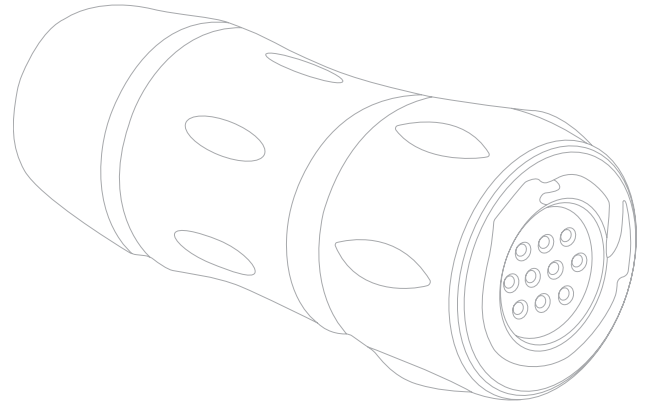


Metal circular connectors
Souriau TRIM TRIO® UTOX series



EAT•N

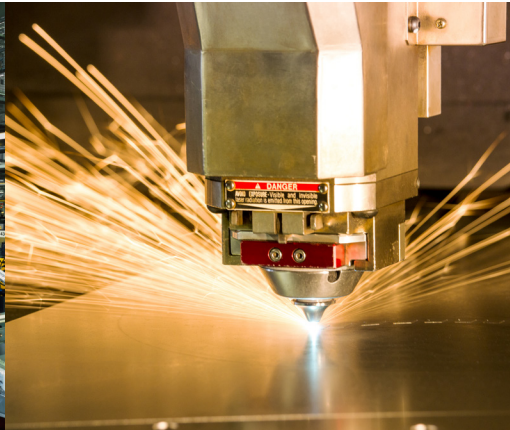
Powering Business Worldwide



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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Range overview

Layouts size 10, 12 and 14

Connectors

Overmolded cable assembly

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UTOX 103 (2 contacts + 1 ground)

UTOX 14G1 (2 contacts + 1 ground)

UTOX 12E3/12D3 (3 contacts)

UTOX 124 (3 contacts + 1 ground)

UTOX 12E4/12D4 (3 contacts + 1 ground)

UTOX 102W2 (4 contacts)

UTOX 104 (4 contacts)

UTOX 14E5/14D5 (5 contacts)

UTOX 103W3 (6 contacts)

UTOX 106 - 10E6/10D6 (6 contacts)

UTOX 10E98/10D98 (6 contacts)

UTOX 147 (6 contacts + 1 ground)

UTOX 14E7/14D7 (6 contacts + 1 ground)

UTOX 10E7/10D7 (7 contacts)

UTOX 128 (8 contacts)

UTOX 12E8/12D8 (8 contacts)

UTOX 148 (8 contacts)

UTOX 1210 - 12E10/12D10 (10 contacts)

UTOX 1412 (12 contacts)

UTOX 14E12/14D12 (12 contacts)

UTOX 1492 (12 contacts)

UTOX 12E14/12D14 (14 contacts)

UTOX 14E15/14D15 (15 contacts)

UTOX 14E18/14D18 (18 contacts)

UTOX 1419 - 14E19/14D19 (19 contacts)

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Contact selector guide

Crimp contacts

Coaxial contacts

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Fiber optic contacts

Technical information

Tooling

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Assembly instructions

Rated current and working voltage

UV resistance

Technical information

Appendix

Discrimination/Keying methods





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 per **IEC61984**
- Flammability rating: **UL94 V-0** for standard, **UL94 HB** for hi-seal
- Salt spray : 500 hours as 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**
R22/HL2 and R23/HL2- EN 45545-2

- 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

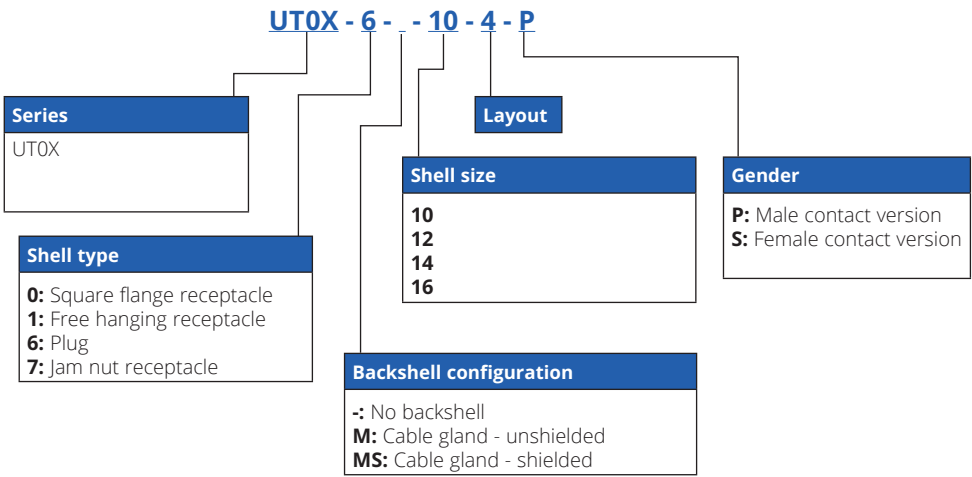
Intermateability

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

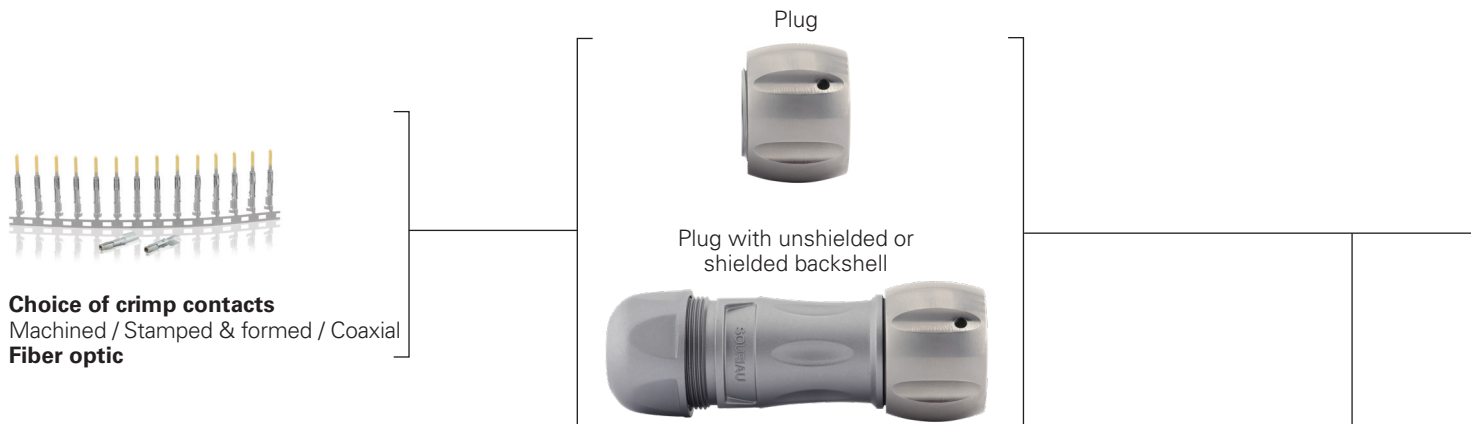
Connector type	Size 10	Size 12	Size 14
UT0X0 / UT0X6M*	IK07 (2J) according to IEC62262	IK07 (2J) according to IEC62262	IK07 (2J) according to IEC62262
UT0X7 / UT0X6M*	IK07 (2J) according to IEC62262	IK07 (2J) according to IEC62262	IK07 (2J) according to IEC62262
UT0X1M* / UT0X6M*	IK07 (2J) according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

Souriau UTOX series

Ordering information



Plug



Backshells

Unshielded backshell



Shielded backshell



UTOX hi seal plug



Overmolded cable assembly



Souriau UTOX series

Range overview

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

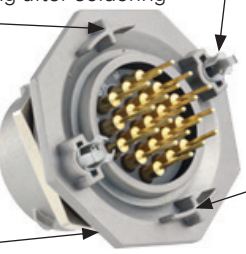


Jam nut



**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..

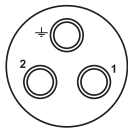
Note: Layouts in **blue text** are UTOX sealed unmated (Hi-seal) condition

Contact #16
Ø 0.062"/1.6mm

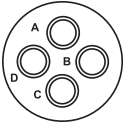
Contact #20
Ø 0.039"/1.0mm

Hybrid & others

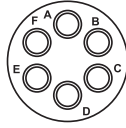
Size 10



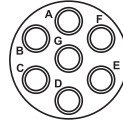
103
16A/300V
2 + ground
Page 14



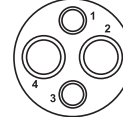
104
13A/150V
4 contacts
Page 35



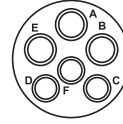
106 – 10E6/10D6
7A/32V
6 contacts
Page 47



10E7/10D7
7A/50V
7 contacts
Page 61

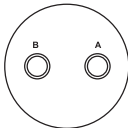


102W2 25A/150V
4 contact 2 x Ø 2.4
(#12) + 2 x Ø 1.0 (#20)
Page 31

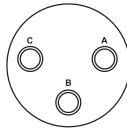


103W3
5A/32V
6 contacts
3 x Ø 1.6 (#16) + 3 x Ø 1.0 (#20)
Page 42

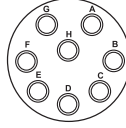
Size 12



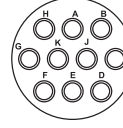
12E2/12D2
16A/150V
2 contacts
Page 11



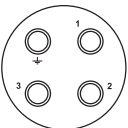
12E3/12D3
16A/150V
3 contacts
Page 21



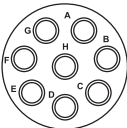
12E8/12D8
6A/32V
8 contacts
Page 68



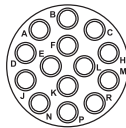
1210 – 12E10/12D10
6A/50V
10 contacts
Page 75



124 – 12E4/12D4
16A/150V
3 + ground
Page 28



128
10A/80V
8 contacts
Page 64



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

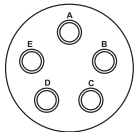
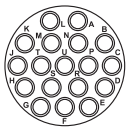
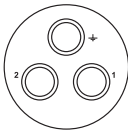
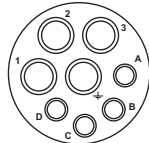
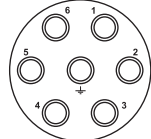
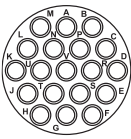
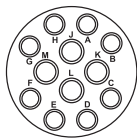
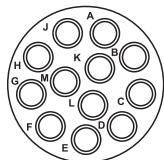
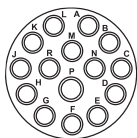
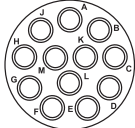
Contacts #8:
from AWG 16 to 8
0.059" to 0.393"²
1.5 to 10 mm²

Contact layouts

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

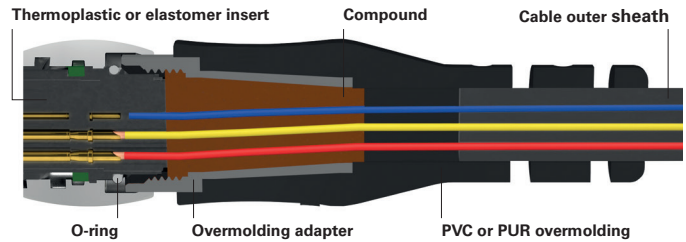
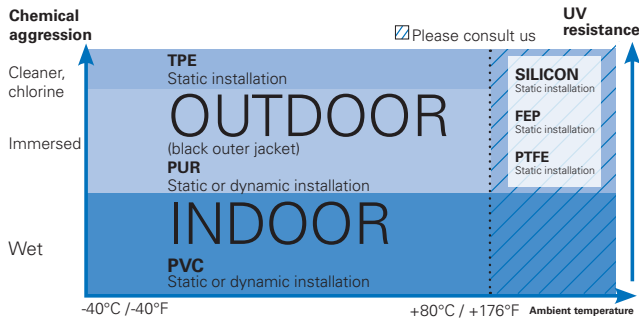
Contacts #16:
from AWG 30 to 14
0.001" to 0.098"²
0.05 to 2.5 mm²

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

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



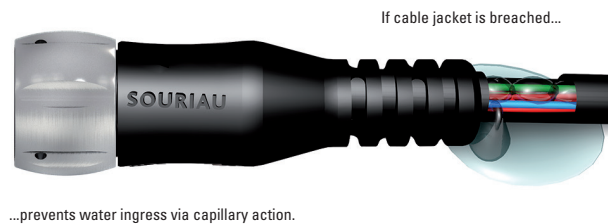
Connector with cable gland backshell

REPAIRABLE



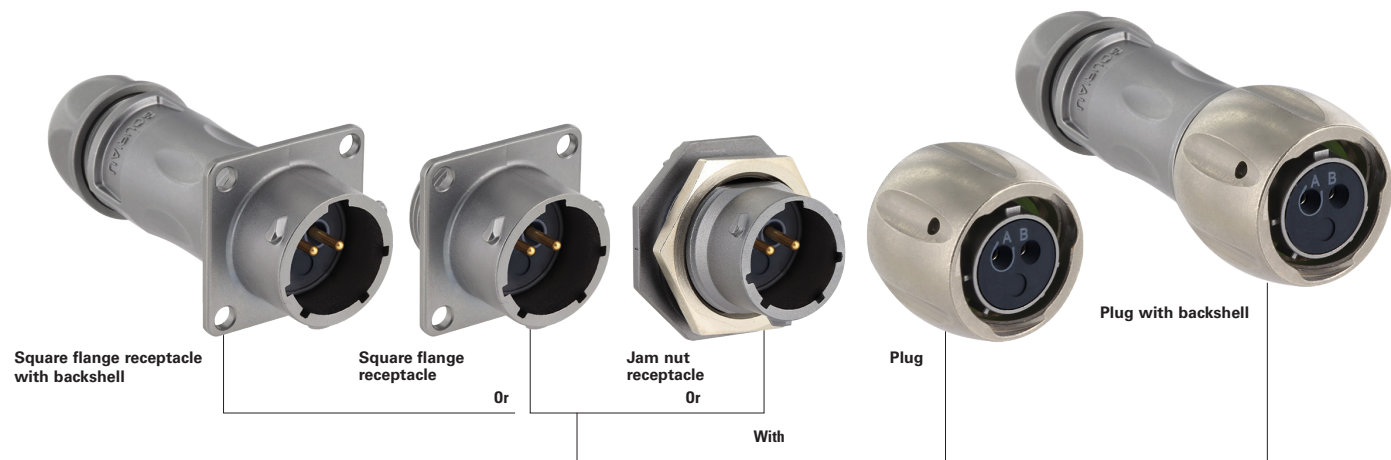
Overmolded connector

EXTRA WATER PROTECTION



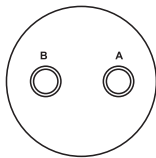
Souriau UTOX series

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



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 14	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 14	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 131**

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

Sealed unmated

Dimensions (for mated connector length see Page 123)

Square flange receptacle - UTOX0

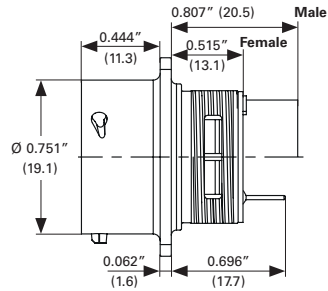
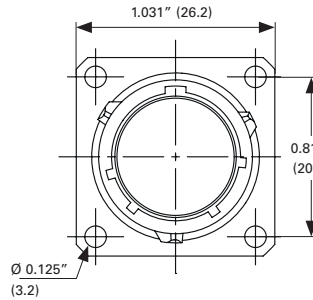


Fig. 1



Square flange receptacle with backshell - UTOX0M, UTOX0MS

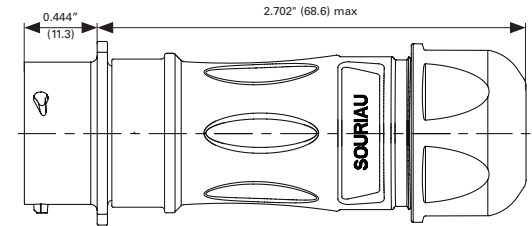


Fig. 1B

Plug - UTOX6, UTOX6M and UTOX6MS

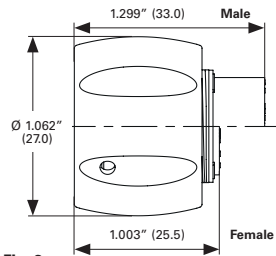


Fig. 2

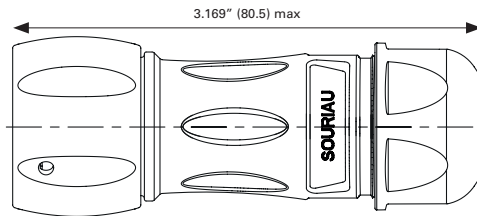


Fig. 3 Cable diameter acceptance from 0.275" to 0.393" (7 to 10)

Jam nut receptacle UTOX7

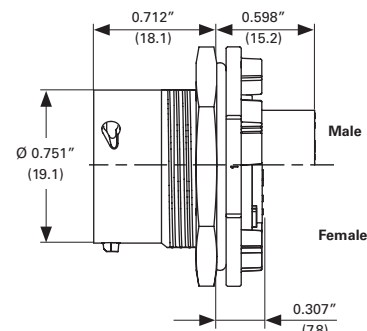


Fig. 4

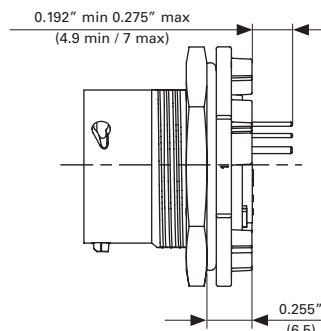


Fig. 5

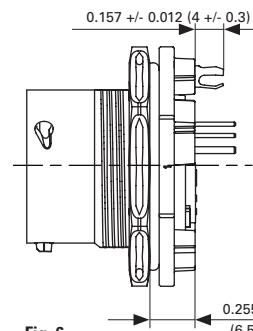
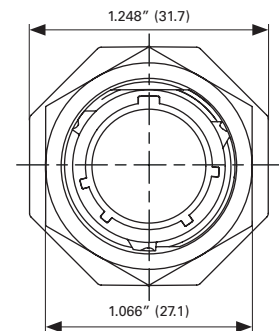
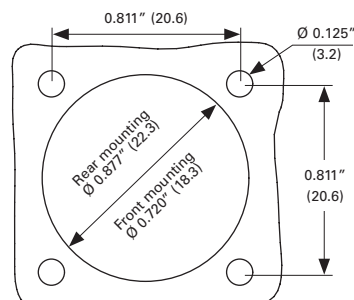


Fig. 6

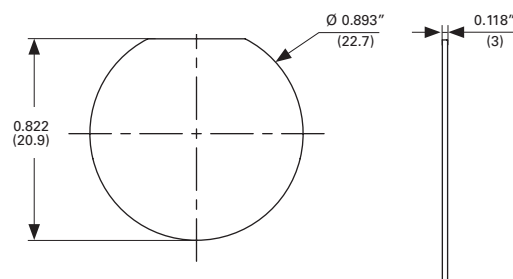


Panel cut-out

Square flange receptacle - UTOX0, UTOX0M, UTOX0MS



Jam nut receptacle - UTOX7



Dimensions in inches (millimeters)

Souriau UTOX series

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

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 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"	0.80-2.48	0.196" 5
PCB machined ⁽¹⁾	Min 0.4µ gold over 0.8µ Ni	—	—	—	—

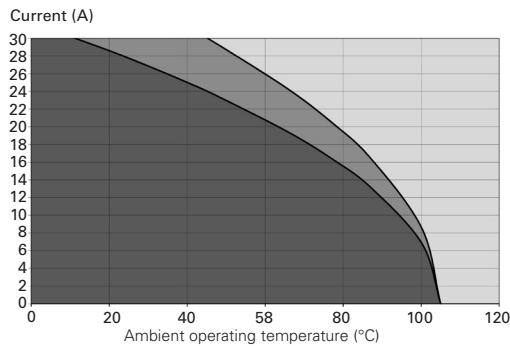
(1) For dimensions see Page 113

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

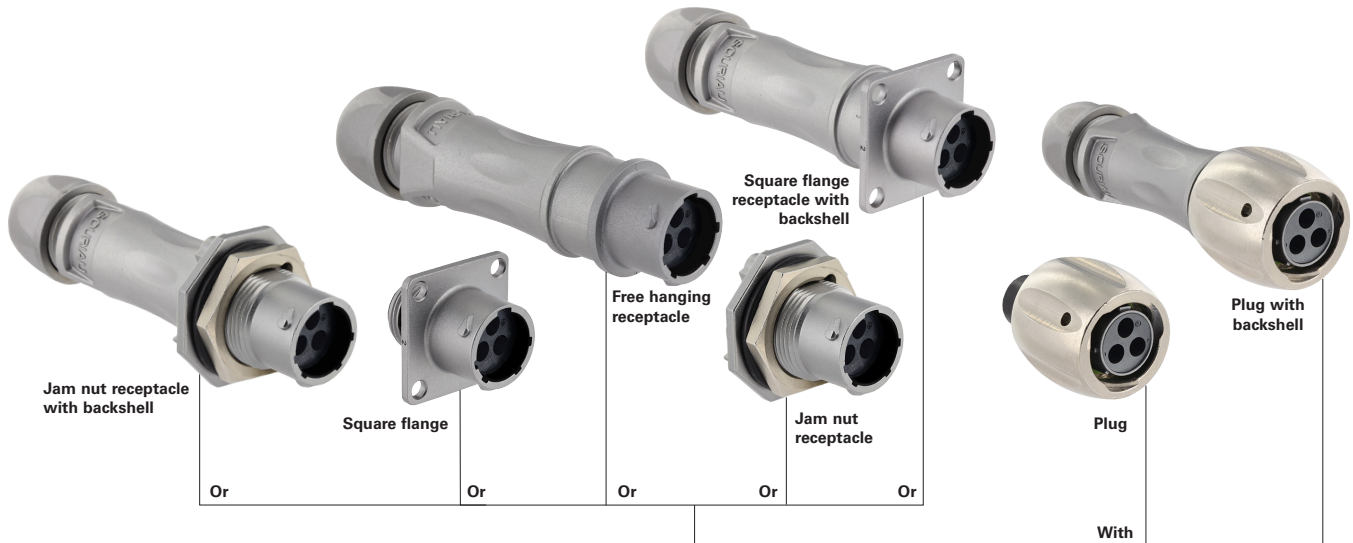


- Current use
- Limited use
- Not recommended

Test conditions

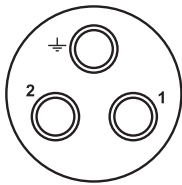
Contact used: machined contacts
Wires used: 16 AWG

Derating curves based on continuous current application.



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)	UT0X0103P	UT0X0103S
	Square flange receptacle	Cable gland unshielded version (Fig. 2)	UT0X0M103P	UT0X0M103S
	Square flange receptacle	Cable gland shielded version (Fig. 2)	UT0X0MS103P	UT0X0MS103S
	Free hanging receptacle	Cable gland unshielded version (Fig. 3)	UT0X1M103P	UT0X1M103S
	Free hanging receptacle	Cable gland shielded version (Fig. 3)	UT0X1MS103P	UT0X1MS103S
	Plug	Without (Fig. 4) ^{Note 1}	UT0X6103P	UT0X6103S
	Plug	Cable gland unshielded version (Fig. 5)	UT0X6M103P	UT0X6M103S
	Plug	Cable gland shielded version (Fig. 5)	UT0X6MS103P	UT0X6MS103S
	Jam nut receptacle	Without (Fig. 6)	UT0X7103P	UT0X7103S
	Jam nut receptacle	Cable gland unshielded version (Fig. 8)	UT0X7M103P	UT0X7M103S
	Jam nut receptacle	Cable gland shielded version (Fig. 8)	UT0X7MS103P	UT0X7MS103S
PCB contacts supplied separately see Page 17	Jam nut receptacle	Without (Fig. 7)	UT0X7103P	UT0X7103S

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

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

Souriau UTOX series

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

Dimensions (for mated connector length see Page 122)

Square flange receptacle - UTOX0

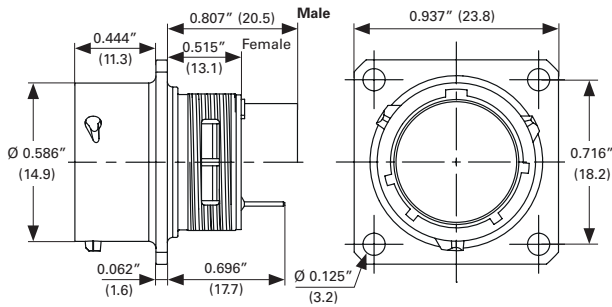


Fig. 1

Square flange receptacle with backshell - UTOX0M and UTOX0MS

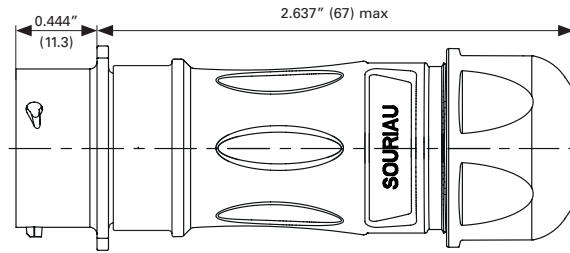


Fig. 2 Cable diameter acceptance from 0.157" to 0.275" (4 to 7)

Free hanging receptacle - UTOX1M and UTOX1MS

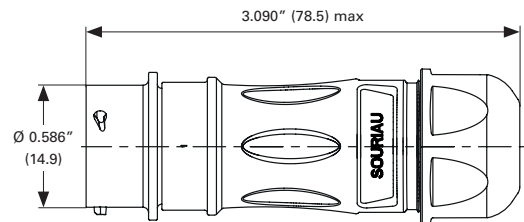


Fig. 3 Cable diameter acceptance from 0.157" to 0.275" (4 to 7)

Plug - UTOX6, UTOX6MS and UTOX6M

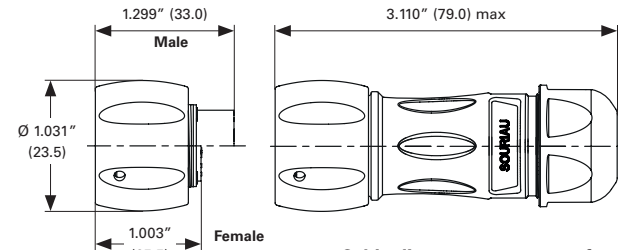


Fig. 4

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

Jam nut receptacle UTOX7

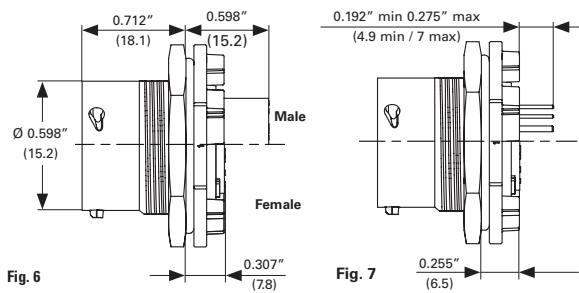
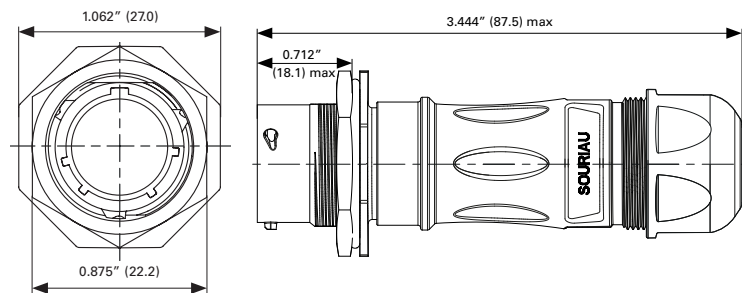


Fig. 6

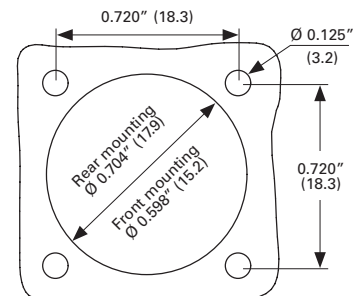
Fig. 7

Jam nut receptacle with backshell - UTOX7M, UTOX7MS

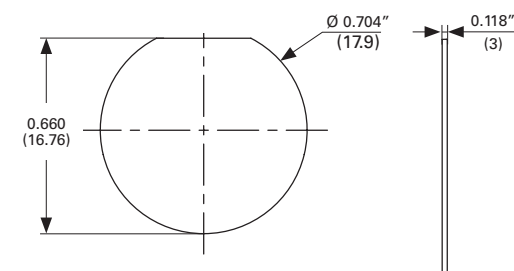


Panel cut-out

Square flange receptacle - UTOX0, UTOX0M, UTOX0MS



Jam nut receptacle - UTOX7, UTOX7M, UTOX7MS



Dimensions in inches (millimeters)

Accessories

Dustcap (Receptacle)



Gasket

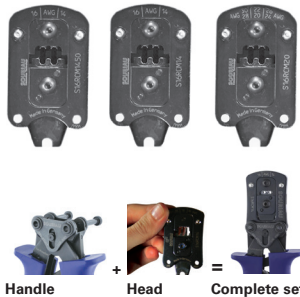


Tooling

#20 & #16 stamped and machined contacts



Crimp tooling (without Shandles)



#16, #12 and #8 machined contacts



Extraction tool #16

Fig. 1



Fig. 2



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

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

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

Part number

UTFD12B

Dustcap (Plug)



Dummy contact #16



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

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

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

Part number

SMPKPE0

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

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*
--	----------------------------	-----------

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

* Heads to be used with handle PN: SHANDLES

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

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

Die casts and stop bushings	See Page 117
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Description	Part number
-------------	-------------

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

Fig. 2 - Long endurance tool	RX2031J
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Souriau UTOX series

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

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 110 to 112				RMDXK10D28	RCDXK1D28	—	—	—	—
	Cable monocrimp	see Pages 110 to 112				RMDX60xxD28	RCDX60xxD28	—	—	—	—
	Twisted pair multipiece	see Pages 110 to 112				RMDXK10D28 + yorx090	RCDXK1D28 + yorx090	—	—	—	—
	Twisted pair monocrimp	see Pages 110 to 112				RMDX60xxD28	RCDX60xxD28	—	—	—	—
Fiber optic	POF contacts (Plastic Optical Fiber)	—		—	—	RMP0F1000	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 106**

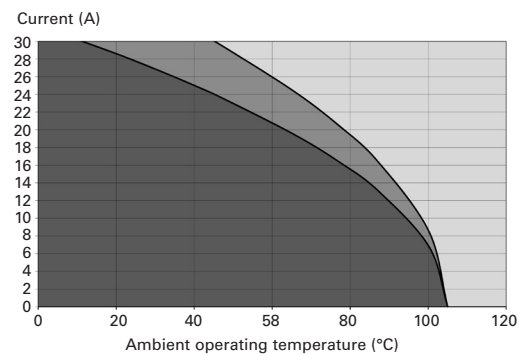
(2) Loose piece contact available by adding "L" after the "M" for the contact size and the plating. Example: SM20M1TK6 becomes SM20ML1TK6

(3) For dimensions see **Page 107**

Electrical characteristics

UL	CSA	IEC
10A 500V with AWG14 wire	10A 500V with AWG14 wire	16A 150V 2.5kV 3 temperature elevation: 50°C

UTOX 103 derating curves



- Current use
- Limited use
- Not recommended

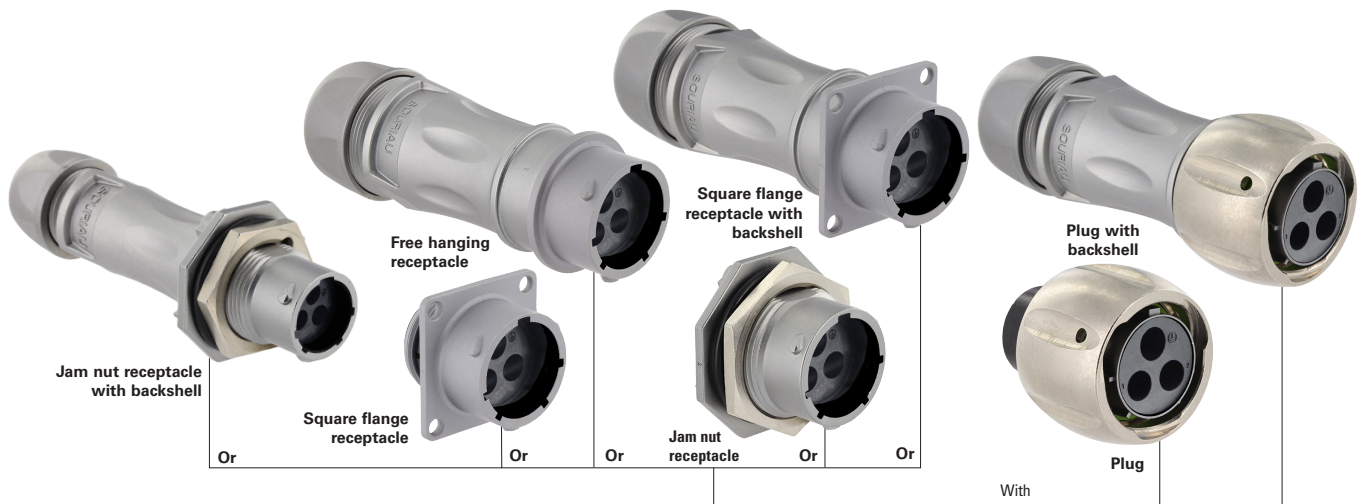
Test conditions

Contact used: machined contacts

Wires used: 16 AWG

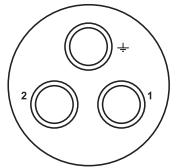
Derating curves based on continuous current application.

