in the connector	Min 0.4μ gold over 0.8μ Ni	20 - 18	0.012"-0.029"	0.32 - 0.75	0.149"	3.8
	PCB machined ⁽¹⁾	Min 0.4μ gold over 0.8μ Ni	—	—	—	—	—

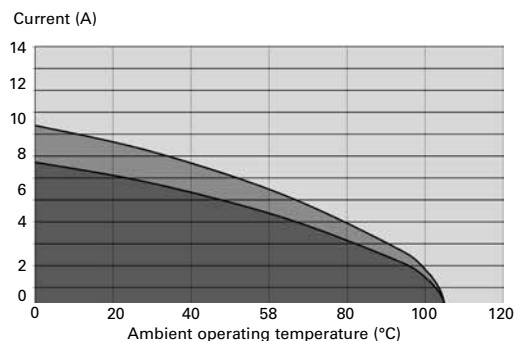
(1) For dimensions see **Pages 133 or 134**

Electrical characteristics

UL	CSA	IEC
5A 250V with AWG20* 10A 600V with AWG16*	5A 250V with AWG20* 10A 600V with AWG16*	4A 50V 1.5kV 3

* qualification pending

UTOX 14E12/14D12 derating curves



- Current use
- Limited use
- Not recommended

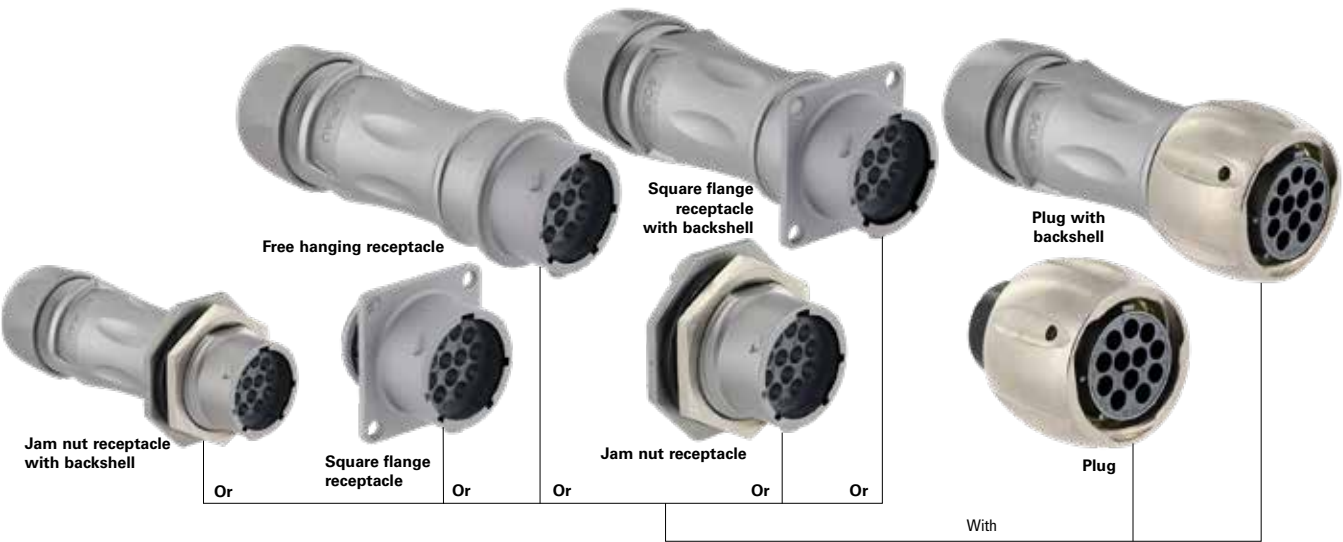
Test conditions

Contact used: machined contacts
Wires used: 16 AWG

Derating curves based on continuous current application.

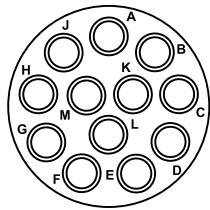
Souriau UTOX series

1492 (Shell size 14, 12x#16)



Connector part numbers

UTOX 1492



12 contacts
10A/500V per UL 1977
with AWG16 wire

Contact type	Connector type	Backshell	Part number Male insert	Female insert
Crimp contacts supplied separately see Page 107	Square flange receptacle	Without (Fig. 1)	UTOX01492P	UTOX01492S
	Square flange receptacle	Cable gland unshielded version (Fig. 2)	UTOX0M1492P	UTOX0M1492S
	Square flange receptacle	Cable gland shielded version (Fig. 2)	UTOX0MS1492P	UTOX0MS1492S
	Free hanging receptacle	Cable gland unshielded version (Fig. 3)	UTOX1M1492P	UTOX1M1492S
	Free hanging receptacle	Cable gland shielded version (Fig. 3)	UTOX1MS1492P	UTOX1MS1492S
	Plug	Without (Fig. 4) ^{Note 1}	UTOX61492P	UTOX61492S
	Plug	Cable gland unshielded version (Fig. 5)	UTOX6M1492P	UTOX6M1492S
	Plug	Cable gland shielded version (Fig. 5)	UTOX6MS1492P	UTOX6MS1492S
	Jam nut receptacle	Without (Fig. 6)	UTOX71492P	UTOX71492S
	Jam nut receptacle	Cable gland unshielded version (Fig. 9)	UTOX7M1492P	UTOX7M1492S
PCB contacts supplied separately see Page 107	Jam nut receptacle	Cable gland shielded version (Fig. 9)	UTOX7MS1492P	UTOX7MS1492S
	Square flange receptacle	Without (Fig. 1)	UTOX01492P	UTOX01492S
	Jam nut receptacle	Without (Fig. 6)	UTOX71492P	UTOX71492S

For discrimination/keying methods see **Page 150**

Nota 1: It is necessary to add a backshell to the plug assembly.

Dimensions (for mated connector lengths see Page 121)

Square flange receptacle - UTOX0, UTOX0M and UTOX0MS

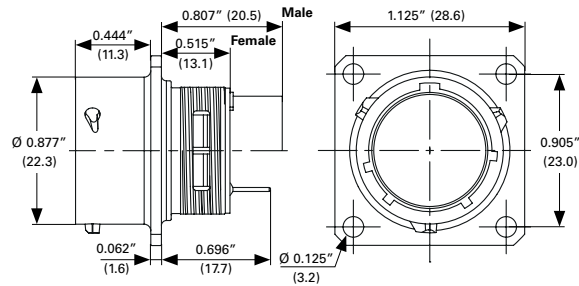


Fig. 1

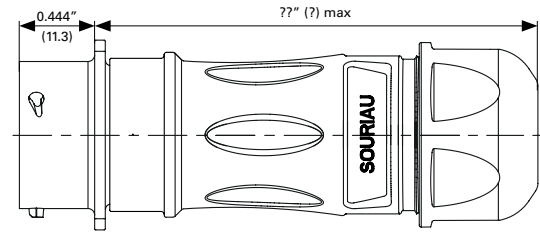


Fig. 2 Cable diameter acceptance from 0.393" to 0.511" (10 to 13)

Free hanging - UTOX1M and UTOX1MS

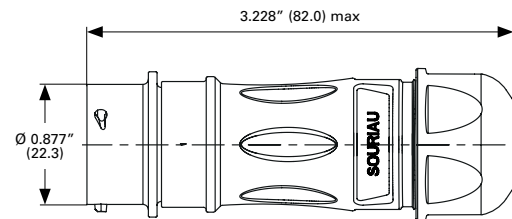


Fig. 3 Cable diameter acceptance from 0.393" to 0.511" (10 to 13)

Plug - UTOX6, UTOX6M and UTOX6MS

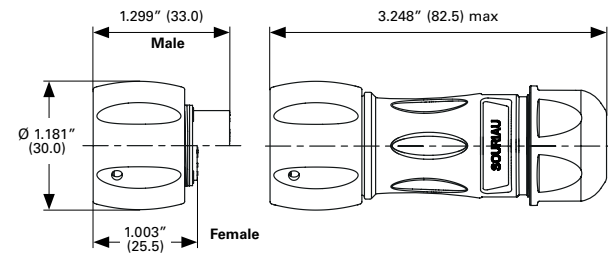


Fig. 4

Fig. 5 Cable diameter acceptance from 0.393" to 0.511" (10 to 13)

Jam nut receptacle UTOX7

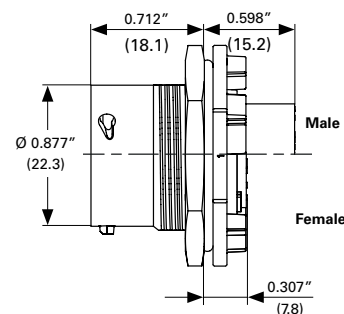


Fig. 6

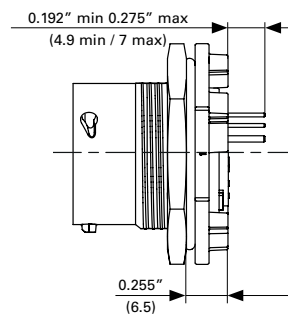
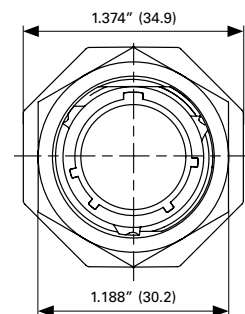
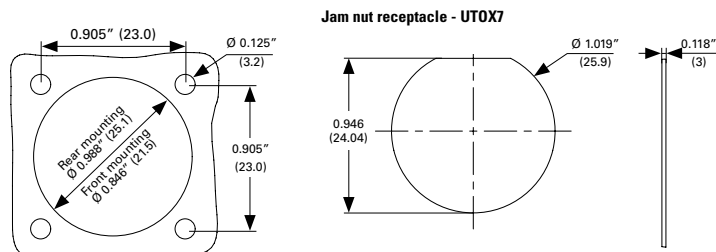


Fig. 7



Panel cut out



Jam nut receptacle with backshell - UTOX7M, UTOX7MS

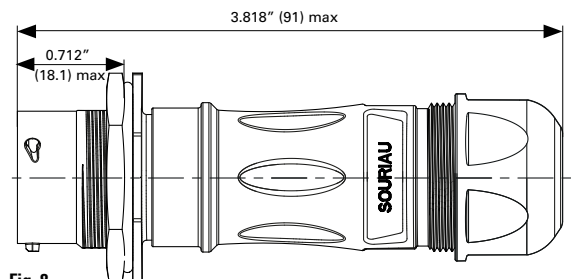


Fig. 8

Dimensions in inches (millimeters)

Souriau UTOX series

1492 (Shell size 14, 12x#16)

Accessories

Dustcap (Receptacle)



Description	Part number
IP68	UT010DCG*

*For dustcap without chain, omit "G",
e.g. UT012DC

Part number

UTFD12B

Gasket



Dustcap (Plug)



Description	Part number
IP68	UTG614DCG*

*For dustcap without chain, omit "G",
e.g. UT612DC

Part number

SMSPKE0

Note: See **Page 132** for more information

Dummy contact #16



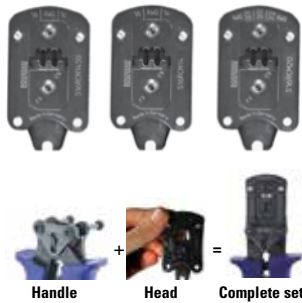
Tooling

#20 & #16 stamped and machined contacts



Description	Part number
Handle (without head)	Shandles
Box containing handle and several crimp tooling	Toolkit

Crimp tooling (without Shandles)



Contact size	Contacts	Part number of Head
Standard contacts #16 Ø 0.062" (1.6)	RM/RC 28M1K ⁽¹⁾	S16RCM20*
	RM/RC 24M9K ⁽¹⁾	S16RCM20*
	RM/RC 20M13K ⁽¹⁾	S16RCM20*
	RM/RC 20M12K ⁽¹⁾	S16RCM20*
	RM/RC 16M23K ⁽¹⁾	S16RCM16*
	RM/RC 14M30K ⁽¹⁾	S16RCM14*
	SM/SC 24ML1TK6 ⁽¹⁾	S16SCM20*
	SM/SC 20ML1TK6 ⁽¹⁾	S16SCM20*
	SM/SC 16ML1TK6 ⁽¹⁾	S16SCML1*
	SM/SC 14ML1TK6 ⁽¹⁾	S16SCML1*
	SM/SC 16ML11TK6 ⁽¹⁾	S16SCML11*

(1) Example of plating, for other plating options see **Page 126**

* Heads to be used with handle PN: SHANDLES

#16, #12 and #8 machined contacts



Description	Part number
Crimp tool	M20S-1J
Die casts and stop bushings	See Page 133

Extraction tool #16

Fig. 1



Fig. 2



Description	Part number
Fig. 1	RX2025GE1
Fig. 2 - Long endurance tool	RX2031J

Dimensions in inches (millimeters)

Contacts #16

Contact style	Contact type	Cable acceptance AWG	Cable acceptance		Part number Male	Female	Wire		Insulator Ø	
			inch ²	mm ²			Ø max inch	mm	max inch	mm
Crimp contacts	Machined	30-28	0.001"-0.003"	0.06-0.08	RM28M1K ⁽¹⁾	RC28M1K ⁽¹⁾	0.021"	0.55	0.039"	1.00
	Machined	26-24	0.005"-0.009"	0.13-0.25	RM24M9K ⁽¹⁾	RC24M9K ⁽¹⁾	0.031"	0.80	0.062"	1.58
	Machined	22-20	0.012"-0.020"	0.32-0.50	RM20M13K ⁽¹⁾	RC20M13K ⁽¹⁾	0.045"	1.15	0.070"	1.80
	Machined	22-20	0.012"-0.020"	0.32-0.50	RM20M12K ⁽¹⁾	RC20M12K ⁽¹⁾	0.045"	1.15	0.086"	2.20
	Machined	20-16	0.020"-0.059"	0.50-1.48	RM16M23K ⁽¹⁾	RC16M23K ⁽¹⁾	0.070"	1.80	0.125"	3.20
	Machined	16-14	0.059"-0.098"	1.48-2.48	RM14M30K ⁽¹⁾	RC14M30K ⁽¹⁾	0.090"	2.30	0.125"	3.20
	Stamped and formed reeled contacts See note ⁽²⁾ for loose piece	26-24	0.005"-0.009"	0.13-0.25	SM24M1TK6 ⁽¹⁾⁽²⁾	SC24M1TK6 ⁽¹⁾⁽²⁾	—	—	0.035"-0.062"	0.90-1.58
		22-20	0.012"-0.020"	0.32-0.50	SM20M1TK6 ⁽¹⁾⁽²⁾	SC20M1TK6 ⁽¹⁾⁽²⁾	—	—	0.047"-0.082"	1.20-2.10
		18-16	0.031"-0.059"	0.82-1.48	SM16M1TK6 ⁽¹⁾⁽²⁾	SC16M1TK6 ⁽¹⁾⁽²⁾	—	—	0.125"	3.20
		18-16	0.031"-0.059"	0.82-1.48	SM16M11TK6 ⁽¹⁾⁽²⁾	SC16M11TK6 ⁽¹⁾⁽²⁾	—	—	0.118"	3.00
		14	0.098"	2.48	SM14M1TK6 ⁽¹⁾⁽²⁾	SC14M1TK6 ⁽¹⁾⁽²⁾	—	—	0.125"	3.20
PCB	Machined ⁽³⁾	—	—	—	RM20M12E83K ⁽¹⁾	RC20M12E84K ⁽¹⁾	—	—	—	—
Coaxial	Cable multipiece	see Pages 130 to 132			RMDXK10D28	RCDXK1D28	—	—	—	—
	Cable monocrimp	see Pages 130 to 132			RMDX60xxD28	RCDX60xxD28	—	—	—	—
	Twisted pair multipiece	see Pages 130 to 132			RMDXK10D28 + yorx090	RCDXK1D28 + yorx090	—	—	—	—
	Twisted pair monocrimp	see Pages 130 to 132			RMDX60xxD28	RCDX60xxD28	—	—	—	—
Fiber optic	POF contacts (Plastic optical fiber)	—	—	—	RMPOF1000	RCPOF1000B	—	—	—	—
Hand solder	Loaded in the connector	14-18	0.098"-0.031"	2.48-0.80	—	—	—	—	—	—

(1) Example of plating, for other plating see **Page 126**

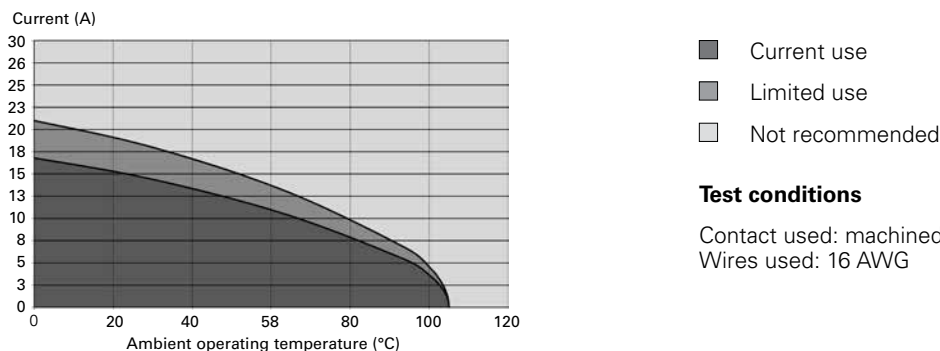
(2) Loose piece contact available by adding "L" after the "M" for the contact size and the plating. Example: SM20M1TK6 becomes SM20ML1TK6

(3) For dimensions see **Pages 133 or 134**

Electrical characteristics

UL	CSA	IEC
10A 500V with AWG16 wire	7A 500V with AWG16 wire	10A 63V 1.5kV 3

UTOX 1412 derating curves



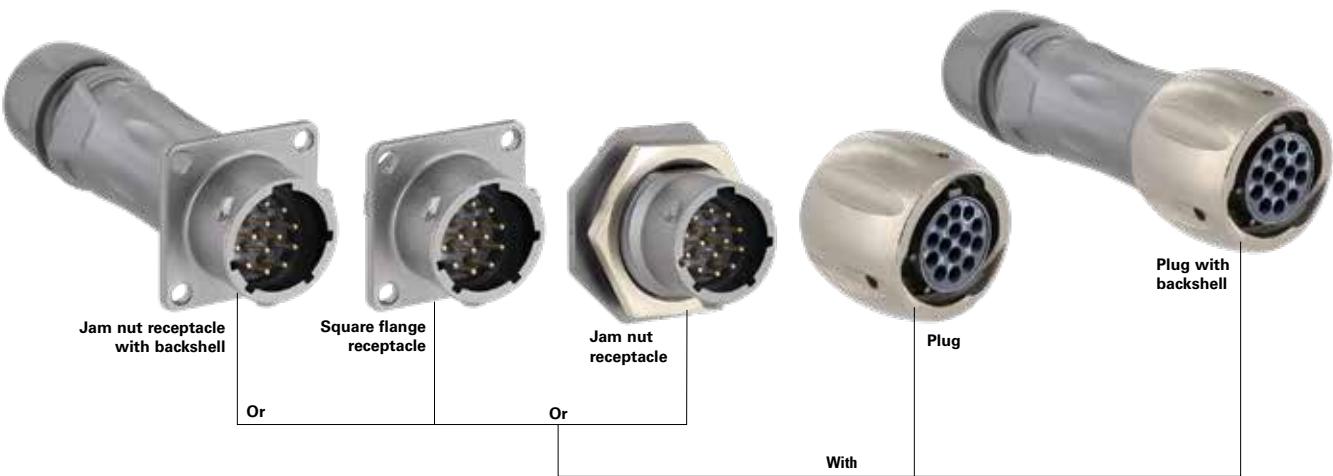
Test conditions

Contact used: machined contacts
Wires used: 16 AWG

Derating curves based on continuous current application.

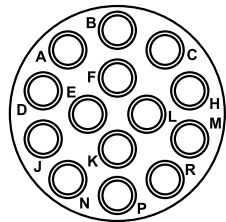
Souriau UTOX series

12E14/12D14 (Shell size 12, 14x20)



Connector part numbers

UTOX 12E14/12D14



14 contacts
4.5A/250V per UL 1977
with AWG20 wire

Contact type	Connector type	Backshell	Part number Male insert	Female insert
Handsolder electrical contacts loaded see Page 111	Square flange receptacle	Without (Fig. 1)	UTOX012E14P	UTOX012E14S
	Square flange receptacle	Cable gland unshielded version (Fig. 1B)	UTOX0M12E14P	UTOX0M12E14S
	Square flange receptacle	Cable gland shielded version (Fig. 1B)	UTOX0MS12E14P	UTOX0MS12E14S
	Plug	Without (Fig. 2) ^{Note 1}	UTOX612E14P	UTOX612E14S
	Plug	Cable gland unshielded version (Fig. 3)	UTOX6M12E14P	UTOX6M12E14S
	Plug	Cable gland shielded version (Fig. 3)	UTOX6MS12E14P	UTOX6MS12E14S
	Jam nut receptacle	Without (Fig. 4)	UTOX712E14P	UTOX712E14S
PCB contacts loaded see Page 111	Square flange receptacle	Without (Fig. 1)	UTOX012D14P	UTOX012D14S
	Jam nut receptacle with stand off and without hold down clip	Without (Fig. 5)	UTOX712D14P	UTOX712D14S
	Jam nut receptacle with stand off and with hold down clips	Without (Fig. 6)	UTOX712D14P32	UTOX712D14S32

For discrimination/keying methods see **Page 150**

Sealed unmated

Note 1: It is necessary to add a backshell to the plug assembly.

Dimensions (for mated connector lengths see Page 121)

Square flange receptacle - UTOX0

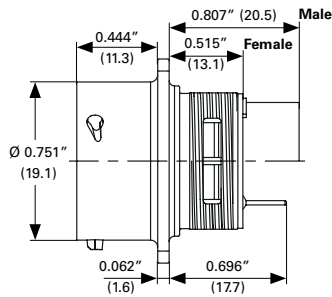


Fig. 1

Square flange receptacle with backshell - UTOX0M, UTOX0MS

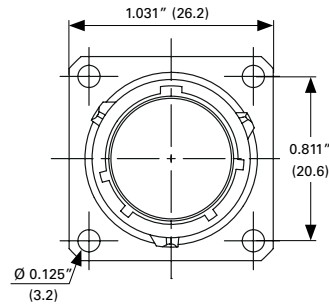
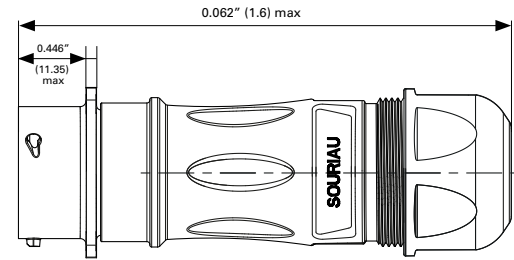


Fig. 1B



Plug - UTOX6, UTOX6M and UTOX6MS

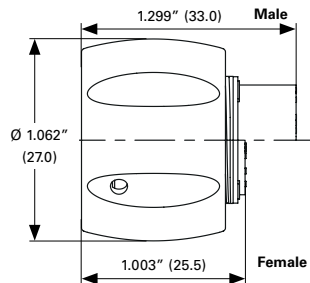


Fig. 2

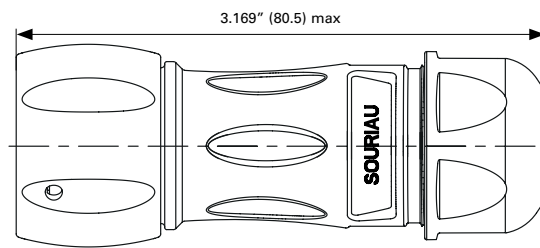


Fig. 3 Cable diameter acceptance from 0.275" to 0.393" (7 to 10)

Jam nut receptacle UTOX7

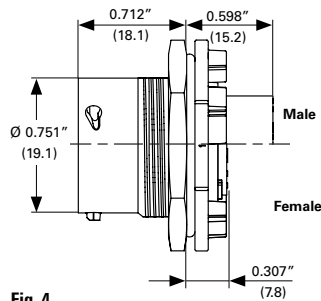


Fig. 4

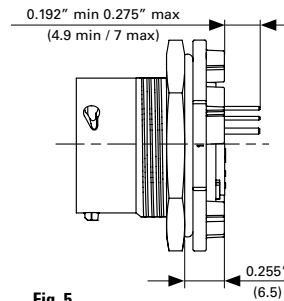


Fig. 5

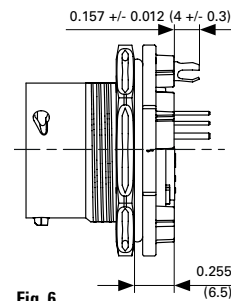
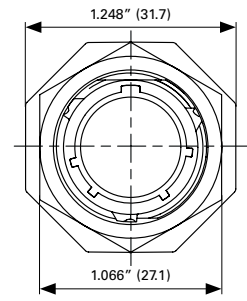
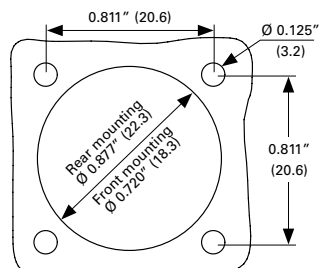


Fig. 6

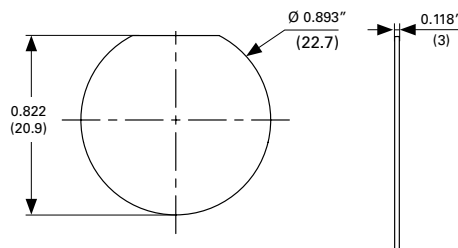


Panel cut-out

Square flange receptacle - UTOX0



Jam nut receptacle - UTOX7



Dimensions in inches (millimeters)

Souriau UTOX series

12E14/12D14 (Shell size 12, 14x20)

Accessories

Dustcap (Receptacle)



Description	Part number
IP68	UT012DCG*
*For dustcap without chain, omit "G", e.g. UT012DC	

Gasket



Part number
UTFD13B

Dustcap (Plug)



Description	Part number
IP68	UTG614DCG*
*For dustcap without chain, omit "G", e.g. UTG612DC	

Dummy contact #16



Part number
SMSPKE0
Note: See Page 132 for more information

Dimensions in inches (millimeters)

Contacts #20

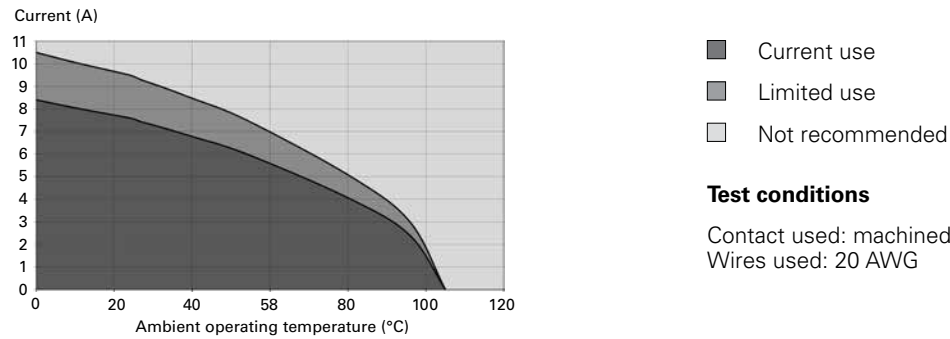
Contact type	Plating	Cable acceptance (AWG)	Cable acceptance inch ²	mm ²	Wire stripping length inch	mm
Handsolder loaded in the connector	Min 0.4μ gold over 0.8μ Ni	20-18	0.020"-0.031"	0.32-0.82	0.149"	3.8
PCB machined ⁽¹⁾	Min 0.4μ gold over 0.8μ Ni	—	—	—	—	—

(1) For dimensions see **Pages 133 or 134**

Electrical characteristics

UL	CSA	IEC
4.5A 250V with AWG20 wire	4.5A 250V with AWG20 wire	5A 32V 1.5kV 3

UTOX 12E4/12D4 derating curves



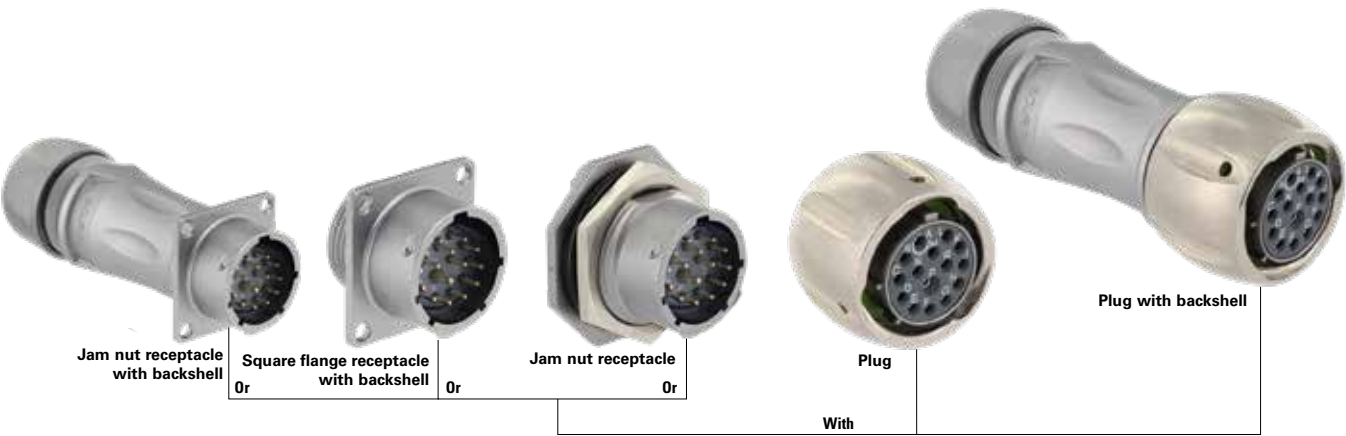
Test conditions

Contact used: machined contacts
Wires used: 20 AWG

Derating curves based on continuous current application.

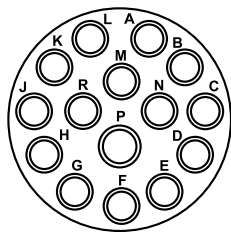
Souriau UTOX series

14E15/14D15 (Shell size 14, 14x#20, 1#16)



Connector part numbers

UTOX 14E15/14D15



15 contacts
10A 600V per UL1977 with
AWG16 wire

5A 250V per UL1977 with
AWG20 wire

Contact type	Connector type	Backshell	Part number Male insert	Female insert
Hand solder electrical contacts loaded see Page 115	Square flange receptacle	Without (Fig. 1)	UTOX014E15P	UTOX014E15S
	Square flange receptacle	Cable gland unshielded version (Fig. 1B)	UTOX0M14E15P	UTOX0M14E15S
	Square flange receptacle	Cable gland shielded version (Fig. 1B)	UTOX0MS14E15P	UTOX0MS14E15S
	Plug	Without (Fig. 2) ^{Note 1}	UTOX614E15P	UTOX614E15S
	Plug	Cable gland unshielded version (Fig. 3)	UTOX6M14E15P	UTOX6M14E15S
	Plug	Cable gland shielded version (Fig. 3)	UTOX6MS14E15P	UTOX6MS14E15S
	Jam nut receptacle	Without (Fig. 4)	UTOX714E15P	UTOX714E15S
PCB contacts loaded see Page 115	Square flange receptacle	Without (Fig. 2)	UTOX014D15P	UTOX014D15S
	Jam nut receptacle with stand off and without hold down clip	Without (Fig. 5)	UTOX714D15P	UTOX714D15S
	Jam nut receptacle with stand off and with hold down clips	Without (Fig. 6)	UTOX714D15P32	UTOX714D15S32

For discrimination/keying methods see **Page 150**
Note 1: It is necessary to add a backshell to the plug assembly.

Sealed unmated

Dimensions (for mated connector lengths see Page 121)

Square flange receptacle - UTOX0

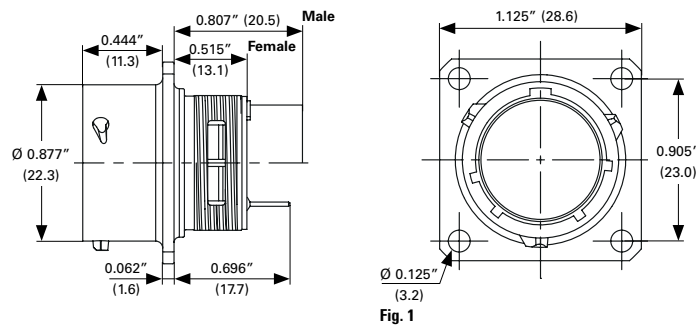


Fig. 1

Square flange receptacle with backshell - UTOX0M, UTOX0MS

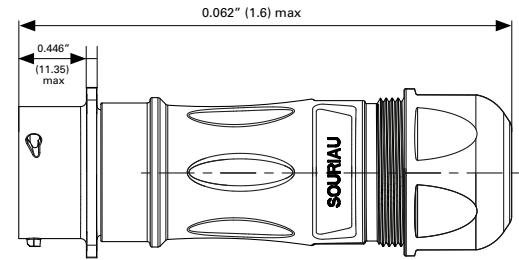


Fig. 1B

Plug - UTOX6, UTOX6M and UTOX6MS

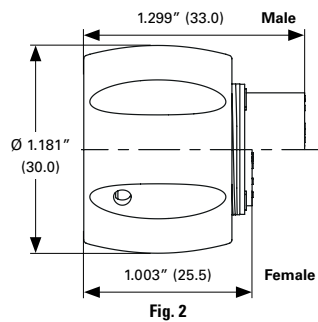


Fig. 2

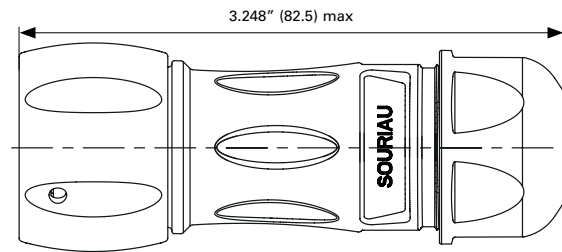


Fig. 3 Cable diameter acceptance from 0.393" to 0.511" (10 to 13)

Jam nut receptacle UTOX7

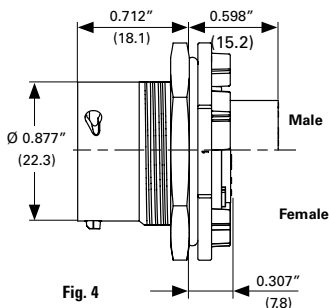


Fig. 4

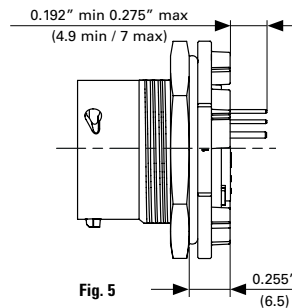


Fig. 5

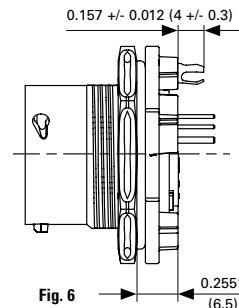
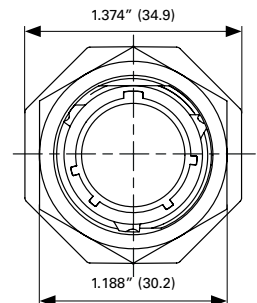
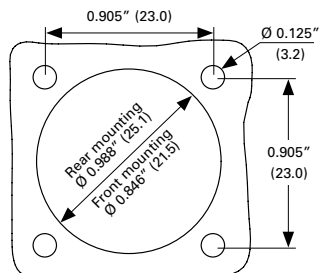


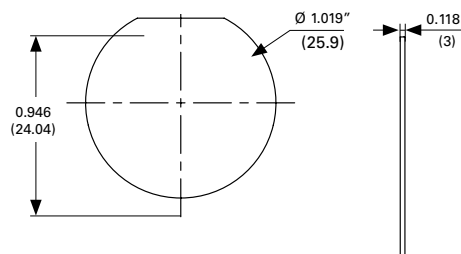
Fig. 6



Panel cut out



Square flange receptacle - UTOX0



Jam nut receptacle - UTOX7

Souriau UTOX series

14E15/14D15 (Shell size 14, 14x#20, 1#16)

Accessories

Dustcap (Receptacle)



Description	Part number
-------------	-------------

IP68	UT014DCG*
------	-----------

*For dustcap without chain, omit "G",
e.g. UT012DC

Dustcap (Plug)



Description	Part number
-------------	-------------

IP68	UTG614DCG*
------	------------

*For dustcap without chain, omit "G",
e.g. UT612DC

Gasket



Part number

UTFD14B

Contacts

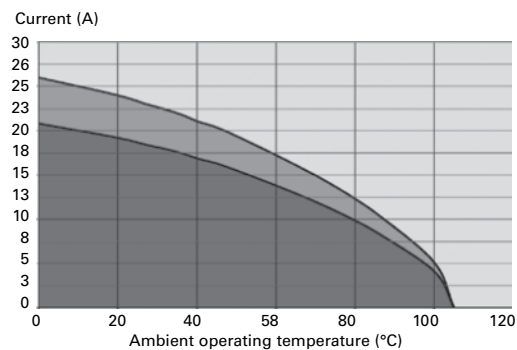
Contact size	Contact type	Plating	Cable acceptance (AWG)	Cable acceptance		Wire stripping length	
				inch ²	mm ²	inch	mm
#16	Handsoldier loaded in the connector	Min 0.4μ gold over 0.8μ Ni	18 - 14	0.032"-0.081"	0.823 - 2.08	0.196"	5
	PCB machined ⁽¹⁾	Min 0.4μ gold over 0.8μ Ni	—	—	—	—	—
#20	Handsoldier Loaded in the connector	Min 0.4μ gold over 0.8μ Ni	20 - 18	0.012"-0.029"	0.32 - 0.75	0.149"	3.8
	PCB machined ⁽¹⁾	Min 0.4μ gold over 0.8μ Ni	—	—	—	—	—

(1) For dimensions see **Pages 133 or 134**

Electrical characteristics

UL	CSA	IEC
10A 600v with AWG16* 5A 250V with AWG20*	10A 600v with AWG16* 5A 250V with AWG20*	4A 50V 1.5kV 3

UTOX 14E15/14D15 derating curves

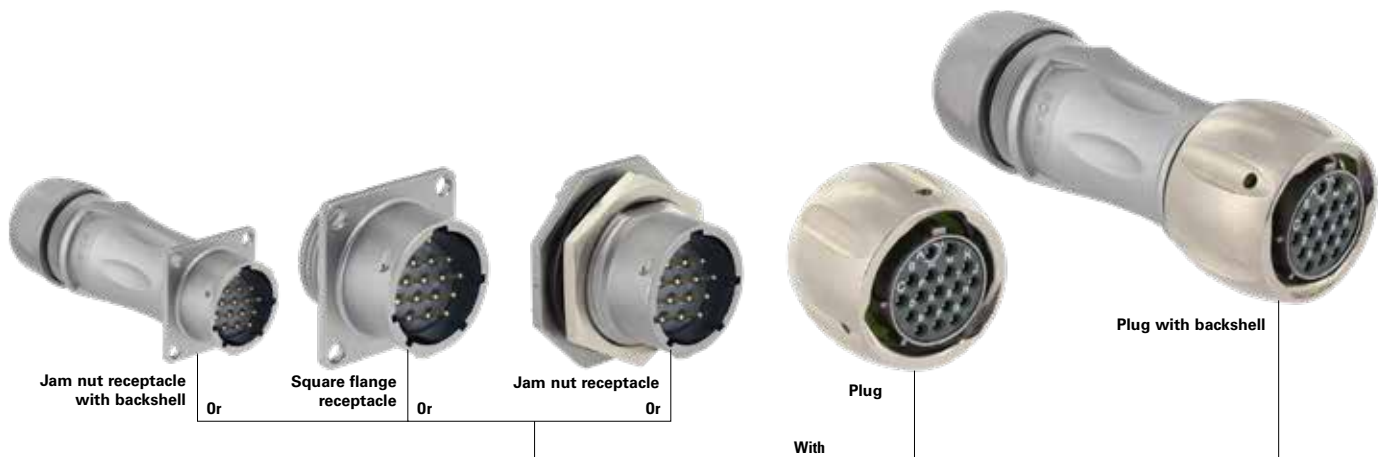


- Current use
- Limited use
- Not recommended

Test conditions

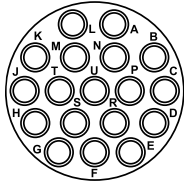
Contact used: machined contacts
Wires used: 16 AWG

Derating curves based on continuous current application.



Connector part numbers

UTOX 14E18/14D18



18 contacts
4A/250V per UL 1977
with AWG20 wire

Contact type	Connector type	Backshell	Part number Male insert	Female insert
Handsolder electrical contacts loaded see Page 119	Square flange receptacle	Without (Fig. 1)	UTOX014E18P	UTOX014E18S
	Square flange receptacle	Cable gland unshielded version (Fig. 1B)	UTOX0M14E18P	UTOX0M14E18S
	Square flange receptacle	Cable gland shielded version (Fig. 1B)	UTOX0MS14E18P	UTOX0MS14E18S
	Plug	Without (Fig. 2) ^{Note 1}	UTOX614E18P	UTOX614E18S
	Plug	Cable gland unshielded version (Fig. 3)	UTOX6M14E18P	UTOX6M14E18S
	Plug	Cable gland shielded version (Fig. 3)	UTOX6MS14E18P	UTOX6MS14E18S
	Jam nut receptacle	Without (Fig. 4)	UTOX714E18P	UTOX714E18S
PCB contacts loaded see Page 119	Square flange receptacle	Without (Fig. 2)	UTOX014D18P	UTOX014D18S
	Jam nut receptacle with stand off and without hold down clip	Without (Fig. 5)	UTOX714D18P	UTOX714D18S
	Jam nut receptacle with stand off and with hold down clips	Without (Fig. 6)	UTOX714D18P32	UTOX714D18S32

For discrimination/keying methods see **Page 150**

Sealed unmated

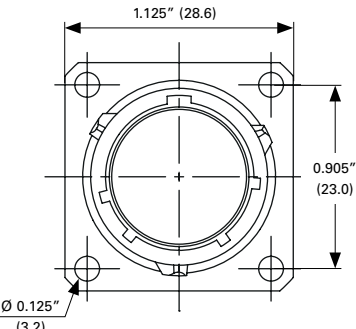
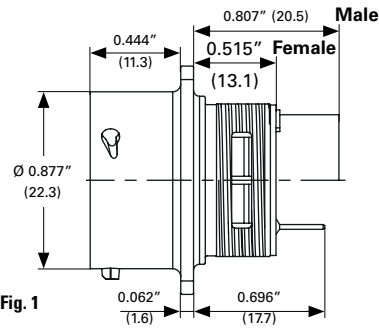
Note 1: It is necessary to add a backshell to the plug assembly.