Dimensions in inches (millimeters)



Connector part numbers

UTOX 142G1



2 contacts + ground
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.

Souriau UTOX series

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

Dimensions (for mated connector length see Page 122)

Square flange receptacle - UTOX0, UTOX0M and UTOX0MS

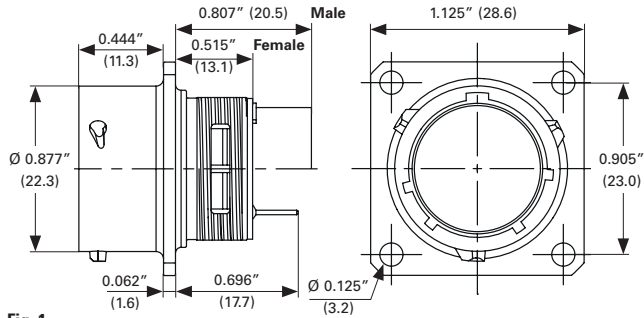


Fig. 1

Square flange receptacle with backshell - UTOX0M, UTOX0MS

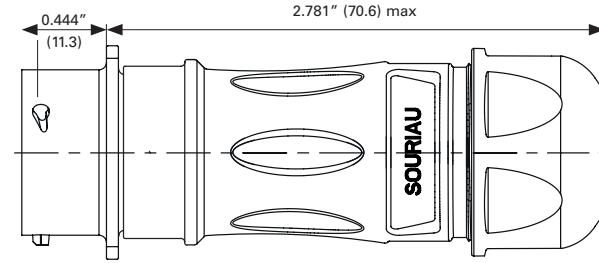


Fig. 2 Cable diameter acceptance from 0.393" to 0.511" (10 to 13)

Free hanging - UTOX1M and UTOX1MS

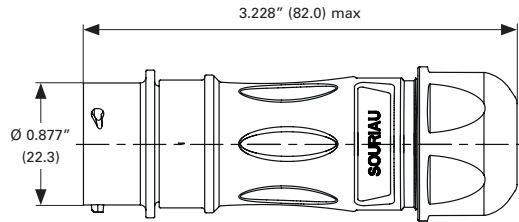


Fig. 3 Cable diameter acceptance from 0.393" to 0.511" (10 to 13)

Plug - UTOX6, UTOX6M and UTOX6MS

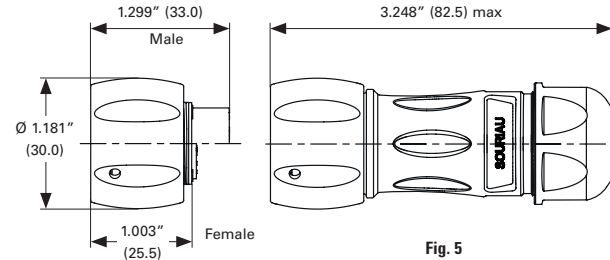


Fig. 5

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

Jam nut receptacle UTOX7

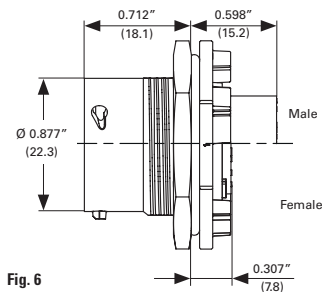


Fig. 6

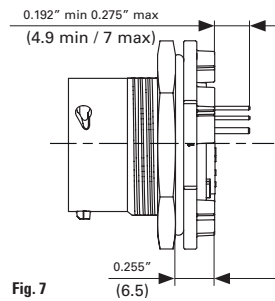
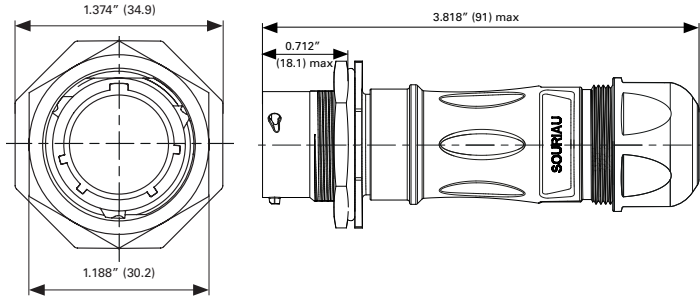


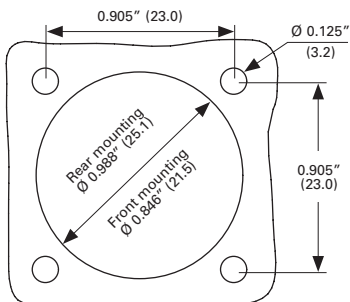
Fig. 7

Jam nut receptacle with backshell - UTOX7M, UTOX7MS

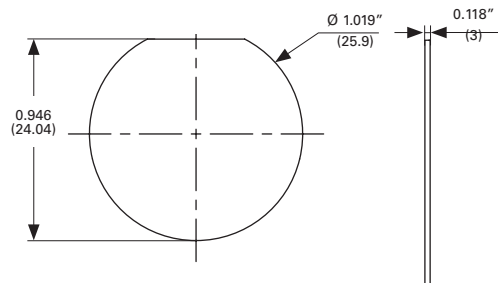


Panel cut-out

Square flange receptacle - UTOX0



Jam nut receptacle - UTOX7



Dimensions in inches (millimeters)

Accessories

Dustcap (Receptacle)



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

Part number

UTFD14B

Gasket



Dustcap (Plug)



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

Description	Part number
For crimp contacts #8 0.0.141" (3.6)	51060210936

Extraction tool #8



Tooling

Crimp tooling #8



Contact size	Part number hand tool	Part number positioner + locator setting
For crimp contacts #8 0.0.141" (3.6)	M317	VGE10078A

#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	Part number 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⁾	—	—	—	—

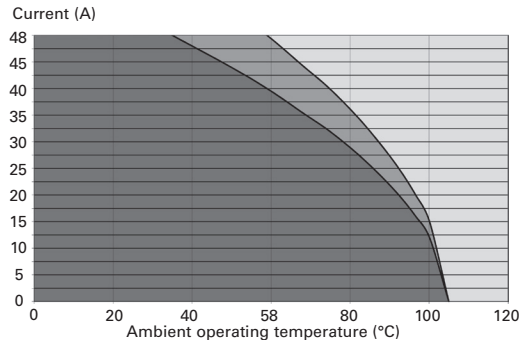
(1) Example of plating, for other plating see Page 105

(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

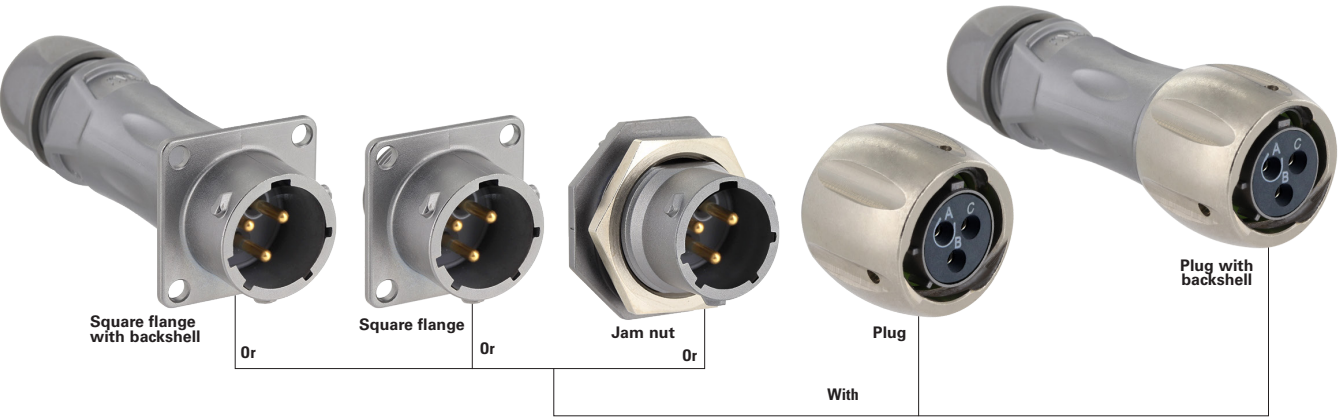
Contact used: machined contacts
Wires used: 16 AWG

Derating curves based on continuous current application.

Dimensions in inches (millimeters)

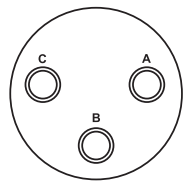
Souriau UTOX series

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



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
Handsolder electrical contacts loaded see Page 30	Square flange receptacle	Without (Fig. 1)	UT0X012E3P	UT0X012E3S
	Square flange receptacle	Cable gland unshielded version (Fig. 1B)	UT0X0M12E3P	UT0X0M12E3S
	Square flange receptacle	Cable gland shielded version (Fig. 1B)	UT0X0MS12E3P	UT0X0MS12E3S
	Plug	Without (Fig. 2) ^{Note 1}	UT0X612E3P	UT0X612E3S
	Plug	Cable gland unshielded version (Fig. 3)	UT0X6M12E3P	UT0X6M12E3S
	Plug	Cable gland shielded version (Fig. 3)	UT0X6MS12E3P	UT0X6MS12E3S
	Jam nut receptacle	Without (Fig. 4)	UT0X712E3P	UT0X712E3S
PCB contacts loaded see Page 30	Square flange receptacle	Without (Fig. 2)	UT0X012D3P	UT0X012D3S
	Jam nut receptacle with stand off and without hold down clip	Without (Fig. 5)	UT0X712D3P	UT0X712D3S
	Jam nut receptacle with stand off and with hold down clips	Without (Fig. 6)	UT0X712D3P32	UT0X712D3S32

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

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

Sealed unmated

Dimensions (for mated connector length see Page 122)

Square flange receptacle - UTOX0

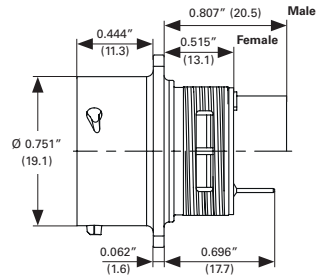


Fig. 1

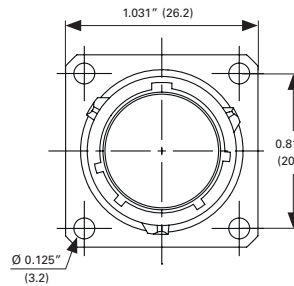


Fig. 2 Cable diameter acceptance from 0.275" to 0.393" (7 to 10)

Square flange receptacle with backshell - UTOX0M and UTOX0MS

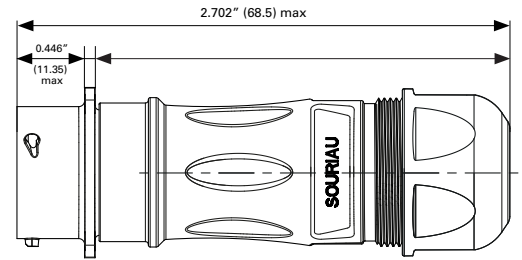


Fig. 1B

Plug - UTOX6, UTOX6M and UTOX6MS

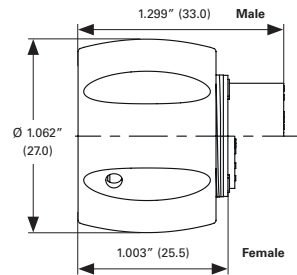


Fig. 2

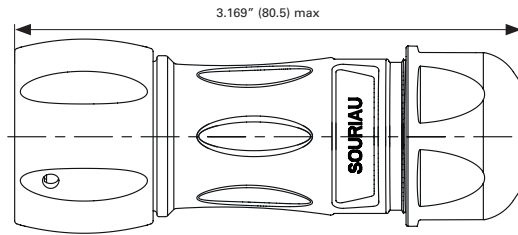


Fig. 3 Cable diameter acceptance: standard seal from 0.275" to 0.393" (7 to 10)

Jam nut receptacle UTOX7

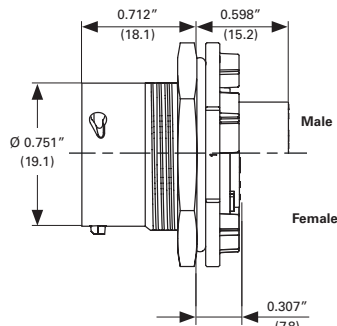


Fig. 4

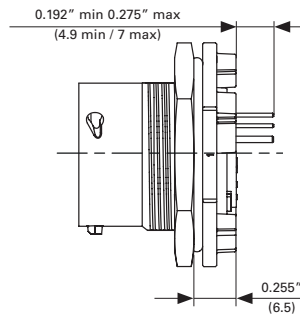


Fig. 5

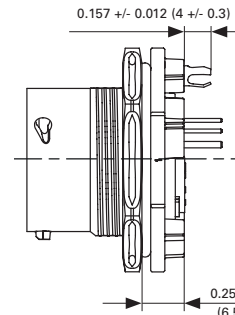
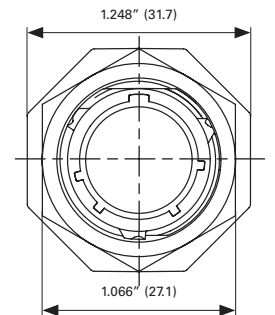
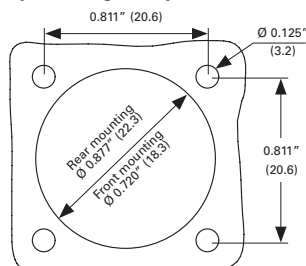


Fig. 6

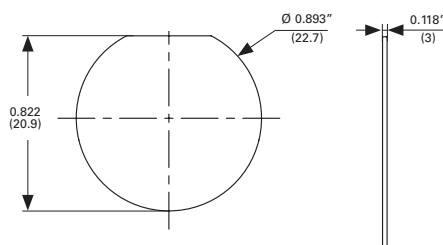


Panel cut-out

Square flange receptacle - UTOX0



Jam nut receptacle - UTOX7



Dimensions in inches (millimeters)

Souriau UTOX series

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

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 133 for more information

Contacts #16

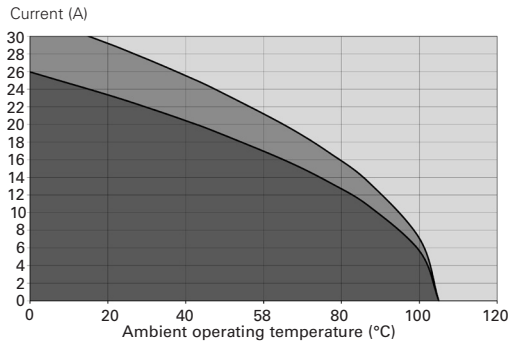
Contact type	Plating	Cable acceptance (AWG)		Cable acceptance		Wire stripping length	
				inch ²	mm ²	inch	mm
Handsolder loaded in the connector	Min 0.4µ gold over 0.8µ Ni	18-14		0.031"-0.098"	0.82-2.48	0.196"	5
PCB machined ⁽¹⁾	Min 0.4µ gold over 0.8µ Ni	—		—	—	—	—

(1) For dimensions see Pages 107

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

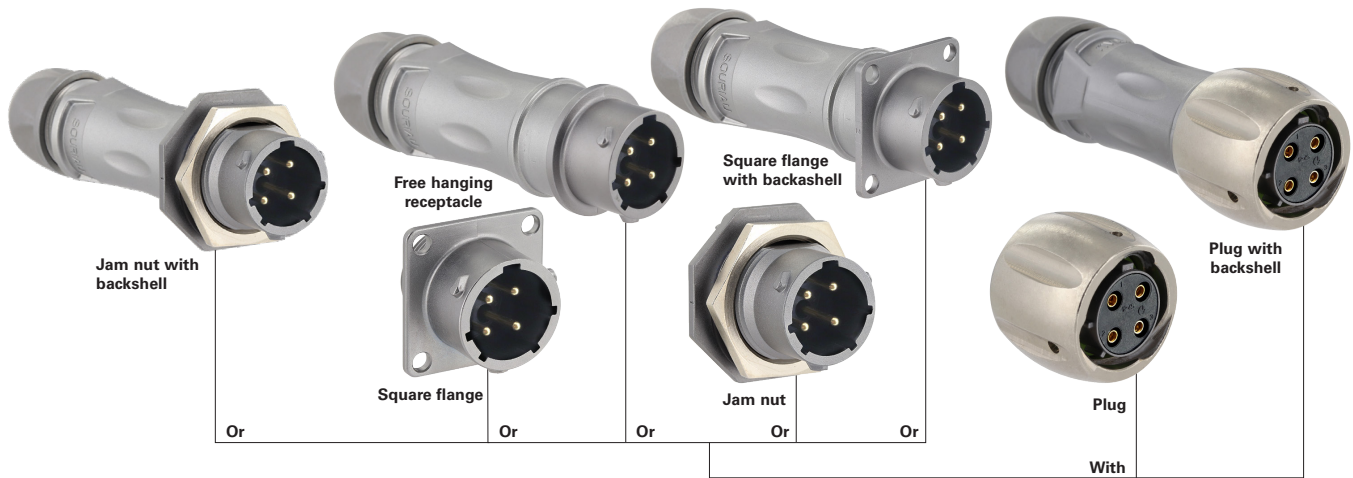


- Current use
- Limited use
- Not recommended

Test conditions

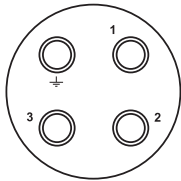
Contact used: machined contacts
Wires used: 16 AWG

Derating curves based on continuous current application.



Connector part numbers

UTOX 124



3 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 28	Square flange receptacle	Without (Fig. 1)	UT0X0124P	UT0X0124S
	Square flange receptacle	Cable gland unshielded version (Fig. 2)	UT0X0M124P	UT0X0M124S
	Square flange receptacle	Cable gland shielded version (Fig. 2)	UT0X0MS124P	UT0X0MS124S
	Free hanging receptacle	Cable gland unshielded version (Fig. 3)	UT0X1M124P	UT0X1M124S
	Free hanging receptacle	Cable gland shielded version (Fig. 3)	UT0X1MS124P	UT0X1MS124S
	Plug	Without (Fig. 4) ^{Note 1}	UT0X6124P	UT0X6124S
	Plug	Cable gland unshielded version (Fig. 5)	UT0X6M124P	UT0X6M124S
	Plug	Cable gland shielded version (Fig. 5)	UT0X6MS124P	UT0X6MS124S
	Jam nut receptacle	Without (Fig. 6)	UT0X7124P	UT0X7124S
	Jam nut receptacle	Cable gland unshielded version (Fig. 8)	UT0X7M142G1P	UT0X7M142G1S
	Jam nut receptacle	Cable gland shielded version (Fig. 8)	UT0X7MS142G1P	UT0X7MS142G1S
Screw contacts loaded	Jam nut receptacle	Without (Fig. 9)	UT0X7124PSCR	UT0X7124SSCR
PCB contacts supplied separately see Page 28	Square flange receptacle	Without (Fig. 1)	UT0X0124P	UT0X0124S
	Jam nut receptacle	Without (Fig. 7)	UT0X7124P	UT0X7124S

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

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

Souriau UTOX series

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

Dimensions (for mated connector length see Page 122)

Square flange receptacle - UTOX0, UTOX0M and UTOX0MS

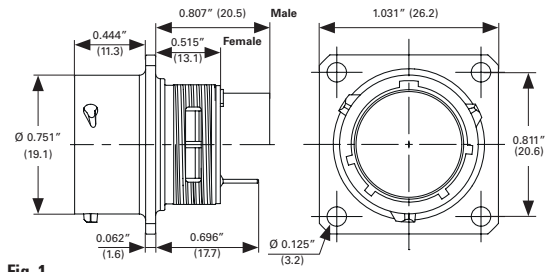


Fig. 1

Square flange receptacle with backshell - UTOX0M and UTOX0MS

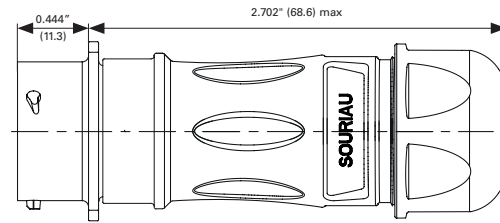


Fig. 2 Cable diameter acceptance from 0.275" to 0.393" (7 to 10)

Free hanging - UTOX1M and UTOX1MS

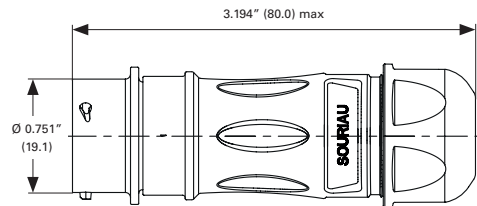


Fig. 3 Cable diameter acceptance from 0.275" to 0.393" (7 to 10)

Plug - UTOX6, UTOX6M and UTOX6MS

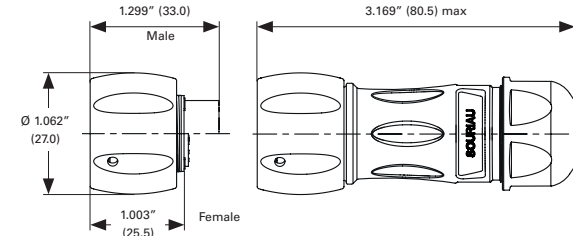


Fig. 4

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

Jam nut receptacle UTOX7

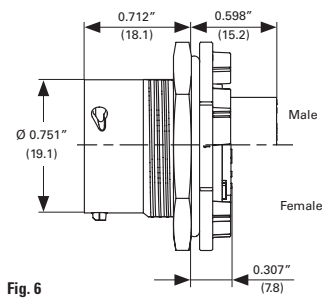


Fig. 6

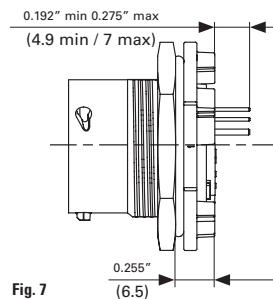


Fig. 7

Jam nut receptacle with backshell - UTOX7M, UTOX7MS

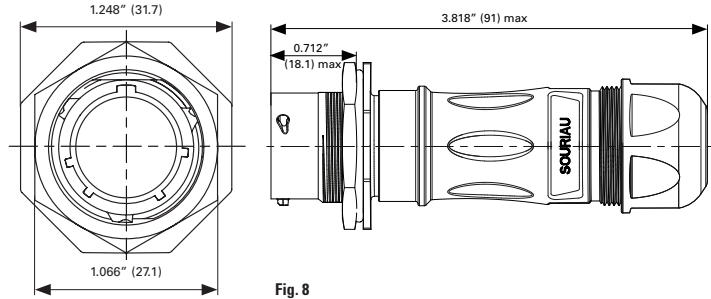


Fig. 8

Jam nut receptacle with screw contacts

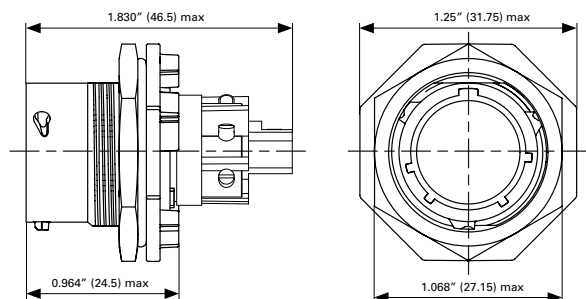
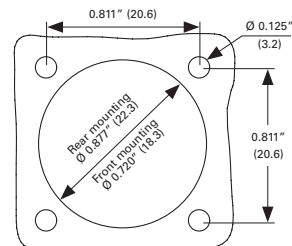


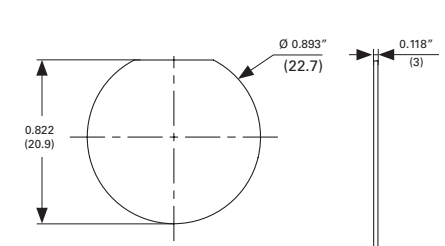
Fig. 9

Panel cut-out

Square flange receptacle - UTOX0



Jam nut receptacle - UTOX7



Dimensions in inches (millimeters)

Accessories

Dustcap (Receptacle)



Gasket



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

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

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

Part number

UTFD13B

Dustcap (Plug)



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

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

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

Part number

SMSPKE0

Note: See Page 133 for more information

Dummy contact #16



Tooling

Tooling for #16 and #20 stamped and machined contacts

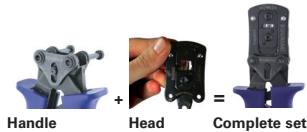
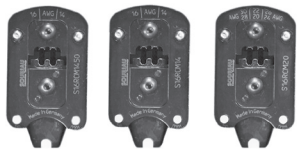


Description	Part number
-------------	-------------

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

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

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

* Heads to be used with handle PN: SHANGLES

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

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

Die casts and stop bushings	See Page 133
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Description	Part number
-------------	-------------

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

Souriau UTOX series

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

Contacts #16

Contact style	Contact type	Cable acceptance AWG	Cable acceptance inch ²	Cable acceptance mm ²	Part number		Wire Ø max inch	mm	Insulator Ø max	
					Male	Female			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 131 to 133			RMDXK10D28	RCDXK1D28	—	—	—	—
Coaxial	Cable monocrimp	see Pages 131 to 133			RMDX60xxD28	RCDX60xxD28	—	—	—	—
Coaxial	Twisted pair multipiece	see Pages 131 to 133			RMDXK10D28 + yorr090	RCDXK1D28 + yorr090	—	—	—	—
Coaxial	Twisted pair monocrimp	see Pages 131 to 133			RMDX60xxD28	RCDX60xxD28	—	—	—	—
Fiber optic	POF contacts (Plastic optical fiber)	—			RMPOF1000	RCPOF1000B	—	—	—	—
Hand solder	Loaded in the connector	14-18	0.098"-0.031"	2.48-0.82	—	—	—	—	—	—

(1) Example of plating, for other plating see **Page 127**

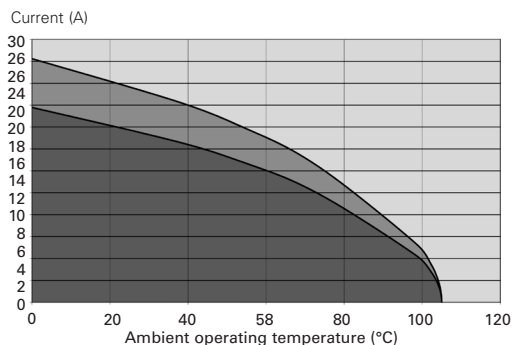
(2) Loose piece contact available by adding "L" after the "M" for the contact size and the plating. Example: SM20M1TK6 becomes SM20ML1TK6

(3) For dimensions see **Page 134**

Electrical characteristics

UL	CSA	IEC
10A 500V with AWG16 wire	10A 500V with AWG16 wire	16A 150V 2.5kV 3 temperature elevation: 50°C

UTOX 124 derating curves



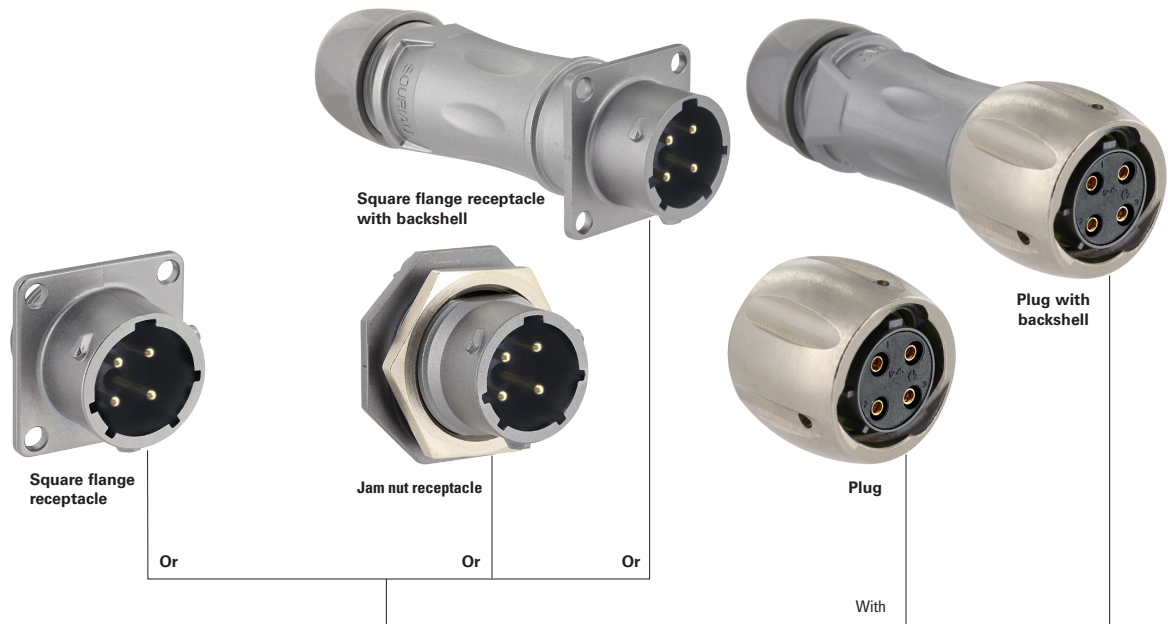
- Current use
- Limited use
- Not recommended

Test conditions

Contact used: machined contacts
Wires used: 16 AWG

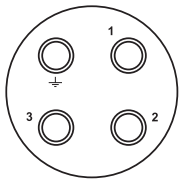
Derating curves based on continuous current application.