Souriau UTOX series

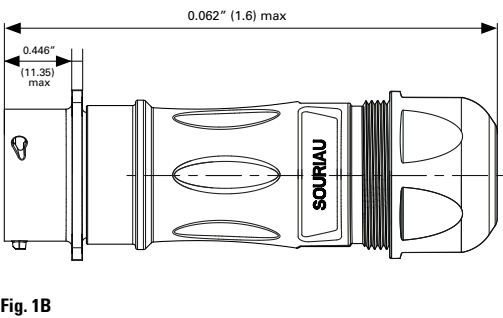
14E18/14D18 (Shell size 14, 18x#20)

Dimensions (for mated connector lengths see Page 121)

Square flange receptacle - UTOX0



Square flange receptacle with backshell - UTOX0M, UTOX0MS



Plug - UTOX6, UTOX6M and UTOX6MS

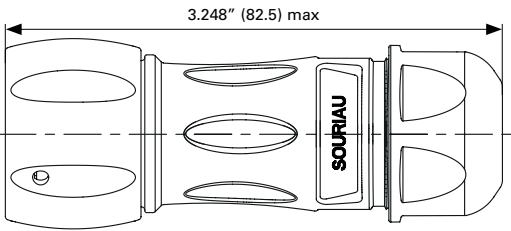
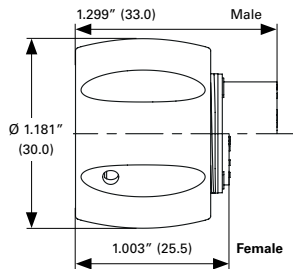
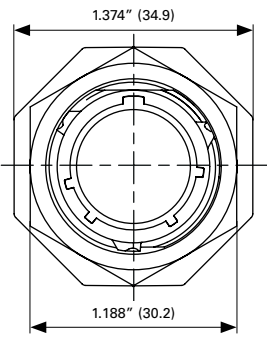
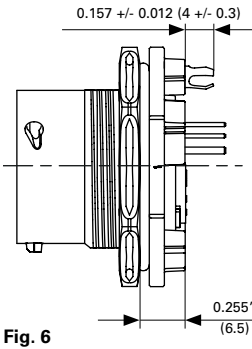
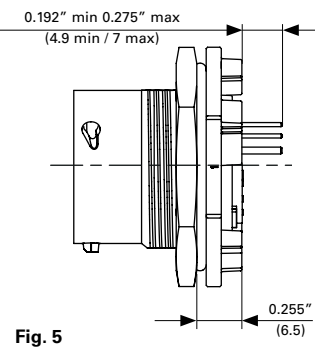
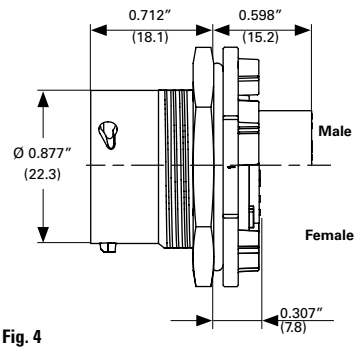


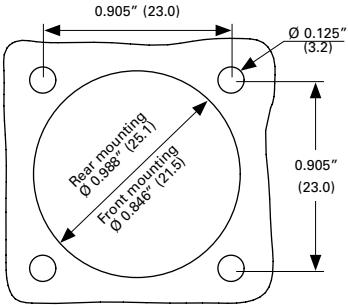
Fig. 3 Cable diameter acceptance from 0.393" to 0.511" (10 to 13)

Jam nut receptacle UTOX7

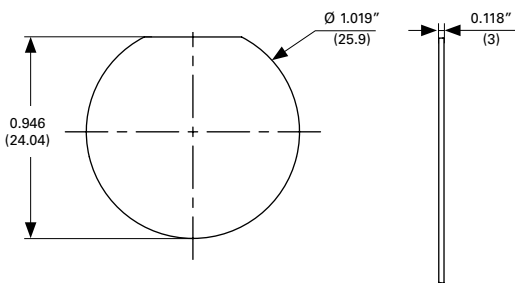


Panel cut-out

Square flange receptacle - UTOX0



Jam nut receptacle - UTOX7



Dimensions in inches (millimeters)

Accessories

Dustcap (Receptacle)



Description	Part number
-------------	-------------

IP68	UT014DCG*
------	-----------

Note: * For dustcap without chain, omit "G", e.g. UT012DC

Gasket



Part number

UTFD14B

Dustcap (Plug)



Description	Part number
-------------	-------------

IP68	UTG614DCG*
------	------------

Note: * For dustcap without chain, omit "G", e.g. UTG612DC

Contacts #20

Contact type	Plating	Cable acceptance (AWG)	Cable acceptance		Wire stripping length	
			inch ²	mm ²	inch	mm
Handsolder loaded in the connector	Min 0.4μ gold over 0.8μ Ni	20-18	0.020"-0.031"	0.32-0.82	0.149"	3.8
PCB machined ⁽¹⁾	Min 0.4μ gold over 0.8μ Ni	—	—	—	—	—

(1) For dimensions see **Pages 133 or 134**

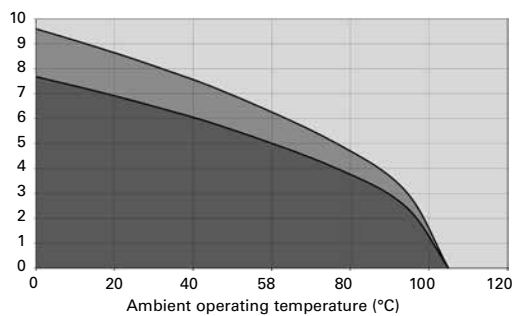
Electrical characteristics

UL CSA

UL	CSA	IEC
4A 250V with AWG20 wire	4A 250V with AWG20 wire	5A 50V 1.5kV 3

UTOX 14E18/14D18 derating curves

Current (A)



- Current use
- Limited use
- Not recommended

Test conditions

Contact used: machined contacts
Wires used: 20 AWG

Derating curves based on continuous current application.

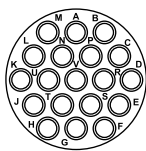
Souriau UTOX series

1419 - 14E19/14D19 (Shell size 14, 19x#20)



Connector part numbers

UTOX 1419 Or 14E19/14D19 (Sealed unmated)



19 contacts + ground 5A/250V per UL 1977 with AWG20 wire

14E19/14D19
19 contacts + ground 4A/250V per UL 1977 with AWG20 wire

Contact type	Connector type	Backshell	Part number Male insert	Female insert
Crimp contacts supplied separately see Page 123	Square flange receptacle	Without (Fig. 1)	UTOX01419P	UTOX01419S
	Square flange receptacle	Cable gland unshielded version (Fig. 2)	UTOX0M1419P	UTOX0M1419S
	Square flange receptacle	Cable gland shielded version (Fig. 2)	UTOX0MS1419P	UTOX0MS1419S
	Free hanging receptacle	Cable gland unshielded version (Fig. 3)	UTOX1M1419P	UTOX1M1419S
	Free hanging receptacle	Cable gland shielded version (Fig. 3)	UTOX1MS1419P	UTOX1MS1419S
	Plug	Without (Fig. 4) ^{Note 1}	UTOX61419P	UTOX61419S
	Plug	Cable gland unshielded version (Fig. 5)	UTOX6M1419P	UTOX6M1419S
	Plug	Cable gland shielded version (Fig. 5)	UTOX6MS1419P	UTOX6MS1419S
	Jam nut receptacle	Without (Fig. 6)	UTOX71419P	UTOX71419S
	Jam nut receptacle	Cable gland unshielded version (Fig. 9)	UTOX7M1419P	UTOX7M1419S
	Jam nut receptacle	Cable gland shielded version (Fig. 9)	UTOX7MS1419P	UTOX7MS1419S
PCB contacts supplied separately see Page 123	Square flange receptacle	Without (Fig. 1)	UTOX01419P	UTOX01419S
Handsold electrical contacts loaded see Page 123	Square flange receptacle	Without (Fig. 1)	UTOX014E19P	UTOX014E19S
	Plug	Without (Fig. 4)	UTOX614E19P	UTOX614E19S
	Plug	Cable gland unshielded version (Fig. 5)	UTOX6M14E19P	UTOX6M14E19S
	Plug	Cable gland shielded version (Fig. 5)	UTOX6MS14E19P	UTOX6MS14E19S
	Jam nut receptacle	Without (Fig. 6)	UTOX714E19P	UTOX714E19S
PCB contacts loaded	Square flange receptacle	Without (Fig. 3)	UTOX014D19P	UTOX014D19S
	Jam nut receptacle with stand off and without hold down clip	Without (Fig.7)	UTOX714D19P	UTOX714D19S
	Jam nut receptacle with stand off and with hold down clips	Without (Fig. 8)	UTOX714D19P32	UTOX714D19S32

For discrimination/keying methods see **Page 150**

Note 1: It is necessary to add a backshell to the plug assembly.

Sealed unmated

Dimensions (for mated connector lengths see Page 121)

Square flange receptacle - UTOX0, UTOX0M and UTOX0MS

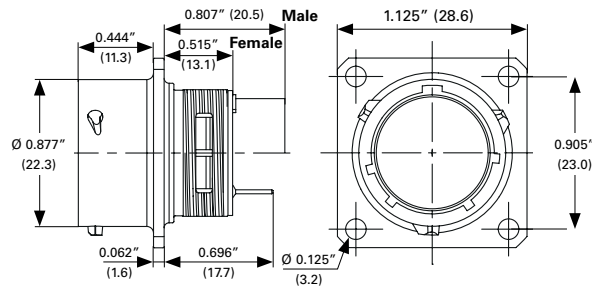


Fig. 1

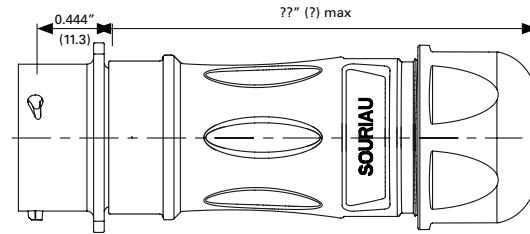


Fig. 2 Cable diameter acceptance from 0.393" to 0.511" (10 to 13)

Free hanging - UTOX1M and UTOX1MS

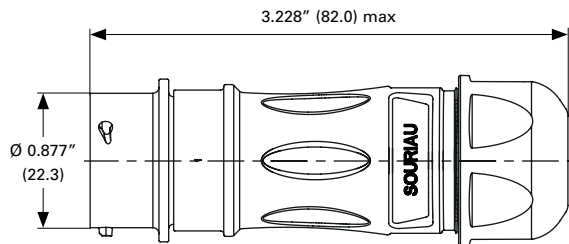


Fig. 3 Cable diameter acceptance from 0.393" to 0.511" (10 to 13)

Plug - UTOX6, UTOX6M and UTOX6MS

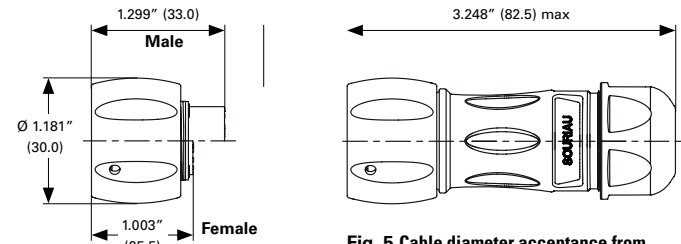


Fig. 4

Fig. 5 Cable diameter acceptance from 0.393" to 0.511" (10 to 13)

Jam nut receptacle UTOX7

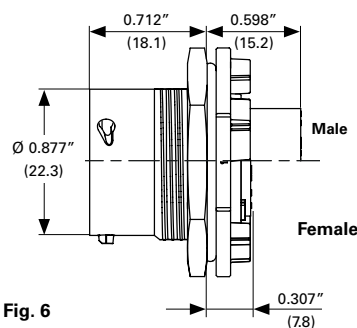


Fig. 6

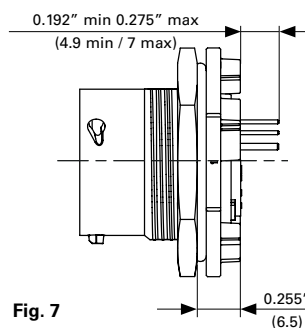


Fig. 7

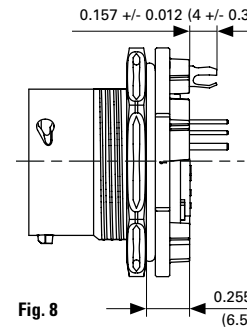
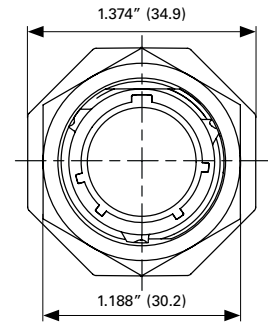


Fig. 8



Jam nut receptacle with backshell - UTOX7M, UTOX7MS

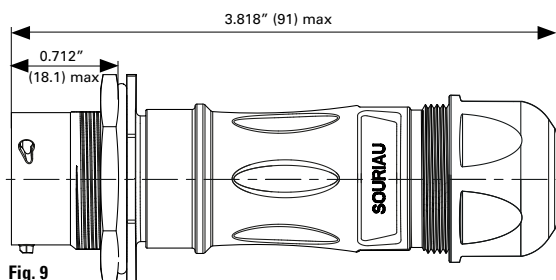
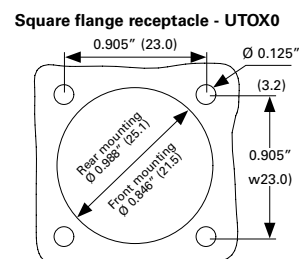


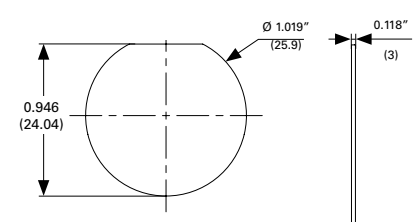
Fig. 9

Dimensions in inches (millimeters)

Panel cut-out



Jam nut receptacle - UTOX7



Souriau UTOX series

1419 - 14E19/14D19 (Shell size 14, 19x#20)

Accessories

Dustcap (Receptacle)



Description	Part number
IP68	UT014DCG*
Note: * For dustcap without chain, omit "G", e.g. UT014DC	

Dustcap (Plug)



Description	Part number
IP68	UTG614DCG*
Note: * For dustcap without chain, omit "G", e.g. UT614DC	

Gasket



Part number
UTFD14B

Dummy contact #16



Part number
SMSPKE0
Note: See Page 132 for more information

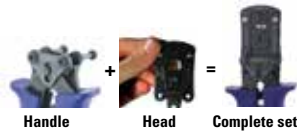
Tooling

Tooling



Description	Part number
Handle (without head)	Shandles
Box containing handle and several crimp tooling	Toolkit

Crimp tooling (without Shandles)



Contact size	Contacts	Part number of Head
Standard contacts #20 Ø 0.039" (1)	RM/RC 24W3K ⁽¹⁾	S20RCM*
	RM/RC 20W3K ⁽¹⁾	S20RCM*
	RM/RC 18W3K ⁽¹⁾	S20RCM*
	SM/SC 24WL3 ⁽¹⁾⁽²⁾	S20SCM20*
	SM/SC 20WL3 ⁽¹⁾⁽²⁾	S20SCM20*

(1) Example of plating, for other plating options see **Page 126**
(2) Loose contact
* Heads to be used with handle PN: SHANDLES

Extraction tool #20



Description	Part number
Contacts #20 Ø 0.039" (1)	RX20D44

Dimensions in inches (millimeters)

Contacts #20

Contact style	Contact type	Cable acceptance AWG	Cable acceptance		Part number		Wire Ø max		Insulator Ø max	
			inch ²	mm ²	Male	Female	inch	mm	inch	mm
Crimp contacts	Machined	26-24	0.005"-0.009"	0.13-0.25	RM24W3K	RC24W3K	0.031"	0.80	0.062"	1.58
	Machined	22-20	0.012"-0.020"	0.32-0.50	RM20W3K	RC20W3K	0.045"	1.15	0.070"	1.80
	Machined	20-18	0.020"-0.031"	0.50-0.82	RM18W3K	RC18W3K	0.051"	1.30	0.082"	2.10
	Stamped and formed reeled contacts See note ⁽²⁾ for loose piece	26-24	0.005"-0.009"	0.13-0.25	SM24W3TK6 ⁽¹⁾⁽²⁾	SC24W3TK6 ⁽¹⁾⁽²⁾	—	—	0.035"-0.062"	0.90-1.58
		26-24	0.005"-0.009"	0.13-0.25	SM24W3S26 ⁽¹⁾⁽²⁾	SC24W3S25 ⁽¹⁾⁽²⁾	—	—	0.035"-0.062"	0.90-1.58
		22-20	0.012"-0.020"	0.32-0.50	SM20W3TK6 ⁽¹⁾⁽²⁾	SC20W3TK6 ⁽¹⁾⁽²⁾	—	—	0.047"-0.082"	1.20-2.10
		22-20	0.012"-0.020"	0.32-0.50	SM20W3S26 ⁽¹⁾⁽²⁾	SC20W3S25 ⁽¹⁾⁽²⁾	—	—	0.047"-0.082"	1.20-2.10
PCB	Machined ⁽³⁾	—	—	—	RMW5016K	RCW5016K	—	—	—	—

(1) Example of plating, for other plating see **Page 126**

(2) Loose piece contact available by adding "L" after the "M" for the contact size and the plating. Example: SM20W3TK6 becomes SM20WL3TK6

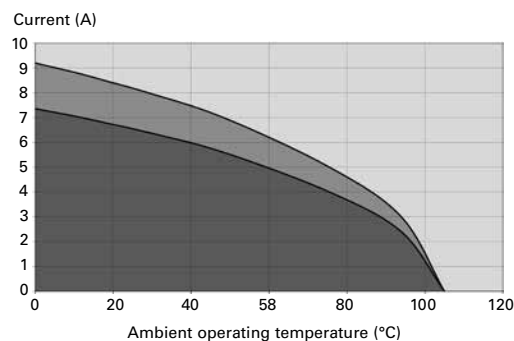
(3) For dimensions see **Pages 133 or 134**

Contact style	Contact type	Plating	Cable acceptance (AWG)	Wire stripping length	
				inch	mm
Hand solder	Loaded in the connector	Min 0.4µ gold over 0.8µ Ni	20 to 18	0.149"	3.8

Electrical characteristics

UL	CSA	IEC
UTOX 1419 5A 250V with AWG20 wire	5A 250V with AWG20 wire	5A 32V 1.5kV 3
UTOX 14E19/14D19 4A 250V with AWG20 wire	4A 250V with AWG20 wire	5A 32V 1.5kV 3

UTOX 1419 - 14E19/14D19 derating curves



- Current use
- Limited use
- Not recommended

Test conditions

Contact used: machined contacts
Wires used: 20 AWG

Derating curves based on continuous current application.

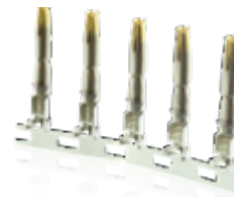
The TRIM TRIO product line uses the same contact style in layouts with the same active part size (i.e. #20, #16, #12, etc.). This allows you **one type of contact to equip all Souriau connectors** in the TRIM TRIO product line.