Dimensions in inches (millimeters)



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
Hand solder electrical contacts loaded see Page 31	Square flange receptacle	Without (Fig. 1)	UT0X012E4P	UT0X012E4S
	Plug	Without (Fig. 2) ^{Note 1}	UT0X612E4P	UT0X612E4S
	Plug	Cable gland unshielded version (Fig. 2)	UT0X6M12E4P	UT0X6M12E4S
	Plug	Cable gland shielded version (Fig. 2)	UT0X6MS12E4P	UT0X6MS12E4S
	Jam nut receptacle	Without (Fig. 2)	UT0X712E4P	UT0X712E4S
PCB contacts loaded	Square flange receptacle	Without (Fig. 2)	UT0X012D4P	UT0X012D4S
	Jam nut receptacle with stand off and without hold down clip	Without (Fig. 5)	UT0X712D4P	UT0X712D4S
	Jam nut receptacle with stand off and with hold down clips	Without (Fig. 6)	UT0X712D4P32	UT0X712D4S32

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

Sealed unmated

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

Souriau UTOX series

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

Dimensions (for mated connector length see Page 122)

Square flange receptacle - UTOX0 UTOX0MS

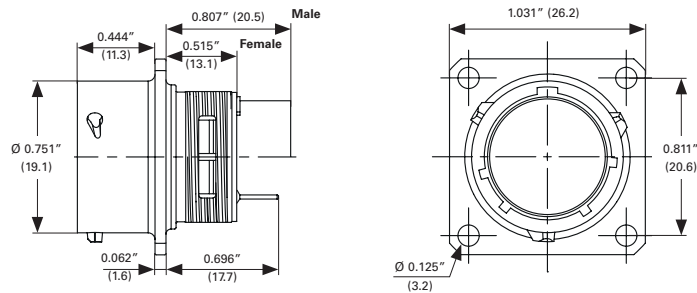
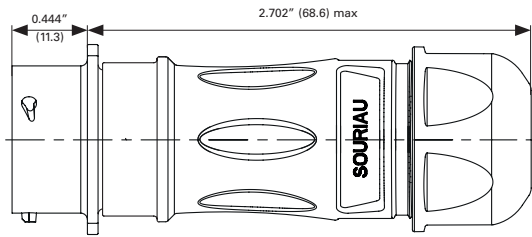


Fig. 1

Square flange receptacle with backshell - UTOX0M, UTOX0MS



Plug - UTOX6, UTOX6M and UTOX6MS

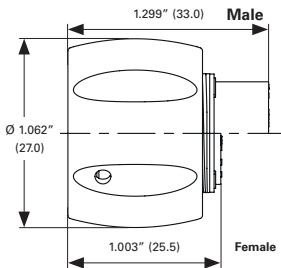


Fig. 2

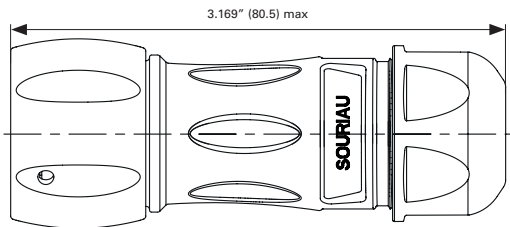


Fig. 3 Cable diameter acceptance from 0.275" to 0.393" (7 to 10)

Jam nut receptacle UTOX7

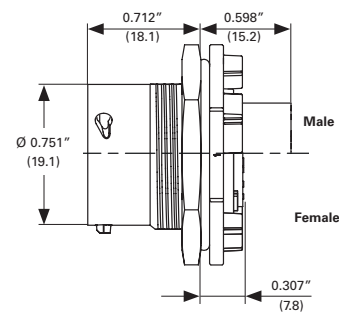


Fig. 4

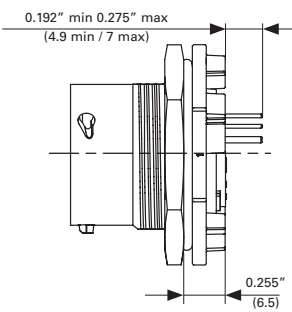


Fig. 5

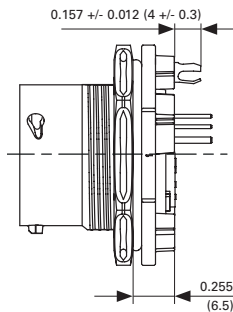
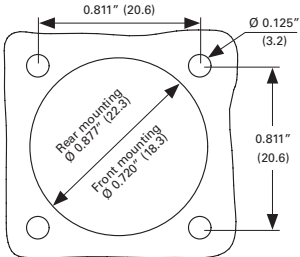


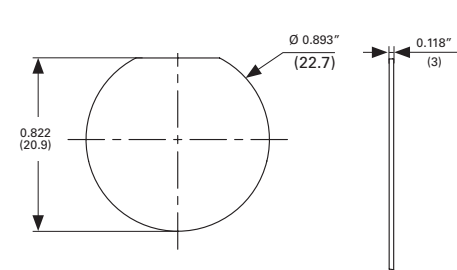
Fig. 6

Panel cut out

Square flange receptacle - UTOX0



Jam nut receptacle - UTOX7



Dimensions in inches (millimeters)

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

Contacts #16

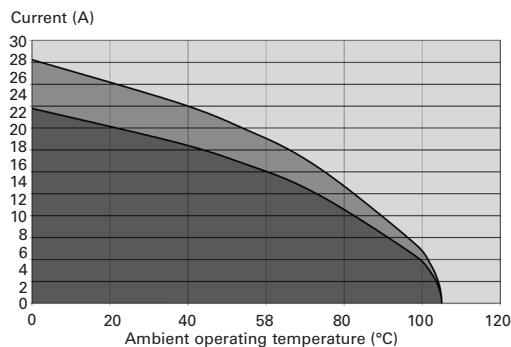
Contact type	Plating	Cable acceptance (AWG)	Cable acceptance		Wire stripping length	
			inch ²	mm ²	inch	mm
Handsolder loaded in the connector	Min 0.4μ gold over 0.8μ Ni	18-14	0.031"-0.098"	0.82-2.48	0.196"	5
PCB machined ⁽¹⁾	Min 0.4μ gold over 0.8μ Ni	—	—	—	—	—

(1) For dimensions see **Pages 134 or 135**

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

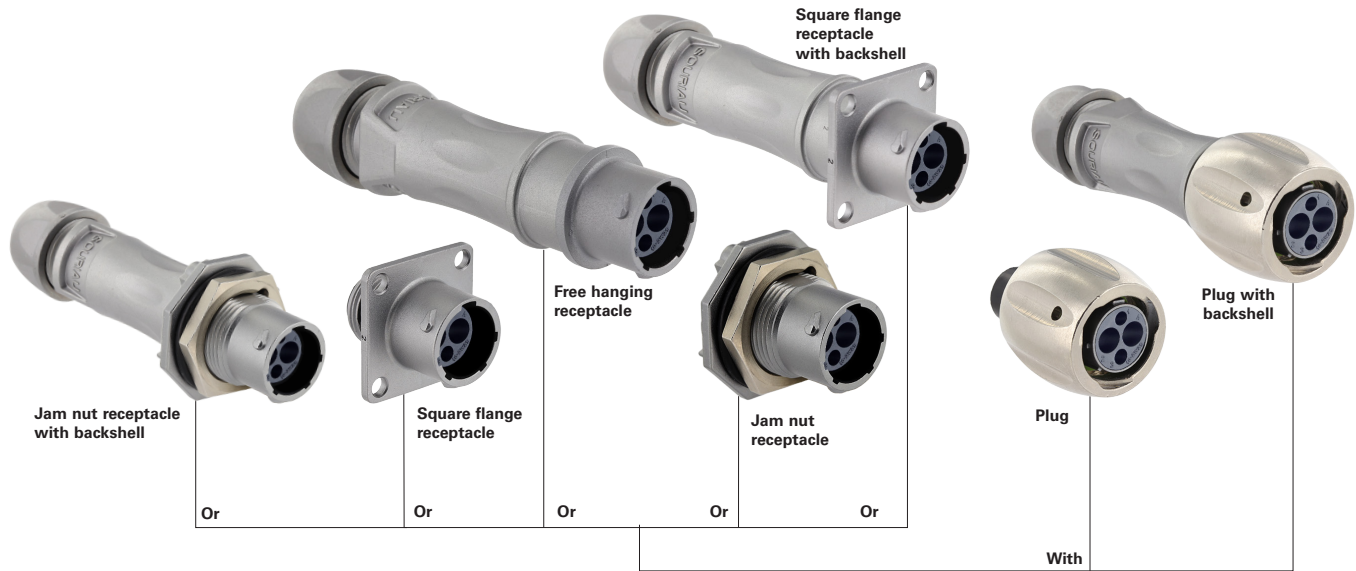
Test conditions

Contact used: machined contacts
Wires used: 16 AWG

Derating curves based on continuous current application.

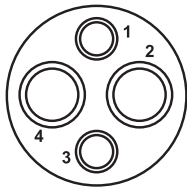
Souriau UTOX series

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



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.

Dimensions (for mated connector length see Page 122)

Square flange receptacle - UTOX0, UTOX0M and UTOX0MS

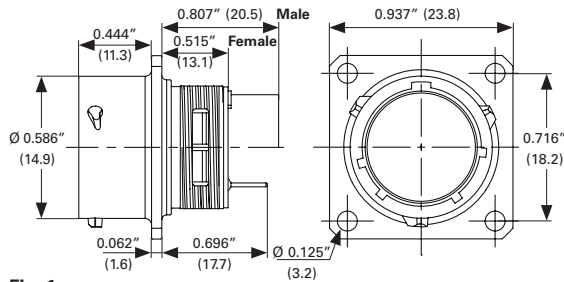


Fig. 1

Square flange receptacle with backshell - UTOX0M, UTOX0MS

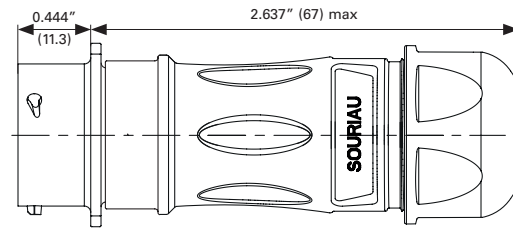


Fig. 2 Cable diameter acceptance from 0.157" to 0.10.275" (4 to 7)

Free hanging - UTOX1M and UTOX1MS

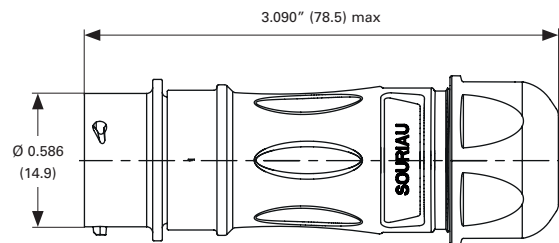


Fig. 3 Cable diameter acceptance from 0.157" to 0.10.275" (4 to 7)

Plug - UTOX6, UTOX6M and UTOX6MS

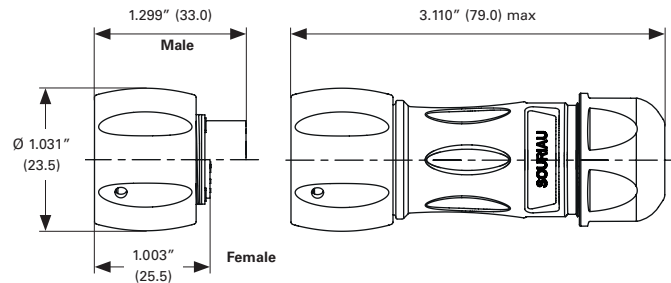


Fig. 4

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

Jam nut receptacle UTOX7

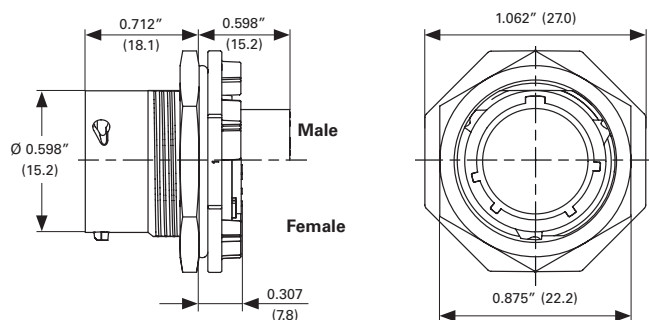
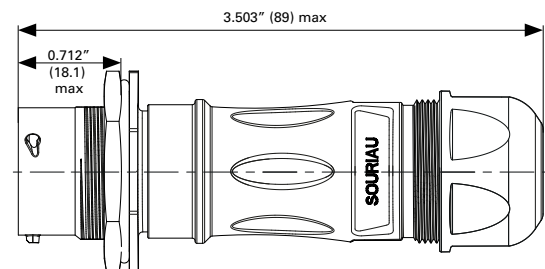


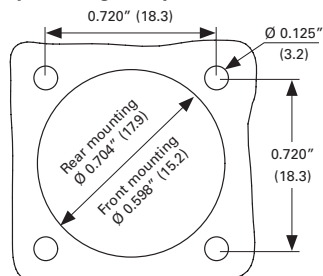
Fig. 6

Jam nut receptacle with backshell - UTOX7M, UTOX7MS

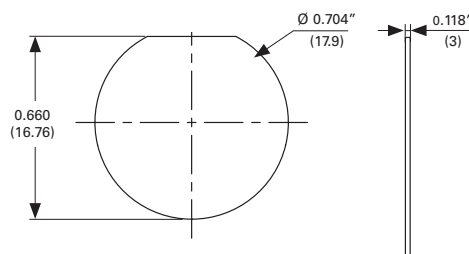


Panel cut-out

Square flange receptacle - UTOX0



Jam nut receptacle - UTOX7



Dimensions in inches (millimeters)

Souriau UTOX series

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

Accessories

Dustcap (Receptacle)



Description	Part number
IP68	UT010DCG*

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

Part number
UTFD12B

Gasket



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

#16, #12 and #8 machined contacts



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

Crimp tooling #12



Contact size	Part number hand tool	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

Contacts #20

Contact style	Contact type	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 106**

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

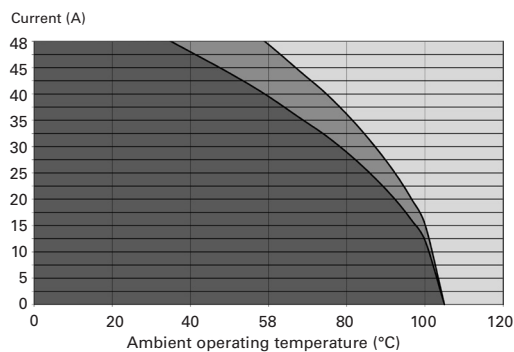
Contacts #12

Contact style	Contact type	Cable acceptance			Part number		Wire Ø max		Insulator Ø max	
		AWG	inch ²	mm ²	Male	Female	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
26A 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
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

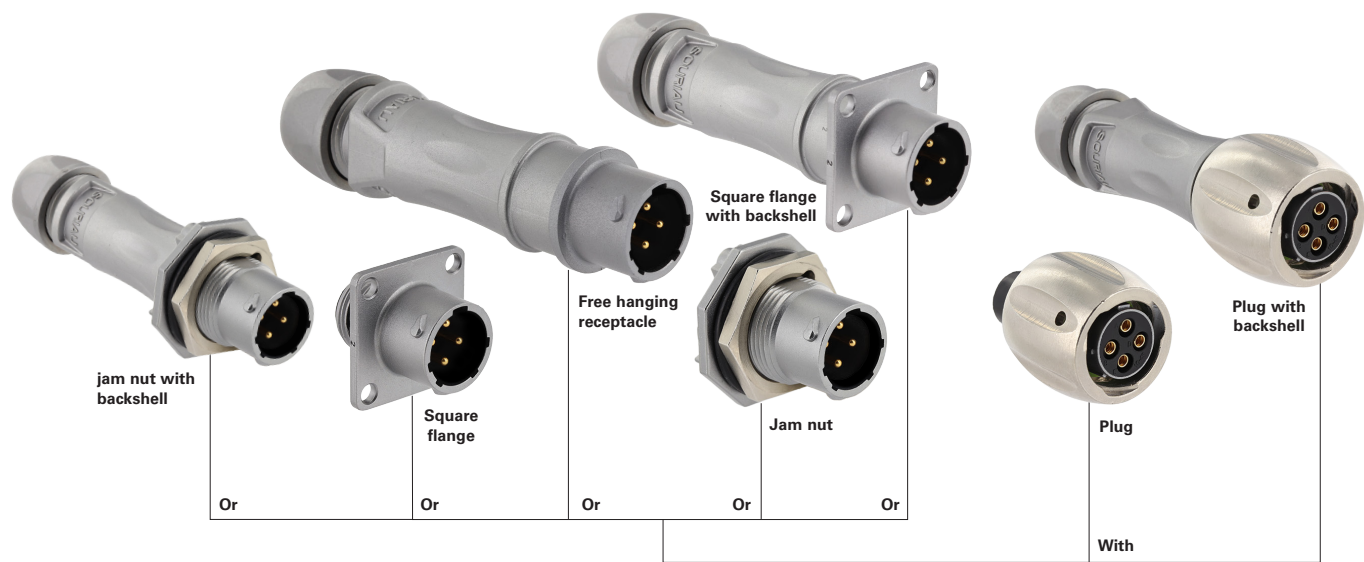
Test conditions

Contact used: machined contacts
Wires used: 20 AWG

Derating curves based on continuous current application.

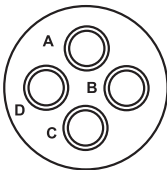
Souriau UTOX series

104 (Shell size 10, 4x#16)



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)	UT0X0104P	UT0X0104S
	Square flange receptacle	Cable gland unshielded version (Fig. 2)	UT0X0M104P	UT0X0M104S
	Square flange receptacle	Cable gland shielded version (Fig. 2)	UT0X0MS104P	UT0X0MS104S
	Free hanging receptacle	Cable gland (Fig. 3)	UT0X1M104P	UT0X1MS104S
	Plug	Without (Fig. 4) Note 1	UT0X6104P	UT0X6104S
	Plug	Cable gland unshielded version (Fig. 5)	UT0X6M104P	UT0X6M104S
	Plug	Cable gland shielded version (Fig. 5)	UT0X6MS104P	UT0X6MS104S
	Jam nut receptacle	Without (Fig. 6)	UT0X7104P	UT0X7104S
	Jam nut receptacle	Cable gland unshielded version (Fig. 8)	UT0X7M104P	UT0X7M104S
	Jam nut receptacle	Cable gland shielded version (Fig. 8)	UT0X7MS104P	UT0X7MS104S
PCB contacts supplied separately see Page 39	Jam nut receptacle	Without (Fig. 7)	UT0X7104P	UT0X7104S

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 122)

Square flange receptacle - UTOX0, UTOX0M and UTOX0MS

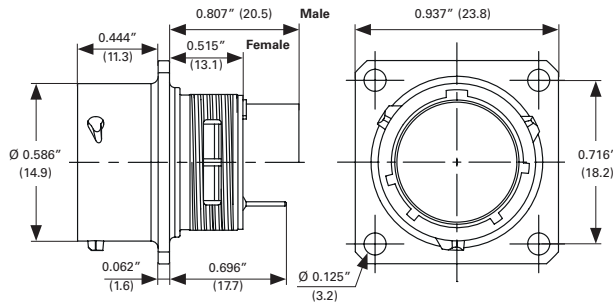


Fig. 1

Square flange receptacle with backshell - UTOX0M, UTOX0MS

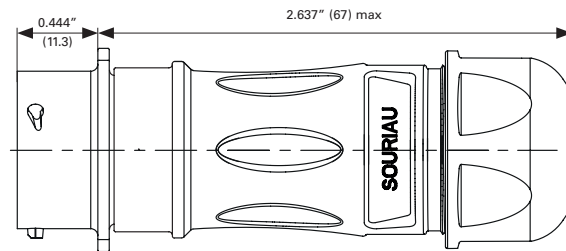


Fig. 2 Cable diameter acceptance from 0.157" to 0.10.275" (4 to 7)

Free hanging - UTOX1M and UTOX1MS

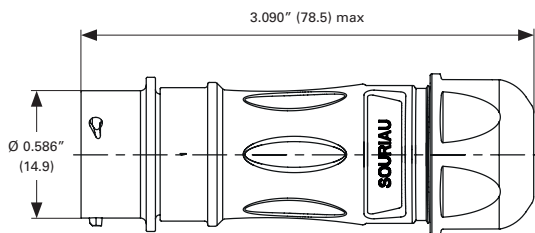


Fig. 3 Cable diameter acceptance from 0.157" to 0.10.275" (4 to 7)

Plug - UTOX6, UTOX6M and UTOX6MS

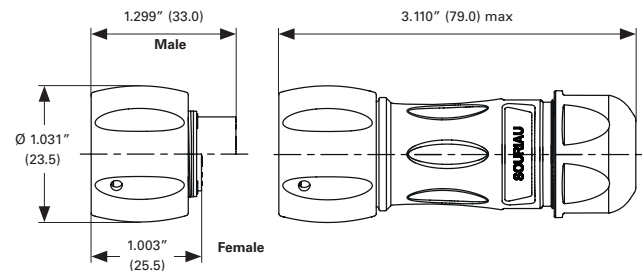


Fig. 4

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

Jam nut receptacle UTOX7

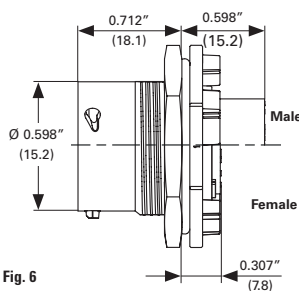


Fig. 6

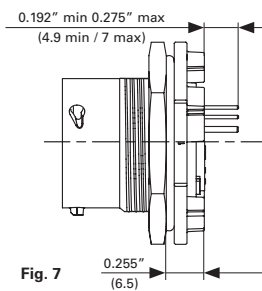
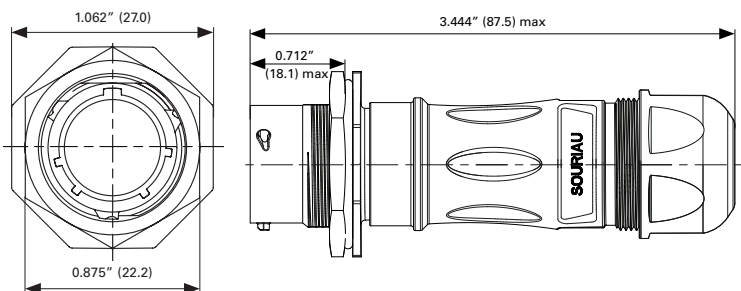


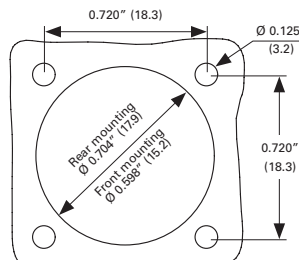
Fig. 7

Jam nut receptacle with backshell - UTOX7M, UTOX7MS

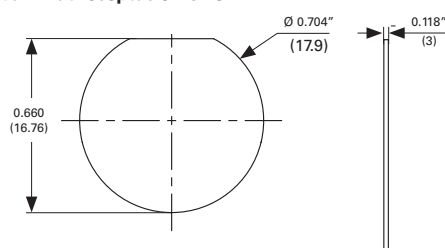


Panel cut-out

Square flange receptacle - UTOX0



Jam nut receptacle - UTOX7



Dimensions in inches (millimeters)

Souriau UTOX series

104 (Shell size 10, 4x#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 133 for more information

Dummy contact #16

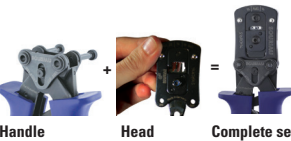
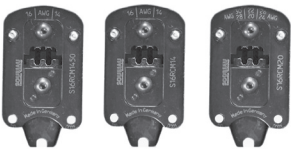


Tooling

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

Contacts #16

Contact style	Contact type	Cable acceptance		Part number	Male	Female	Wire Ø max		Insulator Ø max	
		AWG	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 131 to 133			RMDXK10D28	RCDXK1D28	—	—	—	—
	Cable monocrimp	see Pages 131 to 133			RMDX60xxD28	RCDX60xxD28	—	—	—	—
	Twisted pair multipiece	see Pages 131 to 133			RMDXK10D28 + yorx090	RCDXK1D28 + yorx090	—	—	—	—
	Twisted pair monocrimp	see Pages 131 to 133			RMDX60xxD28	RCDX60xxD28	—	—	—	—
Fiber optic	POF contacts (Plastic Optical Fiber)	—			RMPOF1000	RCPOF1000B	—	—	—	—

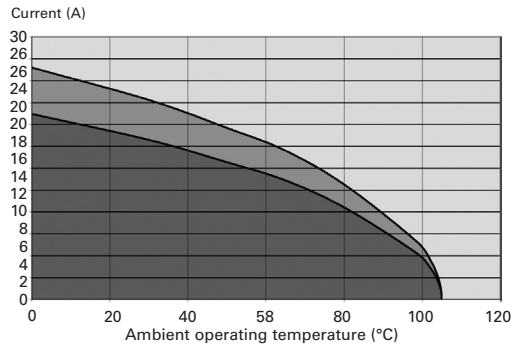
(1) Example of plating, for other plating see

(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

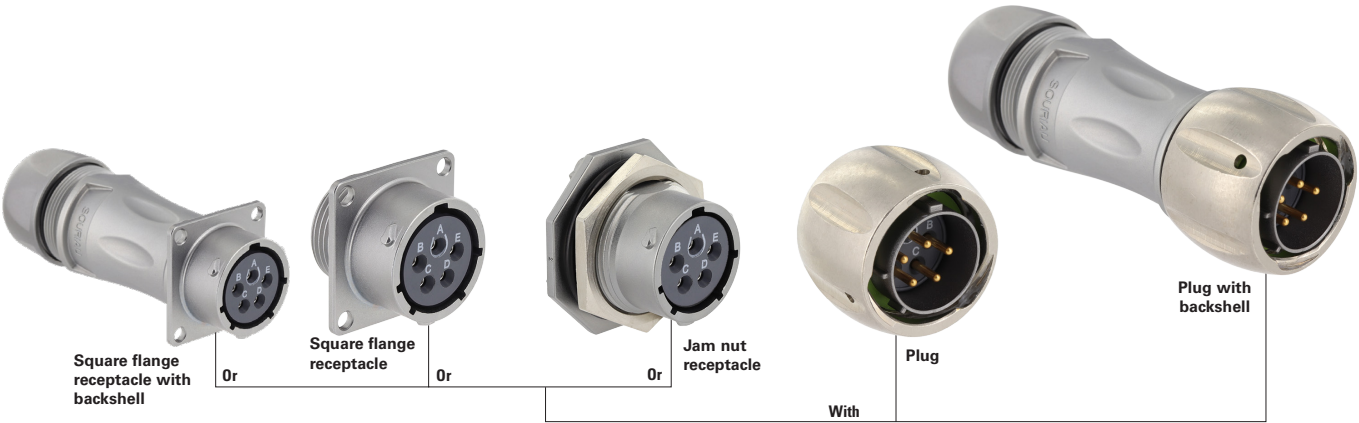
Test conditions

Contact used: machined contacts
Wires used: 16 AWG

Derating curves based on continuous current application.

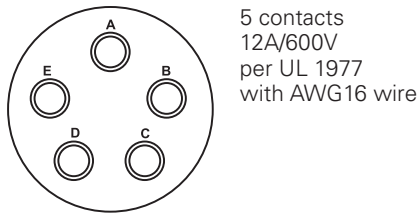
Souriau UTOX series

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



Connector part numbers

UTOX 14E5/14D5



Contact type	Connector type	Backshell	Part number Male insert	Female insert
Handsolder electrical contacts loaded see Page 49	Square flange receptacle	Without (Fig. 1)	UT0X014E5P	UT0X014E5S
	Square flange receptacle	Cable gland unshielded version (Fig. 1B)	UT0X0M14E5P	UT0X0M14E5S
	Square flange receptacle	Cable gland shielded version (Fig. 1B)	UT0X0MS14E5P	UT0X0MS14E5S
	Plug	Without (Fig. 2) ^{Note 1}	UT0X614E5P	UT0X614E5S
	Plug	Cable gland unshielded version (Fig. 3)	UT0X6M14E5P	UT0X6M14E5S
	Plug	Cable gland shielded version (Fig. 3)	UT0X6MS14E5P	UT0X6MS14E5S
	Jam nut receptacle	Without (Fig. 4)	UT0X714E5P	UT0X714E5S
PCB contacts loaded see Page 49	Square flange receptacle	Without (Fig. 2)	UT0X014D5P	UT0X014D5S
	Jam nut receptacle with stand off and without hold down clip	Without (Fig. 5)	UT0X714D5P	UT0X714D5S
	Jam nut receptacle with stand off and with hold down clips	Without (Fig. 6)	UT0X714D5P32	UT0X714D5S32

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

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

Sealed unmatad

Dimensions (for mated connector length see Page 122)

Square flange receptacle - UTOX0

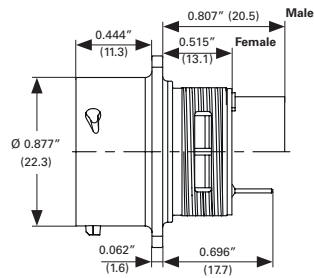


Fig. 1

Square flange receptacle with backshell - UTOX0M, UTOX0MS

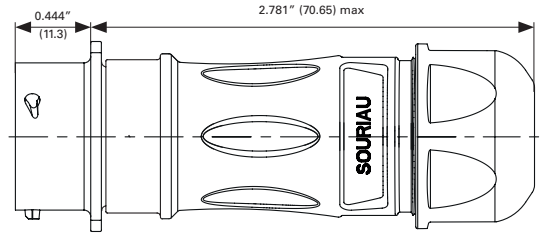


Fig. 1B

Plug - UTOX6, UTOX6M and UTOX6MS

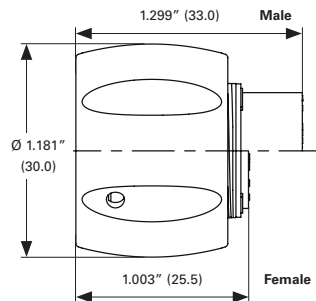


Fig. 2

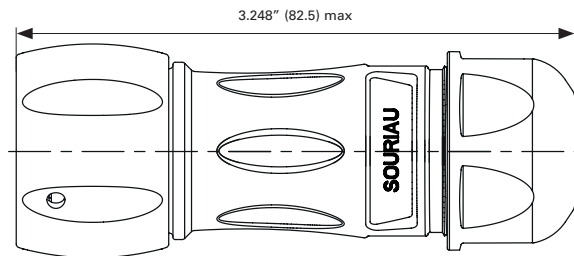


Fig.3 Cable diameter acceptance from 0.393" to 0.511" (10 to 13)

Jam nut receptacle UTOX7

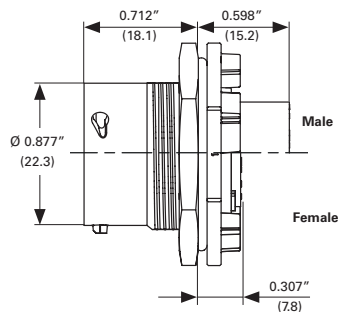


Fig. 4

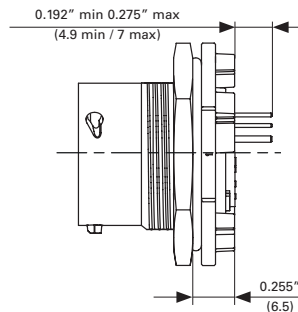


Fig. 5

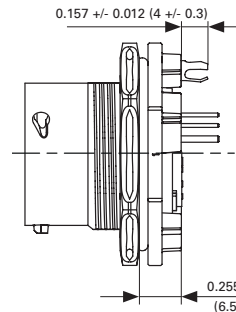
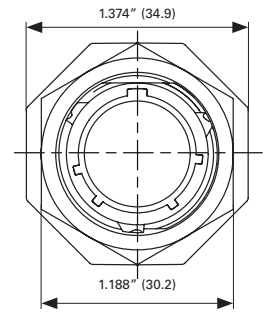
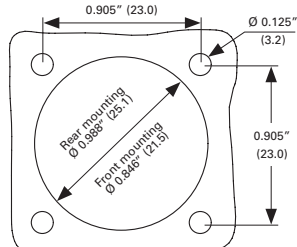


Fig. 6



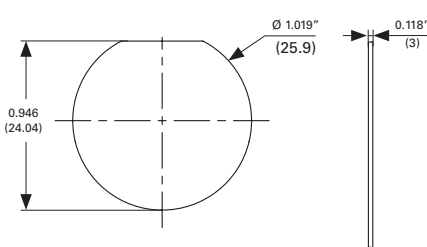
Panel cut-out

Square flange receptacle - UTOX0



Dimensions in inches (millimeters)

Jam nut receptacle - UTOX7



Souriau UTOX series

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

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

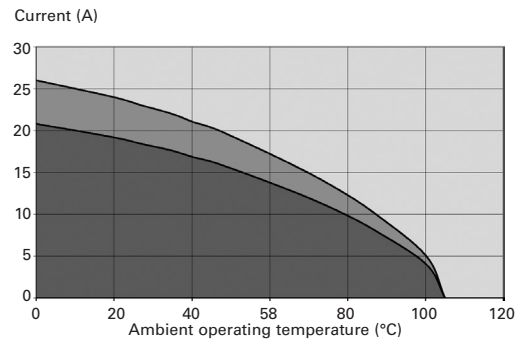
Contacts

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
12A 600V with AWG16 wire	12A 600V with AWG16 wire	16A 150V 2.5kV 3

UTOX 14E5/14D5 derating curves

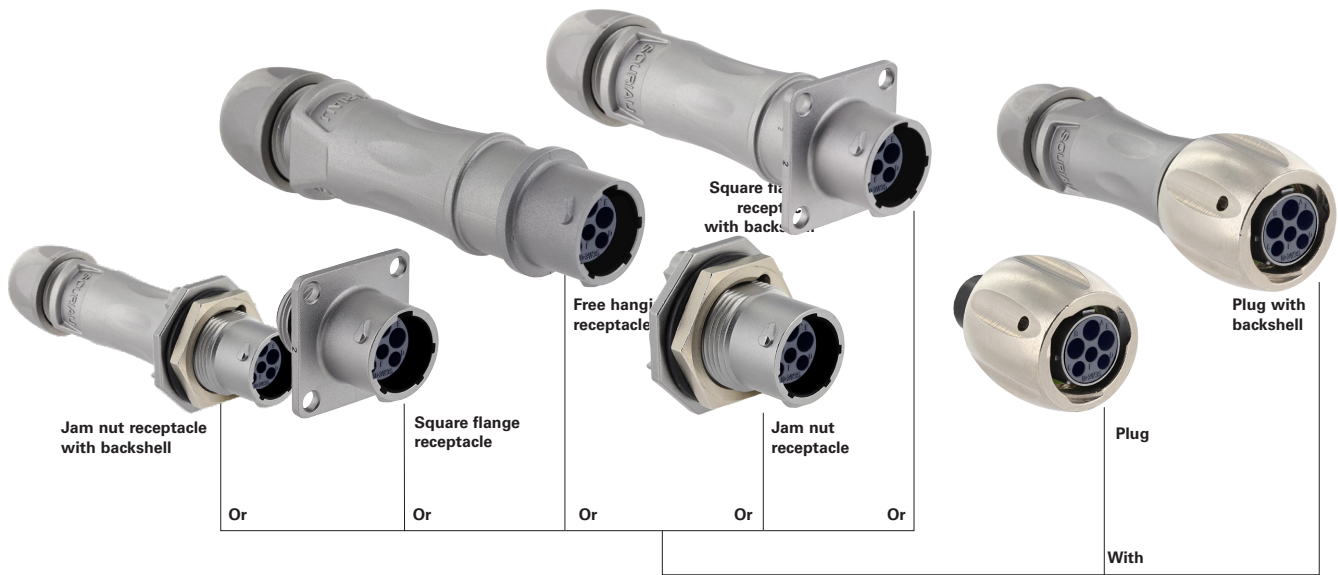


- Current use
- Limited use
- Not recommended

Test conditions

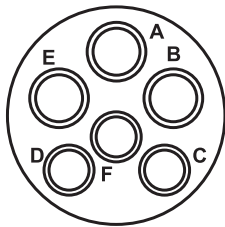
Contact used: machined contacts
Wires used: 20 AWG

Derating curves based on continuous current application.



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)	UT0X0103W3P	UT0X0103W3S
	Square flange receptacle	Cable gland unshielded version (Fig. 2)	UT0X0M103P	UT0X0M103S
	Square flange receptacle	Cable gland shielded version (Fig. 2)	UT0X0MS103P	UT0X0MS103S
	Free hanging receptacle	Cable gland unshielded version (Fig. 3)	UT0X1M103W3P	UT0X1M103W3S
	Free hanging receptacle	Cable gland shielded version (Fig. 3)	UT0X1MS103W3P	UT0X1MS103W3S
	Plug	Without (Fig. 4) ^{Note 1}	UT0X6103W3P	UT0X6103W3S
	Plug	Cable gland shielded version (Fig. 5)	UT0X6MS103W3P	UT0X6MS103W3S
	Plug	Cable gland unshielded version (Fig. 5)	UT0X6M103W3P	UT0X6M103W3S
	Jam nut receptacle	Without (Fig. 6)	UT0X7103W3P	UT0X7103W3S
	Jam nut receptacle	Cable gland unshielded version (Fig. 8)	UT0X7M103W3P	UT0X7M103W3S
	Jam nut receptacle	Cable gland shielded version (Fig. 8)	UT0X7MS103W3P	UT0X7MS103W3S
PCB contacts supplied separately see Page 46	Jam nut receptacle with stand off and without hold down clip	Without (Fig. 7)	UT0X7103W3P	UT0X7103W3S

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

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

Souriau UTOX series

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

Dimensions (for mated connector length see Page 122)

Square flange receptacle - UTOX0, UTOX0M and UTOX0MS

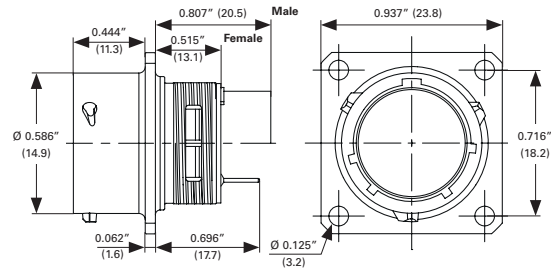


Fig. 1

Square flange receptacle with backshell - UTOX0M, UTOX0MS

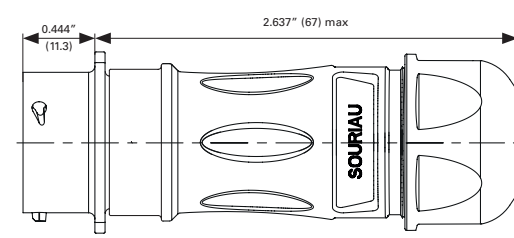


Fig. 2 Cable diameter acceptance from 0.157" to 0.275" (4 to 7)

Free hanging - UTOX1M and UTOX1MS

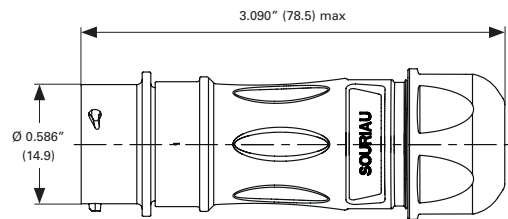


Fig. 3 Cable diameter acceptance from 0.157" to 0.275" (4 to 7)

Plug - UTOX6, UTOX6M and UTOX6MS

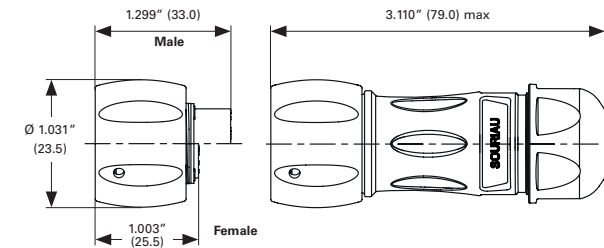


Fig. 4

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

Jam nut receptacle UTOX7

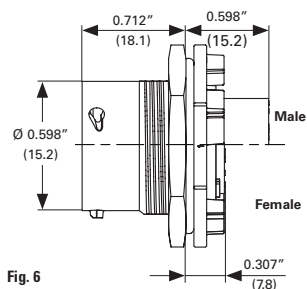


Fig. 6

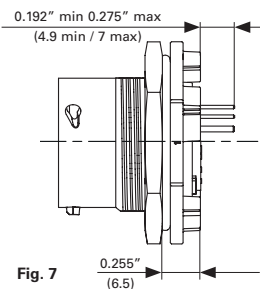


Fig. 7

Jam nut receptacle with backshell - UTOX7M, UTOX7MS

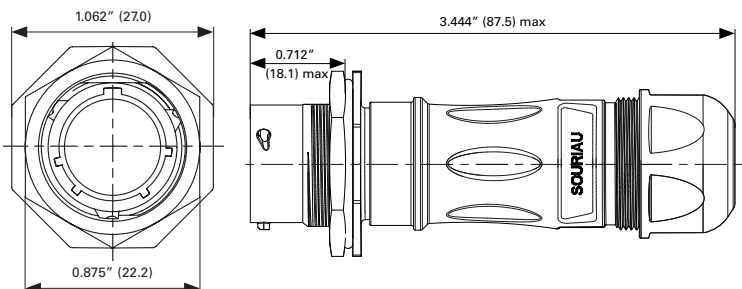
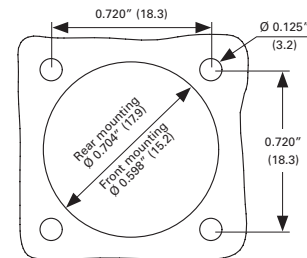


Fig. 8

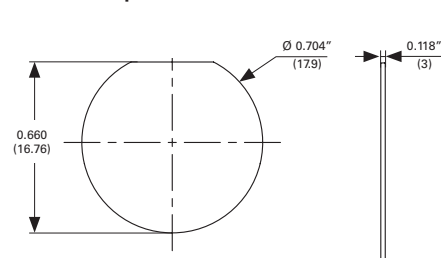
Panel cut-out

Square flange receptacle - UTOX0



Dimensions in inches (millimeters)

Jam nut receptacle - UTOX7



Accessories

Dustcap (Receptacle)



Gasket

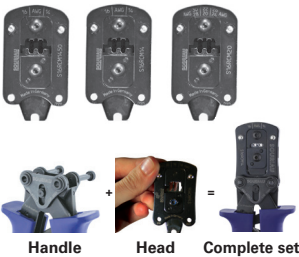


Tooling

Tooling for #20 and #16 stamped and machined contacts



Crimp tooling (without Shandles)



#16, #12 and #8 machined contacts



Extraction tool #16g

Fig. 1



Fig. 2



Dimensions in inches (millimeters)

Description Part number

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

Part number

UTFD12B

Dustcap (Plug)



Dummy contact #16



Description Part number

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

Part number

SMSPKE0

Note: See Page 133 for more information

Description

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

Part number

Contact size

Standard contacts
#16
Ø 0.062" (1.6)

Contacts

RM/RC 28M1K⁽¹⁾
RM/RC 24M9K⁽¹⁾
RM/RC 20M13K⁽¹⁾
RM/RC 20M12K⁽¹⁾
RM/RC 16M23K⁽¹⁾
RM/RC 14M30K⁽¹⁾
SM/SC 24ML1TK6⁽¹⁾
SM/SC 20ML1TK6⁽¹⁾
SM/SC 16ML1TK6⁽¹⁾
SM/SC 14ML1TK6⁽¹⁾
SM/SC 16ML11TK6⁽¹⁾

Part number of head

S16RCM20*
S16RCM20*
S16RCM20*
S16RCM20*
S16RCM16*
S16RCM14*
S16SCM20*
S16SCM20*
S16SCML1*
S16SCML1*
S16SCML1*

Standard contacts
#20
Ø 0.039" (1.0)

RM/RC 24W3K⁽¹⁾
RM/RC 20W3K⁽¹⁾
RM/RC 18W3K⁽¹⁾
SM/SC 24WL3⁽¹⁾⁽²⁾
SM/SC 20WL3⁽¹⁾⁽²⁾

S20RCM*
S20RCM*
S20RCM*
S20SCM20*
S20SCM20*

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

(2) Loose contact

* Heads to be used with handle PN: SHANDLES

Description

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

Part number

M20S-1J
See Page 133

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
--------------------------------	---------

Souriau UTOX series

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

Contacts #16

Contact style	Contact type	Cable acceptance AWG	Cable acceptance inch ²	mm ²	Part number		Wire Ø max		Insulator Ø max	
					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 142 to 144			RMDXK10D28	RCDXK1D28	—	—	—	—
	Cable monocrimp	see Pages 142 to 144			RMDX60xxD28	RCDX60xxD28	—	—	—	—
	Twisted pair multipiece	see Pages 142 to 144			RMDXK10D28 + yox090	RCDXK1D28 + yox090	—	—	—	—
	Twisted pair monocrimp	see Pages 142 to 144			RMDX60xxD28	RCDX60xxD28	—	—	—	—
Fiber optic	POF contacts (Plastic optical fiber)	—	—	—	RMPOF1000	RCPOF1000B	—	—	—	—

(1) Example of plating, for other plating see Page 138

(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 143 or 146

Contacts #20

Contact style	Contact type	Cable acceptance AWG	Cable acceptance inch ²	mm ²	Part number		Wire Ø max		Insulator Ø max	
					Male	Female	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

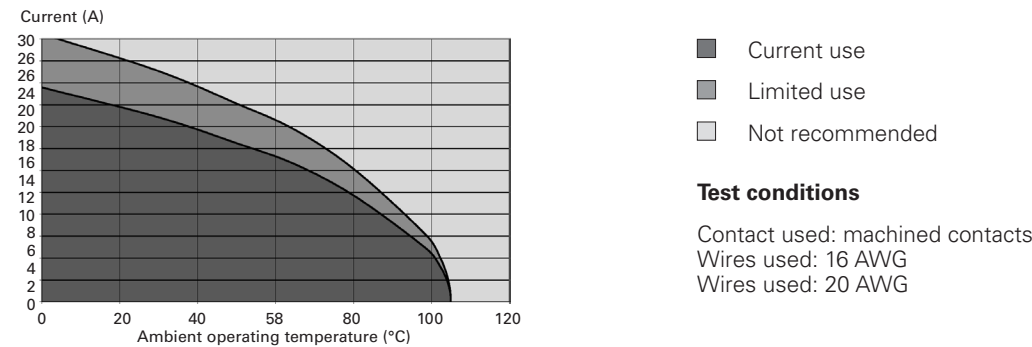
(1) Example of plating, for other plating see Page 138

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

Electrical characteristics

UL	CSA	IEC
13A 500V AWG16	13A 600V AWG16	5A 32V 1.5kV 3
7.5A 250V AWG20	2.5A 250V AWG20	

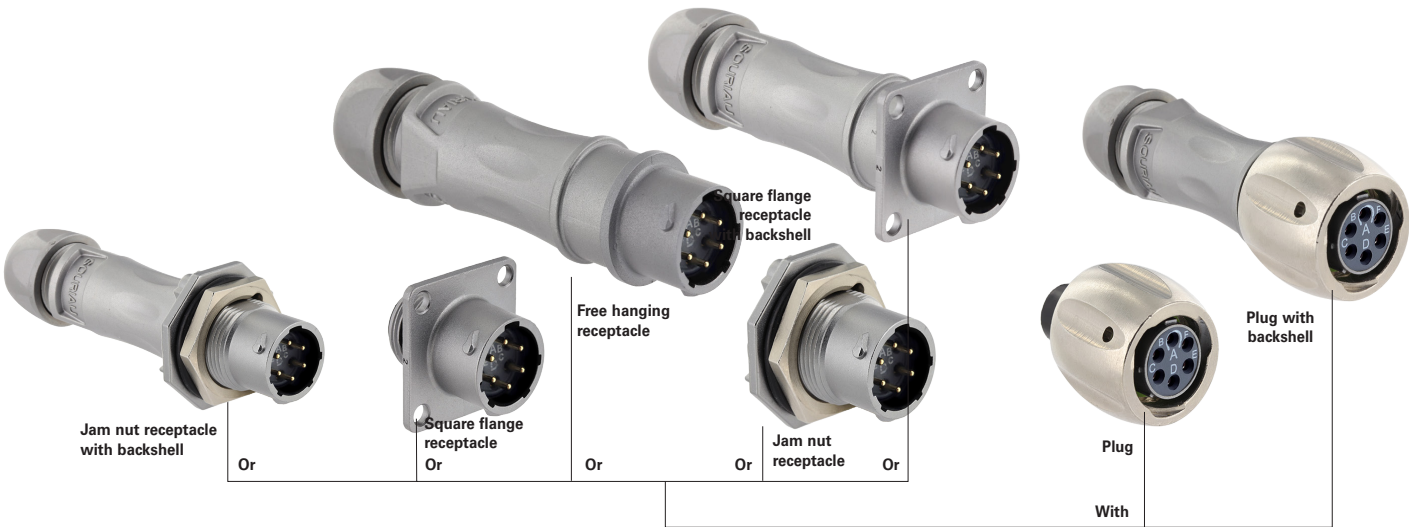
UTOX 103W3 derating curves



Derating curves based on continuous current application.

Souriau UTOX series

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

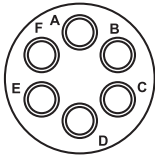


Connector part numbers

UTOX 106

6 contacts
5A/250V
per UL 1977 with
AWG20 wire

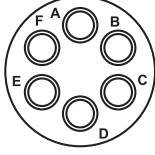
10E6/10D6 (Sealed unmated)



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

Connector part numbers

UTSX



106

6 contacts 5A/250V
per UL 1977 with
AWG20 wire

10E6/10D6

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)	UT0X0106P	UT0X0106S
	Square flange receptacle	Cable gland unshielded version (Fig. 2)	UT0X0M106P	UT0X0M106S
	Square flange receptacle	Cable gland shielded version (Fig. 2)	UT0X0MS106P	UT0X0MS106S
	Free hanging receptacle	Cable gland unshielded version (Fig. 3)	UT0X1M106P	UT0X1M106S
	Free hanging receptacle	Cable gland shielded version (Fig. 3)	UT0X1MS106P	UT0X1MS106S
	Plug	Without (Fig. 4)	UT0X6106P	UT0X6106S
	Plug	Cable gland unshielded version (Fig. 5)	UT0X6M106P	UT0X6M106S
	Plug	Cable gland shielded version (Fig. 5)	UT0X6MS106P	UT0X6MS106S
	Jam nut receptacle	Without (Fig. 6)	UT0X7106P	UT0X7106S
	Jam nut receptacle	Cable gland unshielded version (Fig. 3)	UT0X7M106P	UT0X7M106S
	Jam nut receptacle	Cable gland shielded version (Fig. 3)	UT0X7MS106P	UT0X7MS106S
PCB contacts supplied separately see Page 60	Jam nut receptacle	Without (Fig. 7)	UT0X7106P	UT0X7106S
Handsold electrical contacts loaded	Square flange receptacle	Without (Fig. 1)	UT0X010E6P	UT0X010E6S
	Plug	Without (Fig. 4) Note 1	UT0X610E6P	UT0X610E6S
	Plug	Cable gland unshielded version (Fig. 5)	UT0X6M10E6P	UT0X6M10E6S
	Plug	Cable gland shielded version (Fig. 5)	UT0X6MS10E6P	UT0X6MS10E6S
	Jam nut receptacle	Without (Fig. 6)	UT0X710E6P	UT0X710E6S
PCB contacts supplied separately see Page 60	Jam nut receptacle	Without (Fig.7)	UT0X710E6P	UT0X710E6S
PCB contacts loaded see Page 60	Square flange receptacle	Without (Fig.1)	UT0X010D6P	UT0X010D6S
	Jam nut receptacle with stand off and without hold down clip	Without (Fig.8)	UT0X710D6P	UT0X710D6S
	Jam nut receptacle with stand off and with hold down clips	Without (Fig.8)	UT0X710D6P32	UT0X710D6S32

For discrimination/keying methods see **Page 151**

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

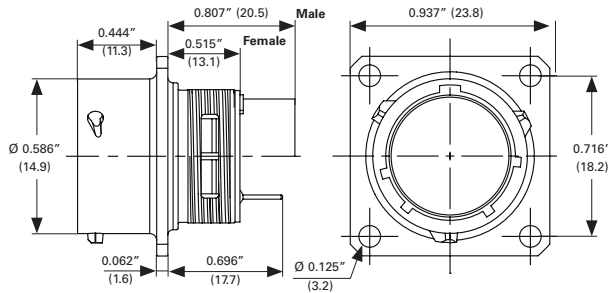


Fig. 1

Square flange receptacle with backshell - UTOX0M, UTOX0MS

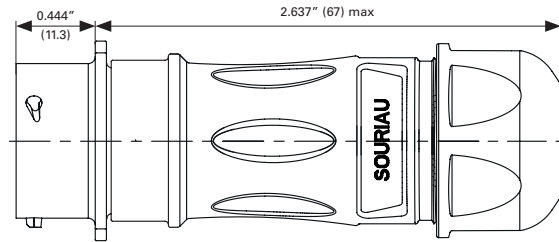


Fig.2 Cable diameter acceptance from 0.157" to 0.275" (4 to 7)

Free hanging - UTOX1M and UTOX1MS

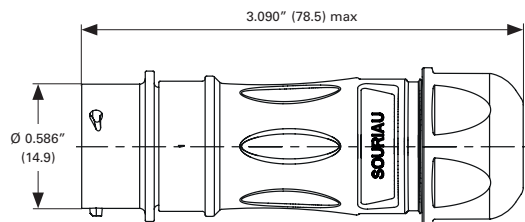


Fig.3 Cable diameter acceptance from 0.157" to 0.275" (4 to 7)

Plug - UTOX6, UTOX6M and UTOX6MS

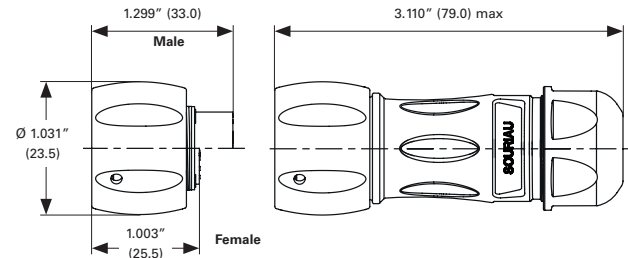


Fig. 4

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

Jam nut receptacle UTOX7

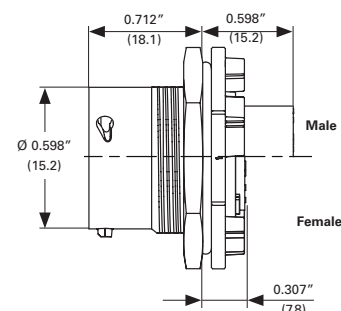


Fig. 6

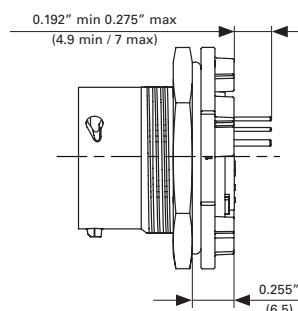


Fig. 7

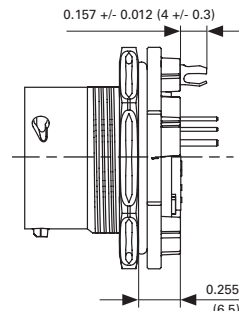
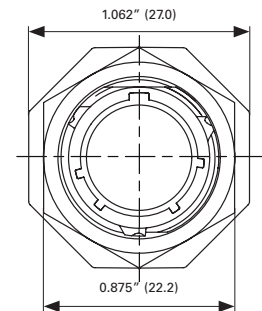


Fig. 8



Jam nut receptacle with backshell - UTOX7M, UTOX7MS

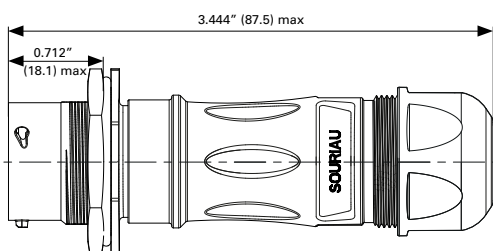
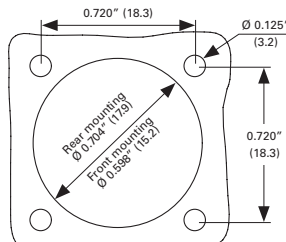


Fig. 9

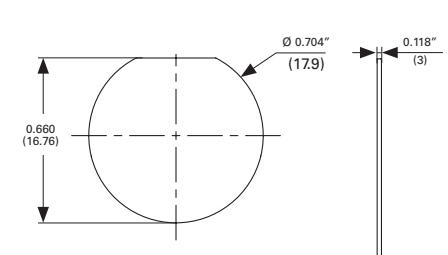
Dimensions in inches (millimeters)

Panel cut-out

Square flange receptacle - UTOX0



Jam nut receptacle - UTOX7



Souriau UTOX series

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

Accessories

Dustcap (Receptacle)



Description	Part number
IP68	UT010DCG*

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

Part number
UTFD12B

Gasket



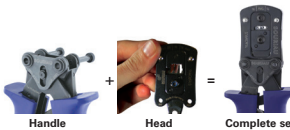
Tooling

#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 #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

Extraction tool #20



Description	Part number
Contacts #20 Ø 0.039" (1.0)	RX20D44

Contacts #20

Contact style	Contact type	Cable acceptance	Cable acceptance		Part number		Wire Ø max		Insulator Ø max	
		AWG	inch²	mm²	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 127**

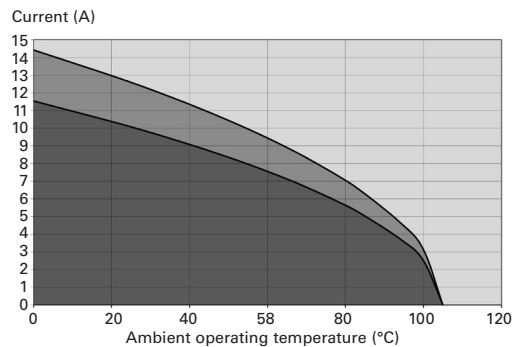
2): Loose piece contact available by adding "L" after the "W" for the contact size and the plating. Example: SM20W3TK6 becomes SM20WL3TK6

Contact style	Contact type	Plating	Cable acceptance (AWG)	Wire stripping length	
				inch	mm
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
UTOX 106		
5A 250V with AWG20 wire	5A 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

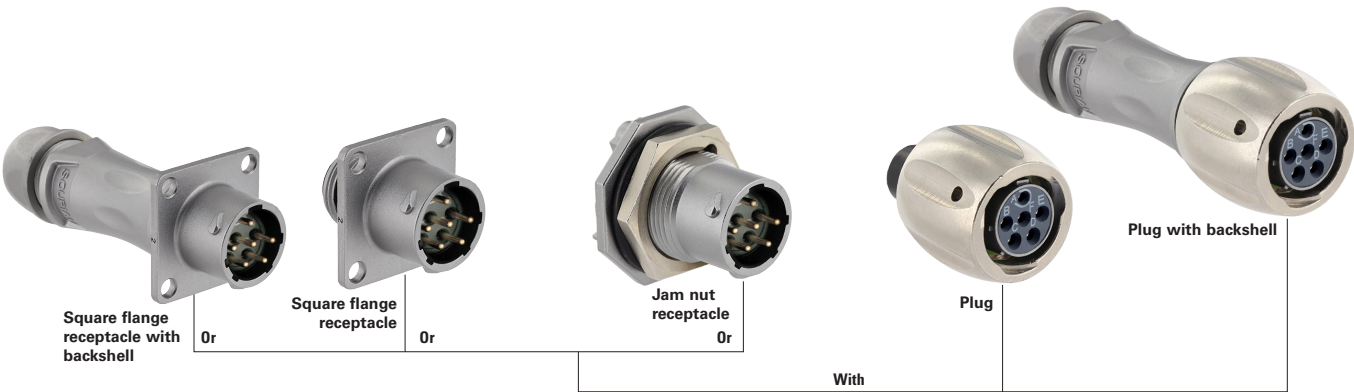
Test conditions

Contact used: machined contacts
Wires used: 20 AWG

Derating curves based on continuous current application.

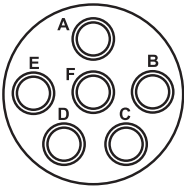
Souriau UTOX series

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



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)	UT0X010E98P	UT0X010E98S
	Square flange receptacle	Cable gland unshielded version (Fig. 1B)	UT0X0M10E98P	UT0X0M10E98S
	Square flange receptacle	Cable gland shielded version (Fig. 1B)	UT0X0MS10E98P	UT0X0MS10E98S
	Plug	Without (Fig. 5) ^{Note 1}	UT0X610E98P	UT0X610E98S
	Plug	Cable gland unshielded version (Fig. 3)	UT0X6M10E98P	UT0X6M10E98S
	Plug	Cable gland shielded version (Fig. 3)	UT0X6MS10E98P	UT0X6MS10E98S
	Jam nut receptacle	Without (Fig. 4)	UT0X710E98P	UT0X710E98S
PCB contacts loaded see Page 65	Square flange receptacle	Without (Fig. 2)	UT0X010D98P	UT0X010D98S
	Jam nut receptacle with stand off and without hold down clip	Without (Fig. 5)	UT0X710D98P	UT0X710D98S
	Jam nut receptacle with stand off and with hold down clips	Without (Fig. 6)	UT0X710D98P32	UT0X710D98S32

For discrimination/keying methods see **Page 151**
Note 1: It is necessary to add a backshell to the plug assembly.

Sealed unmated

Dimensions (for mated connector lengths see Page 122)

Square flange receptacle - UTOX0

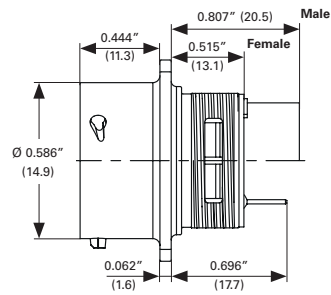


Fig. 1

Square flange receptacle with backshell - UTOX0M, UTOX0MS

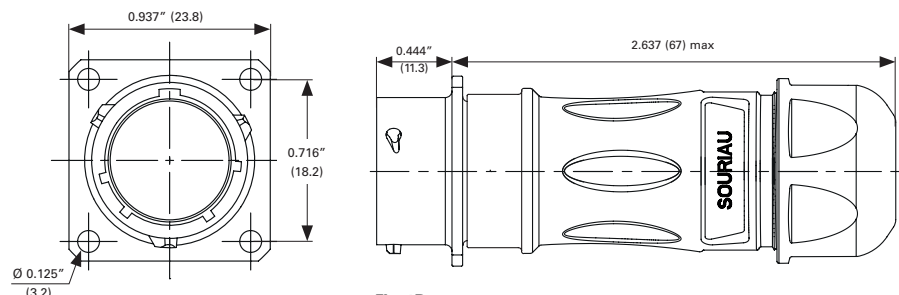


Fig. 1B

Plug - UTOX6, UTOX6M and UTOX6MS

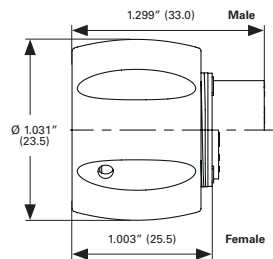


Fig. 2

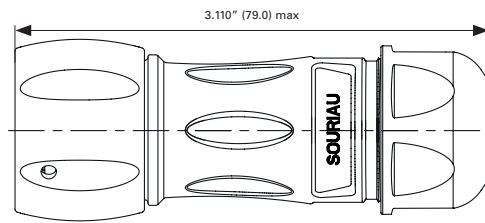


Fig.3 Cable diameter acceptance from 0.157" to 0.275" (4 to 7)

Jam nut receptacle UTOX7

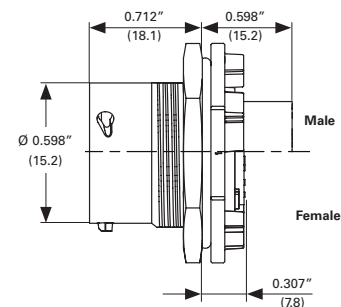


Fig. 4

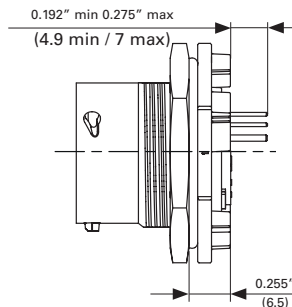


Fig. 5

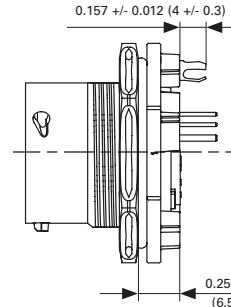
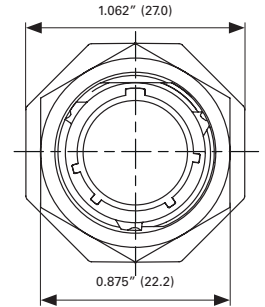
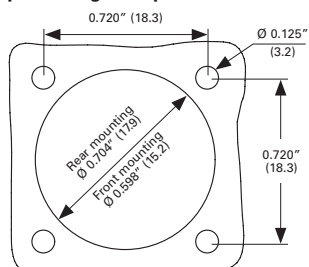


Fig. 6

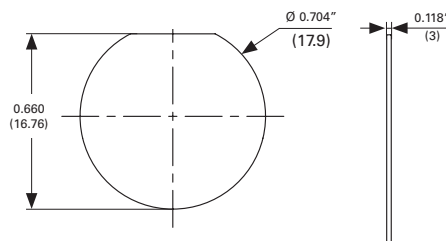


Panel cut out

Square flange receptacle - UTOX0



Jam nut receptacle - UTOX7



Dimensions in inches (millimeters)

Souriau UTOX series

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

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

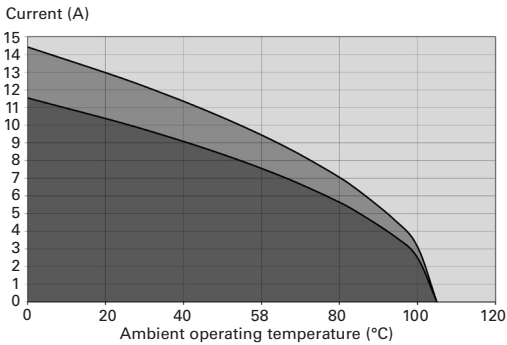
Contact style	Contact type	Plating	Cable acceptance (AWG)	Wire stripping length inch	mm
Handsoldier	Loaded in the connector	Min 0.4µ gold over 0.8µ Ni	20 to 18	0.149"	3.8

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

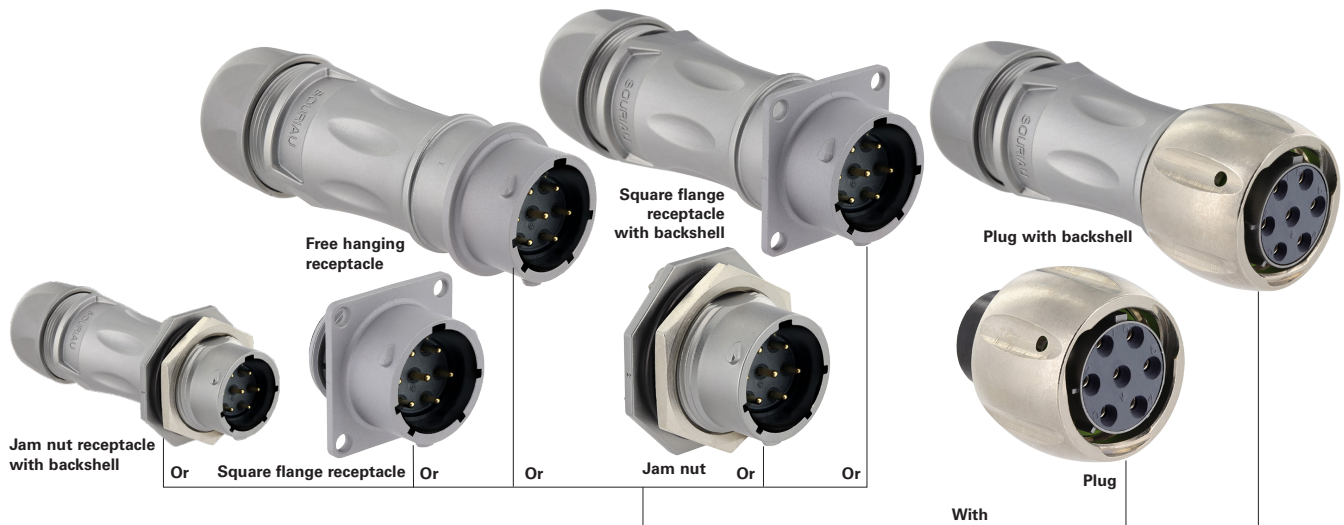


- Current use
- Limited use
- Not recommended use

Test conditions

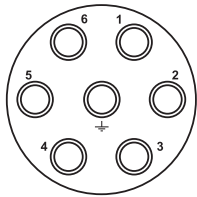
Contact used: machined contacts
Wires used: 16 AWG
Wires used: 20 AWG

Derating curves based on continuous current application.