Contact plating selector guide

- Machined
- Stamped and formed



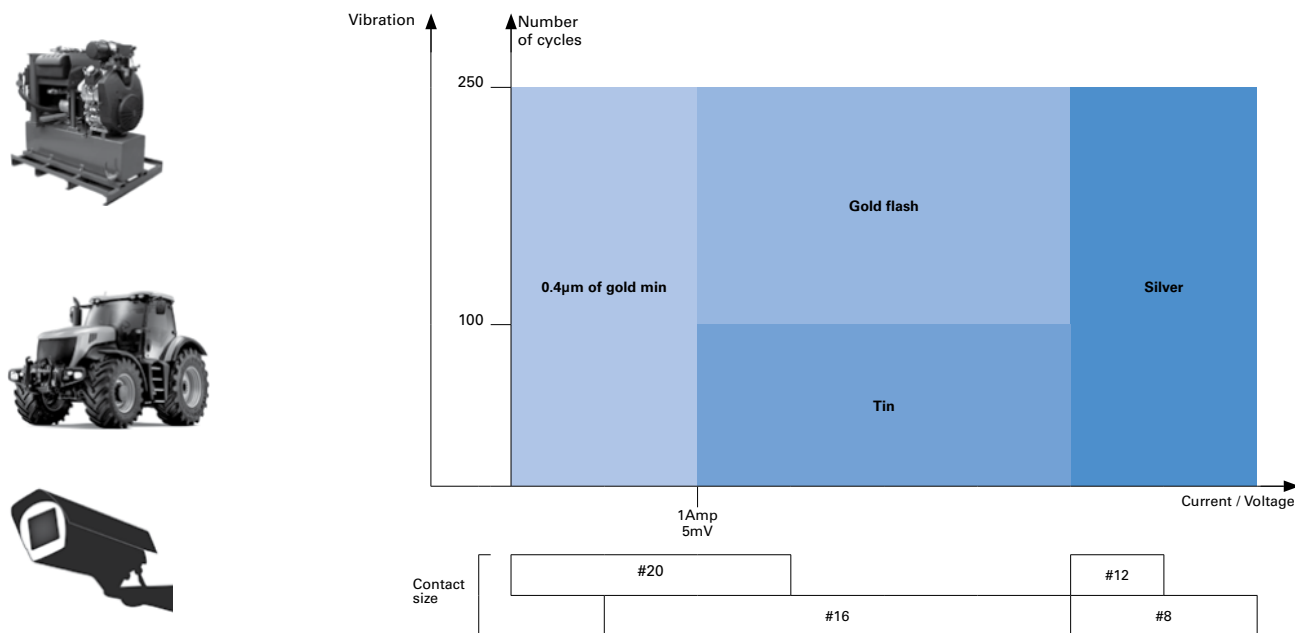
Machined contacts



Stamped and formed contacts

Stamped and formed contacts offer the **ability to be crimped automatically** which makes them more suitable for high volume production applications.

Note: Do not mix different plating (i.e. tin plated pin contacts with gold plated socket contacts).



Machined contacts

Contact size	Contact type	Active area
#20 Ø 0.039" (1)	K	0.4µm Gold over 2µm Nickel min
#16 Ø 0.062" (1.6)	K	0.4µm Gold over 2µm Nickel min
	J	Gold flash over Nickel 2µm min
	T	Tin 3µm (-0/+2) over 1.3µm Nickel min
	D28 for Coax contacts only	0.75µm min Gold over 2µm Nickel min
#12 Ø 0.094" (2.4)	A	2µm Nickel + 2µm Ag
	K	0.4µm Gold over 2µm Nickel min
#8 Ø 0.141" (3.6)	A	2µm Nickel + 2µm Ag

Stamped & formed contacts

Contact size	Plating code	Plating description	
		Active area	Other area
#20 Ø 0.039" (1)	S25 (female)	0.75µm Gold min over Nickel	Gold flash over Nickel
	S26 (male)	0.75µm Gold min over Nickel	Gold flash over Nickel
	TK6	0.5µm - 2.5µm Sn pre-plated	-
#16 Ø 0.062" (1.6)	S31	Gold flash over Nickel	Crimped area: 1.3µm Tin min over Nickel
	S18	0.75µm Gold min over Nickel	Other areas: 1.3µm Tin min
	D70	0.13µm Gold min over Nickel	Gold flash over Nickel
	TK6	0.5µm - 2.5µm Sn pre-plated	Gold flash over Nickel

Electrical characteristics - contact resistance

Contact size	Contact type	Resistance
#20 Ø 0.039" (1)	Machined	< 6mΩ
	Stamped and formed	< 6mΩ
#16 Ø 0.062" (1.6)	Machined	< 3mΩ
	Stamped and formed	< 6mΩ
#12 Ø 0.094" (2.4)	Machined	< 5mΩ
#8 Ø 0.141" (3.6)	Machined	< 5mΩ

Souriau UTOX series

Packaging

TRIM TRIO contacts are available in a wide variety of packaging, from very small quantities (small bulk packaging) to very large quantities (reeled parts).

Contacts size #20 / Ø 0.039" (1) and #16 / Ø 0.062" (1.6)

Stamped and formed contacts



Description	Number
Loose package	25 pieces
Reeled	3,000 pieces

Machined contacts



Description	Number
Bulk package	50 pieces
Bulk package	1,000 pieces
Reeled size #16 only	2,000 pieces

Contacts machined size #12 / Ø 0.094" (2.4) and #8 / Ø 0.141" (3.6)

Machined contacts



Description	Number
Bulk package	100 pieces

Note: 1,000 pieces bulk package available by adding 1000 at the end of the part number: e.g. RC16M23K1000
2,000 pieces reeled package available by adding K at the beginning of the part number: e.g. KRC16M23K

Dimensions in inches (millimeters)

Standard version

Contact size	Type	Wire size			Part number		Insulator Ø max		Available plating see Page 126
		AWG	inch ²	mm ²	Male	Female	inch	mm	
#20 Ø 0.039" (1)	Machined	26-24	0.005"-0.007"	0.13-0.20	RM24W3K	RC24W3K	0.062" max	1.58 max	K
	Stamped and formed	26-24	0.005"-0.009"	0.13-0.25	SM24W3-(1)	SC24W3-(1)	0.035"-0.062"	0.89-1.58	TK6
	Stamped and formed	26-24	0.005"-0.009"	0.13-0.25	SM24WL3-(2)	SC24WL3-(2)	0.035"-0.062"	0.89-1.58	S25 (female) S26 (male)
	Machined	22-20	0.012"-0.020"	0.32-0.52	RM20W3K	RC20W3K	0.062" max	1.58 max	K
	Stamped and formed	22-20	0.013"-0.019"	0.35-0.5	SM20W3-(1)	SC20W3-(1)	0.046"-0.081"	1.17-2.08	TK6
	Stamped and formed	22-20	0.013"-0.019"	0.35-0.5	SM20WL3-(2)	SC20WL3-(2)	0.046"-0.081"	1.17-2.08	S25 (female) S26 (male)
	Machined	20-18	0.019"-0.036"	0.48-0.93	RM18W3K	RC18W3K	0.082" max	2.10 max	K
#16 Ø 0.062" (1.6)	Machined	30-28	0.001"-0.003"	0.05-0.08	RM28M1-	RC28M1-	0.043"	1.1	K, J
	Machined	26-24	0.005"-0.007"	0.13-0.2	RM24M9-	RC24M9-	0.062"	1.6	K, J
	Stamped and formed	26-24	0.005"-0.009"	0.13-0.25	SM24M1-(1) SM24ML1-(2)	SC24M1-(1) SC24ML1-(2)	0.089"-0.062"	0.89-1.58	S31, S18, TK6
	Machined	22-20	0.012"-0.020"	0.32-0.52	RM20M13-	RC20M13-	0.070"	1.8	K, J
	Machined	22-20	0.012"-0.020"	0.32-0.52	RM20M12-	RC20M12-	0.086"	2.2	K, J
	Stamped and formed	22-20	0.013"-0.019"	0.35-0.5	SM20M1-(1) SM20ML1-(2)	SC20M1-(1) SC20ML1-(2)	0.046"-0.081"	1.17-2.08	S31, S18, TK6
	Machined	18-16	0.036"-0.059"	0.92-1.5	RM16M23-	RC16M23-	0.125"	3.2	K, J
	Stamped and formed	18-16	0.031"-0.059"	0.8-1.5	SM16M1-(1) SM16ML1-(2)	SC16M1-(1) SC16ML1-(2)	No insulation grip	No insulation grip	S31, S18, TK6
	Stamped and formed	18-16	0.031"-0.059"	0.8-1.5	SM16M11-(1) SM16ML11-(2)	SC16M11-(1) SC16ML11-(2)	0.081"-0.118"	2.08-3.0	S31, S18, TK6
	Machined	16-14	0.059"-0.098"	1.5-2.5	RM14M30-	RC14M30-	0.125"	3.2	K, J
	Stamped and formed	14	0.078"-0.098"	2.0-2.5	SM14M1-(1) SM14ML1-(2)	SC14M1-(1) SC14ML1-(2)	No insulation grip	No insulation grip	S31, S18, TK6
#12 Ø 0.094" (2.4)	Machined	20	0.005"-0.015"	0.13-0.4	82911457N-	82911456-	0.157"	4.0	A, K
	Machined	20	0.019"	0.5	82911459N-	82911458-	0.157"	4.0	A, K
	Machined	18	0.2.952"-0.039"	0.75-1.0	82911461N-	82911460-	0.157"	4.0	A, K
	Machined	16	0.059"	1.5	82911463N-	82911462-	0.157"	4.0	A, K
	Machined	14	0.098"	2.5	82911465N-	82911464-	0.157"	4.0	A, K
	Machined	12	0.157"	4	82911467N-	82911466-	0.157"	4.0	A, K
#8 Ø 0.141" (Ø 3.6)	Machined	16	0.059"	1.5	82913601A	82913600A	0.248"	6.3	A
	Machined	14	0.098"	2.5	82913603A	82913602A	0.248"	6.3	A
	Machined	12	0.157"	4	82913605A	82913604A	0.248"	6.3	A
	Machined	10	0.236"	6.0	82913607A	82913606A	0.248"	6.3	A
	Machined	8	0.393"	10.0	82913609A	82913608A	0.248"	6.3	A

(1) Contact reeled

(2) Loose contact

Example: RM24W3K - Size #20, Machined, AWG24 wire.

Souriau UTOX series

First mate, last break male contacts

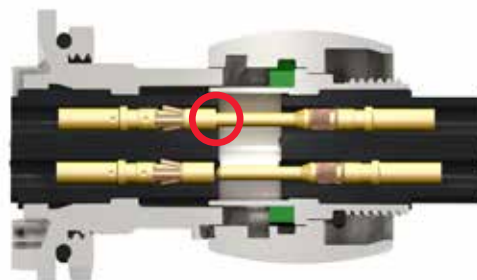
Contact size	Type	Wire size			Part number Male	Wire Ø max		Insulator Ø max		 Color band		Available plating see Page 126
		AWG	inch²	mm²		inch	mm	inch	mm	Front	Rear	
#16 Ø 0.062" (1.6)	Machined	30-28	0.001"-0.003"	0.05-0.08	RM28M1GE1K	0.021"	0.55	0.039"	1.0	-	Red	K
	Machined	26-24	0.005"-0.007"	0.13-0.2	RM24M9GE1K	0.031"	0.8	0.062"	1.6	Red	Red	K
Longer male contact +0.039" (+1)	Machined	22-20	0.012"-0.020"	0.32-0.52	RM20M12GE1K	0.045"	1.15	0.086"	2.2	Blue	Red	K
	Machined	18-16	0.036"-0.059"	0.92-1.5	RM16M23GE1K	0.070"	1.8	0.125"	3.2	—	Red	K
	Machined	16-14	0.059"-0.098"	1.5-2.5	RM14M30GE1K	0.089"	2.26	—	—	—	Red	K

First mate, last break male contacts

The layouts UTOX103, UTOX124, UTOX12E4/12D4, UTOX142G1, UTOX147 and UTOX14E7/14D7 are **designed** to have a first mate, last break connection on the **ground line**. For cavities marked with the ground symbol, standard contacts will fulfill the same role as a first mate, last break contact used in a standard cavity.

For the **other layouts** (without ground marking) a **specific contact is necessary** to achieve ground connection.

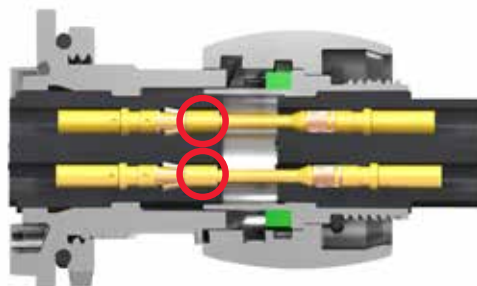
Please choose your contact from the table below.



Last break, first mate female contacts

To create a last break, first mate connection, a **shorter female contact is necessary**. On the other side, a standard male contact can be used.

A complete offering of contacts is available to realize this connection type according to the wire section used for our contact #16. Please choose your contact from the table below:



												Available plating see Page 126
Contact size	Type	Wire size			Part number	Wire Ø max		Insulator Ø max		Front	Rear	
		AWG	inch²	mm²	Male	inch	mm	inch	mm			
#16 Ø 0.062" (1.6)	Machined	30-28	0.001"-0.003"	0.05-0.08	RC28M1GE7K	0.021"	0.55	0.039"	1.0	-	Blue	K
	Machined	26-24	0.005"-0.007"	0.13-0.2	RC24M9GE7K	0.031"	0.8	0.062"	1.6	Red	Blue	K
Shorter female contact -0.027" (-0.7)	Machined	22-20	0.012"-0.020"	0.32-0.52	RC20M13GE7K	0.045"	1.15	0.070"	1.8	Black	Blue	K
	Machined	22-20	0.012"-0.020"	0.32-0.52	RC20M12GE7K	0.045"	1.15	0.086"	2.2	Blue	Blue	K
	Machined	18-16	0.036"-0.059"	0.92-1.5	RC16M23GE1K	0.070"	1.8	0.125"	3.2	—	Blue	K
	Machined	16-14	0.059"-0.098"	1.5-2.5	RC14M30GE1K	0.089"	2.26	—	—	—	Blue	K

Dimensions in inches (millimeters)

Eaton provides two types of coaxial contacts suitable for 48 or 75Ω, coaxial cable or twisted pair cable.

Monocrimp coaxial contact

- The monocrimp one-piece coaxial contacts offer **high reliability** plus the economic advantage of a **95% reduction in installation time** over conventional assembly methods. This is achieved by simultaneously crimping both the inner conductor and outer braid or drain wire.



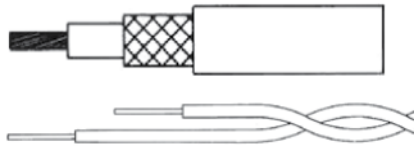
Multipiece crimp coaxial contact

- The inner conductor and outer braid is crimped individually.
- The **thermoplastic insulating** bushing in the outer body is designed to accept and permanently retain the inner contact.
- An outer ferrule is used to connect the braid to the outer contact and provide cable support to **ensure against bending and vibration**.



Suitable for coaxial cable or twisted cable

- For jacket diameter from 0.070" to 0.120" (1.78 to 3.05) mm. Inner conductor up to 0.096" (2.42) mm diameter
- For jacket diameter from 0.025" to 0.057" (0.64 to 1.45) mm. Inner conductor from AWG30 to AWG24



Contacts for coaxial cable summary

Contact type	Contact range	
	Male contact	Female contact
Multipiece	RMDXK10D28	RCDXK1D28
Monocrimp	RMDX60xxD28	RCDX60xxD28

Contacts for twisted pairs cable summary

Contact type	Contact range	
	Male contact	Female contact
Multipiece	RMDXK10D28 + Yorx090	RCDXK1D28 + Yorx090
Monocrimp	RMDX60xxD28	RCDX60xxD28

Coaxial cable - Contact monocrimp and multipiece

Cable type	Impe- dance	Contact type	Ø over jacket		Ø over dielectric		Inner cond size Ext. Ø		Ø outer braid		Male contact kit for coaxial cable	Female contact kit for coaxial cable
			inch	mm	inch	mm	inch	mm	inch	mm		
RG161/U	75	Multi piece	0.09"	2.29	0.057"	1.45	—	—	—	—	RMDXK10D28	RCDXK1D28
RG179A/U	75	Multi piece	0.105"	2.67	0.063"	1.6	0.011"	0.3	0.084" max	2.13 max	RMDXK10D28	RCDXK1D28
RG179B/U	75	Multi piece	0.105"	2.67	0.063"	1.6	0.011"	0.3	0.084" max	2.13 max	RMDXK10D28	RCDXK1D28
RG187/U	75	Multi piece	0.11" max	2.79 max	0.06"	1.52	0.011"	0.3	—	—	RMDXK10D28	RCDXK1D28
RG188/U	48	Multi piece	0.11" max	2.79 max	0.06"	1.52	0.020"	0.51	0.078" max	1.98 max	RMDXK10D28	RCDXK1D28
RG174/U	48	Multi piece	0.11"	2.92	0.06"	1.52	0.018"	0.48	0.088" max	2.24 max	RMDXK10D28	RCDXK1D28
AMPHENOL 21-598	48	Multi piece	0.105"	2.67	0.06"	1.52	0.018"	0.48	—	—	RMDXK10D28	RCDXK1D28
RG196/U	48	Multi piece	0.08" max	2.03 max	0.034"	0.86	0.011"	0.3	—	—	RMDXK10D28	RCDXK1D28
RG152A/U	48	Multi piece	0.075"	1.91	0.034"	0.84	0.011"	0.3	0.054" max	1.37 max	RMDXK10D28	RCDXK1D28
RG/188A/U	48	Mono crimp	0.110"	2.79	0.06"	1.52	0.020"	0.51	0.078" max	1.98 max	RMDX6036D28	RCDX6036D28
KX21TVT (Europe)	48	Mono crimp	0.075"	1.91	0.034"	0.84	0.011"	0.3	0.054" max	1.37 max	RMDX6034D28	RCDX6034D28
RG152 B/U	—	—	—	—	—	—	—	—	—	—	—	—
RG152 / BU	48	Mono crimp	0.075"	1.91	0.034"	0.84	0.011"	0.3	0.054" max	1.37 max	RMDX6050D28	RCDX6016D28
RG174/U	48	Mono crimp	0.115"	2.92	0.06"	1.52	0.018"	0.48	0.088" max	2.24 max	RMDX6032D28	RCDX6032D28
RG188A/U	48	Mono crimp	0.11"	2.79	0.06"	1.52	0.020"	0.51	0.078" max	1.98 max	RMDX6036D28	RCDX6036D28
RG316/U	48	Mono crimp	0.107"	2.72	0.06"	1.52	0.020"	0.51	0.078" max	2.05 max	RMDX6036D28	RCDX6036D28
Raychem 5024A3111	48	Mono crimp	0.12"	3.05	0.083"	2.11	0.025"	0.64	0.097"	2.46	RMDX6052D28	RCDX6052D28
Raychem 5026e1614	48	Mono crimp	0.083"	2.11	0.05"	1.27	0.018"	0.48	0.067"	1.7	RMDX6036D28	RCDX6036D28
Surprenant pn 8134	—	Multi piece	0.1"	2.54	0.058"	1.47	0.011"	0.3	—	—	RMDXK10D28	RCDXK1D28
PRD PN 247AS-C1123-001	—	Mono crimp	0.103"	2.62	0.06"	1.52	0.020"	0.51	0.078"	1.98	RMDX6018D28	RCDX6018D28
PRD PN 247AS-C1251	—	Mono crimp	0.092"	2.34	0.05"	1.27	0.025"	0.64	0.067"	1.7	RMDX6018D28	RCDX6018D28
JUDD C15013010902	—	Mono crimp	0.087"	2.13	0.05"	1.27	0.018"	0.48	0.066"	1.67	RMDX6036D28	RCDX6036D28
CDC PIN22939200	—	Mono crimp	0.09"	2.29	0.048"	1.20	0.011"	0.3	0.064"	1.63	RMDX6046D28	RCDX6016D28
CDC PIN22939200	—	Mono crimp	0.09"	2.29	0.048"	1.20	0.011"	0.3	0.064"	1.63	RMDX6050D28	RCDX6016D28
CDC PIN245670000	—	Mono crimp	0.104"	2.64	0.067"	1.7	0.011"	0.3	0.083"	2.11	RMDX6050D28	RCDX6016D28
Ampex	—	Mono crimp	0.114"	2.9	0.075"	1.91	0.014"	0.36	0.09"	1.29	RMDX6032D28	RCDX6032D28
TI PN 920580	—	Mono crimp	0.7"	1.78	0.038"	0.94	0.018"	0.48	0.054"	1.37	RMDX6024D28	RCDX6024D28
Honeywell PN 58000062	—	Mono crimp	0.12"	3.05	0.077"	1.94	0.016" solid	0.41 solid	0.096"	2.42	RMDX6026D28	RCDX6026D28
—	—	Mono crimp	0.104"	2.64	0.067"	1.7	0.011"	0.3	—	2.11	RMDX6050D28	—
—	—	Mono crimp	0.09"	2.29	0.048"	1.20	0.011"	0.3	—	1.63	RMDX6050D28	—
—	—	Mono crimp	0.114"	2.9	0.075"	1.91	0.014"	0.36	—	1.29	RMDX6032D28	RCDX6032D28
—	—	Mono crimp	0.07"	1.78	0.038"	0.94	0.018"	0.48	—	1.37	RMDX6024D28	RCDX6024D28
—	—	Mono crimp	0.12"	3.05	0.077"	1.94	0.016"	0.41	—	2.42	RMDX6026D28	RCDX6026D28

Twisted cable - Contact monocrimp and multipiece

Cable type	Contact type	Inner AWG cond	Ø over jacket (single wire)		Inner cond size Stranded Ext. Ø definition	inch		mm		Male contact kit for coaxial cable	Female contact kit for coaxial cable
			inch	mm		inch	mm	Ø outer braid	inch	mm	
2#24 stranded MIL-W-16878 type B	Multi piece	24	0.049" max	1.24 max	7/.008	—	—	—	—	RMDXK10D28	RCDXK1D28
2 #24 solid MIL-W-74 type LW	Multi piece	24	0.047" max	1.12 max	1/.0201	—	—	—	—	RMDXK10D28	RCDXK1D28
2 #26 stranded MIL-W-74 type LW or MIL-W-16878 type B&E	Multi piece	26	0.043" max	1.09 max	7/.0063	0.006"	0.16	—	—	RMDXK10D28	RCDXK1D28
2 #26 solid MIL-W-81822/3	Multi piece	26	0.028" max	0.71 max	—	—	—	—	—	RMDXK10D28	RCDXK1D28
Twisted pair 1/.201 solid MIL-W-74 type LW or MIL-W-16878	Multi piece	26	0.044" max	1.12 max	1/.0201	0.020"	0.511	—	—	RMDXK10D28	RCDXK1D28
Twisted pair solid MIL-W-81822/3	Multi piece	26	0.028" max	0.71 max	1/.0126	0.012"	0.32	—	—	RMDXK10D28	RCDXK1D28
#26 7/.0036 per Hitachi spec ec-711 (13-2820)	Multi piece	—	0.046"	1.17	7/.0036	—	—	—	—	RMDX6031D28 + YORX090	RCDX6031D28 + YORX090
20218201	Multi piece	—	0.028"	0.71	—	—	—	—	—	RMDX6031D28 + YORX090	RCDX6031D28 + YORX090
#30 solid	Multi piece	—	0.025"	0.64	—	—	—	—	—	RMDX6015D28 + YORX090	RCDX6015D28 + YORX090
#26 7/.0063	Multi piece	26	0.028"	0.71	7/.063	0.006"	0.16	—	—	RMDX6031D28 + YORX090	RCDX6031D28 + YORX090
#26 19/.004	Multi piece	26	0.049"	1.24	19/.004	—	—	—	—	RMDX6019D28 + YORX090	RCDX6019D28 + YORX090
#24 7/.008	Multi piece	24	0.049"	1.24	7/.008	—	—	—	—	RMDX6019D28 + YORX090	RCDX6019D28 + YORX090
#24 19/.005	Multi piece	24	0.057"	1.45	19/.005	—	—	—	—	RMDX6019D28 + YORX090	RCDX6019D28 + YORX090
—	Multi piece	26	—	1.25	—	—	—	0.748"x 0.004"	19x0.1	RMDX6019D28 + YORX090	RCDX6019D28 + YORX090
—	Multi piece	24	—	1.25	—	—	—	0.275"x 0.007"	7x0.2	RMDX6019D28 + YORX090	RCDX6019D28 + YORX090
—	Multi piece	24	—	1.45	—	—	—	0.748"x 0.005"	19x0.13	RMDX6019D28 + YORX090	RCDX6019D28 + YORX090
—	Multi piece	26	—	0.7	—	—	—	0.275"x 0.006"	7x0.16	RMDX6031D28 + YORX090	RCDX6031D28 + YORX090

PCB contacts supplied separately - UTOX standard series

PCB soldering

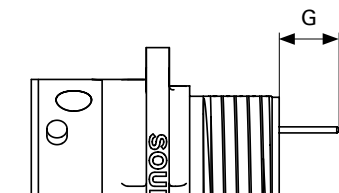


The UTOX series can be used in a **wave soldering process** but not reflow soldering process.