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)	UT0X0147P	UT0X0147S
	Square flange receptacle	Cable gland unshielded version (Fig. 2)	UT0X0M147P	UT0X0M147S
	Square flange receptacle	Cable gland shielded version (Fig. 2)	UT0X0MS147P	UT0X0MS147S
	Free hanging receptacle	Cable gland unshielded version (Fig. 3)	UT0X1M147P	UT0X1M147S
	Free hanging receptacle	Cable gland shielded version (Fig. 3)	UT0X1MS147P	UT0X1MS147S
	Plug	Without (Fig. 4) ^{Note 1}	UT0X6147P	UT0X6147S
	Plug	Cable gland unshielded version (Fig. 5)	UT0X6M147P	UT0X6M147S
	Plug	Cable gland shielded version (Fig. 5)	UT0X6MS147P	UT0X6MS147S
	Jam nut receptacle	Without (Fig. 6)	UT0X7147P	UT0X7147S
	Jam nut receptacle	Cable gland unshielded version (Fig. 10)	UT0X7M147P	UT0X7M147S
Screw contacts loaded	Jam nut receptacle	Cable gland shielded version (Fig. 10)	UT0X7MS147P	UT0X7MS147S
	Jam nut receptacle	Without (Fig. 9)	UT0X7147PSCR	UT0X7147SSCR
PCB contacts Loaded	Jam nut receptacle with stand off and with hold down clips	Without (Fig 10)	UT0X7147PSEK9	—

For discrimination/keying methods see **Page 151**

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

Souriau UTOX series

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

Dimensions (for mated connector lengths see Page 122)

Square flange receptacle - UTOX0, UTOX0M and UTOX0MS

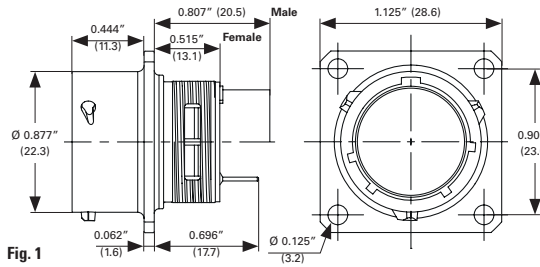


Fig. 1

Square flange receptacle with backshell - UTOX0M, UTOX0MS

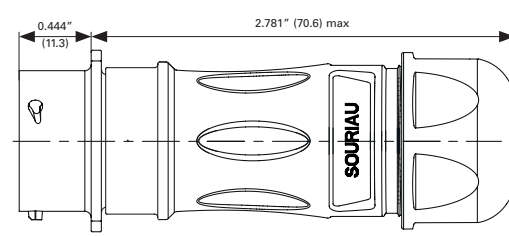


Fig.2 Cable diameter acceptance from 0.393" to 0.511" (10 to 13)

Free hanging - UTOX1M and UTOX1MS

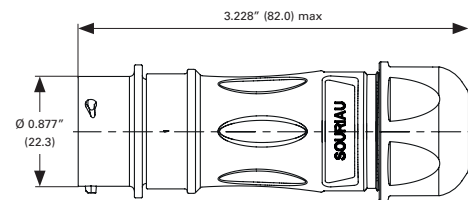


Fig.3 Cable diameter acceptance from 0.393" to 0.511" (10 to 13)

Plug - UTOX6, UTOX6M and UTOX6MS

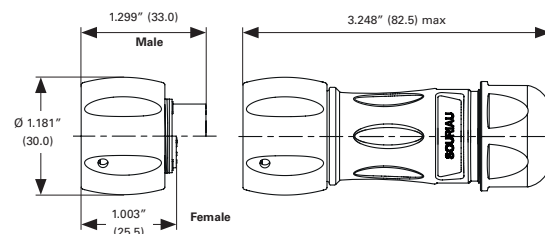


Fig. 4

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

Jam nut receptacle UTOX7

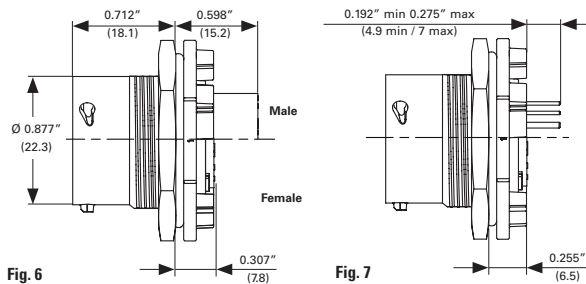


Fig. 6

Fig. 7

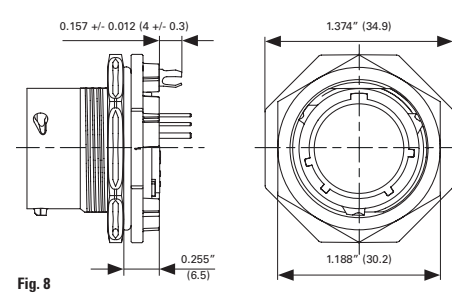


Fig. 8

Jam nut receptacle with screw contact (SCR) :

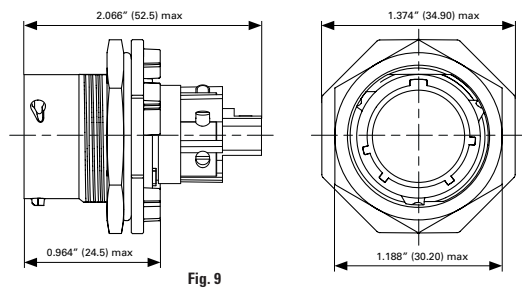


Fig. 9

Jam nut receptacle with backshell - UTOX7M, UTOX7MS

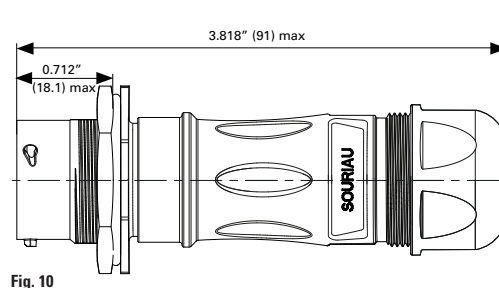
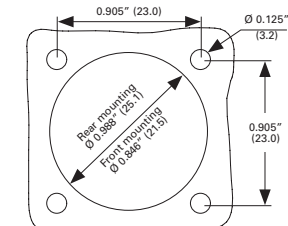


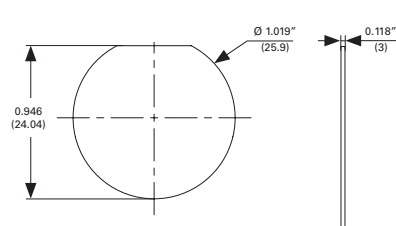
Fig. 10

Panel cut out

Square flange receptacle - UTOX0



Jam nut receptacle - UTOX7



Dimensions in inches (millimeters)

Accessories

Dustcap (Receptacle)



Gasket

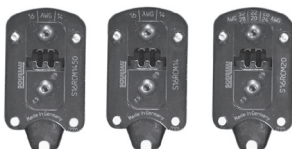


Tooling

Tooling for #20 and #16 stamped & machined contacts



Crimp tooling (without Shandles)



#16, #12 and #8 machined contacts



Extraction tool #16

Fig. 1



Fig. 2



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

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 127](#)

* Heads to be used with handle PN: SHANGLES

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

Souriau UTOX series

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

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 131 to 133			RMDXK10D28	RCDXK1D28	—	—	—	—
	Cable monocrimp	see Pages 131 to 133			RMDX60xxD28	RCDX60xxD28	—	—	—	—
	Twisted pair multipiece	see Pages 131 to 133			RMDXK10D28 + yorx090	RCDXK1D28 + yorx090	—	—	—	—
	Twisted pair monocrimp	see Pages 131 to 133			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 127**

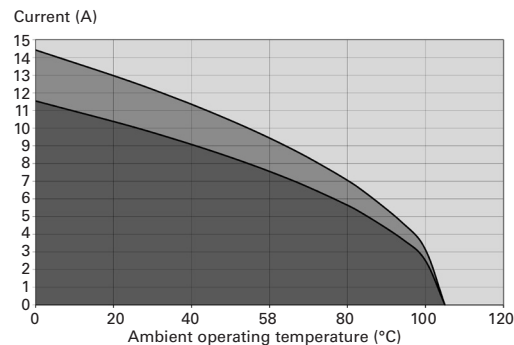
(2) Loose piece contact available by adding "L" after the "M" for the contact size and the plating. Example: SM20M1TK6 becomes SM20ML1TK6

(3) For dimensions see **Page 134**

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

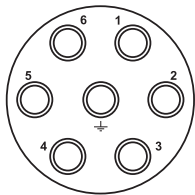
Contact used: machined contacts
Wires used: 16 AWG

Derating curves based on continuous current application.



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)	UT0X014E7P	UT0X014E7S
	Square flange receptacle	Cable gland unshielded version (Fig. 1B)	UT0X0M14E7P	UT0X0M14E7S
	Square flange receptacle	Cable gland shielded version (Fig. 1B)	UT0X0MS14E7P	UT0X0MS14E7S
	Plug	Without (Fig. 2) ^{Note1}	UT0X614E7P	UT0X614E7S
	Plug	Cable gland unshielded version (Fig. 3)	UT0X6M14E7P	UT0X6M14E7S
	Plug	Cable gland shielded version (Fig. 3)	UT0X6MS14E7P	UT0X6MS14E7S
	Jam nut receptacle	Without (Fig. 4)	UT0X714E7P	UT0X714E7S
PCB contacts loaded	Square flange receptacle	Without (Fig. 2)	UT0X014D7P	UT0X014D7S
	Jam nut receptacle with stand off and without hold down clip	Without (Fig. 5)	UT0X714D7P	UT0X714D7S
	Jam nut receptacle with stand off and with hold down clips	Without (Fig. 6)	UT0X714D7P32	UT0X714D7S32

For discrimination/keying methods see **Page 151**

Sealed unmated

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

Souriau UTOX series

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

Dimensions (for mated connector lengths see Page 122)

Square flange receptacle - UTOX0

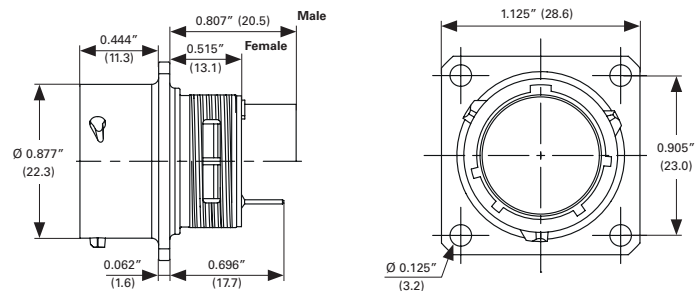


Fig. 1

Square flange receptacle with backshell - UTOX0M, UTOX0MS

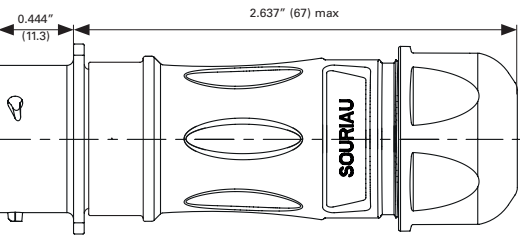


Fig. 1B

Plug - UTOX6, UTOX6M and UTOX6MS

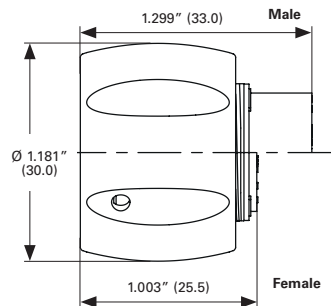


Fig. 2

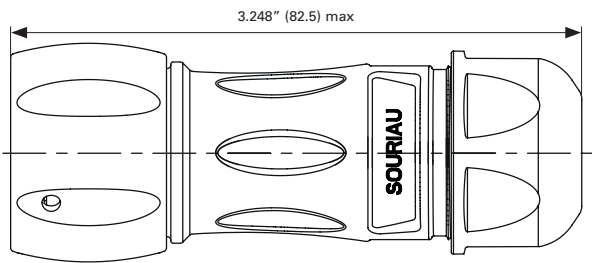


Fig. 3 Cable diameter acceptance from 0.393 inches to 0.511 inches (10 to 13)

Jam nut receptacle UTOX7

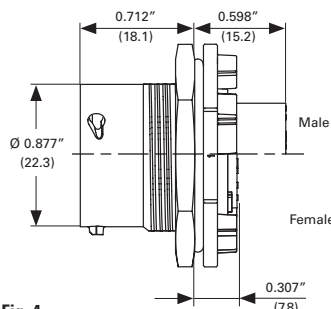


Fig. 4

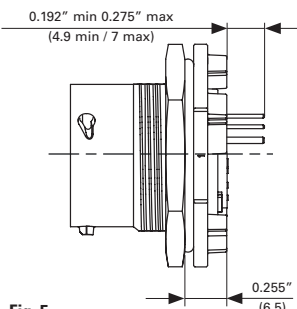


Fig. 5

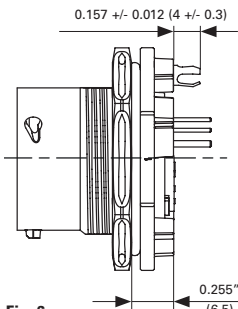
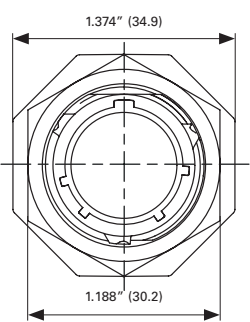
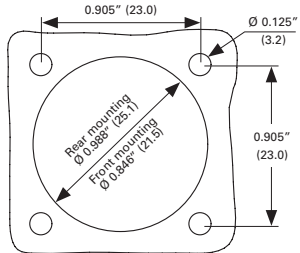


Fig. 6

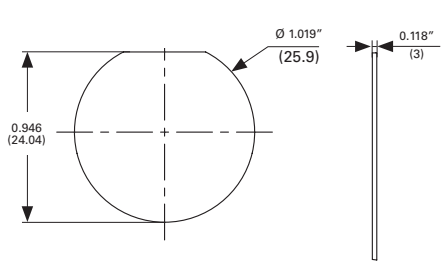


Panel cut out

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. UTG612DC

Gasket



Part number

UTFD14B

Contacts

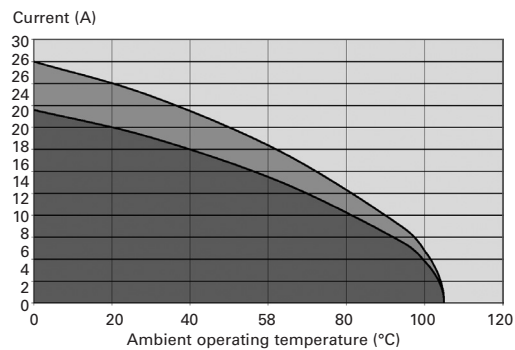
Contact size	Contact type	Plating	Cable acceptance		mm ²	Wire stripping length	
			AWG	inch ²		inch	mm
#16	Hand solder loaded in the connector	Min 0.4μ gold over 0.8μ Ni	18 - 14	0.031"-0.098"	0.82 - 2.48	0.196"	5
	PCB Machined ⁽¹⁾	Min 0.4μ gold over 0.8μ Ni	—	—	—	—	—

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

Electrical characteristics

UL	CSA	IEC
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

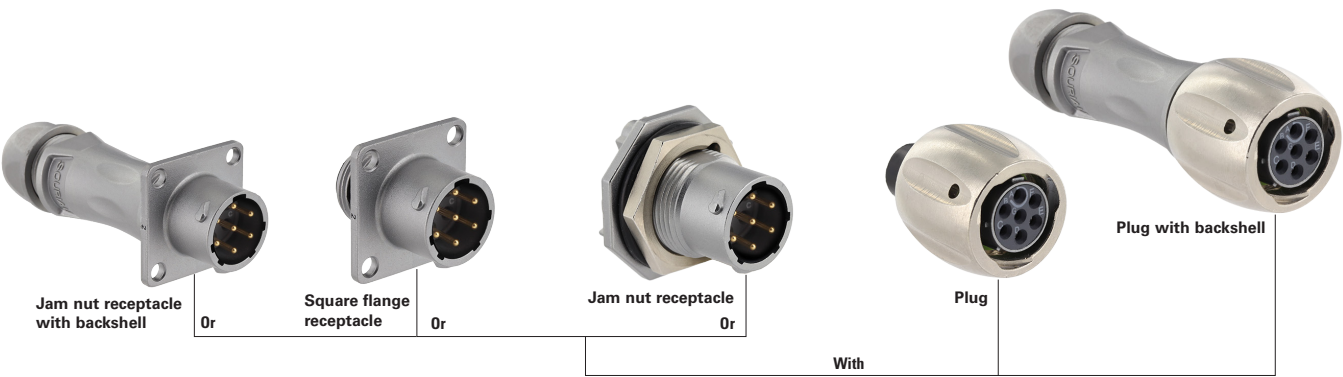
Test conditions

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

Derating curves based on continuous current application.

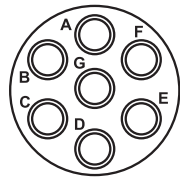
Souriau UTOX series

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



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)	UT0X010E7P	UT0X010E7S
	Square flange receptacle	Cable gland unshielded version (Fig. 1B)	UT0X0M10E7P	UT0X0M10E7S
	Square flange receptacle	Cable gland shielded version (Fig. 1B)	UT0X0MS10E7P	UT0X0MS10E7S
	Plug	Without (Fig. 5) ^{Note1}	UT0X610E7P	UT0X610E7S
	Plug	Cable gland unshielded version (Fig. 3)	UT0X6M10E7P	UT0X6M10E7S
	Plug	Cable gland shielded version (Fig. 3)	UT0X6MS10E7P	UT0X6MS10E7S
	Jam nut receptacle	Without (Fig. 4)	UT0X710E7P	UT0X710E7S
PCB contacts loaded see Page 73	Square flange receptacle	Without (Fig. 2)	UT0X010D7P	UT0X010D7S
	Jam nut receptacle with stand off and without hold down clip	Without (Fig. 5)	UT0X710D7P	UT0X710D7S
	Jam nut receptacle with stand off and with hold down clips	Without (Fig. 6)	UT0X710D7P32	UT0X710D7S32

For discrimination/keying methods see **Page 151**

Sealed unmatd

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

Dimensions (for mated connector lengths see Page 122)

Square flange receptacle - UTOX0

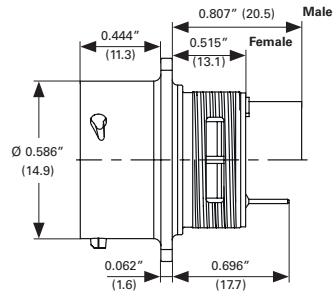


Fig. 1

Square flange receptacle with backshell - UTOX0M, UTOX0MS

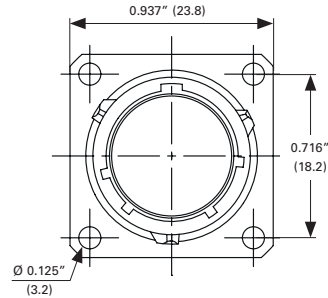


Fig. 1B

Plug - UTOX6, UTOX6M and UTOX6MS

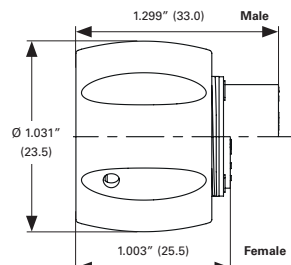


Fig. 2

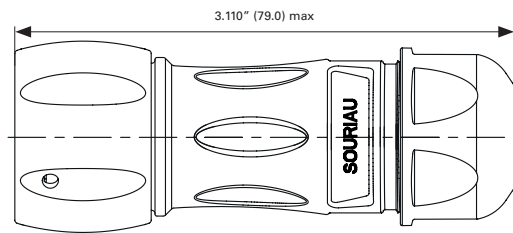


Fig.3 Cable diameter acceptance from 0.157" to 0.275" (4 to 7)

Jam nut receptacle UTOX7

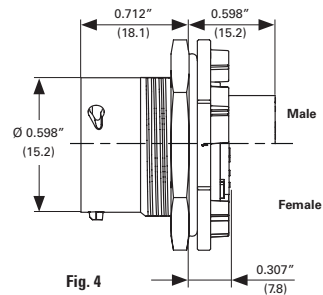


Fig. 4

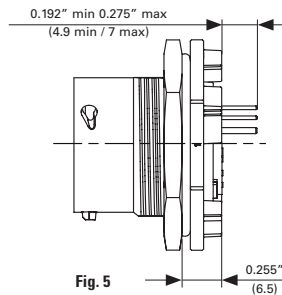


Fig. 5

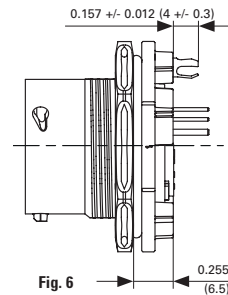
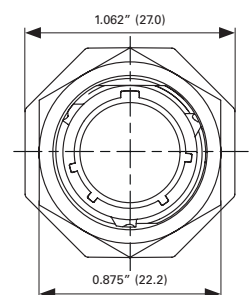
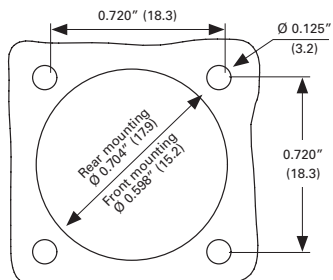


Fig. 6

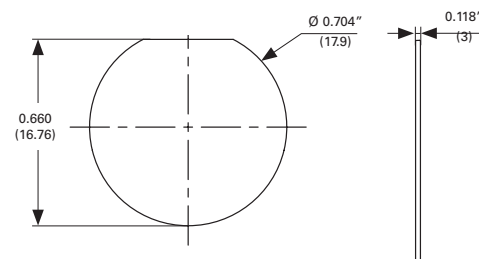


Panel cut out

Square flange receptacle - UTOX0



Jam nut receptacle - UTOX7



Souriau UTOX series

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

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	Part number Female	Wire Ø max inch	Wire Ø max mm	Insulator Ø max inch	Insulator Ø max 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 127**

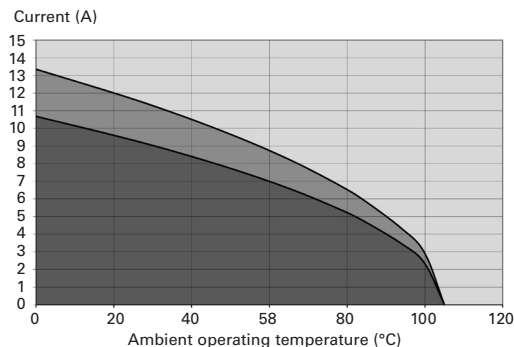
(2) Loose piece contact available by adding "L" after the "M" for the contact size and the plating. Example: SM20W3TK6 becomes SM20WL3TK6

Contact style	Contact type	Plating	Cable acceptance (AWG)	Wire stripping length inch	Wire stripping length mm
Handsold	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

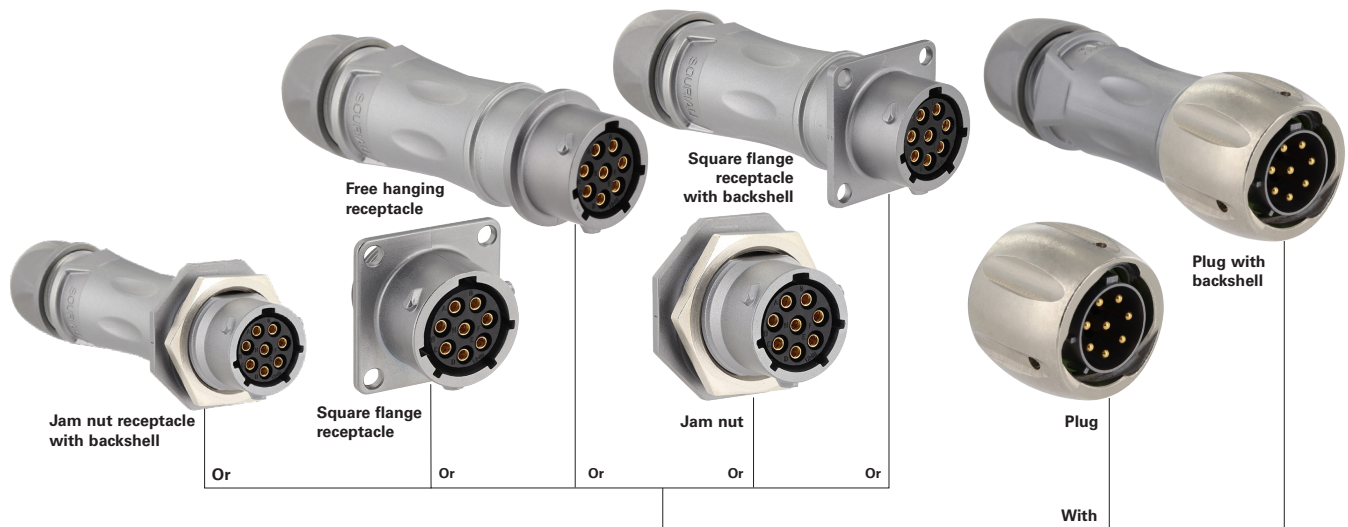


- Current use
- Limited use
- Not recommended use

Test conditions

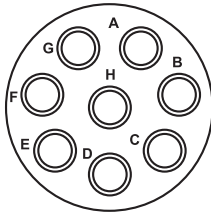
Contact used: machined contacts
Wires used: 20 AWG

Derating curves based on continuous current application.