All high temperature processes are prohibited.

Contact size	Type	Part number Male	Female	Plating see Page 126
#20 Ø 0.039" (1)	Short version	RMW50A7K	RCW50A7K	K
	Long version	RMW5016K	RCW5016K	K
#16 Ø 0.062" (1.6)	Short version	RM20M12E8K	RC20M12E8K	K
	Long version	RM20M12E83K	RC20M12E83K	K
	Long version	RM20M12E83K	RC20M12E84K	K
#8 Ø 0.141" (3.6)	—	82911685NPC	82911684NPC	2 µm Ni
	—	82911685NAPC	82911684NAPC	3 µm Ag

Minimal length G



Dimension of dipsolder contacts out of connector (contacts to be ordered separately).

UTOX0 with PCB contacts #16

Connector size	Pin contact RM20M 12E8K*		RM20M 12E83K*		RM20M 12E84K*		Socket contact RC20M 12E8K*		RC20M 12E83K*		RC20M 12E84K*		RC20M 12E87K*	
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
10	0.165"	4.2	0.370"	9.4	0.507"	12.9	0.165"	4.2	0.370"	9.4	0.507"	12.9	0.255"	6.5
12	0.141"	3.6	0.346"	8.8	0.484"	12.3	0.165"	4.2	0.370"	9.4	0.507"	12.9	0.255"	6.5
14	0.129"	3.3	0.334"	8.5	0.472"	12.0	0.102"	2.6	0.307"	7.8	0.444"	11.3	0.192"	4.9

UTOX7 with PCB contacts #20 and #16

Connector size	Pin contact RM20M 12E83K*		RM20M 12E84K*		RMW 50A7K*		Socket contact RMW 5016K*		RC20M 12E84K*		RCW 50A7K*		RCW 5016K*	
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
10	0.287"	7.3	0.425"	10.8	0.330"	8.4	0.366"	9.3	0.141"	3.6	0.330"	8.4	0.366"	9.3
12	0.287"	7.3	0.425"	10.8	0.330"	8.4	0.366"	9.3	0.153"	3.9	0.330"	8.4	0.366"	9.3
14	0.287"	7.3	0.425"	10.8	0.330"	8.4	0.366"	9.3	0.141"	3.6	—	—	—	—

* Plating indication see **Page 126**

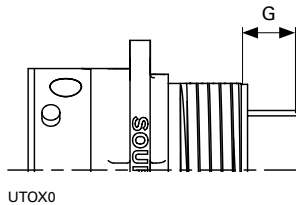
UTOX7 with PCB contacts #16 and #8

Connector size	Pin contact RM20M12E83K*		82911685NPC*		Socket contact RC20M12E87K*		82911684NPC*	
	inch	mm	inch	mm	inch	mm	inch	mm
UTOX7142G1P	—	—	0.251"	6.4	—	—	—	—
UTOX7142G1S	—	—	—	—	—	—	0.322"	8.2
UTOX7142G1SNPT	—	—	0.228"	5.8	—	—	0.212"	5.4
UTOX718X2M3	0.192"	4.9	4.5	4.5	0.141"	3.6	0.204"	5.2
UTOX7183G1SNPT	—	—	—	—	—	—	0.164"	4.17

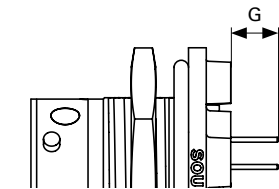
* Plating indication see **Page 126**

PCB contacts loaded - UTOX sealed unmated series**PCB soldering**

The UTOX series can be used in a wave soldering process, but not reflow soldering process. All high temperature processes are prohibited.

Minimal length G

UTOX0



UTOX7

Dimension of dip solder contacts out of connector (contacts to be ordered separately).

UTOX0

Connector size	Connector part number	Pin contact		G max		Socket contact		G max	
		G min inch	mm	inch	mm	G min inch	mm	inch	mm
10	10D6 - 10D98 - 10D7	0.318"	8.1	0.401"	10.2	0.318"	8.1	0.405"	10.3
	12D2 - 12D3 - 12D8 - 12D10	0.318"	8.1	0.401"	10.2	0.318"	8.1	0.405"	10.3
12	12D4	0.322"	8.2	0.393"	10	0.318"	8.1	0.405"	10.3
	12D14	0.283"	7.2	0.354"	9	0.279"	7.1	0.362"	9.2
14	14D5 - 14D12 - 14D15 14D18 - 14D19	0.318"	8.1	0.401"	10.2	0.318"	8.1	0.405"	10.3
	14D7	0.322"	8.2	0.393"	10	0.318"	8.1	0.405"	10.3

UTOX7

Connector size	Connector part number	Pin contact		G max		Socket contact		G max	
		G min inch	mm	inch	mm	G min inch	mm	inch	mm
10	10D6 - 10D98 - 10D7	0.185"	4.7	0.287"	7.3	0.185"	4.7	0.275"	7
	12D2 - 12D3 - 12D8 - 12D10	0.185"	4.7	0.287"	7.3	0.188"	4.8	0.275"	7
12	12D4	0.192"	4.9	0.279"	7.1	0.188"	4.8	0.275"	7
	12D14	0.153"	3.9	0.244"	6.2	0.149"	3.8	0.236"	6
14	14D5 - 14D12 - 14D15 14D18 - 14D19	0.188"	4.8	0.287"	7.3	0.192"	4.9	0.275"	7
	14D7	0.192"	4.9	0.279"	7.1	0.192"	4.9	0.275"	7

Size 16 fiber optic contacts for UTO and other TRIM TRIO connectors

POF



Description

Size 16 fiber optic contacts are designed for the integration of optical links in UTOX and other Trim Trio cable connectors.

The fiber optic contacts are designed to accommodate plastic optical fiber (POF) 0.039" (1 mm) core and 0.086" (2.2 mm) jacket.

Typical features and benefits:

- Socket contact is spring loaded to avoid any air gap between the two optical faces
- High precision pieces provide low insertion loss
- Custom harness solutions for specific customer requirements include single jumpers, multiways harness and active device housings

Technical specifications

Performance

- Fiber type: POF
- Wavelength: 650 nm
- Optical insertion loss (typ.): 2 dB max.
- Jacketed external diameter: 0.086" (2.2 mm)
- Temperature range: -25°C to +70°C (-13°F to +158°F)
- Cable retention: 49N
- Mating cycles without cleaning: 50
- Maximum mating cycles: 500

Construction

- Contact body: copper alloy

Connector accommodation

Any Trim Trio size 16 contact can be used in any contact position in any connector in the Trim Trio size 16 interconnection system: UTP, UTGX, UTG, UTS, UTL.

Ordering information

Plastic optical fiber contact

Male contact	Female contact
RMP0F1000	RCPOF1000B

Plastic optical fiber tools

Standard tooling kit- P/N 80MS0004

The standard tooling kit includes the parts listed below. They can also be ordered separately.

Part number	Descriptions
80WD0005	Stripping tool
80WD0025	Automatic stripping tool for Ø 0.196"/0.5 mm, 0.023"/0.6 mm, 0.027"/0.7 mm & 0.149"/3.8 mm
80WM0006	Ruler
80WP0005	Polishing plate
80WP0013	Non-slip base (to hold the polishing plate)
80WP0014	Polishing disk (grain size 9µm)
80WP0018	Polishing tool
80WP0019	Polishing disk (grain size 30µm)
80WS0002	Crimping plier

Specific tooling- must be ordered separately

Part number	Descriptions
80WG0010	Needle
80WG0015	Capsule
80WG0016	Syringe
80WN0005	Dry air spray
80WN0006	Optical paper
80WN0012	Dropper bottle
80WN0008	Wiping solvent

Technical information

Crimping tools for standard contacts

Contact size	Part number	Head*	Handles*	Extraction tools
#20 Ø 0.039" (1)	RM/RC 24W3K	S20RCM	SHANGLES	RX20D44
	RM/RC 20W3K	S20RCM	SHANGLES	RX20D44
	RM/RC 18W3K	S20RCM	SHANGLES	RX20D44
	SM 24WL3S*(1) SC 24WL3S*(1)	S20SCM20	SHANGLES	RX20D44
	SM/SC 20WL3S*(1)	S20SCM20	SHANGLES	RX20D44
#16 Ø 0.062" (1.6)	RM/RC 28M1*	S16RCM20	SHANGLES	RX2025GE1 or RX2031J long endurance tool
	RM/RC 24M9*	S16RCM20	SHANGLES	RX2025GE1 or RX2031J long endurance tool
	RM/RC 20M13*	S16RCM20	SHANGLES	RX2025GE1 or RX2031J long endurance tool
	RM/RC 20M12*	S16RCM20	SHANGLES	RX2025GE1 or RX2031J long endurance tool
	RM/RC 16M23*	S16RCM16	SHANGLES	RX2025GE1 or RX2031J long endurance tool
	RM/RC 14M30*	S16RCM14	SHANGLES	RX2025GE1 or RX2031J long endurance tool
	SM/SC 24ML1*(1)	S16SCM20	SHANGLES	RX2025GE1 or RX2031J long endurance tool
	SM/SC 20ML1*(1)	S16SCM20	SHANGLES	RX2025GE1 or RX2031J long endurance tool
	SM/SC 16ML1*(1)	S16SCML1	SHANGLES	RX2025GE1 or RX2031J long endurance tool
	SM/SC 14ML1*(1)	S16SCML1	SHANGLES	RX2025GE1 or RX2031J long endurance tool
	SM/SC 16ML11*(1)	S16SCML11	SHANGLES	RX2025GE1 or RX2031J long endurance tool

(1) loose contact

* endurance of SHANGLES and Head tools = 48,000 cycles

Contact size	Part number	Tool with separate locator Hand tool	Positioner + locator setting	Extraction tools
#12 Ø 0.094" (2.4)	82911457N* / 82911456*	M317	VGE10077A 1/2	51060210924
	82911459N* / 82911458*	M317	VGE10077A 2	51060210924
	82911461N* / 82911460*	M317	VGE10077A 2	51060210924
	82911463N* / 82911462*	M317	VGE10077A 3	51060210924
	82911465N* / 82911464*	M317	VGE10077A 3	51060210924
	82911467N* / 82911466*	M317	VGE10077A 4	51060210924
#8 Ø 0.141" (3.6)	82913601A / 82913600A	M317	VGE10078A 3	51060210936
	82913603A / 82913602A	M317	VGE10078A 3	51060210936
	82913605A / 82913604A	M317	VGE10078A 4	51060210936
	82913607A / 82913606A	M317	VGE10078A 5	51060210936
	82913609A / 82913608A	M317	VGE10078A 6/7	51060210936

* see Page 125 for plating options and other contact details

Crimping tools for specific contacts (First mate, last break contacts)

Contact size	Part number*	Hand tools (SHANGLES) Head	Tool with separate locator hand tool	Positioner + locator setting	Extraction tools
#16 Ø 0.094" (1.6) Longer RM contact	RM28M1GE1K	S16RCM20	MH860	MH86186 4/6	RX2025GE1 or RX2031J long endurance tool
	RM24M9GE1K	S16RCM20	MH860	MH86186 5/6	RX2025GE1 or RX2031J long endurance tool
	RM16M23GE1K RM20M12GE1K	S16RCM16	MH860	MH86186 6/8	RX2025GE1 or RX2031J long endurance tool
	RM14M30GE1K	S16RCM14	M317	UH25 3	RX2025GE1 or RX2031J long endurance tool
#16 Ø 0.094" (1.6) Shorter RC contact	RC28M1GE7K	S16RCM20	MH860	MH86164G 4/6	RX2025GE1 or RX2031J long endurance tool
	RC24M9GE7K	S16RCM20	MH860	MH86164G 5/6	RX2025GE1 or RX2031J long endurance tool
	RC20M13GE7K RC20M12GE7K	S16RCM20	MH860	MH86164G 5/7	RX2025GE1 or RX2031J long endurance tool
	RC16M23GE7K	S16RCM16	MH860	MH86164G 6/8	RX2025GE1 or RX2031J long endurance tool
	RC14M30GE7K	S16RCM14	M317	UH25 3	RX2025GE1 or RX2031J long endurance tool

* see Page 128 for plating options and other contact details

M20S-1J crimp tool

Contact part number					M20S-1J			
Contact size	Pin	Socket	Cable type	Notes	Die	Stop bushing	Die kit (die + stop bushing)	PG check-gauge for die
#16 (Ø 1.6mm)	RM28M1*	RC28M1*	AWG 30-28	N/A	S-9K 1	SL-40K	N/A	PG-246-1K
	RM24M9*	RC24M9*	AWG 24	N/A	S-9K 1	SL-40K	N/A	PG-246-1K
	RM24M9*	RCS24M9*	AWG 24	N/A	S-10K	SL-40K	N/A	PG-246K
	RM20M14*	RC20M14*	AWG 22-20	N/A	S-10JK	SL-40K	N/A	PG-246K
	RM20M14*	RCS20M14*	AWG 22-20	N/A	S-10JK	SL-40K	N/A	PG-246K
	RM20M13*	RC20M13*	AWG 22-20	N/A	S-10K	SL-40K	N/A	PG-246K
	RM20M13*	RCS20M13*	AWG 22-20	N/A	S-10K	SL-40K	N/A	PG-246K
	RM20M12*	RC20M12*	AWG 22-20	N/A	S-10K	SL-40K	N/A	PG-246K
	RM20M12*	RCS20M12*	AWG 22-20	N/A	S-10K	SL-40K	N/A	PG-246K
	RM16M23*	RC16M23*	AWG 20-16	N/A	S-3D1K	SL-39K	N/A	PG-214K
	RM16M23*	RCS16M23*	AWG 20-16	N/A	S-3D1K	SL-40K	N/A	PG-214K
	RM14M50*	RC14M50*	AWG 16-14	N/A	S-3-14K	SL-40K	N/A	PG-246-2K
	RM14M50*	RCS14M50*	AWG 16-14	N/A	S-3-14K	SL-40K	N/A	PG-246-2K
	RM14M30*	RC14M30*	AWG 14	N/A	N/A			
	RMDXK-1JG, (S)YOC-074J RFD26L-1D28 RMDX60-2D28)	RCDXK-1JG ((S)RM- D26L-1JD28, (S)YOC-074J, RCDX60-2D28)	RG161/U, RG179B/U, RG187A/U	INNER CONTACT (RFD26L-1D28/((S)RM- D26L-1JD28,)	S-23D2	SL-46D2K	N/A	PG-266
	RMDXK-1JG, (S)YOC-074J RFD26L-1D28 RMDX60-2D28)	RCDXK-1JG ((S)RM- D26L-1JD28, (S)YOC-074J, RCDX60-2D28)	RG161/U, RG179B/U, RG187A/U	OUTER CONTACT (RM- DX602D28/RCDX602D28)	S-68J	SL-92K	N/A	PG-297
	RMDXK-1JG, (S)YOC-074J RFD26L-1D28 RMDX60-2D28)	RCDXK-1JG ((S)RM- D26L-1JD28, (S)YOC-074J, RCDX60-2D28)	RG174/U, RG188A/U	INNER CONTACT (RFD26L-1D28/((S)RM- D26L-1JD28,)	S-26D2	SL-46D2K	N/A	N/A
	RMDXK-1JG, (S)YOC-074J RFD26L-1D28 RMDX60-2D28)	RCDXK-1JG ((S)RM- D26L-1JD28, (S)YOC-074J, RCDX60-2D28)	RG174/U, RG188A/U	OUTER CONTACT (RM- DX602D28/RCDX602D28)	S-68J	SL-92K	N/A	PG-297
	RMDXK-10 ((S)YOC- 074J, RFD26L-1D28, RMDX60-2D28, RMDXB055-3)	RCDXK-1((S)RM- D26L-1JD28, (S) YOC-074J, RCDX60-2D28, RCDXB055-1)	RG178B/U, RG196A/U	INNER CONTACT (RFD26L-1D28/((S)RM- D26L-1JD28,)	S-23D2	SL-46D2K	N/A	PG-266
		RCDXK-1((S)RM- D26L-1JD28, (S) YOC-074J, RCDX60-2D28, RCDXB055-1)	RG178B/U, RG196A/U	OUTER CONTACT (RM- DX602D28/RCDX602D28)	S-68J	SL-92K	N/A	PG-297
	RMDXK-J20	RCDXK-J2	#26 twist pair 2-7/0.16, #24 twist pair 2-7/0.2, 2-1/0.5	INNER CONTACT	S-26D2	SL-46D2K	N/A	N/A
	RMDXK-J20	RCDXK-J2	#26 twist pair 2-7/0.16, #24 twist pair 2-7/0.2, 2-1/0.5	OUTER CONTACT	S-68J	SL-92K	N/A	PG-297
	RMDX6032D28	RCDX6032D28	see Page 110	MONOCRIMP	S-80J	SL-105K	N/A	N/A
	RMDX6036D28	RMDX6036D28	see Page 110	MONOCRIMP	S-80J	SL-105K	N/A	N/A
	RMDXK10D28	RCDXK1D28	RG161U, RG179, RG187U, RG178A/U, RG196U	INNER CONTACT	S-23D2	SL-46D2K	N/A	N/A
	RMDXK10D28	RCDXK1D28	RG161U, RG179, RG187U, RG178A/U, RG196U	OUTER CONTACT	S-22-1J	SL-47-1J	N/A	N/A
	RMDXK10D28	RCDXK1D28	RG188/U, RG174/U	INNER CONTACT	S-26D2	SL-46D2K	N/A	N/A
	RMDXK10D28	RCDXK1D28	RG188/U, RG174/U	OUTER CONTACT	S-22-1J	SL-47-1J	N/A	N/A
#12 (Ø2.4mm)	82911459N*	82911458*	AWG 20	N/A	N/A		S8291-2AKIT	PG-8291-2K
	82911461N*	82911460*	AWG 18	N/A	N/A		S8291-2AKIT	PG-8291-2K
	82911463N*	82911462*	AWG 16	N/A	N/A		S8291-3AKIT	PG-8291-3K
	82911465N*	82911464*	AWG 14	N/A	N/A		S8291-3AKIT	PG-8291-3K
	82911467N*	82911466*	AWG 12	N/A	N/A		S8291-4AKIT	PG-8291-4K
	82911467N*	82911466*	AWG 12	N/A	N/A		S8291-4AKIT	PG-8291-4K
#8 (Ø3.6mm)	82913601A	82913600A	AWG 16	N/A	N/A		S8291-3BKIT	PG-8291-3K
	82913603A	82913602A	AWG 14	N/A	N/A		S8291-3BKIT	PG-8291-3K
	82913605A	82913604A	AWG 12	N/A	N/A		S8291-4BKIT	PG-8291-4K
	82913607A	82913606A	AWG 10	N/A	N/A		S8291-5BKIT	PG-8291-5K

When crimping RC/RCS/RM24-9* if the insulator diameter is smaller than 1.4mm, use S-9 or S-9K.

Automatic crimping tools

Contact Mecal for semi-automatic production tools.

Mecal sales network:

www.mecal.net

Our clients may use any other manufacturer machines, which meets the following cumulative requirements criteria:

- Compliance with IPC 620 class 3 standard
- Compliance with IEC 60352-2 standard
- Crimp height & width (cf. page 143)



Min applicator



Stripper



Presses

Extraction tool



RX20D44



51060210924



RX2031J



RX2025GE1



51060210936

Contact size	Part number
#20	RX20D44
#16	RX2025GE1
#16 Long endurance tool	RX2031J
#12	51060210924
#8	51060210936

Contact extraction instruction



Insert the tool into the connector's cavity from the front face, apply pressure to the handle and extract the contact.

Wire stripping crimp version

Machined contact



Contact size	Part number		Stripping length L	
	Male	Female	inch	mm
#20 Ø 0.039" (1)	RM24W3- / RM20W3- RM18W3-	RC24W3- / RC20W3- RC18W3-	0.188"	4.8
#16 Ø 0.062" (1.6)	RM28M1- / RM24M9- RM20M13- / RM20M12- RM16M23- / RM14M30-	RC28M1- / RC24M9- RC20M13- / RC20M12- RC16M23- / RC14M30-	0.188" 0.279"	4.8 7.1
#8 Ø 0.141" (3.6)	82913601- / 82913603- 82913605- / 82913607-82913609-	82913600- / 82913602-82913604- / 82913606- 82913608-	0.255" to 0.295"	6.5 to 7.5

Stamped and formed with insulation support



Contact size	Part number		Stripping length L	
	Male	Female	inch	mm
#20 Ø 0.039" (1)	SM24W3- / SM24WL3- SM20W3- / SM20WL3-	SC24W3- / SC24WL3- SC20W3- / SC20WL3-	0.157"	4
#16 Ø 0.062" (1.6)	SM24M1- / SM24ML1- SM20M1- / SM20ML1- SM16M11- / SM16ML11-	SC24M1- / SC24ML1- SC20M1- / SC20ML1- SC16M11- / SC16ML11-	0.157" 0.183"	4 4.65

Stamped and formed without insulation support



Contact size	Part number		Stripping length L	
	Male	Female	inch	mm
#16 Ø 0.062" (1.6)	SM16M1- / SM16ML1- SM14M1- / SM14ML1-	SC16M1- / SC16ML1- SC14M1- / SC14ML1-	0.250" 0.250"	6.35 6.35

Power contacts



Contact size	Part number		Stripping length L	
	Male	Female	inch	mm
#12 Ø 0.094" (2.4)	82911457- / 82911459- 82911461- / 82911463- 82911465- / 82911467-	82911456- / 82911458- 82911460- / 82911462- 82911464- / 82911466-	0.275" to 0.314"	7 to 8
#8 Ø 0.141" (3.6)	82913601- / 82913603- 82913605- / 82913607- 82913609-	82913600- / 82913602- 82913604- / 82913606- 82913608-	0.255" to 0.295"	6.5 to 7.5

Note: See **Page 125** for plating options and other contact details

Wire stripping solder and screw versions

Solder contact delivered with connector



Contact size	Stripping length L	
	inch	mm
#16 / Ø 0.062" (1.6) and #20 / Ø 0.039" (1)	0.196"	5

For optimal performance, avoid creating weld beads

Screw contact delivered with connector



Contact size	Stripping length L	
	inch	mm
#16 / Ø 0.062" (1.6)	0.228"	5.8

Dimensions in inches (millimeters)

Crimping

The termination method for contacts plays a crucial role in determining a connector's performance. Crimped connections are widely regarded as the optimal solution for **ensuring quality and longevity** throughout the product's lifespan.



Active contact part	Contact type	Die location on heads	Wire section range	Section inch ²	mm ²	Tensile straight test (min)	Height W ±0.002" (±0.075)		Width W ±0.002" (±0.075)		Tooling head part number
Machined contacts size #20 Ø 0.039" (1)	RM24W3K RC24W3K	26/24	26 AWG	0.004" min	0.12 min	15 N	0.037"	0.95	0.05"	1.27	S20RCM
		26/24	24 AWG	0.009" max	0.25 max	32 N	0.037"	0.95	0.05"	1.27	S20RCM
	RM20W3K RC20W3K	22/20	22 AWG	0.012" min	0.32 min	40 N	0.049"	1.26	0.070"	1.78	S20RCM
		22/20	20 AWG	0.019" max	0.50 max	60 N	0.049"	1.26	0.070"	1.78	S20RCM
	RM18W3K RC18W3K	20/18	20 AWG	0.019" max	0.50 max	60 N	0.053"	1.35	0.073"	1.86	S20RCM
		20/18	18 AWG	0.032" max	0.82 max	90 N	0.053"	1.35	0.073"	1.86	S20RCM
S and F contacts size #20 Ø 0.039" (1)	SM24WL3TK6* SC24WL3TK6*	26/24	26 AWG	0.004" min	0.12 min	15 N	0.031"	0.80	0.058"	1.49	S20SCM20
		26/24	24 AWG	0.009" max	0.25 max	32 N	0.031"	0.80	0.058"	1.49	S20SCM20
	SM20WL3TK6* SC20WL3TK6*	22/20	22 AWG	0.012" min	0.32 min	40 N	0.039"	1.01	0.060"	1.53	S20SCM20
		22/20	20 AWG	0.019" max	0.50 max	60 N	0.039"	1.01	0.060"	1.53	S20SCM20
Machined contacts size #16 Ø 0.062" (1.6)	RM28M1K* RC28M1K*	30/28	30 AWG	0.001" min	0.05 min	11 N	0.044"	1.14	0.055"	1.41	S16RCM20
			28 AWG	0.003" max	0.08 max	6 N	0.044"	1.14	0.055"	1.41	S16RCM20
	RM24M9K* RC24M9K*	26/24	26 AWG	0.004" min	0.12 min	15 N	0.045"	1.15	0.055"	1.41	S16RCM20
			24 AWG	0.009" max	0.25 max	32 N	0.045"	1.15	0.055"	1.41	S16RCM20
	RM20M13K* RC20M13K*	22/20	22 AWG	0.012" min	0.32 min	40 N	0.049"	1.26	0.069"	1.76	S16RCM20
		22/20	20 AWG	0.019" max	0.50 max	60 N	0.049"	1.26	0.069"	1.76	S16RCM20
	RM20M12K* RC20M12K*	22/20	22 AWG	0.012" min	0.32 min	40 N	0.049"	1.26	0.069"	1.76	S16RCM20
		22/20	20 AWG	0.019" max	0.50 max	60 N	0.049"	1.26	0.069"	1.76	S16RCM20
	RM16M23K* RC16M23K*	18	18 AWG	0.032" max	0.82 max	90 N	0.070"	1.80	0.089"	2.28	S16RCM16
		16	16 AWG	0.059" max	1.50 max	150 N	0.077"	1.96	0.095"	2.43	S16RCM16
S and F contacts size #16 Ø 0.062" (1.6)	RM14M30K* RC14M30K*	16	16 AWG	0.059" min	1.50 min	150 N	0.082"	2.10	0.105"	2.68	S16RCM14
		14	14 AWG	0.098" min	2.50 min	230 N	2.3	2.30	0.109"	2.78	S16RCM14
	SM24ML1TK6* SC24ML1TK6*	26/24	26 AWG	0.004" min	0.12 min	15 N	0.033"	0.84	0.059"	1.50	S16SCM20
		26/24	24 AWG	0.009" max	0.25 max	32 N	0.033"	0.84	0.059"	1.50	S16SCM20
	SM20ML1TK6* SC20ML1TK6*	22/20	22 AWG	0.012" min	0.32 min	40 N	0.040"	1.02	0.060"	1.54	S16SCM20
		22/20	20 AWG	0.019" max	0.50 max	60 N	0.040"	1.02	0.060"	1.54	S16SCM20
	SM16ML11TK6* SC16ML11TK6*	18	18 AWG	0.032" min	0.82 min	90 N	0.051"	1.32	0.082"	2.09	S16SCML11
		16	16 AWG	0.059" max	1.50 max	150 N	0.053"	1.36	0.082"	2.10	S16SCML11
	SM16ML1TK6* SC16ML1TK6*	18	18 AWG	0.032" min	0.82 min	90 N	0.058"	1.149	0.079"	2.02	S16SCML1
		16	16 AWG	0.059" max	1.50 max	150 N	0.066"	1.70	0.080"	2.05	S16SCML1
	SM14ML1TK6* SC14ML1TK6*	14	14 AWG	0.098" max	2.50 max	230 N	0.070"	1.79	0.101"	2.58	S16SCML1

* example of plating, for other plating see **Page 125**

Note: Assembly operations mentioned above shall not interfere with or be in contradiction with the IPC-WHMA-A-620B.

Dimensions in inches (millimeters)

Crimping tooling



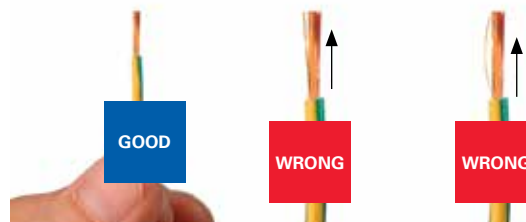
**1) Fully close then release the tool, keep it open.
Open the two pins.**



**2) Choose the adapter head (sold separately).
Keep vertical and slide it into the handle until the
mechanical stop.**



3) Close the two pins simultaneously to maintain the head.



**4) Strip the cable properly by checking the recommended
size in the catalog on Page 138.**



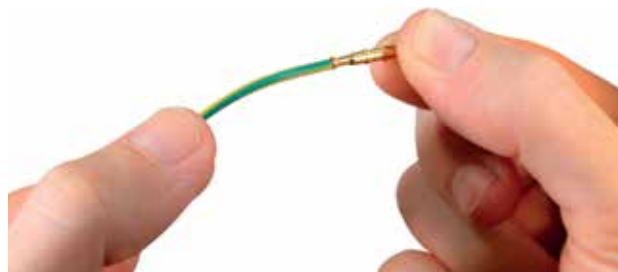
**5) Place conductors, with no deterioration, in the contact
bucket. All strands to be located in the crimp bucket.**



**6) Position the contact in the bottom of the tool by checking
its orientation. Maintain the wire in position.**

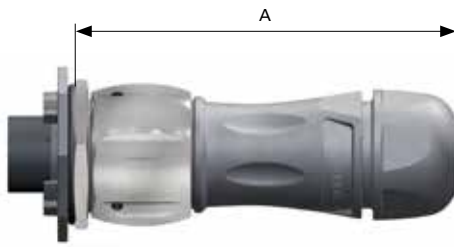


**7) Tighten the handles to the end of the mechanism
(max 175 N). After handles are opened, extract the contact.**

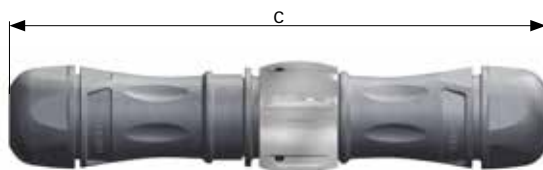
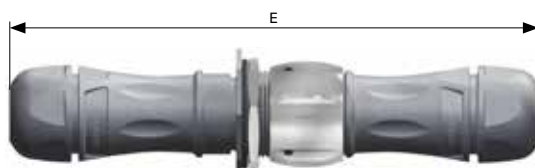


8) Control the quality of crimping (see Page 139).

Note: Assembly operations mentioned above shall not interfere or to be in contradiction with the IPC-WHMA-A-620B.

Mated connector lengths**UTOX7 + UTOX6M or UTOX6MS****UTOX0 + UTOX6M or UTOX6MS**

Shell size	UTOX7 + UTOX6M/MS		UTOX0 + UTOX6M/MS		B2 max	
	A max inch	mm	B1 max inch	mm	inch	mm
10	3.503"	89.0	3.314"	84.2	3.248"	82.5
12	3.543"	90.5	3.374"	85.7	3.307"	84.0
14	3.641"	92.5	3.452"	87.7	3.385"	86.0

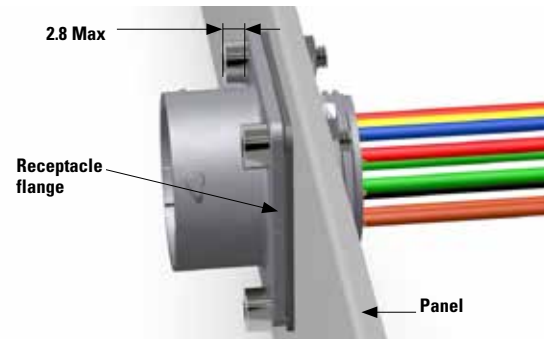
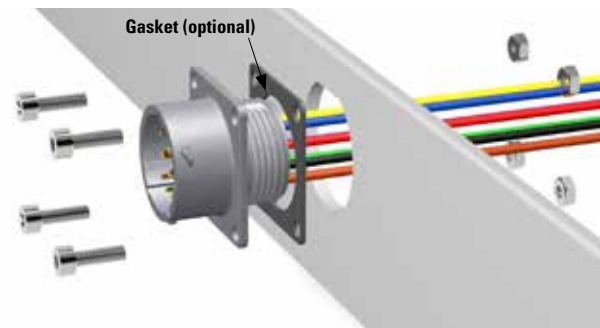
UTOX0M or UTOX0MS + UTOX6M or UTOX6MS**UTOX1M or UTOX1MS + UTOX6M or UTOX6MS****UTOX7M or UTOX7MS + UTOX6M or UTOX6MS**

Shell size	UTOX0M/MS + UTOX6M/MS		UTOX1M/MS + UTOX6M/MS		UTOX7M/MS + UTOX6M/MS	
	C max inch	mm	D max inch	mm	E max inch	mm
10	5.893"	149.7	5.893"	149.7		
12	6.011"	152.7	6.011"	152.7		
14	6.173"	156.8	6.173"	156.8		

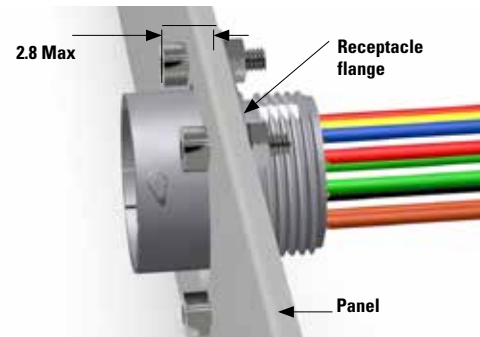
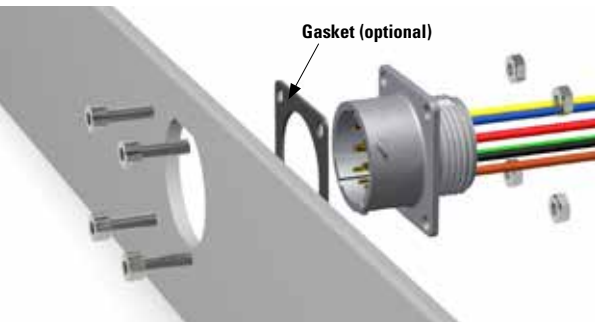
UTOX0 or UTOX0M or UTOX0MS assembly (mounting suggestion)

- Strip wires, crimp or solder contacts (see **Page 118**)
- Insert contacts into connector cavities (insert manually or use tool RTM205 crimp contacts)
- Place receptacle in the panel cut-out
- Secure receptacle with screws (not supplied)
- Tighten screws: M2.5 (recommended torque: see table below)
- Warning: to prevent any mating issue with the plug counterpart, take into account the following dimensions of screw heads and panel thickness
- For complete sealing of the system use optional gasket and sealed screw solution (not sold by Eaton).

Front mounting

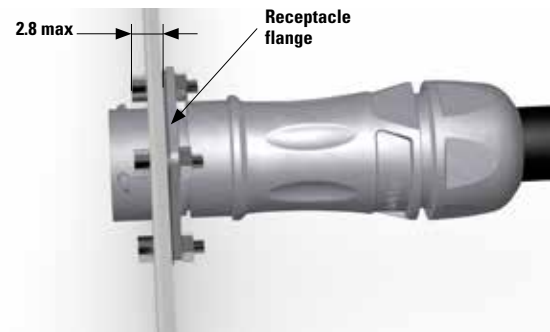


Rear mounting



Shell size	Screw tightening torque (Nm)
10	0.30/0.40
12	0.30/0.40
14	0.30/0.40

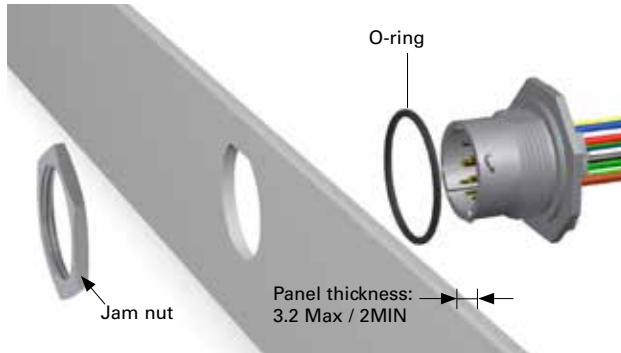
UTOX0M or UTOX0MS rear mounting



Dimensions in inches (millimeters)

UTOX7 assembly (mounting suggestion)

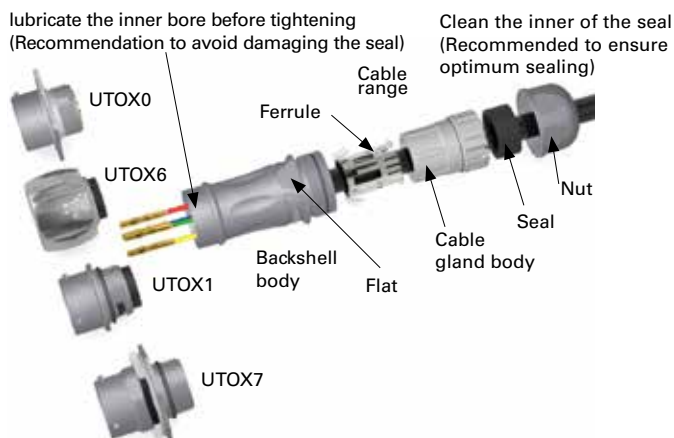
- Strip wires and crimp contacts (see **Pages 138 and 139**)
- Insert contacts into connector cavities (insert manually or use tool RTM205 crimp contacts)
- Seat O-ring, place receptacle in the panel cut-out
- Tighten jam nut

Crimp or solder version

Shell size	Jam nut torque (Nm) max	Exterior jam nut dim.		Ø Wire Standard version max		Discrete wire sealing	
		inch	mm	inch	mm	inch	mm
10	6	0.874"	20.2	1.125"	3.2	From 0.066"	From 1.7
12	9	1.062"	27.0	1.125"	3.2	to 0.118"	to 3.0
14	10	1.185"	30.1	1.125"	3.2		

UTOX0M/MS, UTOX1M/MS, UTOX6M/MS or UTOX7M/MS assembly: crimp version

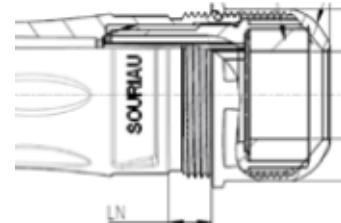
- Slide accessories onto the cable
- Mate the plug with a corresponding counter part
- Strip external cable jacket
- Strip wires and crimp contacts (see **Pages 138 and 139**)
- Insert contacts into connector cavities (insert manually or use tool RTM205)
- Tighten adapter with plug UTOX6 or receptacle UTOX1, choose right seal (waste the other seal)
- Tighten the nut to rear of either UTOX1 or UTOX6 (recommended torque values to be applied according to table below)
- Caution: only one of the two gaskets included should be used!



Make sure the seal is positioned as shown.