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)	UT0X0128P	UT0X0128S
	Square flange receptacle	Cable gland unshielded version (Fig. 2)	UT0X0M128P	UT0X0M128S
	Square flange receptacle	Cable gland shielded version (Fig. 2)	UT0X0MS128P	UT0X0MS128S
	Free hanging receptacle	Cable gland unshielded version (Fig. 3)	UT0X1M128P	UT0X1M128S
	Free hanging receptacle	Cable gland shielded version (Fig. 3)	UT0X1MS128P	UT0X1MS128S
	Plug	Without (Fig. 4) ^{Note 1}	UT0X6128P	UT0X6128S
	Plug	Cable gland unshielded version (Fig. 5)	UT0X6M128P	UT0X6M128S
	Plug	Cable gland shielded version (Fig. 5)	UT0X6MS128P	UT0X6MS128S
	Jam nut receptacle	Without (Fig. 6)	UT0X7128P	UT0X7128S
PCB contacts supplied separately see Page 79	Jam nut receptacle	Cable gland unshielded version (Fig. 9)	UT0X7M128P	UT0X7M128S
	Jam nut receptacle	Cable gland shielded version (Fig. 9)	UT0X7MS128P	UT0X7MS128S
	Jam nut receptacle with stand off and without hold down clip	Without (Fig. 7)	UT0X7128P	UT0X7128S
PCB contacts loaded see Page 79	Jam nut receptacle with stand off and hold down clip	Without (Fig 10)	UT0X7128PSEK9	—

For discrimination/keying methods see **Page 151**

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

Souriau UTOX series

128 (Shell size 12, 8x16)

Dimensions (for mated connector lengths see Page 122)

Square flange receptacle - UTOX0, UTOX0M and UTOX0MS

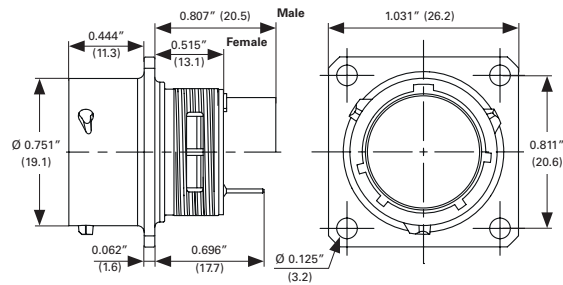


Fig. 1

Square flange receptacle with backshell - UTOX0M, UTOX0MS

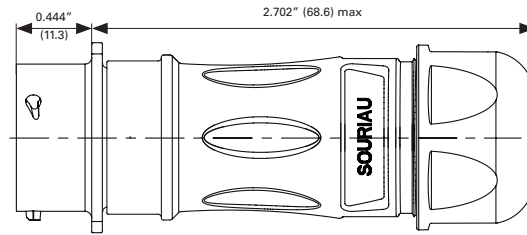


Fig.2 Cable diameter acceptance from 0.275" to 0.393" (7 to 10)

Free hanging - UTOX1 and UTOX1MS

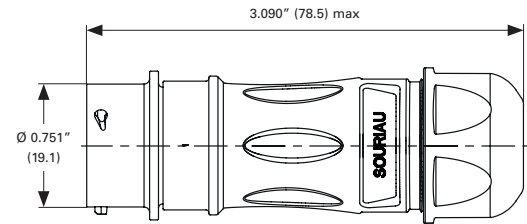


Fig.3 Cable diameter acceptance from 0.275" to 0.393" (7 to 10)

Plug - UTOX6, UTOX6M and UTOX6MS

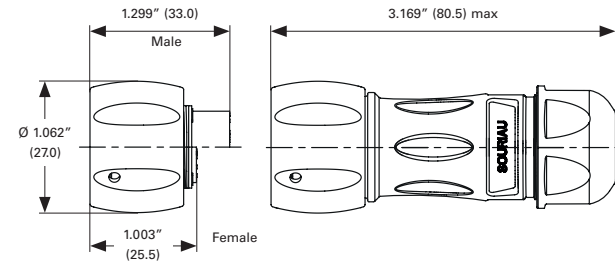


Fig. 4

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

Jam nut receptacle UTOX7

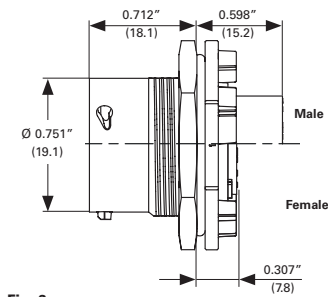


Fig. 6

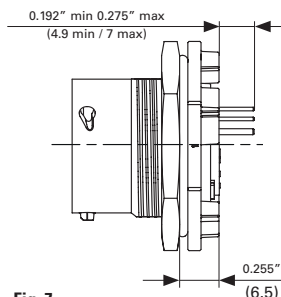


Fig. 7

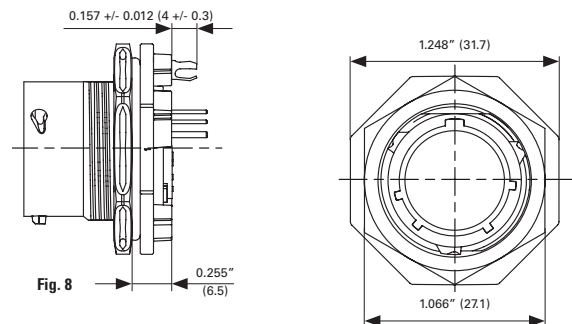
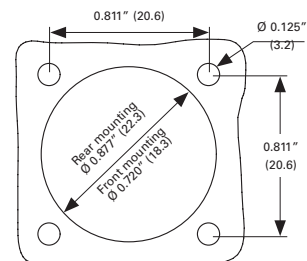


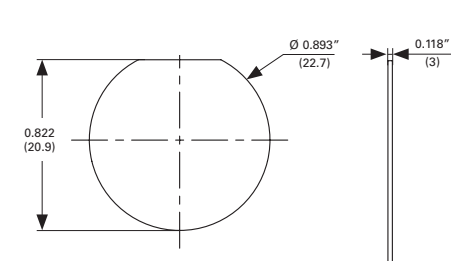
Fig. 8

Panel cut out

Square flange receptacle - UTOX0



Jam nut receptacle - UTOX7



Jam nut receptacle with backshell - UTOX7M, UTOX7MS

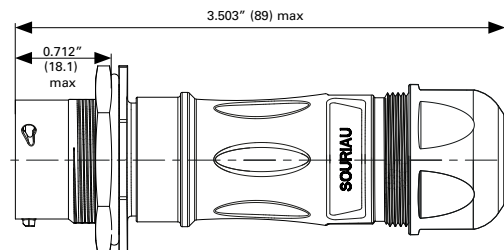


Fig. 9

Accessories

Dustcap (Receptacle)



Gasket



Tooling

#20 and #16 stamped and machined contacts



Crimp tooling (without Shandles)



#16, #12 and #8 machined contacts



Extraction tool #16

Fig. 1



Fig. 2



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

IP68

UT012DCG*

*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

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)

Contacts

Part number of Head

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 127**

* Heads to be used with handle PN: SHANGLES

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

Souriau UTOX series

128 (Shell size 12, 8x16)

Contacts #16

Contact style	Contact type	Cable acceptance AWG	Cable acceptance inch ²	mm ²	Part number		Wire Ø		Insulator Ø	
					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 131 to 133			RMDXK10D28	RCDXK1D28	—	—	—	—
	Cable monocrimp	see Pages 131 to 133			RMDX60xxD28	RCDX60xxD28	—	—	—	—
	Twisted pair multipiece	see Pages 131 to 133			RMDXK10D28 + yox090	RCDXK1D28 + yox090	—	—	—	—
	Twisted pair monocrimp	see Pages 131 to 133			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 127**

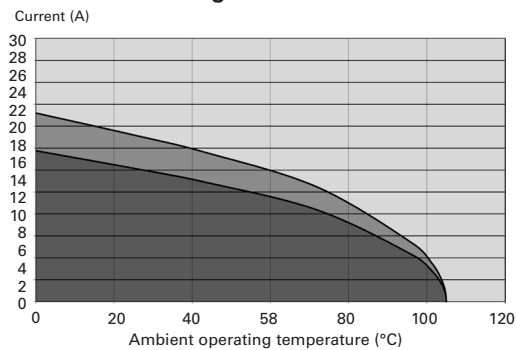
(2) Loose piece contact available by adding "L" after the "M" for the contact size and the plating. Example: SM20M1TK6 becomes SM20ML1TK6

(3) For dimensions see **Page 134**

Electrical characteristics

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

UTOX 128 derating curves

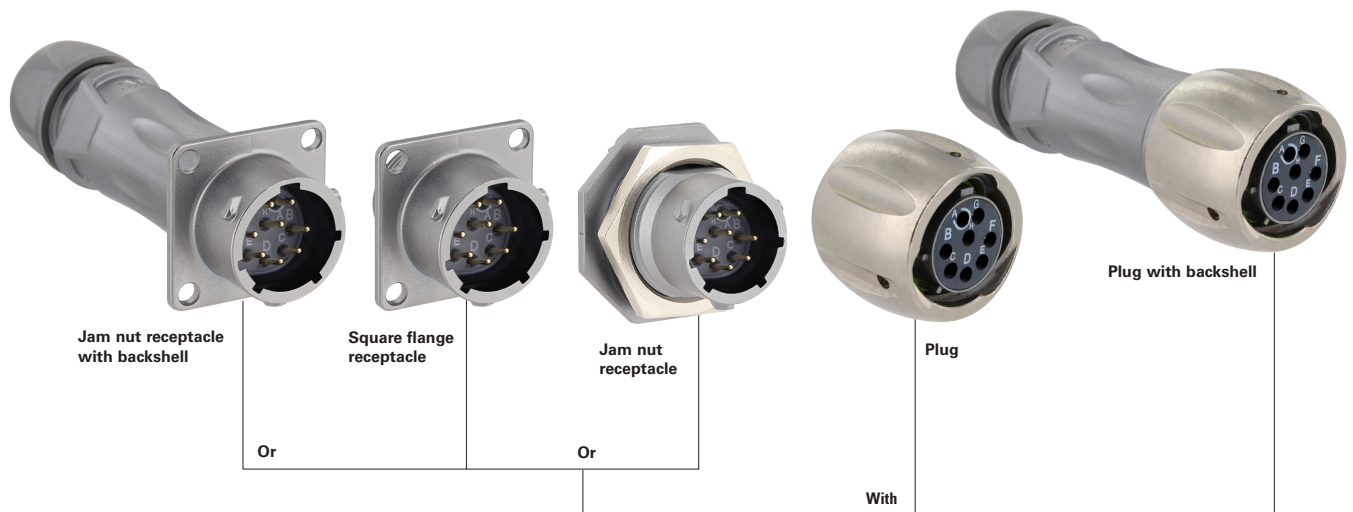


- Current use
- Limited use
- Not recommended

Test conditions

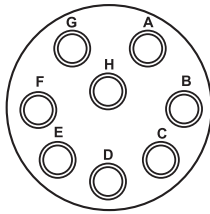
Contact used: machined contacts
Wires used: 16 AWG

Derating curves based on continuous current application.



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)	UT0X012E8P	UT0X012E8S
	Square flange receptacle	Cable gland unshielded version (Fig. 1B)	UT0X0M12E8P	UT0X0M12E8S
	Square flange receptacle	Cable gland shielded version (Fig. 1B)	UT0X0MS12E8P	UT0X0MS12E8S
	Plug	Without (Fig. 2) ^{Note 1}	UT0X612E8P	UT0X612E8S
	Plug	Cable gland unshielded version (Fig. 3)	UT0X6M12E8P	UT0X6M12E8S
	Plug	Cable gland shielded version (Fig. 3)	UT0X6MS12E8P	UT0X6MS12E8S
	Jam nut receptacle	Without (Fig. 4)	UT0X712E8P	UT0X712E8S
PCB contacts loaded see Page 82	Square flange receptacle	Without (Fig. 1)	UT0X012D8P	UT0X012D8S
	Jam nut receptacle with stand off and without hold down clip	Without (Fig. 5)	UT0X712D8P	UT0X712D8S
	Jam nut receptacle with stand off and with hold down clips	Without (Fig. 6)	UT0X712D8P32	UT0X712D8S32

For discrimination/keying methods see **Page 151**

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

Sealed unmatd

Souriau UTOX series

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

Dimensions (for mated connector lengths see **Page 122**)

Square flange receptacle - UTOX0

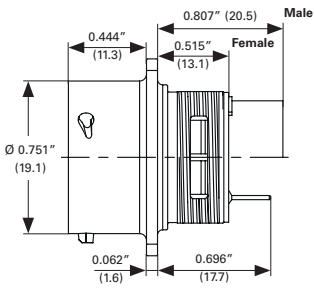


Fig. 1

Square flange receptacle with backshell - UTOX0M, UTOX0MS

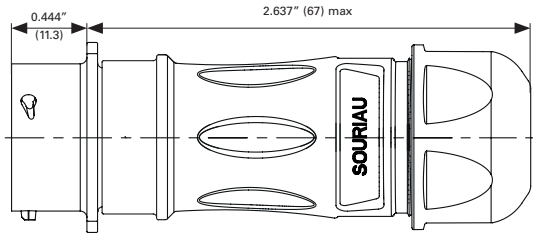


Fig. 1B

Plug - UTOX6, UTOX6M and UTOX6MS

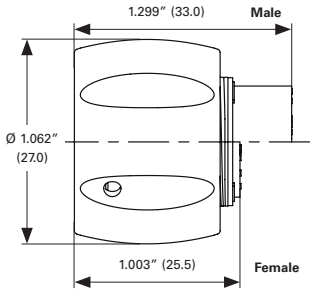


Fig. 2

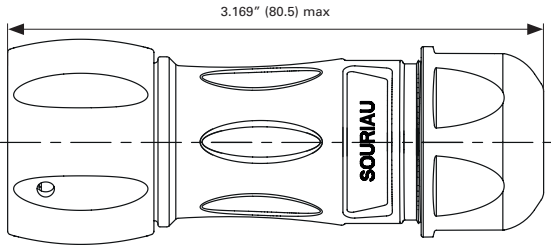


Fig.3 Cable diameter acceptance from 0.275" to 0.393" (7 to 10)

Jam nut receptacle UTOX7

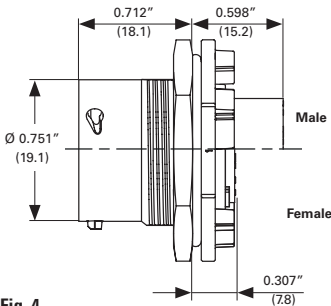


Fig. 4

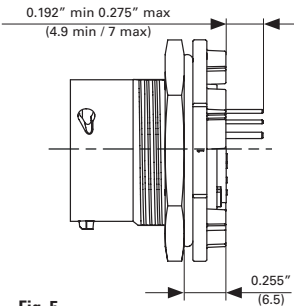


Fig. 5

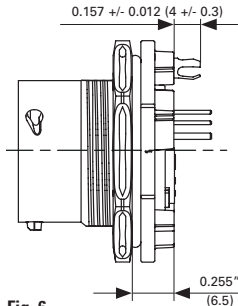
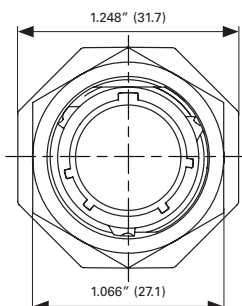
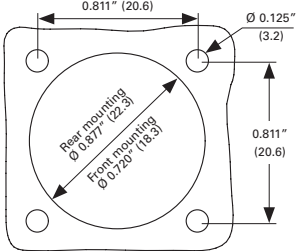


Fig. 6

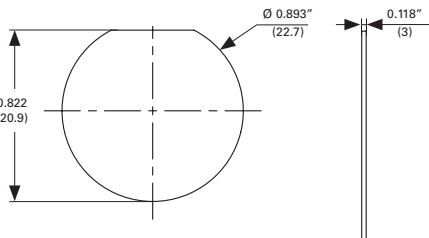


Panel cut-out

Square flange receptacle - UTOX0



Jam nut receptacle - UTOX7



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

SMSPKE0

Note: See Page 132 for more information

Contacts #20

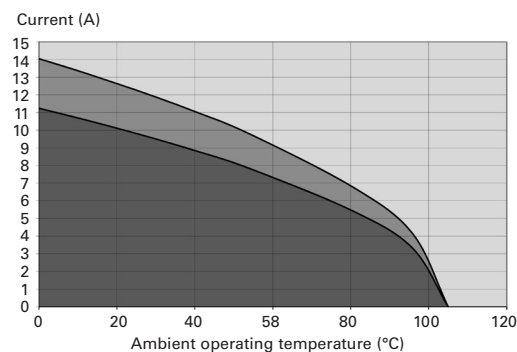
Contact type	Plating	Cable acceptance (AWG)	Cable acceptance inch ²	mm ²	Wire stripping length	
					inch	mm
Handsolder loaded in the connector	Min 0.4μ gold over 0.8μ Ni	20-18	0.020"-0.031"	0.32-0.82	0.149"	3.8
PCB Machined ⁽¹⁾	Min 0.4μ gold over 0.8μ Ni	—	—	—	—	—

(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	6A 32V 1.5kV 3

UTOX 12E8/12D8 derating curves



- Current use
- Limited use
- Not recommended

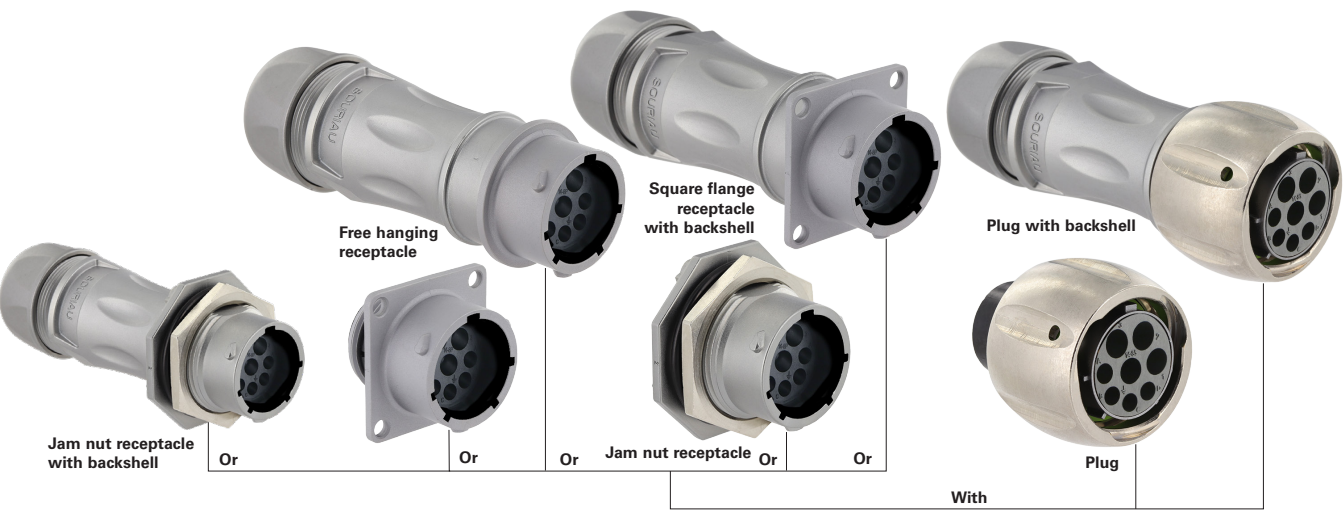
Test conditions

Contact used: machined contacts
Wires used: 20 AWG

Derating curves based on continuous current application.

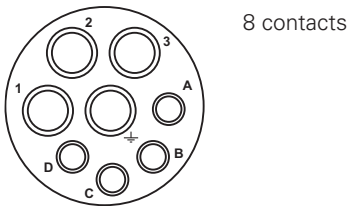
Souriau UTOX series

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



Connector part numbers

UTOX 148



Contact type	Connector type	Backshell	Part number Male insert	Female insert
Crimp contacts supplied separately see Page 87	Square flange receptacle	Without (Fig. 1)	UT0X0148P	UT0X0148S
	Square flange receptacle	Cable gland unshielded version (Fig. 2)	UT0X0M148P	UT0X0M148S
	Square flange receptacle	Cable gland shielded version (Fig. 2)	UT0X0MS148P	UT0X0MS148S
	Free hanging receptacle	Cable gland unshielded version (Fig. 3)	UT0X1M148P	UT0X1M148S
	Free hanging receptacle	Cable gland shielded version (Fig. 3)	UT0X1MS148P	UT0X1MS148S
	Plug	Without (Fig. 4) ^{Note 1}	UT0X6148P	UT0X6148S
	Plug	Cable gland unshielded version (Fig. 5)	UT0X6M148P	UT0X6M148S
	Plug	Cable gland shielded version (Fig. 5)	UT0X6MS148P	UT0X6MS148S
	Jam nut receptacle	Without (Fig. 6)	UT0X7148P	UT0X7148S
	Jam nut receptacle	Cable gland unshielded version (Fig. 7)	UT0X7M148P	UT0X7M148S
	Jam nut receptacle	Cable gland shielded version (Fig. 7)	UT0X7MS148P	UT0X7MS148S

For discrimination/keying methods see **Page 151**

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

Dimensions (for mated connector lengths see Page 122)

Square flange receptacle - UTOX0, UTOX0M and UTOX0MS

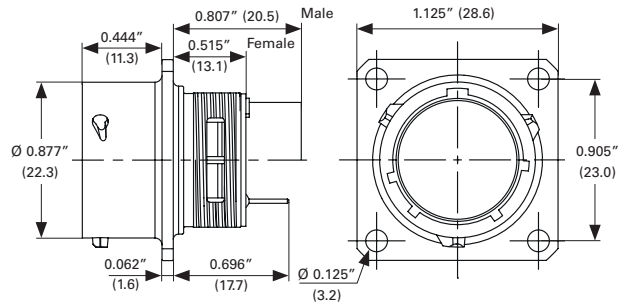


Fig. 1

Square flange receptacle with backshell - UTOX0M, UTOX0MS

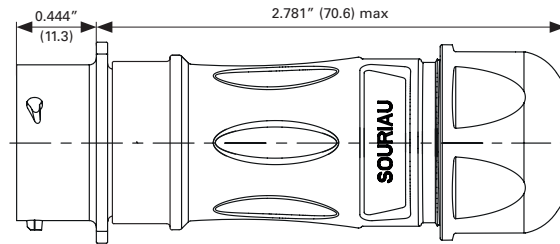


Fig. 2 Cable diameter acceptance from 0.393" to 0.511" (10 to 13)

Free hanging - UTOX1M and UTOX1MS

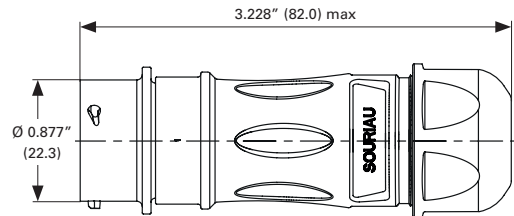


Fig. 3 Cable diameter acceptance from 0.393" to 0.511" (10 to 13)

Plug - UTOX6, UTOX6M and UTOX6MS

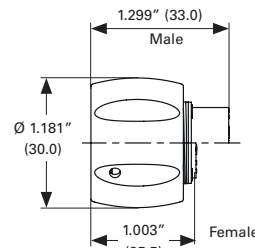


Fig. 4

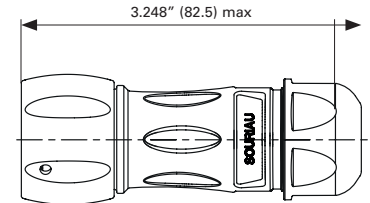


Fig. 5 Cable diameter acceptance from 0.393" to 0.511" (10 to 13)

Jam nut receptacle UTOX7

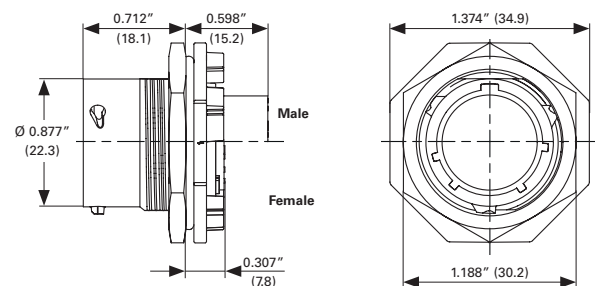


Fig. 6

Jam nut receptacle with backshell - UTOX7M, UTOX7MS

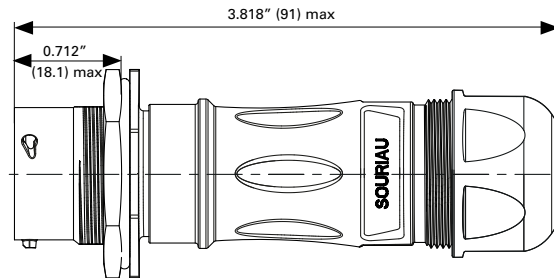
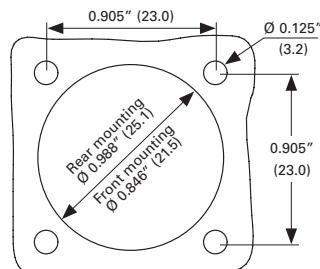
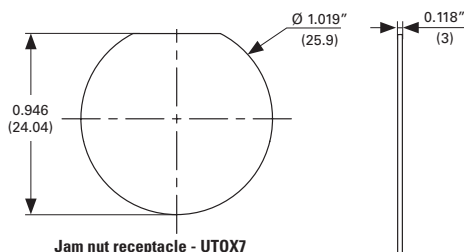


Fig. 7

Panel cut out



Square flange receptacle - UTOX0



Jam nut receptacle - UTOX7

Souriau UTOX series

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

Accessories

Dustcap (Receptacle)



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

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

*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

Part number

SMSPKE0

Note: See Page 132 for more information

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 #16 Ø 0.062" (1.6)	RM/RC 28M1K ⁽¹⁾	S16RCM20*
--	----------------------------	-----------

(1) Example of plating, for other plating options see Page 127

* 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 134
-----------------------------	--------------

Extraction tool #16

Fig. 1



Fig. 2



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

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

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

Crimp tooling #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
--------------------------------	-------------

Extraction tool #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
PCB	Machined ⁽³⁾	—	—	—	RM20M12E83K ⁽¹⁾	RC20M12E84K ⁽¹⁾	—	—	—	—
Coaxial	Cable multipiece	see Pages 131 to 133			RMDXK10D28	RCDXK1D28	—	—	—	—
	Cable monocrimp	see Pages 131 to 133			RMDX60xxD28	RCDX60xxD28	—	—	—	—
	Twisted pair multipiece	see Pages 131 to 133			RMDXK10D28 + yorx090	RCDXK1D28 + yorx090	—	—	—	—
	Twisted pair monocrimp	see Pages 131 to 133			RMDX60xxD28	RCDX60xxD28	—	—	—	—

(1) Example of plating, for other plating see Page 127

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

Contacts #12

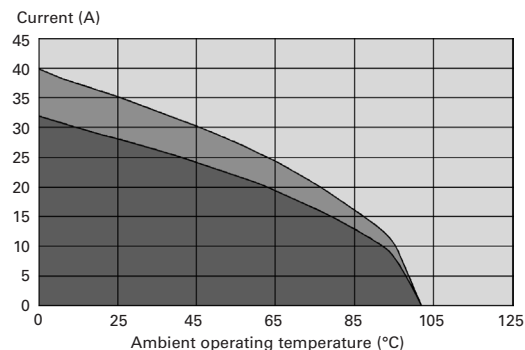
Contact style	Contact type	Cable acceptance AWG	Cable acceptance		Part number Male	Female	Wire Ø max		Insulator Ø max	
			inch ²	mm ²			inch	mm	inch	mm
Crimp contacts	Machined	22	0.012"	0.32	82911457NA ⁽¹⁾	82911456A ⁽¹⁾	0.027"	0.7	0.192"	4.90
	Machined	20	0.020"	0.50	82911459NA ⁽¹⁾	82911458A ⁽¹⁾	0.044"	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 127

Electrical characteristics

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

UTOX 148 derating curves



- Current use
- Limited use
- Not recommended

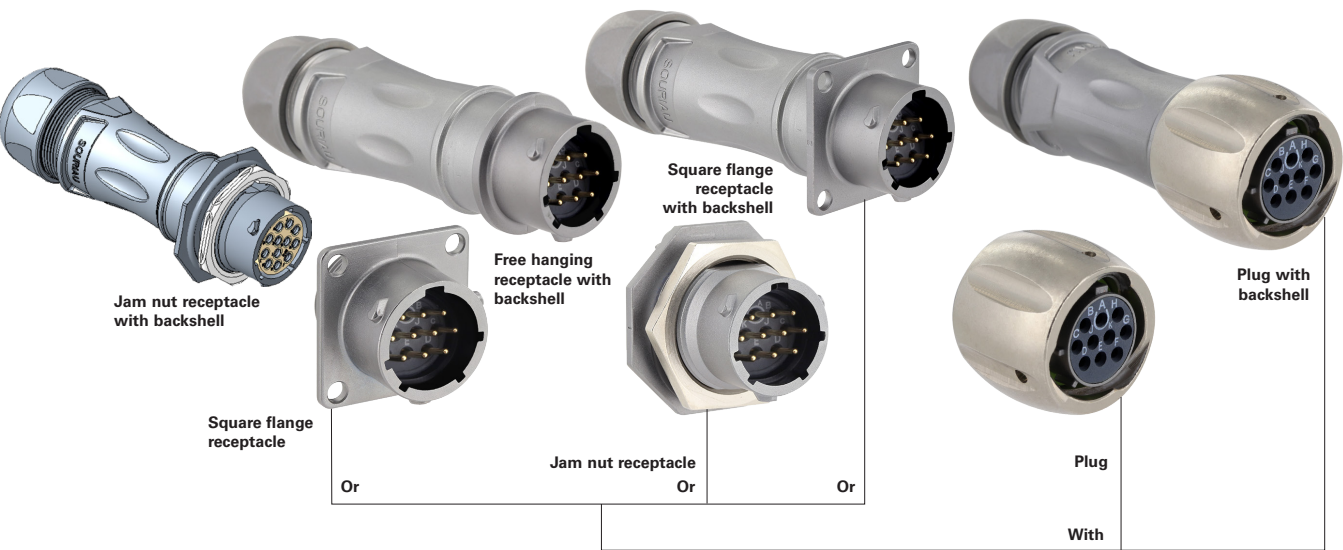
Test conditions

Contact used: machined contacts
Wires used: 20 AWG

Derating curves based on continuous current application.

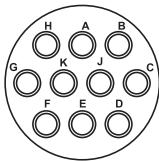
Souriau UTOX series

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



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)	UT0X01210P	UT0X01210S
	Square flange receptacle	Cable gland unshielded version (Fig. 2)	UT0X0M1210P	UT0X0M1210S
	Square flange receptacle	Cable gland shielded version (Fig. 2)	UT0X0MS1210P	UT0X0MS1210S
	Free hanging receptacle	Cable gland unshielded version (Fig. 3)	UT0X1M1210P	UT0X1M1210S
	Free hanging receptacle	Cable gland shielded version (Fig. 3)	UT0X1MS1210P	UT0X1MS1210S
	Plug	Without (Fig. 4) ^{Note1}	UT0X61210P	UT0X61210S
	Plug	Cable gland unshielded version (Fig. 5)	UT0X6M1210P	UT0X6M1210S
	Plug	Cable gland shielded version (Fig. 5)	UT0X6MS1210P	UT0X6MS1210S
	Jam nut receptacle	Without (Fig. 6)	UT0X71210P	UT0X71210S
	Jam nut receptacle	Cable gland unshielded version (Fig. 9)	UT0X7M1210P	UT0X7M1210S
	Jam nut receptacle	Cable gland shielded version (Fig. 9)	UT0X7MS1210P	UT0X7MS1210S
	Plug	Without (Fig. 4)	UT0X612E10P	UT0X612E10S
Handsolder electrical contacts loaded see Page 93	Plug	Cable gland unshielded version (Fig. 5)	UT0X6M12E10P	UT0X6M12E10S
	Plug	Cable gland shielded version (Fig. 5)	UT0X6MS12E10P	UT0X6MS12E10S
	Jam nut receptacle	Without (Fig. 6)	UT0X712E10P	UT0X712E10S
	Jam nut receptacle	Without (Fig. 7)	UT0X712D10P	UT0X012D10S
PCB contacts loaded	Square flange receptacle	Without (Fig. 3)	UT0X012D10P	UT0X012D10S
	Jam nut receptacle with stand off and without hold down clip	Without (Fig. 8)	UT0X712D10P	UT0X712D10S
	Jam nut receptacle with stand off and with hold down clips	Without (Fig. 8)	UT0X712D10P32	UT0X712D10S32

For discrimination/keying methods see **Page 151** Sealed unmated

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

Dimensions (for mated connector lengths see Page 122)

Square flange receptacle - UTOX0, UTOX0M and UTOX0MS

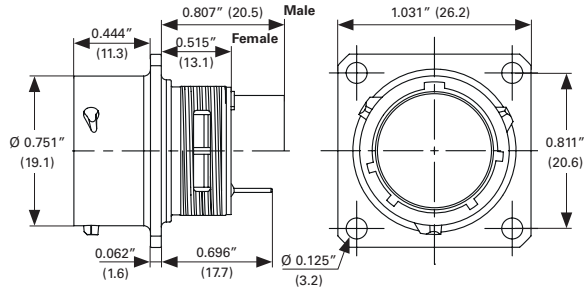


Fig. 1

Square flange receptacle with backshell - UTOX0M, UTOX0MS

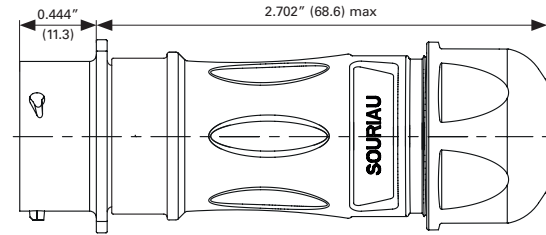


Fig. 2: Cable diameter acceptance from 0.275" to 0.393" (7 to 10)

Free hanging - UTOX1M and UTOX1MS

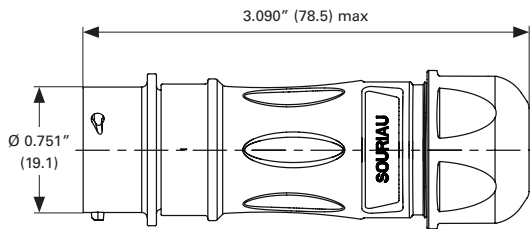


Fig. 3 : Cable diameter acceptance from 0.275" to 0.393" (7 to 10)

Plug - UTOX6, UTOX6M and UTOX6MS

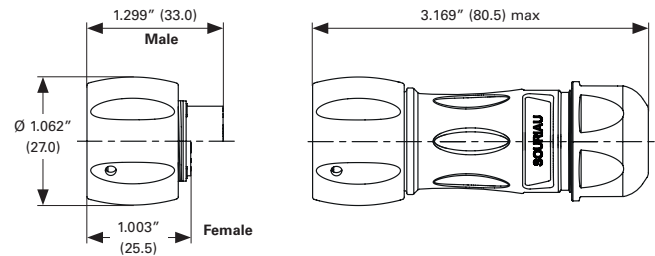


Fig. 4

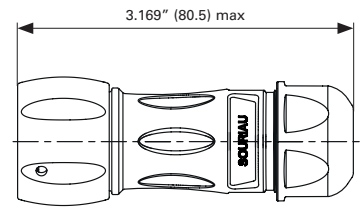


Fig. 5 : Cable diameter acceptance from 0.275" to 0.393" (7 to 10)

Jam nut receptacle UTOX7

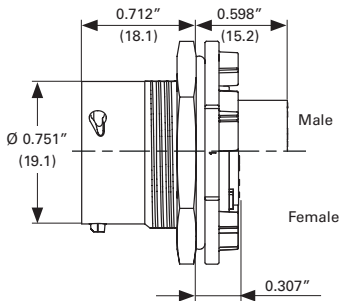


Fig. 6

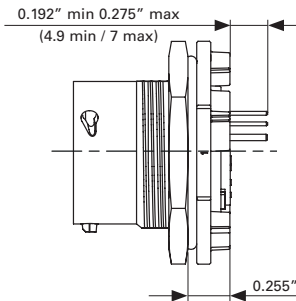


Fig. 7

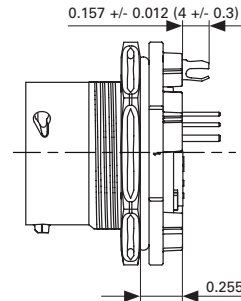
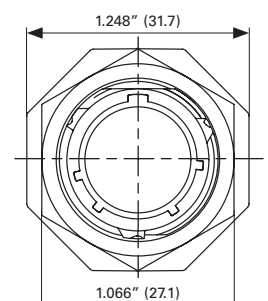
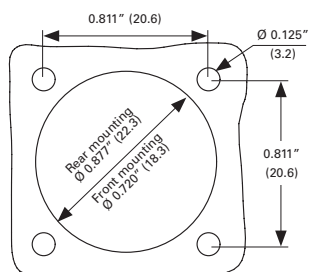


Fig. 8

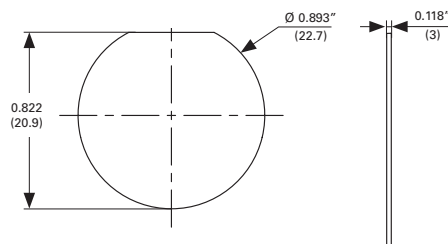


Panel cut-out

Square flange receptacle - UTOX0



Jam nut receptacle - UTOX7



Jam nut receptacle with backshell - UTOX7M, UTOX7MS

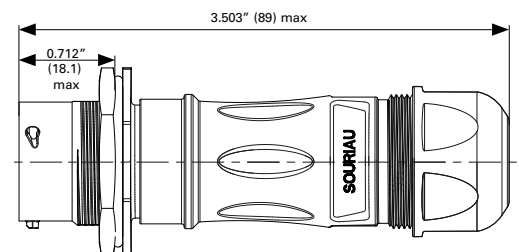


Fig. 9

Souriau UTOX series

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

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
SMSPKEO
Note: See Page 132 for more information

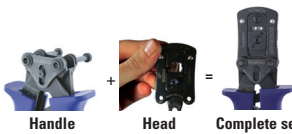
Tooling

#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)



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 127
(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 inch ²	Cable acceptance mm ²	Part number Male	Female	Wire Ø max inch	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 127**

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

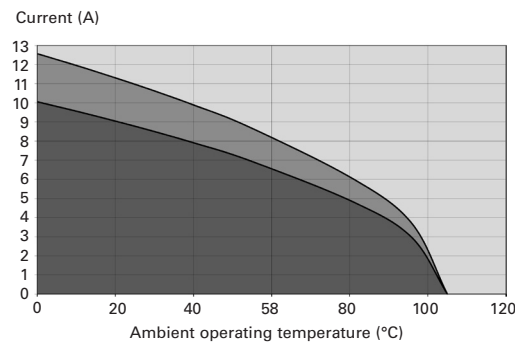
(3) For dimensions see **Pages 134 or 135**

Contact style	Contact type	Plating	Cable acceptance (AWG)	mm ²	Wire stripping length inch	mm
Handsolder	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

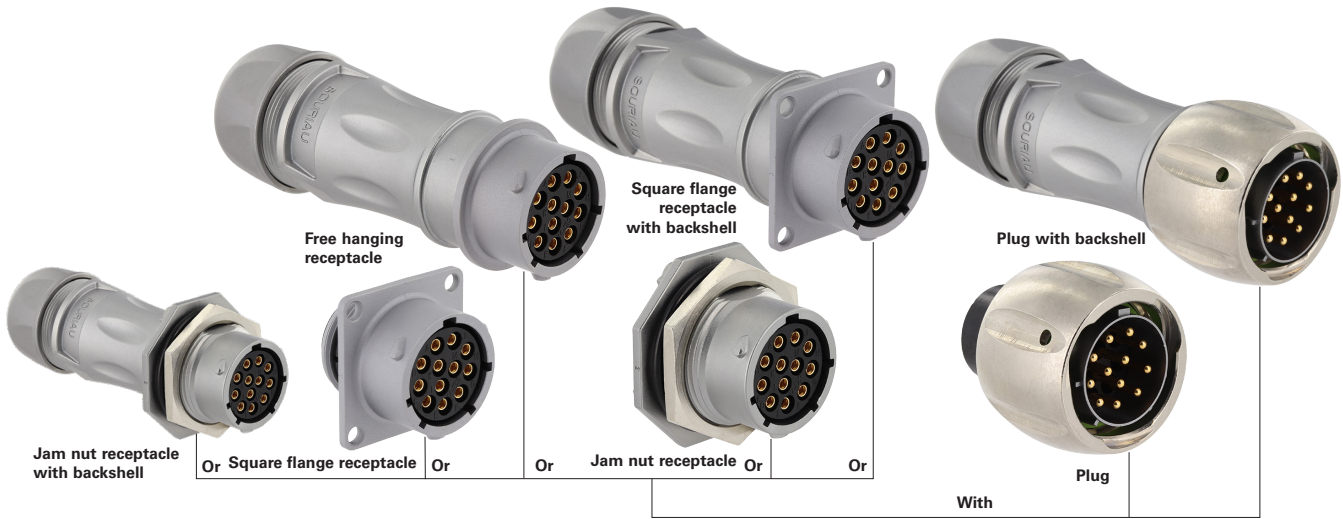
Contact used: machined contacts

Wires used: 20 AWG

Derating curves based on continuous current application.