**Only one type of Seal (See cable range table)**

Standard



Shell size	Recommended jacket strip length		Backshell body tightening torque (Nm)	Wrench size for backshell body	Nut tightening 'LN' distance ^{Note 1}	Wrench size for Nut	Ø Cable range Standard seal		Ø Wire	
	Male inch	Female mm					inch	mm	inch	mm
10	0.826"	21	6	size 10: 16mm	For diameter 5mm cable: 2.5 / For diameter 7mm cable: 3	size 10: 18mm	0.197 / 0.276	5 / 7	From 0.066"	From 1.7
12	0.984"	25	10	size 12: 20mm	For diameter 7mm cable: 2.5 / For diameter 10mm cable: 3	size 12: 21mm	0.276 / 0.394	7 / 10	to 0.118"	to 3.0
14	1.141"	29	10	size 14: 24mm	For diameter 10mm cable: 3.5 / For diameter 13mm cable: 4.5	size 14: 26mm	0.394 / 0.512	10 / 13		

Note 1: The nut must be tightened to the recommended length (LN) using a flat wrench to hold the backshell body in place

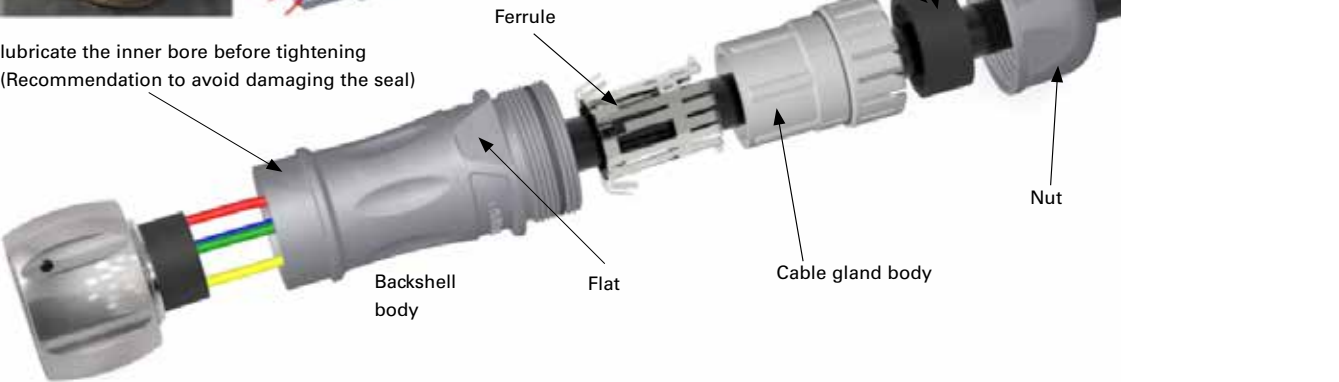
UTOX6M/MS assembly: solder version

- Slide accessories onto the cable
- Mate the plug with a corresponding receptacle
- Strip external cable jacket (see **Pages 138 and 139**)
- Solder contacts
- Tighten adapter with plug, choose right seal (waste the other seal)
- Tighten the nut to rear of either UTOX6 (recommended torque values to be applied according table to the right)
- Caution: only one of the two gaskets included should be used!

*Only one assembly is possible for the cable gland:
no guarantee of performance, if several tightenings are carried out



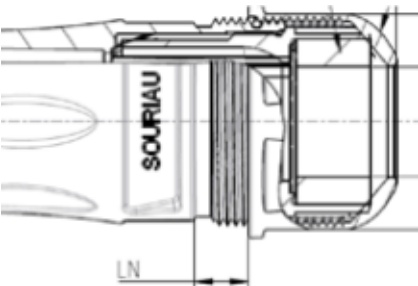
lubricate the inner bore before tightening
(Recommendation to avoid damaging the seal)



Make sure the seal is positioned as shown.

Only one type of Seal (See cable range table)

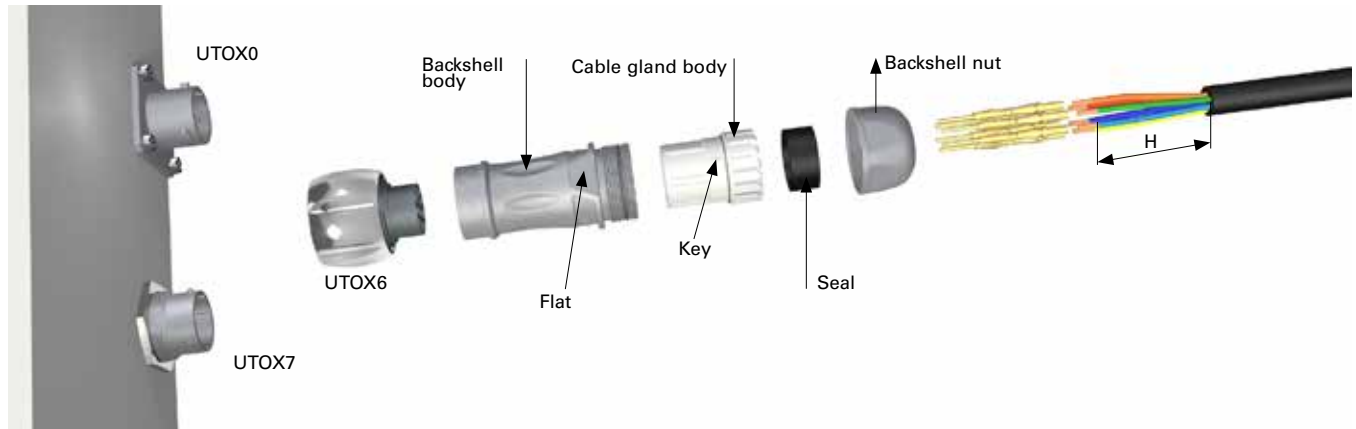
Standard



Shell size	Recommended jacket strip length		Backshell body tightening torque (Nm)	Wrench size for backshell body	Nut tightening 'LN' distance	Wrench size for Nut	Ø Cable range Standard seal		Ø Wire	
	Male inch	mm					inch	mm	inch	mm
10	0.826"	21	6	size 10: 16mm	For diameter 5mm cable: 2.5 / For diameter 7mm cable: 3	size 10: 18mm	0.197 / 0.276	5 / 7	From 0.066"	From 1.7
12	0.984"	25	10	size 12: 20mm	For diameter 7mm cable: 2.5 / For diameter 10mm cable: 3	size 12: 21mm	0.276 / 0.394	7 / 10	to 1.7	to 3.0
14	1.141"	29	10	size 14: 24mm	For diameter 10mm cable: 3.5 / For diameter 13mm cable: 4.5	size 14: 26mm	0.394 / 0.512	10 / 13	0.118"	3.0

Note 1: The nut must be tightened to the recommended length (LN) using a flat wrench to hold the backshell body in place

UTOX0 or UTOX7 with UTOX6M assembly: unshielded version



- Slide accessories onto the cable
- Strip external cable jacket (see dimension H in the table below)
- Strip wires and crimp contacts (see **Pages 139 and 140**)
- Insert contacts into connector cavities (insert manually or use tool RTM205)
- Screw adapter to the rear of the connector body and screw cable gland body to adapter and tighten (recommended torque: see table below)
- Mate the plug with the receptacle to make the following step easier
- Slide ferrule inside the cable gland body as shown in fig. A
- Tighten backshell nut with cable gland body as shown in fig. B (recommended Length 'LN': see below).

fig. A



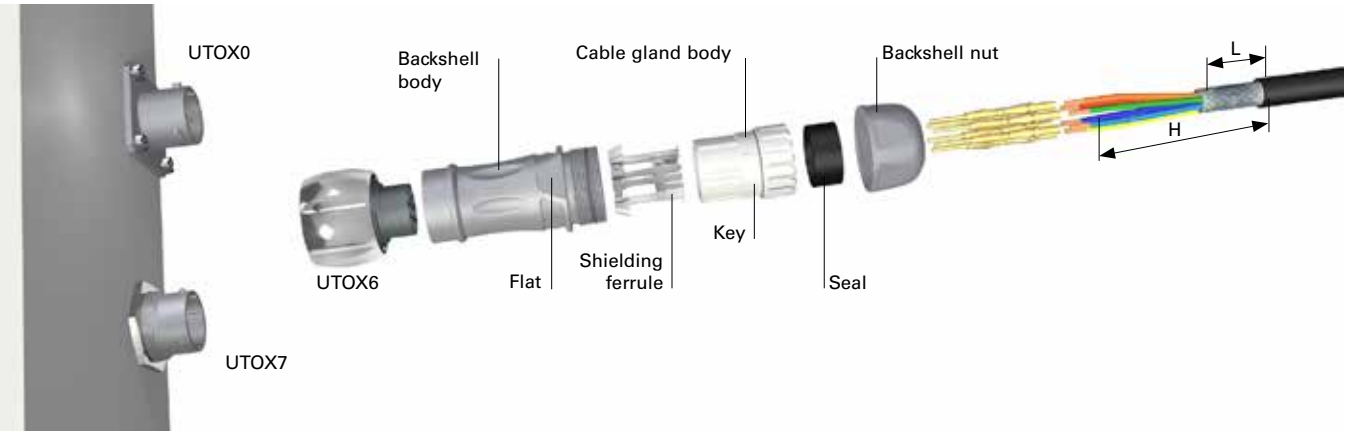
fig. B



Shell size	Backshell body tightening torque (Nm)	Backshell body tightening torque (Nm)	Nut tightening 'LN' distance)	Cable gland body spanner size		Backshell nut spanner size		Dimension H mm	Crimp version		Solder version		Cable diameter acceptance range	
				inch	mm	inch	mm		Male	Female	Male	Female	inch	mm
10	6	6	For diameter 5mm cable: 2.5 / For diameter 7mm cable: 3	0.669"	17	0.551"	14	SIZE 10	40.5	47.5	42	42	0.157" to 0.275"	5 to 7
12	10	10	For diameter 7mm cable: 2.5 / For diameter 10mm cable: 3	0.866"	22	0.787"	20	SIZE 12	40.5	47.5	42	42	0.275" to 0.393"	7 to 10
14	10	10	For diameter 10mm cable: 3.5 / For diameter 13mm cable: 4.5	0.866"	22	0.787"	20	SIZE 14	41.5	50	42	44	0.393" to 0.511"	10 to 13

Note: * Indicative torque, needs to be adjusted depending on the cable used

UTOX0 or UTOX7 with UTOX6MS assembly: shielded version



- Slide accessories onto the cable
- Strip external cable jacket (see dimension H and L in the table below)
- Strip wires and crimp contacts (see **Pages 139 and 140**)
- Insert contacts into connector cavities (insert manually or use tool RTM205)
- Screw adapter to the rear of the connector body and screw cable gland body to adapter and tighten (recommended torque: see table below)
- Mate the plug with the receptacle to make the following step easier
- Slide ferrule inside the cable gland body as shown in fig. A
- Tighten backshell nut with cable gland body as shown in fig. B (recommended Length 'LN': see below).

fig. A

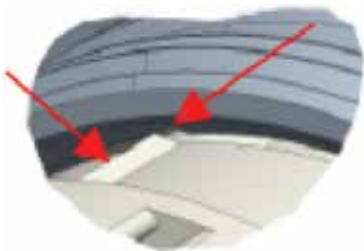


fig. B



Insert the sealing gland into the backshell body. Note that the keys on the sealing gland and backshell body must be aligned.

Shell size	Adapter tightening torque (Nm)	Cable gland body tightening torque (Nm)	Nut tightening 'LN' distance	Wrench size for Backshell body inch mm	Wrench size for nut inch mm	Dimension H mm	Crimp version		Solder version		Dimension L mm	Crimp version		Solder version		Cable diameter acceptance range inch mm		Braid diameter acceptance range inch mm	
							Male	Female	Male	Female		Male	Female	Male	Female				
10	6	6	For diameter 5mm cable: 2.5 / For diameter 7mm cable: 3	Size 10: 16 mm	Size 10: 18 mm	SIZE 10	40.5	47.5	42	42	SIZE 10	16	16	16	16	0.157" to 0.275"	5 to 7	0.157" to 0.236"	4 to 6
12	10	10	For diameter 7mm cable: 2.5 / For diameter 10mm cable: 3	Size 12: 20 mm	Size 12: 21 mm	SIZE 12	40.5	47.5	42	42	SIZE 12	17	17	17	17	0.275" to 0.393"	7 to 10	0.236" to 0.354"	6 to 9
14	10	10	For diameter 10mm cable: 3.5 / For diameter 13mm cable: 4.5	Size 14: 24 mm	Size 14: 26 mm	SIZE 14	41.5	50	42	44	SIZE 14	20	20	20	20	0.393" to 0.511"	10 to 13	0.354" to 0.472"	9 to 12

Note: * Indicative torque, needs to be adjusted depending on the cable used

UTOX coupling procedure

The images presented below offer a detailed guide on the sequential process of connecting a plug and receptacle, ensuring a careful mating to prevent any potential damage to the contacts.



1 - Identify the primary key of each connector.



4 - Offer the plug to the receptacle.



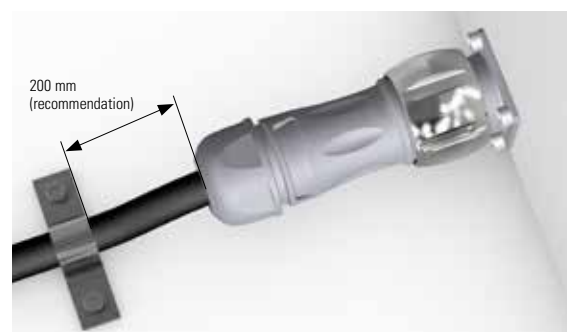
2 - Align the primary keys of the connectors.



5 - Turn coupling ring until you hear a 'click'



3 - Non correct positioning:



6 - Example of installation

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

Current carrying capacity

The current carrying capacity of a connector is limited by the thermal properties of materials used in its construction. The amount of current that can be handled depends on the size of cable used, the ambient temperature and the heat that is generated inside the connector. Part 3 of the IEC 60512 standard determines through a derating curve, the maximum current permissible, which varies from one layout to another (Fig.1 & Fig.2). Wire size plays a key role in dissipating heat and avoiding overheating (Fig.1 & Fig.3).

Please note that the curve should be adjusted when dealing with potential hot spots, which can occur because of unequal loading of current across a number of contacts. It is best to avoid placing power handling contacts in the middle of the connector.

Try to locate them towards the edge where heat can be dissipated more effectively. Eventually you should find a level which represents the permissible operating range

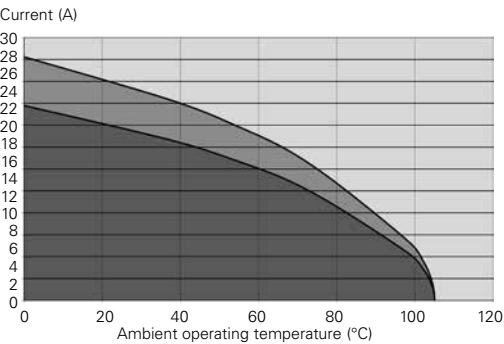


Fig.1: UTO 12-4 – Wire section 16 AWG

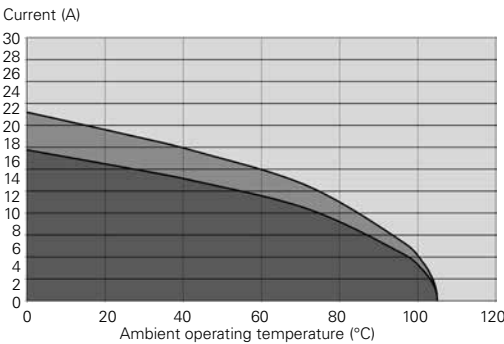


Fig.2: UTO 12-8 – Wire section 16 AWG

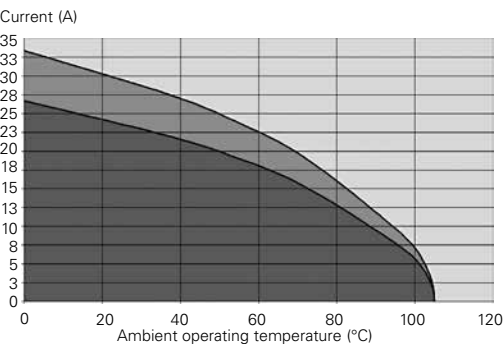


Fig.3: UTO 12-4 – Wire section 20 AWG

- Current use
- Limited use
- Not recommended

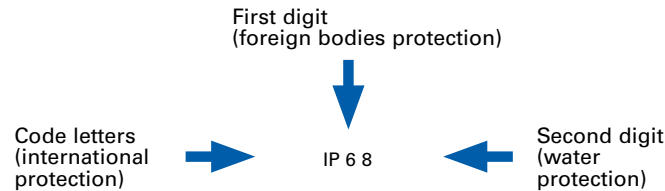
The rated current is defined as uninterrupted continuous current that a connector can take when all contacts are energized simultaneously without exceeding the maximum limit of temperature. The ground contact is never loaded.

UV resistance

Plastics can be susceptible to extreme degradation over time. The UTOX series is made with (f1) material according to **UL746C**. The UTOX material can **endure 1000 hours of UV exposure** following **ISO 4892** standards, with no noticeable changes in color, cracking, or alterations in mechanical properties.

Protection provided by an enclosure

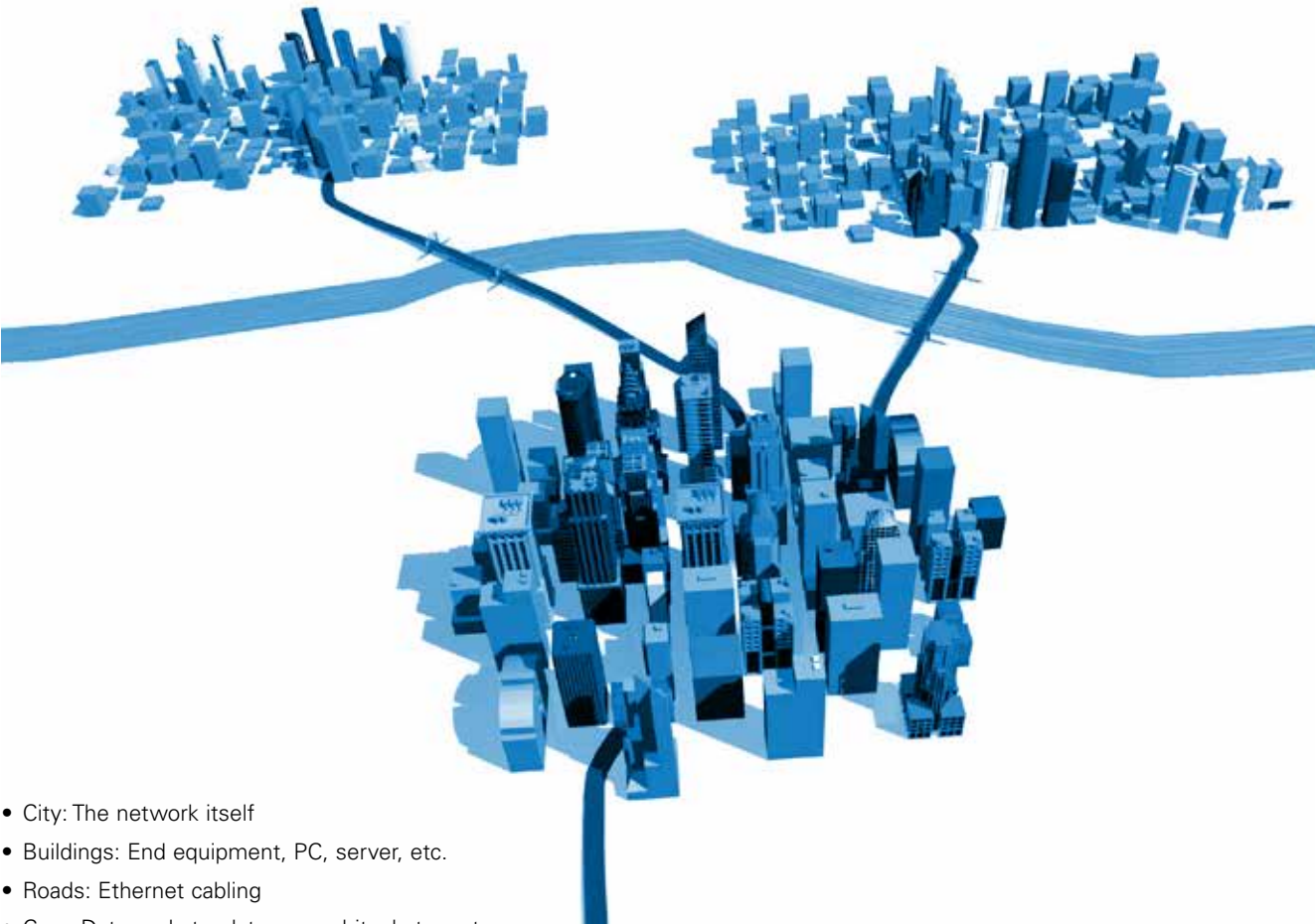
To ensure safety, electrical equipment must be safeguarded against external factors. The standard **IEC 60529** serves as the foundation for assessing protection levels (IP) concerning the accessibility of live components, guarding against the entry of water or foreign objects.



1st digit	Degree of protection	2nd digit	Degree of protection
0	No protection against accidental contact. No protection against solid foreign bodies.	0	No protection against water.
1	Protection against contact with any large area by hand and against large solid foreign bodies with a diameter bigger than 48 mm.	1	Drip-proof. Protection against vertical water drips.
2	Protection against contact with the fingers. Protection against solid foreign bodies with a diameter bigger than 12 mm.	2	Drip-proof. Protection against water drips up to a 15° angle.
3	Protection against tools, wires or similar objects with a diameter bigger than 2.5 mm. Protection against small solid bodies with a diameter bigger than 2.5 mm.	3	Spray-proof. Protection against diagonal water drips up to a 60° angle.
4	Same as 3 however diameter is bigger than 1 mm.	4	Splash-proof. Protection against splashed water from all directions.
5	Full protection against contact. Protection against interior injurious dust deposits.	5	Hose-proof. Protection against water (out of a nozzle) from all directions.
6	Total protection against contact. Protection against penetration of dust.	6	Protection against powerful water jets .
UTOX offers high sealing: IP68/69K even in dynamic situations.		7	Protection against temporary immersions.
		8	Protection against water pressure. Pressure and immersion time to be specified by supplier.
		In addition to the IEC 60529, we conjointly use the ISO 20653 for the implementation of IPx9K testing:	
		9K	High pressure hose-proof. Protection against high pressure water (out of a nozzle) from all directions.