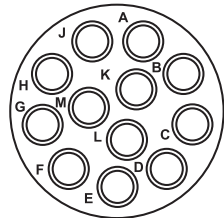
Souriau UTOX series

1412 (Shell size 14, 12x#16)



Connector part numbers

UTOX 1412



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 99	Square flange receptacle	Without (Fig. 1)	UT0X01412P	UT0X01412S
	Square flange receptacle	Cable gland unshielded version (Fig. 2)	UT0X0M1412P	UT0X0M1412S
	Square flange receptacle	Cable gland shielded version (Fig. 2)	UT0X0MS1412P	UT0X0MS1412S
	Free hanging receptacle	Cable gland unshielded version (Fig. 3)	UT0X1M1412P	UT0X1M1412S
	Free hanging receptacle	Cable gland shielded version (Fig. 3)	UT0X1MS1412P	UT0X1MS1412S
	Plug	Without (Fig. 4) ^{Note 1}	UT0X61412P	UT0X61412S
	Plug	Cable gland unshielded version (Fig. 5)	UT0X6M1412P	UT0X6M1412S
	Plug	Cable gland shielded version (Fig. 5)	UT0X6MS1412P	UT0X6MS1412S
	Jam nut receptacle	Without (Fig. 6)	UT0X71412P	UT0X71412S
PCB contacts supplied separately See Page 99	Jam nut receptacle	Cable gland unshielded version (Fig. 7)	UT0X7M1412P	UT0X7M1412S
	Jam nut receptacle	Cable gland shielded version (Fig. 7)	UT0X7MS1412P	UT0X7MS1412S
	Square flange receptacle	Without (Fig. 1)	UT0X01412P	UT0X01412S
	Jam nut receptacle	Without (Fig. 6)	UT0X71412P	UT0X71412S

For discrimination/keying methods see **Page 151**

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

Dimensions (for mated connector lengths see Page 122)

Square flange receptacle - UTOX0, UTOX0M and UTOX0MS

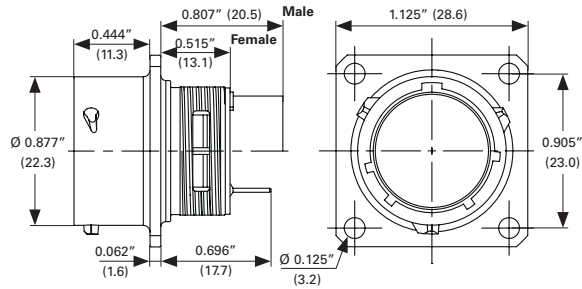


Fig. 1

Square flange receptacle with backshell - UTOX0M, UTOX0MS

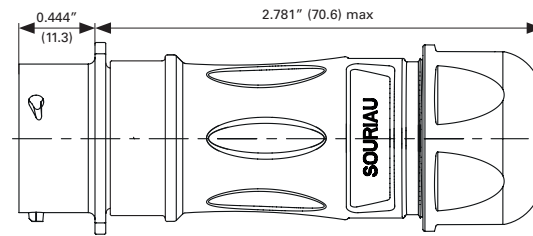


Fig. 2 Cable diameter acceptance from 0.393" to 0.511" (10 to 13)

Free hanging - UTOX1M and UTOX1MS

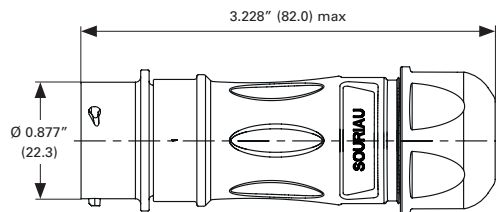


Fig. 3 Cable diameter acceptance from 0.393" to 0.511" (10 to 13)

Plug - UTOX6, UTOX6M and UTOX6MS

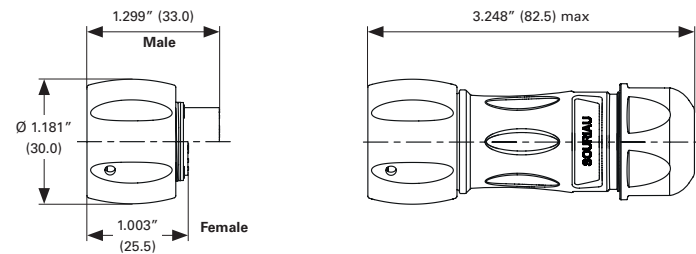


Fig. 4

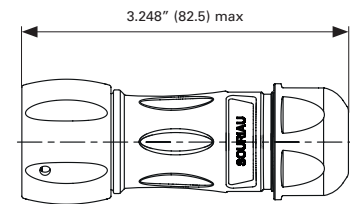


Fig. 5 Cable diameter acceptance from 0.393" to 0.511" (10 to 13)

Jam nut receptacle UTOX7

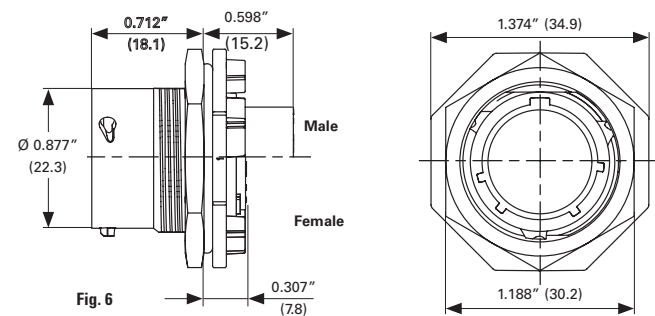


Fig. 6

Jam nut receptacle with backshell - UTOX7M, UTOX7MS

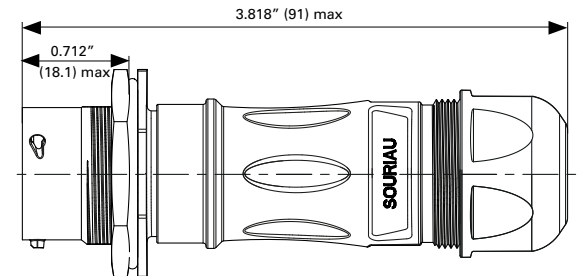
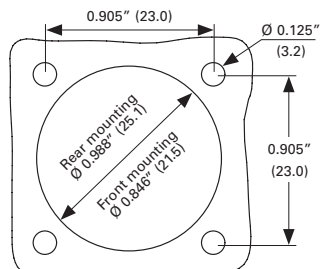


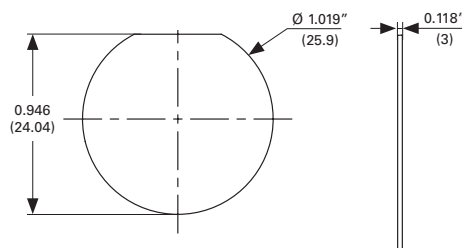
Fig. 7

Panel cut out

Square flange receptacle - UTOX0



Jam nut receptacle - UTOX7



Dimensions in inches (millimeters)

Souriau UTOX series

1412 (Shell size 14, 12x#16)

Accessories

Dustcap (Receptacle)



Gasket



Tooling

#20 & #16 stamped and machined contacts



Crimp tooling (without Shandles)



#16, #12 and #8 machined contacts



Extraction tool #16



Dimensions in inches (millimeters)

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. UT612DC

Part number
SMSPKE0

Note: See Page 132 for more information

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 127

* Heads to be used with handle PN: SHANGLES

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

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⁾	—	—	—	—
	Cable multipiece	see Pages 131 to 133	—	—	RMDXK10D28	RCDXK1D28	—	—	—	—
Coaxial	Cable monocrimp	see Pages 131 to 133	—	—	RMDX60xxD28	RCDX60xxD28	—	—	—	—
	Twisted pair multipiece	see Pages 131 to 133	—	—	RMDXK10D28 + yorx090	RCDXK1D28 + yorx090	—	—	—	—
	Twisted pair monocrimp	see Pages 131 to 133	—	—	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 127**

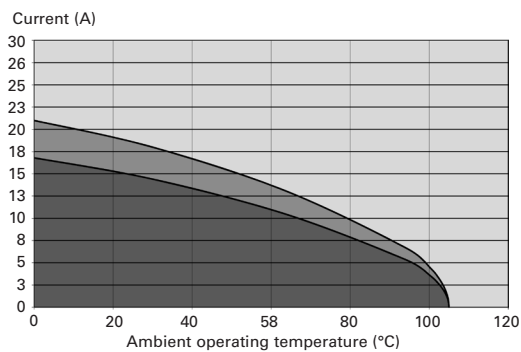
(2) Loose piece contact available by adding "L" after the "M" for the contact size and the plating. Example: SM20M1TK6 becomes SM20ML1TK6

(3) For dimensions see **Pages 134 or 135**

Electrical characteristics

UL	CSA	IEC
10A 500V with AWG16 wire	7A 500V with AWG1 wire	10A 63V 1.5kV 3

UTOX 1412 derating curves



- Current use
- Limited use
- Not recommended

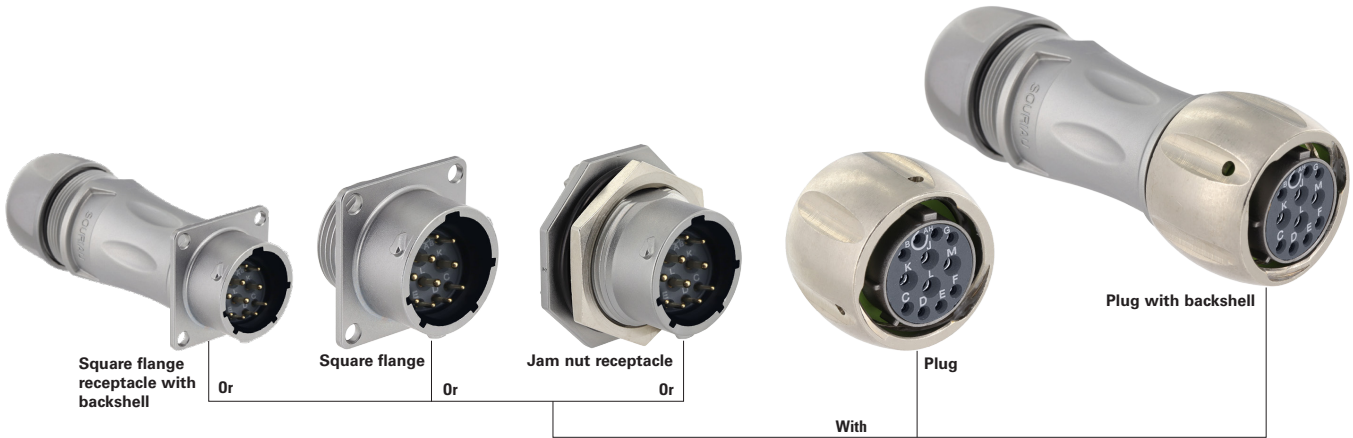
Test conditions

Contact used: machined contacts
Wires used: 16 AWG

Derating curves based on continuous current application.

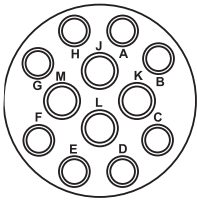
Souriau UTOX series

1412 (Shell size 14, 12x#16)



Connector part numbers

UTOX 14E12/14D12



12 contacts
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)	UT0X014E12P	UT0X014E12S
	Square flange receptacle	Cable gland unshielded version (Fig. 1B)	UT0X0M14E12P	UT0X0M14E12S
	Square flange receptacle	Cable gland shielded version (Fig. 1B)	UT0X0MS14E12P	UT0X0MS14E12S
	Plug	Without (Fig. 2) ^{Nota1}	UT0X614E12P	UT0X614E12S
	Plug	Cable gland unshielded version (Fig. 3)	UT0X6M14E12P	UT0X6M14E12S
	Plug	Cable gland shielded version (Fig. 3)	UT0X6MS14E12P	UT0X6MS14E12S
	Jam nut receptacle	Without (Fig. 4)	UT0X714E12P	UT0X714E12S
PCB contacts loaded see Page 102	Square flange receptacle	Without (Fig. 2)	UT0X014D12P	UT0X014D12S
	Jam nut receptacle with stand off and without hold down clip	Without (Fig. 5)	UT0X714D12P	UT0X714D12S
	Jam nut receptacle with stand off and with hold down clips	Without (Fig. 6)	UT0X714D12P32	UT0X714D12S32

For discrimination/keying methods see **Page 151**

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

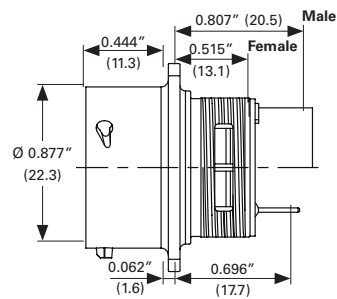
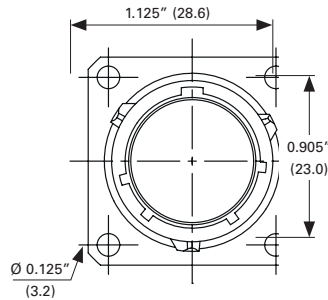


Fig. 1



Square flange receptacle with backshell - UTOX0M, UTOX0MS

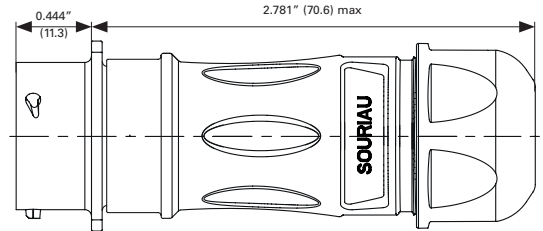


Fig. 1B

Plug - UTOX6, UTOX6M and UTOX6MS

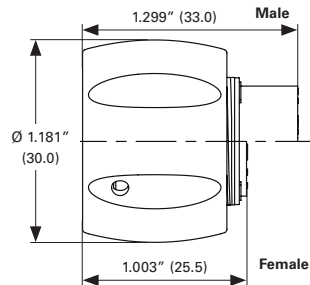


Fig. 2

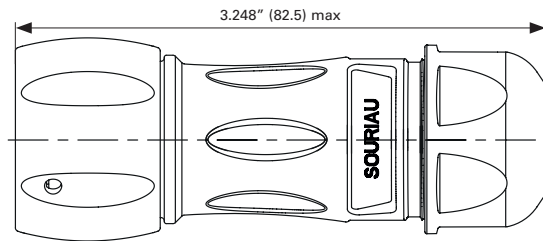


Fig. 3 Cable diameter acceptance from 0.393" to 0.511" (10 to 13)

Jam nut receptacle UTOX7

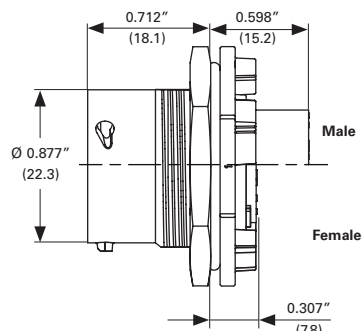


Fig. 4

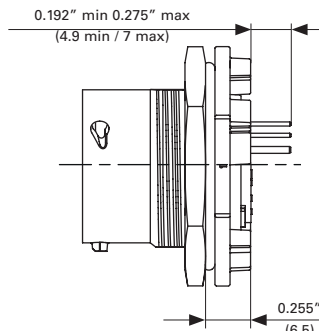


Fig. 5

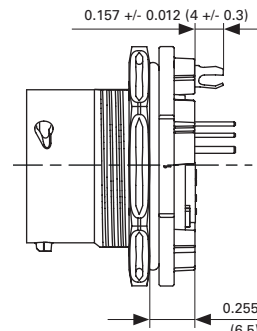
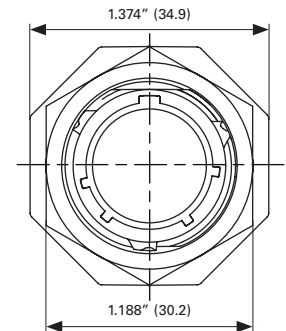
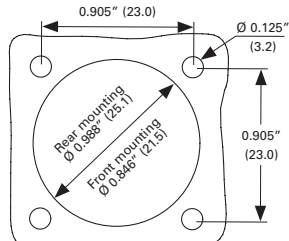


Fig. 6

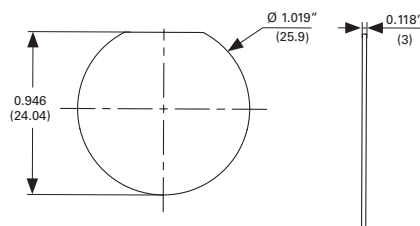


Panel cut out

Square flange receptacle - UTOX0



Jam nut receptacle - UTOX7



Souriau UTOX series

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

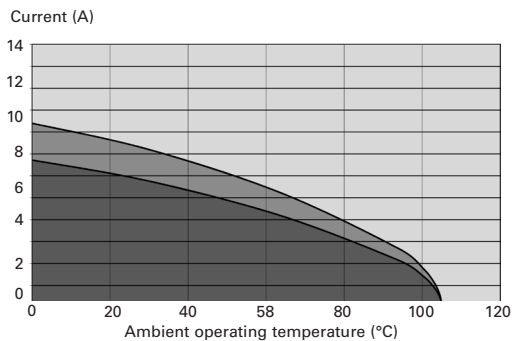
Contact size	Contact type	Plating	Cable acceptance (AWG)	Cable acceptance inch ²	mm ²	Wire stripping length inch	mm
#16	Handsolder loaded in the connector	Min 0.4μ gold over 0.8μ Ni	18 - 14	0.032"-0.081"	0.823 - 2.08	0.196"	5
	PCB machined ⁽¹⁾	Min 0.4μ gold over 0.8μ Ni	—	—	—	—	—
#20	Handsolder loaded 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 134 or 135**

Electrical characteristics

UL	CSA	IEC
10A 600V with AWG16	10A 600V with AWG16	4A 50V 1.5kV 3

UTOX 14E12/14D12 derating curves

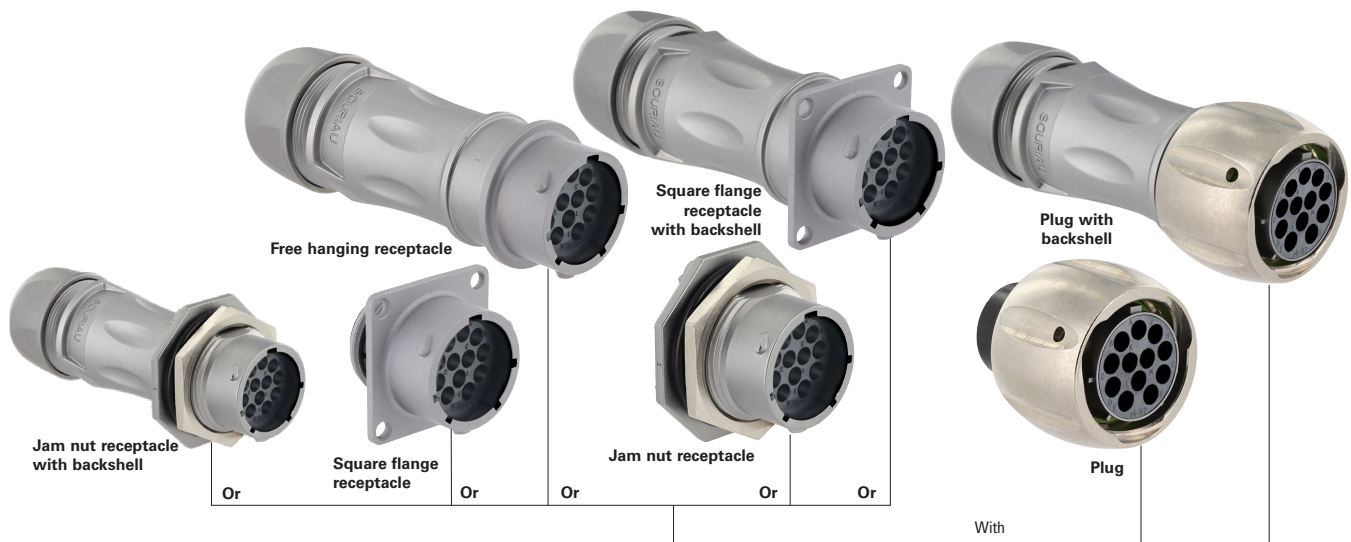


Derating curves based on continuous current application.

- Current use
- Limited use
- Not recommended

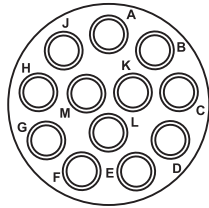
Test conditions

Contact used: machined contacts
Wires used: 16 AWG



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 108	Square flange receptacle	Without (Fig. 1)	UT0X01492P	UT0X01492S
	Square flange receptacle	Cable gland unshielded version (Fig. 2)	UT0X0M1492P	UT0X0M1492S
	Square flange receptacle	Cable gland shielded version (Fig. 2)	UT0X0MS1492P	UT0X0MS1492S
	Free hanging receptacle	Cable gland unshielded version (Fig. 3)	UT0X1M1492P	UT0X1M1492S
	Free hanging receptacle	Cable gland shielded version (Fig. 3)	UT0X1MS1492P	UT0X1MS1492S
	Plug	Without (Fig. 4) ^{Note 1}	UT0X61492P	UT0X61492S
	Plug	Cable gland unshielded version (Fig. 5)	UT0X6M1492P	UT0X6M1492S
	Plug	Cable gland shielded version (Fig. 5)	UT0X6MS1492P	UT0X6MS1492S
	Jam nut receptacle	Without (Fig. 6)	UT0X71492P	UT0X71492S
	Jam nut receptacle	Cable gland unshielded version (Fig. 9)	UT0X7M1492P	UT0X7M1492S
	Jam nut receptacle	Cable gland shielded version (Fig. 9)	UT0X7MS1492P	UT0X7MS1492S
PCB contacts supplied separately see Page 107	Square flange receptacle	Without (Fig. 1)	UT0X01492P	UT0X01492S
	Jam nut receptacle	Without (Fig. 6)	UT0X71492P	UT0X71492S

For discrimination/keying methods see **Page 151**

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

Souriau UTOX series

1492 (Shell size 14, 12x#16)

Dimensions (for mated connector lengths see Page 122)

Square flange receptacle - UTOX0, UTOX0M and UTOX0MS

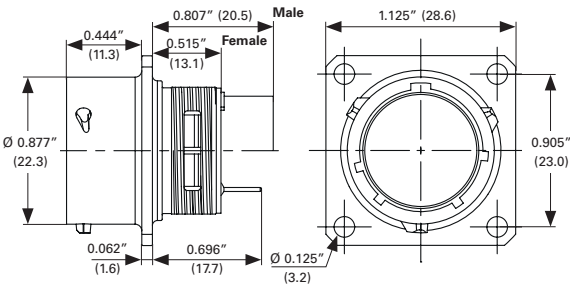


Fig. 1

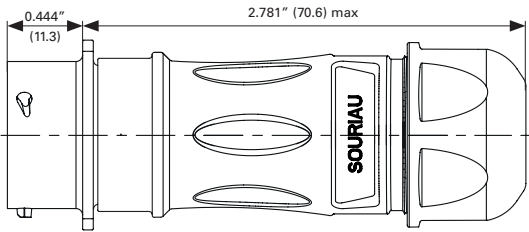


Fig. 2 Cable diameter acceptance from 0.393" to 0.511" (10 to 13)

Free hanging - UTOX1M and UTOX1MS

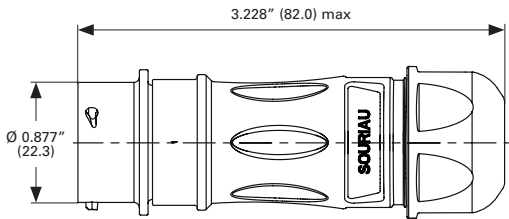


Fig. 3 Cable diameter acceptance from 0.393" to 0.511" (10 to 13)

Plug - UTOX6, UTOX6M and UTOX6MS

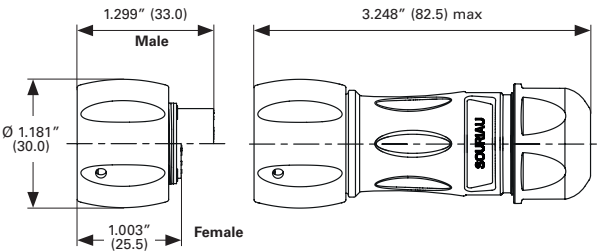


Fig. 4

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

Jam nut receptacle UTOX7

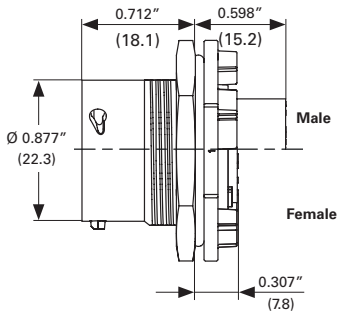


Fig. 6

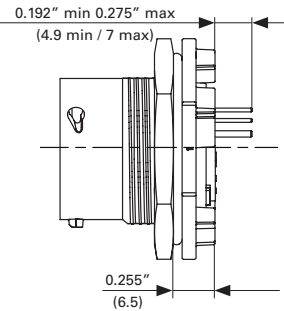
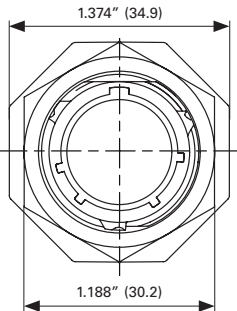
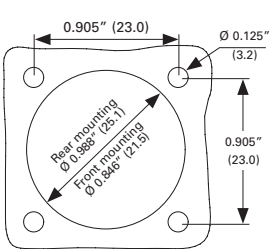


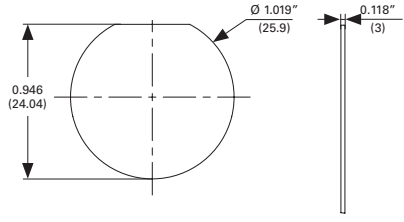
Fig. 7



Panel cut out



Jam nut receptacle - UTOX7



Jam nut receptacle with backshell - UTOX7M, UTOX7MS

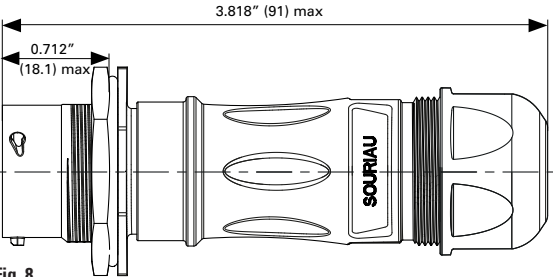


Fig. 8

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)



Dummy contact #16



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

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

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

Part number

SMSPKE0

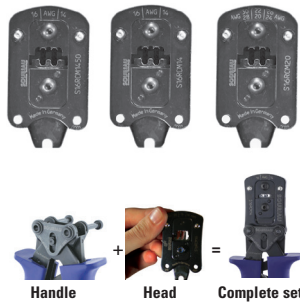
Note: See **Page 132** for more information

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 127**

* 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 #16

Fig. 1



Fig. 2



Dimensions in inches (millimeters)

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

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

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

Souriau UTOX series

1492 (Shell size 14, 12x#16)

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	26-24	0.005"-0.009"	0.13-0.25	SM24M1TK6 ⁽¹⁾⁽²⁾	SC24M1TK6 ⁽¹⁾⁽²⁾	—	—	0.035"-0.062"	0.90-1.58
	reeled contacts	22-20	0.012"-0.020"	0.32-0.50	SM20M1TK6 ⁽¹⁾⁽²⁾	SC20M1TK6 ⁽¹⁾⁽²⁾	—	—	0.047"-0.082"	1.20-2.10
	See note ⁽²⁾	18-16	0.031"-0.059"	0.82-1.48	SM16M1TK6 ⁽¹⁾⁽²⁾	SC16M1TK6 ⁽¹⁾⁽²⁾	—	—	0.125"	3.20
	for loose piece	18-16	0.031"-0.059"	0.82-1.48	SM16M11TK6 ⁽¹⁾⁽²⁾	SC16M11TK6 ⁽¹⁾⁽²⁾	—	—	0.118"	3.00
PCB	Machined ⁽³⁾	—	—	—	RM20M12E83K ⁽¹⁾	RC20M12E84K ⁽¹⁾	—	—	—	—
Coaxial	Cable multipiece	see Pages 131 to 133			RMDXK10D28	RCDXK1D28	—	—	—	—
	Cable monocrimp	see Pages 131 to 133			RMDX60xxD28	RCDX60xxD28	—	—	—	—
	Twisted pair multipiece	see Pages 131 to 133			RMDXK10D28 + yorx090	RCDXK1D28 + yorx090	—	—	—	—
	Twisted pair monocrimp	see Pages 131 to 133			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 127**

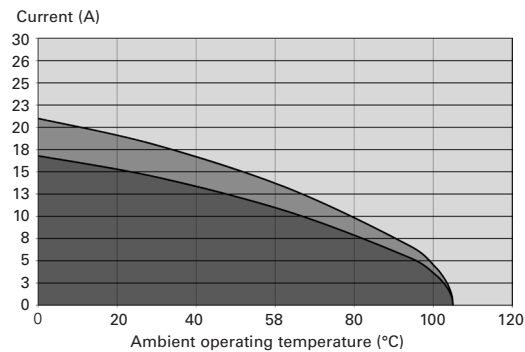
(2) Loose piece contact available by adding "L" after the "M" for the contact size and the plating. Example: SM20M1TK6 becomes SM20ML1TK6

(3) For dimensions see **Pages 134 or 135**

Electrical characteristics

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

UTOX 1412 derating curves

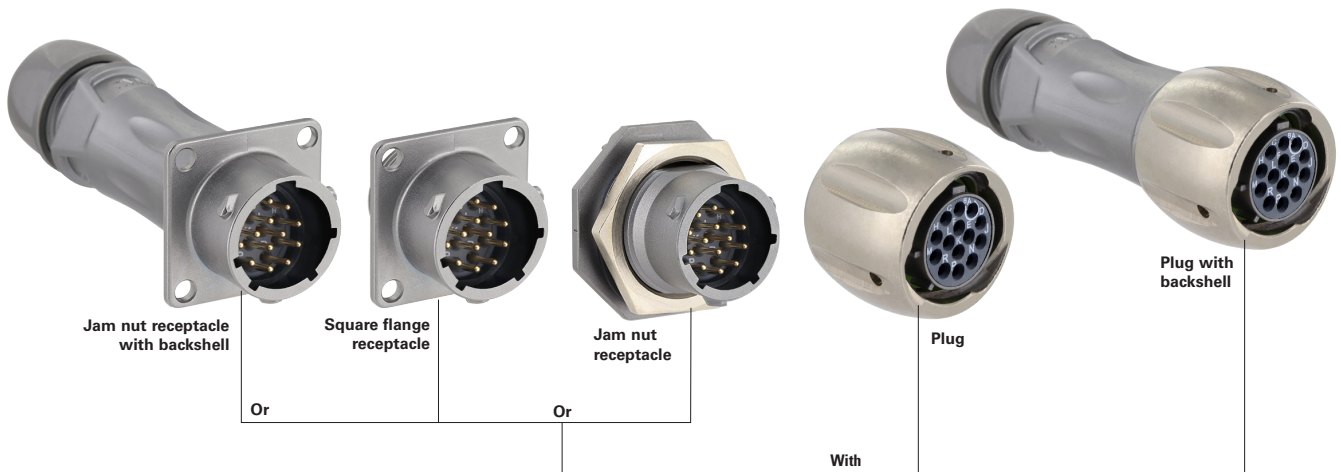


- Current use
- Limited use
- Not recommended

Test conditions

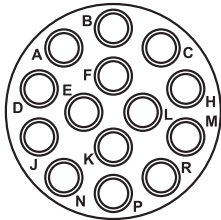
Contact used: machined contacts
Wires used: 16 AWG

Derating curves based on continuous current application.