Ethernet basics

To understand Ethernet theory, a functional comparison to a busy city with highways, buildings and cars is often used. The table below provides the correlation between the different components/pieces/links that encompass Ethernet network connectivity, and the larger scale infrastructure of a metropolitan city.



- City: The network itself
- Buildings: End equipment, PC, server, etc.
- Roads: Ethernet cabling
- Cars: Data packets, datagrams, bits, bytes, etc.
- Tolls: Firewalls
- Bridges: Connectors
- Traffic laws: Protocol/communication specifications

City	Buildings	Roads	Cars	Tolls	Bridges	Traffic laws
The network itself	End equipment, PC, server, etc.	Ethernet cabling	Data packets, datagrams, bits, bytes, etc.	Firewalls	Connectors	Protocol communication specifications

Ethernet is a widely used communications protocol that is used to transmit data packets (datagrams) between network devices. Imagine a highway in a large metropolitan area six lanes wide at rush hour. The vehicles on the highway need rules to follow so that they get to their destination without crashing into each other. In an Ethernet network link, there could be 100 million bits of information transmitted in one second. In the Ethernet standard, rules exist to govern packet structure, transmission requirements, error correction, communication with end equipment, etc.

Ethernet connectors

To understand the differences between 100Mhz, 100 Base TX and Cat5e/Cat6, the comparison to the city is helpful.

- 100Mhz is a measurement of frequency for the signal, comparable to the speed limit on a highway.
- 100BaseTX (or Fast Ethernet) is an Ethernet link standard and identifies available link bandwidth. The bandwidth is measured in units of MBits/S (megabits per second), comparable to the number of cars that pass a point in one second.
- Cat5e/Cat6 are an EIA/TIA standard for performance and physical characteristics for cables and connectors, comparable to performance specifications of the car and highway.

Specifying ethernet connectors and contacts

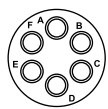
In connectors and cables, fast ethernet uses two pairs, one for transmit and one for receive. This way data traffic can flow in both directions simultaneously. To carry 100Mb/s data signals, 100BaseTX or fast ethernet, it is recommended to use Cat5e connectors as well as Cat5e cables with the support of a 100MHz signal. However, a 100Mb/s signal can be transmitted in certain conditions: short distance, only one connector, lower frequency, and so does not necessarily need to be Cat5e rated.

Ethernet twisted pairs carry a symmetrical (balanced) signal. With **coax contacts**, the inner core will be shield, but not the other core. This will result in an unbalanced signal due to electromagnetic interferences. Coax contacts will not work correctly and are not recommended.

Quadrax contacts are used in railway applications because of the use of quad cables. In this specific industry, the standard ethernet twisted pair cables cannot be used as they are too thin and usually solid, not stranded. In other industries, UTP (Unshielded Twisted Pair) cables are widely used. Quadrax contacts are not designed to terminate UTP cables and are not recommended.

Standard offering

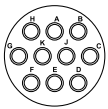
Standard solutions



106* 10E6/10D6
4.5A 250V 6A 250V
6 contacts #20 Ø 0.039" (1)

UTOX size 10, 6 contacts

- 1 (Pair 1) = Aw
- 2 (Pair 1) = B
- 3 (Pair 2) = E
- 4 (Pair 2) = D



1210 - 12E10/12D10
4.5A 250V
10 contacts #20 Ø 0.039" (1)

UTOX size 12, 10 contacts

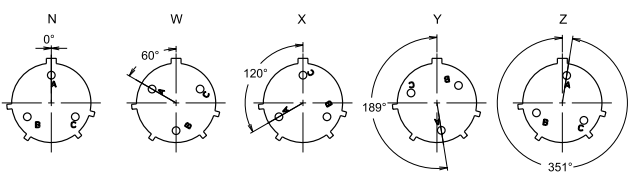
- 1 (Pair 1) = C
- 2 (Pair 1) = B
- 3 (Pair 2) = G
- 4 (Pair 2) = H

Shielding continuity done in cavity CandF.

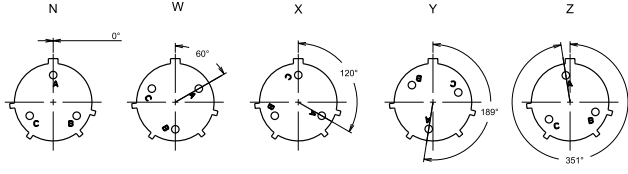
Note: Shielding can be replaced by DC power.

Appendix

The UTOX series incorporates layouts featuring discrimination keys to prevent misalignment during connector mating. This safety measure becomes especially critical when similar connectors are positioned in close proximity. Misaligned connectors can result in severe issues, including system malfunctions and potential physical harm.



Note: Insert rotated in body (viewed from front face of female insert)



Note: Insert rotated in body (viewed from front face of male insert)

Connectors with rotated inserts can be ordered by adding the suffix W, X, Y or Z to the standard part number.

e.g. UTOX6MS104S (N key) ➔ UTOX6MS104SW (W key)

Consult us for overmolded harnesses.

Shell size	Layout	Discrimination keys degrees			
		W	X	Y	Z
10	102W2/103	—	—	—	—
	104	45°	—	—	—
	103W3	—	—	—	—
	106 10E6/10D6	90°	—	—	—
	10E7/10D7	90°	—	—	—
	10E98/10D98	90°	180°	240°	270°
12	12E2/12D2	—	—	—	—
	12E3/12D3	—	—	180°	—
	124 12E4/12D4	—	—	—	—
	128	26°	—	—	—
	12E8/12D8	90°	112°	203°	292°
	1210 12E10/12D10	60°	155°	270°	295°
	12E14/12D14	45°	—	—	—
14	14E5/14D5	40°	92°	184°	273°
	142G1	—	—	—	—
	147 14E7/14D7	—	—	—	—
	148	—	—	—	—
	1412	60°	—	—	—
	1492	49°	71°	145°	—
	14E12/14D12	43°	90°	—	—
	14E15/14D15	17°	110°	155°	234°
	14E18/14D18	15°	90°	180°	270°
	1419	30°	165°	315°	—
	14E19/14D19	30°	165°	315°	—

SMSPKE0: discrimination pin for male UTOX connectors (#16 contacts only)

An alternative method to prevent mismatches is to employ a SMSPKE0 dummy contact, which can be placed into an unoccupied #16 male contact cavity. This ensures that the UTOX male connector will only connect with a female counterpart that also has an empty contact slot in the corresponding position.



Connectors**Free hanging receptacle with cable gland**

UTOX1M or UTOX1MS102W2P	36
UTOX1M or UTOX1MS102W2S	36
UTOX1M or UTOX1MS103P	18
UTOX1M or UTOX1MS103S	18
UTOX1M or UTOX1MS103W3P	50
UTOX1M or UTOX1MS103W3S	50
UTOX1M or UTOX1MS104P	41
UTOX1M or UTOX1MS104S	41
UTOX1M or UTOX1MS106P	56
UTOX1M or UTOX1MS106S	56
UTOX1M or UTOX1MS1210P	89
UTOX1M or UTOX1MS1210S	89
UTOX1M or UTOX1MS124P	31
UTOX1M or UTOX1MS124PSCR	31
UTOX1M or UTOX1MS124S	31
UTOX1M or UTOX1MS124SSCR	31
UTOX1M or UTOX1MS128P	74
UTOX1M or UTOX1MS128S	74
UTOX1M or UTOX1MS1412P	94
UTOX1M or UTOX1MS1412S	94
UTOX1M or UTOX1MS1419P	120
UTOX1M or UTOX1MS1419S	120
UTOX1M or UTOX1MS142G1P	23
UTOX1M or UTOX1MS142G1S	23
UTOX1M or UTOX1MS147P	65
UTOX1M or UTOX1MS147PSCR	65
UTOX1M or UTOX1MS147S	65
UTOX1M or UTOX1MS147SSCR	65
UTOX1M or UTOX1MS148P	83
UTOX1M or UTOX1MS148S	83
UTOX1M or UTOX1MS1492P	103
UTOX1M or UTOX1MS1492S	103

Jam nut receptacle only

UTOX7102W2P	36
UTOX7102W2S	36
UTOX7103P	18
UTOX7103S	18
UTOX7103W3P	50
UTOX7103W3S	50
UTOX7104P	41
UTOX7104S	41
UTOX7106P	55
UTOX7106S	55
UTOX710D6P	55
UTOX710D6P32	55
UTOX710D6S	55
UTOX710D6S32	55
UTOX710D7P	70
UTOX710D7P32	70
UTOX710D7S	70
UTOX710D7S32	70
UTOX710D98P	61
UTOX710D98P32	61
UTOX710D98S	61
UTOX710D98S32	61
UTOX710E6P	55
UTOX710E6S	55
UTOX710E7P	70
UTOX710E7S	70
UTOX710E98P	61
UTOX710E98S	61
UTOX71210P	89
UTOX71210S	89
UTOX7124P	31
UTOX7124PSCR	31

UTOX7124S	31
UTOX7124SSCR	31
UTOX7128P	74
UTOX7128PSEK9	74
UTOX7128S	74
UTOX712D10P	89
UTOX712D10P32	89
UTOX712D10S	89
UTOX712D10S32	89
UTOX712D14P	108
UTOX712D14P32	108
UTOX712D14S	108
UTOX712D14S32	108
UTOX712D2P	14
UTOX712D2P32	14
UTOX712D2S	14
UTOX712D2S32	14
UTOX712D3P	27
UTOX712D3P32	27
UTOX712D3S	27
UTOX712D3S32	27
UTOX712D4P	31
UTOX712D4P32	31
UTOX712D4S	31
UTOX712D4S32	31
UTOX712D8P	79
UTOX712D8P32	79
UTOX712D8S	79
UTOX712D8S32	79
UTOX712E10P	89
UTOX712E10S	89
UTOX712E14P	108
UTOX712E14S	108
UTOX712E2P	14
UTOX712E2S	14
UTOX712E3P	27
UTOX712E3S	27
UTOX712E4P	31
UTOX712E4S	31
UTOX712E8P	79
UTOX712E8S	79
UTOX71412P	94
UTOX71412S	94
UTOX71419P	120
UTOX71419S	120
UTOX7142G1P	23
UTOX7142G1S	23
UTOX7147P	65
UTOX7147PSCR	65
UTOX7147S	65
UTOX7147SSCR	65
UTOX7148P	83
UTOX7148S	83
UTOX71492P	103
UTOX71492S	103
UTOX714D12P	99
UTOX714D12P32	99
UTOX714D12S	99
UTOX714D12S32	99
UTOX714D15P	112
UTOX714D15P32	112
UTOX714D15S	112
UTOX714D15S32	112
UTOX714D18P	116
UTOX714D18P32	116
UTOX714D18S	116

Connectors

UTOX714D18S32	116
UTOX714D19P	120
UTOX714D19P32	120
UTOX714D19S	120
UTOX714D19S32	120
UTOX714D5P	46
UTOX714D5P32	46
UTOX714D5S	46
UTOX714D5S32	46
UTOX714D7P	65
UTOX714D7P32	65
UTOX714D7S	65
UTOX714D7S32	65
UTOX714E12P	99
UTOX714E12S	99
UTOX714E15P	112
UTOX714E15S	112
UTOX714E18P	116
UTOX714E18S	116
UTOX714E19P	120
UTOX714E19S	120
UTOX714E5P	46
UTOX714E5S	46
UTOX714E7P	65
UTOX714E7S	65

Plug only

UTOX6100W2P	36
UTOX6100W2S	36
UTOX6103P	18
UTOX6103S	18
UTOX6103W3P	50
UTOX6103W3S	50
UTOX6104P	41
UTOX6104S	41
UTOX6106P	56
UTOX6106S	56
UTOX610E6P	56
UTOX610E6S	56
UTOX610E7P	70
UTOX610E7S	70
UTOX610E98P	61
UTOX610E98S	61
UTOX61210P	89
UTOX61210S	89
UTOX6124P	31
UTOX6124S	31
UTOX6128P	83
UTOX6128S	83
UTOX612E10P	89
UTOX612E10S	89
UTOX612E14P	108
UTOX612E14S	108
UTOX612E2P	14
UTOX612E2S	14
UTOX612E3P	31
UTOX612E3S	31
UTOX612E4P	31
UTOX612E4S	31
UTOX612E8P	79
UTOX612E8S	79
UTOX61412P	83
UTOX61412S	83
UTOX61419P	120
UTOX61419S	120
UTOX6142G1P	23

UTOX6142G1S	23
UTOX6147P	65
UTOX6147S	65
UTOX6148P	83
UTOX6148S	83
UTOX61492P	103
UTOX61492S	103
UTOX614E12P	99
UTOX614E12S	99
UTOX614E15P	112
UTOX614E15S	112
UTOX614E18P	116
UTOX614E18S	116
UTOX614E19P	108
UTOX614E19S	108
UTOX614E5P	112
UTOX614E5S	112
UTOX614E7P	65
UTOX614E7S	65

Plug with cable gland

UTOX6M or UTOX6MS102W2P	36
UTOX6M or UTOX6MS102W2S	36
UTOX6M or UTOX6MS103P	18
UTOX6M or UTOX6MS103S	18
UTOX6M or UTOX6MS103W3P	50
UTOX6M or UTOX6MS103W3S	50
UTOX6M or UTOX6MS104P	41
UTOX6M or UTOX6MS104S	41
UTOX6M or UTOX6MS106P	56
UTOX6M or UTOX6MS106S	56
UTOX6M or UTOX6MS10E6P	56
UTOX6M or UTOX6MS10E6S	56
UTOX6M or UTOX6MS10E7P	70
UTOX6M or UTOX6MS10E7S	70
UTOX6M or UTOX6MS10E98P	61
UTOX6M or UTOX6MS10E98S	61
UTOX6M or UTOX6MS1210P	89
UTOX6M or UTOX6MS1210S	89
UTOX6M or UTOX6MS124P	31
UTOX6M or UTOX6MS124PSCR	31
UTOX6M or UTOX6MS124S	31
UTOX6M or UTOX6MS124SSCR	31
UTOX6M or UTOX6MS128P	74
UTOX6M or UTOX6MS128S	74
UTOX6M or UTOX6MS12E10P	89
UTOX6M or UTOX6MS12E10S	89
UTOX6M or UTOX6MS12E14P	89
UTOX6M or UTOX6MS12E14S	89
UTOX6M or UTOX6MS12E2P	14
UTOX6M or UTOX6MS12E2S	14
UTOX6M or UTOX6MS12E3P	27
UTOX6M or UTOX6MS12E3S	27
UTOX6M or UTOX6MS12E4P	31
UTOX6M or UTOX6MS12E4S	31
UTOX6M or UTOX6MS12E8P	79
UTOX6M or UTOX6MS12E8S	79
UTOX6M or UTOX6MS1412P	83
UTOX6M or UTOX6MS1412S	83
UTOX6M or UTOX6MS1419P	108
UTOX6M or UTOX6MS1419S	108
UTOX6M or UTOX6MS142G1P	23
UTOX6M or UTOX6MS142G1S	23
UTOX6M or UTOX6MS147P	65
UTOX6M or UTOX6MS147PSCR	65

UTOX6M or UTOX6MS147S	65
UTOX6M or UTOX6MS147SSCR	65
UTOX6M or UTOX6MS148P	83
UTOX6M or UTOX6MS148S	83
UTOX6M or UTOX6MS1492P	103
UTOX6M or UTOX6MS1492S	103
UTOX6M or UTOX6MS14E12P	99
UTOX6M or UTOX6MS14E12S	99
UTOX6M or UTOX6MS14E15P	41
UTOX6M or UTOX6MS14E15S	41
UTOX6M or UTOX6MS14E18P	116
UTOX6M or UTOX6MS14E18S	116
UTOX6M or UTOX6MS14E19P	108
UTOX6M or UTOX6MS14E19S	108
UTOX6M or UTOX6MS14E5P	41
UTOX6M or UTOX6MS14E5S	41
UTOX6M or UTOX6MS14E7P	65
UTOX6M or UTOX6MS14E7S	65

Square flange receptacle only

UTOX0102W2P	36
UTOX0102W2S	36
UTOX0103P	18
UTOX0103S	18
UTOX0103W3P	50
UTOX0103W3S	50
UTOX0104P	41
UTOX0104S	41
UTOX0106P	56
UTOX0106S	56
UTOX010D6P	56
UTOX010D6S	56
UTOX010D7P	70
UTOX010D7S	70
UTOX010D98P	61
UTOX010D98S	61
UTOX010E6P	56
UTOX010E6S	56
UTOX010E7P	70
UTOX010E7S	70
UTOX010E98P	61
UTOX010E98S	61
UTOX01210P	89
UTOX01210S	89
UTOX0128P	74
UTOX0128S	74
UTOX012D10P	89
UTOX012D10S	89
UTOX012D14P	108
UTOX012D14S	108
UTOX012D2P	14
UTOX012D2S	14
UTOX012D3P	27
UTOX012D3S	27
UTOX012D4P	31
UTOX012D4S	31
UTOX012D8P	79
UTOX012D8S	79
UTOX012E10P	89
UTOX012E10S	89
UTOX012E14P	108
UTOX012E14S	108
UTOX012E2P	14
UTOX012E2S	14
UTOX012E3P	27

UTOX012E3S	27
UTOX012E4P	31
UTOX012E4S	31
UTOX012E8P	79
UTOX012E8S	79
UTOX01412P	94
UTOX01412S	94
UTOX01419P	120
UTOX01419S	120
UTOX0142G1P	23
UTOX0142G1S	23
UTOX0147P	65
UTOX0147PSEK9	65
UTOX0147S	65
UTOX0148P	83
UTOX0148S	83
UTOX01492P	103
UTOX01492S	103
UTOX014D12P	99
UTOX014D12S	99
UTOX014D15P	112
UTOX014D15S	112
UTOX014D18P	116
UTOX014D18S	116
UTOX014D19P	120
UTOX014D19S	120
UTOX014D5P	46
UTOX014D5S	46
UTOX014D7P	65
UTOX014D7S	65
UTOX014E12P	99
UTOX014E12S	99
UTOX014E15P	112
UTOX014E15S	112
UTOX014E18P	116
UTOX014E18S	116
UTOX014E19P	120
UTOX014E19S	120
UTOX014E5P	46
UTOX014E5S	46
UTOX014E7P	65
UTOX014E7S	65

Square flange receptacle with cable gland

UTOX0JC102W2P	36
UTOX0JC102W2S	36
UTOX0JC103P	18
UTOX0JC103S	18
UTOX0JC104P	41
UTOX0JC104S	41
UTOX0JC106P	56
UTOX0JC106S	56
UTOX0JC1210P	89
UTOX0JC1210S	89
UTOX0JC124P	31
UTOX0JC124S	31
UTOX0JC128P	74
UTOX0JC128S	74
UTOX0JC1412P	94
UTOX0JC1412S	94
UTOX0JC1419P	120
UTOX0JC1419S	120
UTOX0JC142G1P	23
UTOX0JC142G1S	23
UTOX0JC147P	65

Souriau UTOX series

Connectors

UTOX0JC147S	65
UTOX0JC148P	83
UTOX0JC148S	83
UTOX0JC1492P	103
UTOX0JC1492S	103

Accessories

Color coding rings

UTGX610CCRG	20
UTGX610CCRR	20
UTGX610CCRY	20
UTGX612CCRG	16
UTGX612CCRR	16
UTGX612CCRY	16
UTGX614CCRG	25
UTGX614CCRR	25
UTGX614CCRY	25
UTGX710CCRG	20
UTGX710CCRR	20
UTGX710CCRY	20
UTGX712CCRG	16
UTGX712CCRR	16
UTGX712CCRY	16
UTGX714CCRG	25
UTGX714CCRR	25
UTGX714CCRY	25

Discrimination pin

SMSPE0	150
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Gasket

UTFD12B	38
UTFD13B	16
UTFD14B	25

Plastic protective cap

85005586A	20
85005587A	16
85005588A	25
85005595	20
85005596	16
85005597	25

Sealing caps

UTGX10DCG	20
UTGX10DCGR	20
UTGX12DCG	16
UTGX12DCGE	16
UTGX12DCGR	16
UTGX14DCG	25
UTGX14DCGE	49
UTGX14DCGR	25
UTGX610DCG	20
UTGX612DCG	16
UTGX614DCG	25
UTS614DCG133	49

Contacts

Crimp contacts

82911456A	128
82911456K	128
82911457NA	128
82911457NK	128
82911458A	128
82911458K	128
82911459NA	128

82911459NK	128
82911460A	128
82911460K	128
82911461NA	128
82911461NK	128
82911462A	128
82911462K	128
82911463NA	128
82911463NK	128
82911464A	128
82911464K	128
82911465NA	128
82911465NK	128
82911466A	128
82911466K	128
82911467NA	128
82911467NK	128
82913600A	128
82913601A	128
82913602A	128
82913603A	128
82913604A	128
82913605A	128
82913606A	128
82913607A	128
82913608A	128
82913609A	128
RC14M30GE1K	128
RC14M30J	128
RC14M30K	128
RC16M23GE1K	128
RC16M23J	128
RC16M23K	128
RC18W3K	128
RC20M12GE7K	128
RC20M12J	128
RC20M12K	128
RC20M13GE7K	128
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