Connector part numbers

UTOX 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)	UT0X012E14P	UT0X012E14S
	Square flange receptacle	Cable gland unshielded version (Fig. 1B)	UT0X0M12E14P	UT0X0M12E14S
	Square flange receptacle	Cable gland shielded version (Fig. 1B)	UT0X0MS12E14P	UT0X0MS12E14S
	Plug	Without (Fig. 2) ^{Note 1}	UT0X612E14P	UT0X612E14S
	Plug	Cable gland unshielded version (Fig. 3)	UT0X6M12E14P	UT0X6M12E14S
	Plug	Cable gland shielded version (Fig. 3)	UT0X6MS12E14P	UT0X6MS12E14S
	Jam nut receptacle	Without (Fig. 4)	UT0X712E14P	UT0X712E14S
PCB contacts loaded see Page 112	Square flange receptacle	Without (Fig. 1)	UT0X012D14P	UT0X012D14S
	Jam nut receptacle with stand off and without hold down clip	Without (Fig. 5)	UT0X712D14P	UT0X712D14S
	Jam nut receptacle with stand off and with hold down clips	Without (Fig. 6)	UT0X712D14P32	UT0X712D14S32

For discrimination/keying methods see **Page 151**

Sealed unmated

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

Souriau UTOX series

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

Dimensions (for mated connector lengths see Page 122)

Square flange receptacle - UTOX0

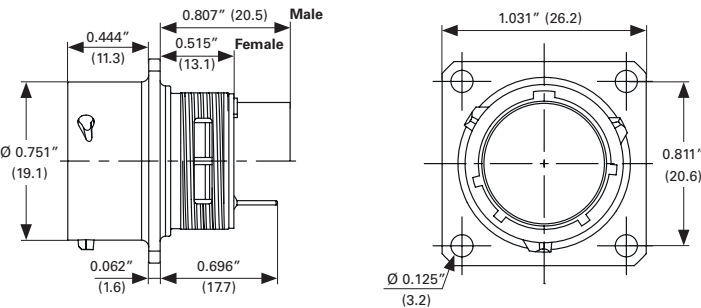


Fig. 1

Square flange receptacle with backshell - UTOX0M, UTOX0MS

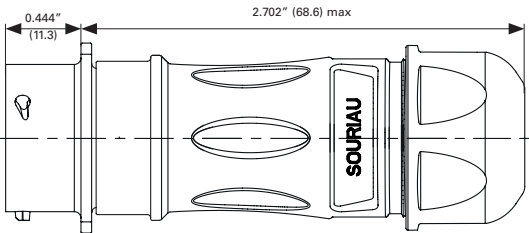


Fig. 1B

Plug - UTOX6, UTOX6M and UTOX6MS

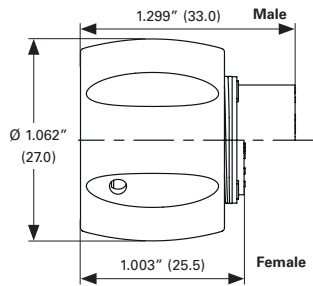


Fig. 2

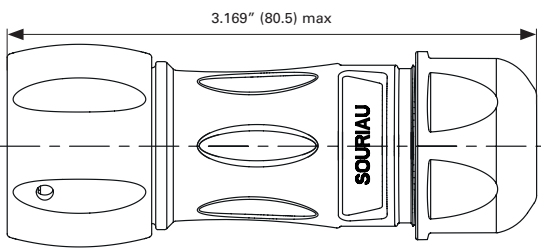


Fig. 3 Cable diameter acceptance from 0.275" to 0.393" (7 to 10)

Jam nut receptacle UTOX7

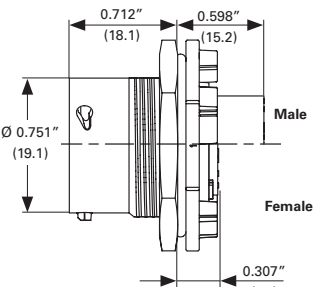


Fig. 4

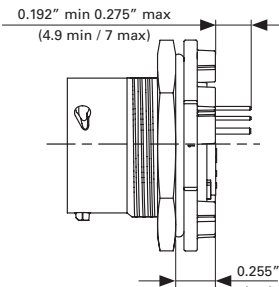


Fig. 5

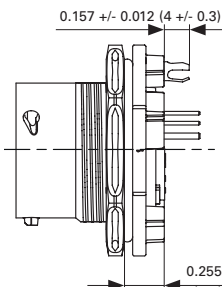
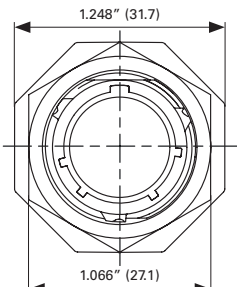
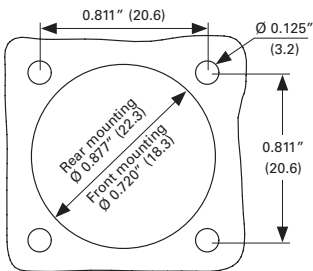


Fig. 6

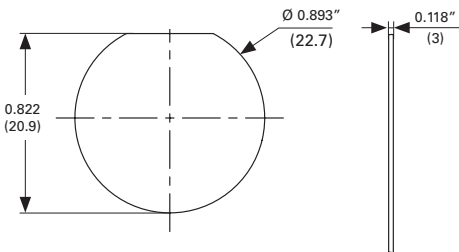


Panel cut-out

Square flange receptacle - UTOX0



Jam nut receptacle - UTOX7



Dimensions in inches (millimeters)

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. UTG612DC

Gasket



Part number

UTFD13B

Dummy contact #16



Part number

SMSPKE0

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

Souriau UTOX series

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

Contacts #20

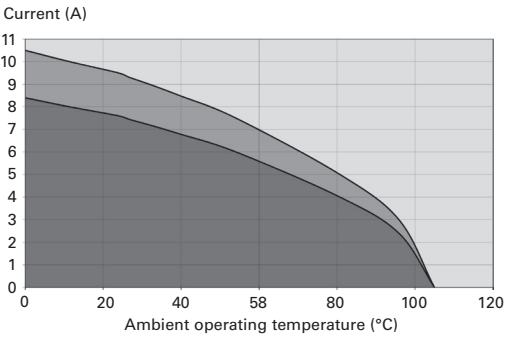
Contact type	Plating	Cable acceptance (AWG)	Cable acceptance inch ²	mm ²	Wire stripping length inch	mm
Handsolder loaded in the connector	Min 0.4µ gold over 0.8µ Ni	20-18	0.020"-0.031"	0.32-0.82	0.149"	3.8
PCB machined ⁽¹⁾	Min 0.4µ gold over 0.8µ Ni	—	—	—	—	—

(1) For dimensions see **Pages 134 or 135**

Electrical characteristics

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

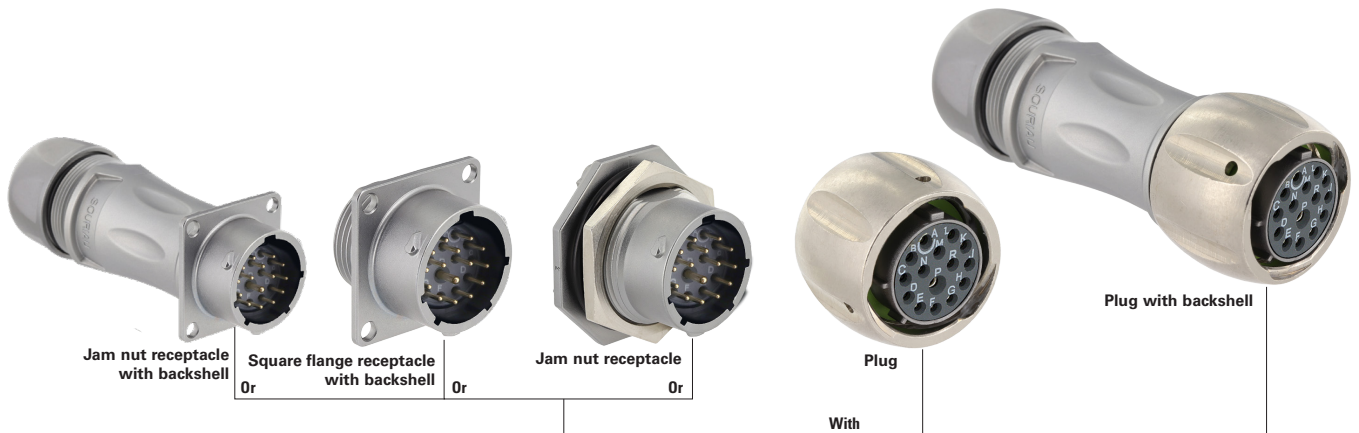
UTOX 12E4/12D4 derating curves



- Current use
- Limited use
- Not recommended

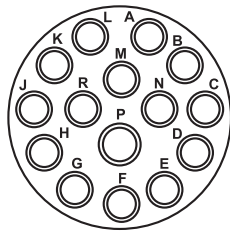
Test conditions
Contact used: machined contacts
Wires used: 20 AWG

Derating curves based on continuous current application.



Connector part numbers

UTOX 14E15/14D15



15 contacts
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)	UT0X014E15P	UT0X014E15S
	Square flange receptacle	Cable gland unshielded version (Fig. 1B)	UT0X0M14E15P	UT0X0M14E15S
	Square flange receptacle	Cable gland shielded version (Fig. 1B)	UT0X0MS14E15P	UT0X0MS14E15S
	Plug	Without (Fig. 2) ^{Note 1}	UT0X614E15P	UT0X614E15S
	Plug	Cable gland unshielded version (Fig. 3)	UT0X6M14E15P	UT0X6M14E15S
	Plug	Cable gland shielded version (Fig. 3)	UT0X6MS14E15P	UT0X6MS14E15S
	Jam nut receptacle	Without (Fig. 4)	UT0X714E15P	UT0X714E15S
PCB contacts loaded see Page 115	Square flange receptacle	Without (Fig. 2)	UT0X014D15P	UT0X014D15S
	Jam nut receptacle with stand off and without hold down clip	Without (Fig. 5)	UT0X714D15P	UT0X714D15S
	Jam nut receptacle with stand off and with hold down clips	Without (Fig. 6)	UT0X714D15P32	UT0X714D15S32

For discrimination/keying methods see **Page 151**

Sealed unmated

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

Souriau UTOX series

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

Dimensions (for mated connector lengths see Page 122)

Square flange receptacle - UTOX0

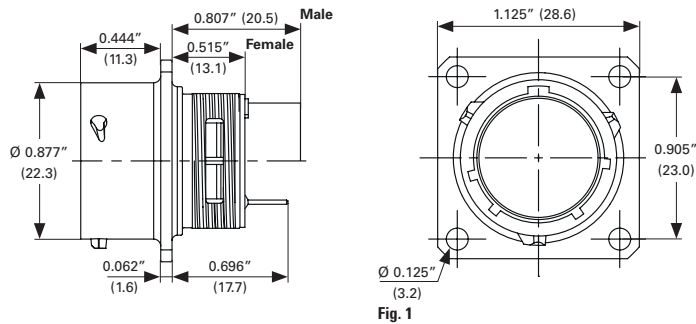


Fig. 1

Square flange receptacle with backshell - UTOX0M, UTOX0MS

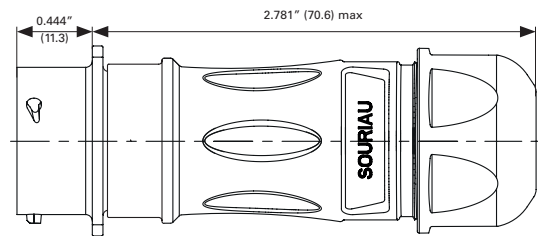


Fig. 18

Plug - UTOX6, UTOX6M and UTOX6MS

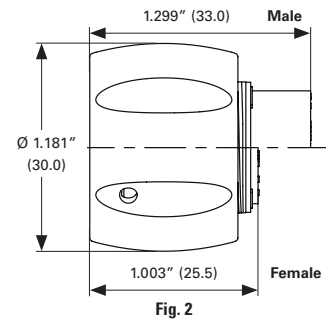


Fig. 2

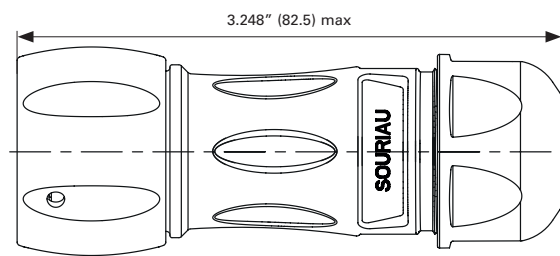


Fig. 3 Cable diameter acceptance from 0.393" to 0.511" (10 to 13)

Jam nut receptacle UTOX7

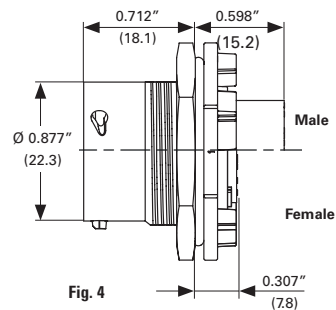


Fig. 4

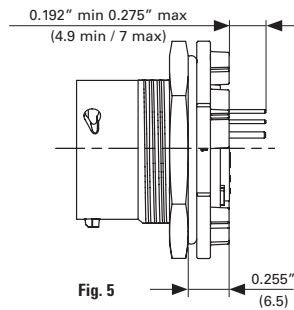


Fig. 5

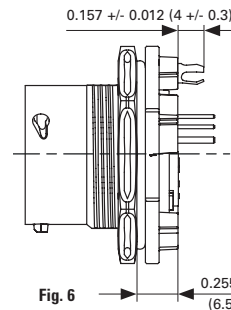
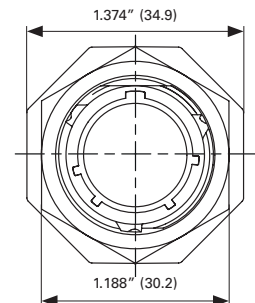
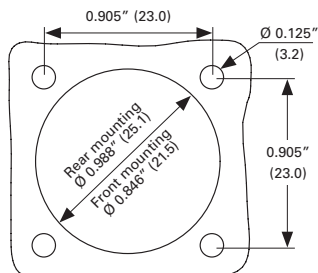


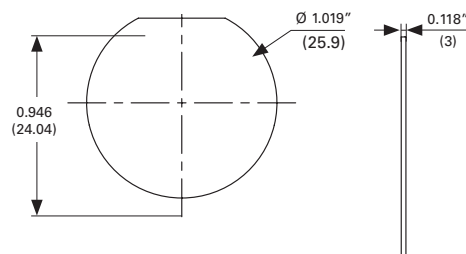
Fig. 6



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. UTG612DC

Gasket



Part number

UTFD14B

Contacts

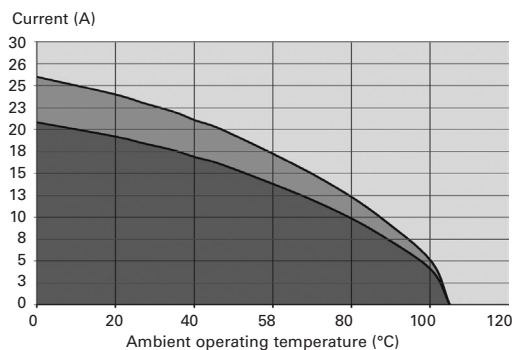
Contact size	Contact type	Plating	Cable acceptance (AWG)	Cable acceptance inch ²	Cable acceptance mm ²	Wire stripping length inch	Wire stripping length mm
#16	Handsold loaded in the connector	Min 0.4μ gold over 0.8μ Ni	18 - 14	0.032"-0.081"	0.823 - 2.08	0.196"	5
	PCB machined ⁽¹⁾	Min 0.4μ gold over 0.8μ Ni	—	—	—	—	—
#20	Handsold 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 134 or 135**

Electrical characteristics

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

UTOX 14E15/14D15 derating curves



- Current use
- Limited use
- Not recommended

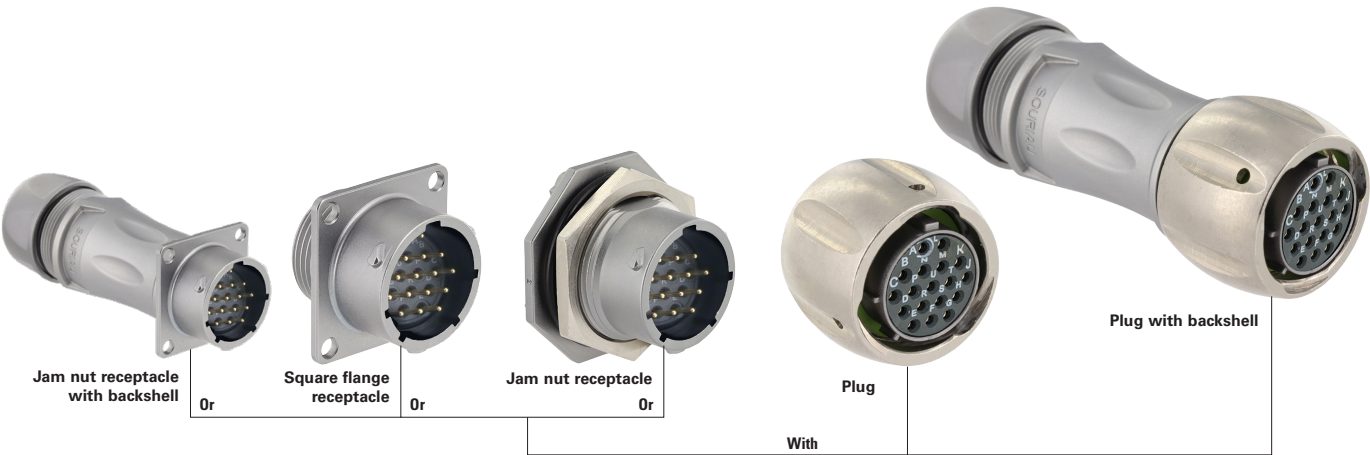
Test conditions

Contact used: machined contacts
Wires used: 16 AWG

Derating curves based on continuous current application.

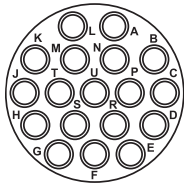
Souriau UTOX series

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



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)	UT0X014E18P	UT0X014E18S
	Square flange receptacle	Cable gland unshielded version (Fig. 1B)	UT0X0M14E18P	UT0X0M14E18S
	Square flange receptacle	Cable gland shielded version (Fig. 1B)	UT0X0MS14E18P	UT0X0MS14E18S
	Plug	Without (Fig. 2) <i>Note 1</i>	UT0X614E18P	UT0X614E18S
	Plug	Cable gland unshielded version (Fig. 3)	UT0X6M14E18P	UT0X6M14E18S
	Plug	Cable gland shielded version (Fig. 3)	UT0X6MS14E18P	UT0X6MS14E18S
	Jam nut receptacle	Without (Fig. 4)	UT0X714E18P	UT0X714E18S
PCB contacts loaded see Page 119	Square flange receptacle	Without (Fig. 2)	UT0X014D18P	UT0X014D18S
	Jam nut receptacle with stand off and without hold down clip	Without (Fig. 5)	UT0X714D18P	UT0X714D18S
	Jam nut receptacle with stand off and with hold down clips	Without (Fig. 6)	UT0X714D18P32	UT0X714D18S32

For discrimination/keying methods see **Page 151**
Note 1: It is necessary to add a backshell to the plug assembly.

Sealed unmatred

Dimensions (for mated connector lengths see Page 122)

Square flange receptacle - UTOX0

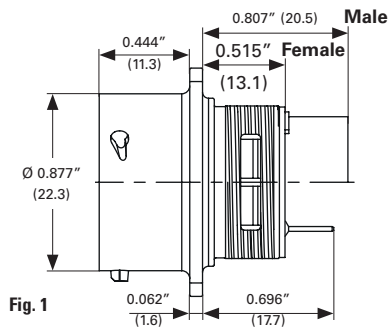
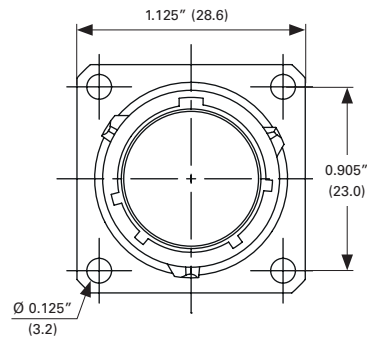


Fig. 1



Square flange receptacle with backshell - UTOX0M, UTOX0MS

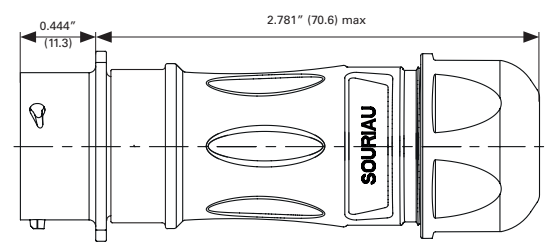


Fig. 1B

Plug - UTOX6, UTOX6M and UTOX6MS

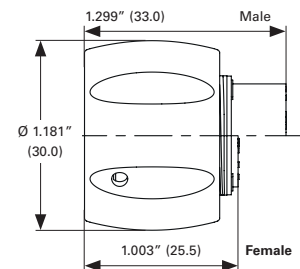


Fig. 2

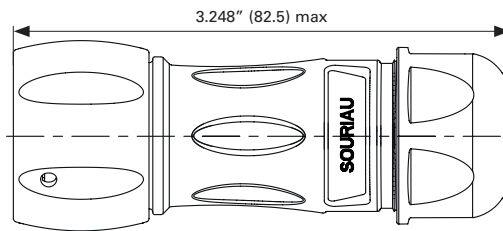


Fig. 3 Cable diameter acceptance from 0.393" to 0.511" (10 to 13)

Jam nut receptacle UTOX7

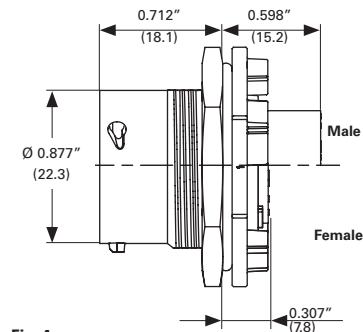


Fig. 4

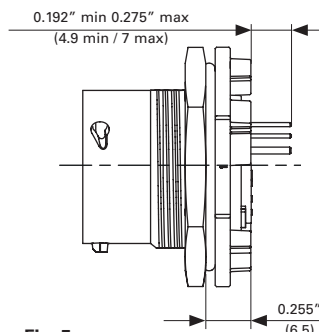


Fig. 5

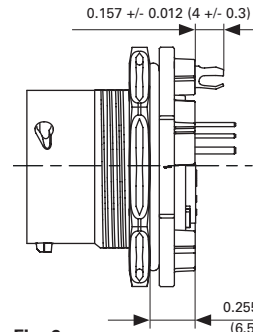
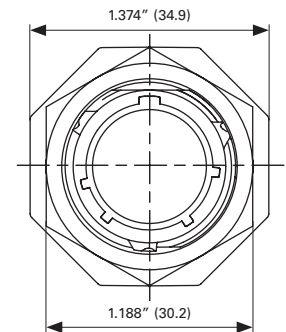
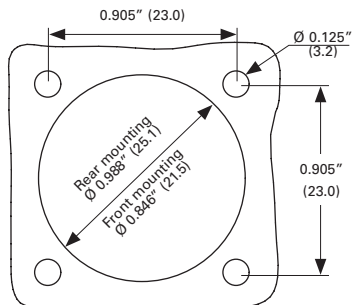


Fig. 6

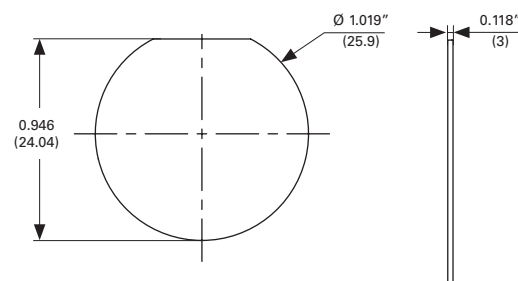


Panel cut-out

Square flange receptacle - UTOX0



Jam nut receptacle - UTOX7



Dimensions in inches (millimeters)

Souriau UTOX series

UTOX 14E18/14D18 derating curves

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. UT612DC	

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 134 or 135**

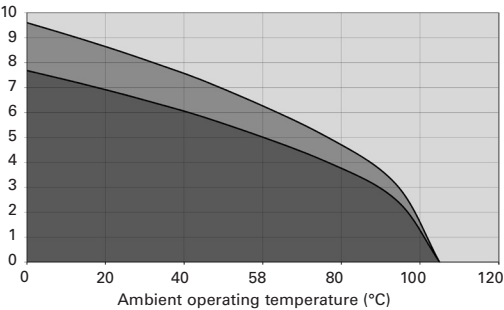
Electrical characteristics

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)

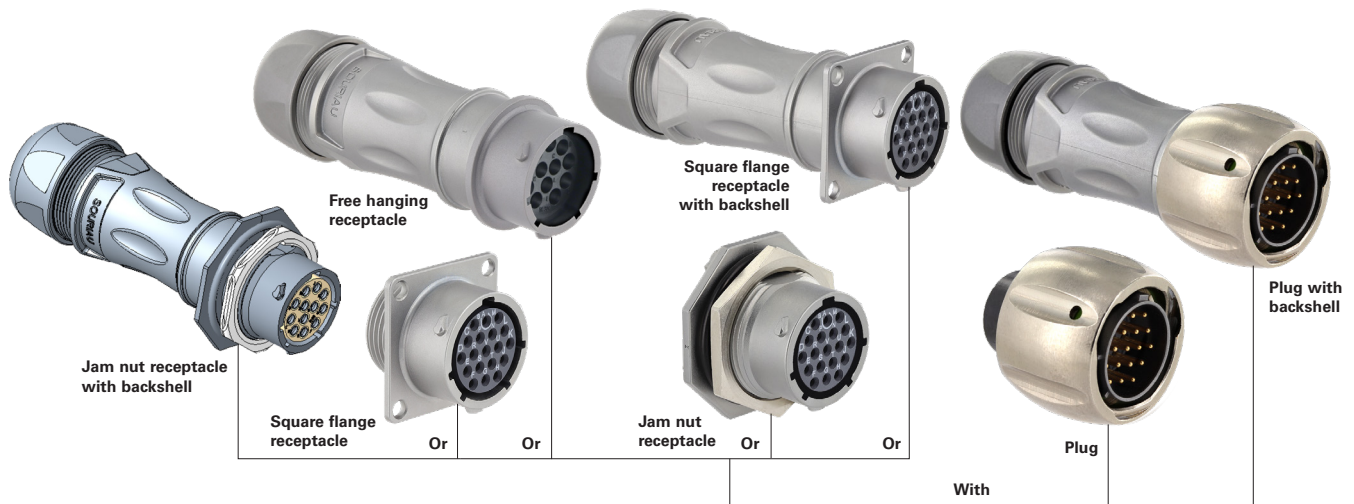


- Current use
- Limited use
- Not recommended

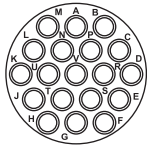
Test conditions

Contact used: machined contacts
Wires used: 20 AWG

Derating curves based on continuous current application.



Connector part numbers



UTOX 1419

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 124	Square flange receptacle	Without (Fig. 1)	UT0X01419P	UT0X01419S
	Square flange receptacle	Cable gland unshielded version (Fig. 2)	UT0X0M1419P	UT0X0M1419S
	Square flange receptacle	Cable gland shielded version (Fig. 2)	UT0X0MS1419P	UT0X0MS1419S
	Free hanging receptacle	Cable gland unshielded version (Fig. 3)	UT0X1M1419P	UT0X1M1419S
	Free hanging receptacle	Cable gland shielded version (Fig. 3)	UT0X1MS1419P	UT0X1MS1419S
	Plug	Without (Fig. 4) ^{Note 1}	UT0X61419P	UT0X61419S
	Plug	Cable gland unshielded version (Fig. 5)	UT0X6M1419P	UT0X6M1419S
	Plug	Cable gland shielded version (Fig. 5)	UT0X6MS1419P	UT0X6MS1419S
	Jam nut receptacle	Without (Fig. 6)	UT0X71419P	UT0X71419S
PCB contacts supplied separately see Page 124	Jam nut receptacle	Cable gland unshielded version (Fig. 9)	UT0X7M1419P	UT0X7M1419S
	Jam nut receptacle	Cable gland shielded version (Fig. 9)	UT0X7MS1419P	UT0X7MS1419S
	Square flange receptacle	Without (Fig. 1)	UT0X01419P	UT0X01419S
	Square flange receptacle	Without (Fig. 1)	UT0X014E19P	UT0X014E19S
	Plug	Without (Fig. 4)	UT0X614E19P	UT0X614E19S
Handsolder electrical contacts loaded see Page 124	Plug	Cable gland unshielded version (Fig. 5)	UT0X6M14E19P	UT0X6M14E19S
	Plug	Cable gland shielded version (Fig. 5)	UT0X6MS14E19P	UT0X6MS14E19S
	Jam nut receptacle	Without (Fig. 6)	UT0X714E19P	UT0X714E19S
	Jam nut receptacle	Without (Fig. 6)	UT0X714E19P	UT0X714E19S
PCB contacts loaded	Square flange receptacle	Without (Fig. 3)	UT0X014D19P	UT0X014D19S
	Jam nut receptacle with stand off and without hold down clip	Without (Fig. 7)	UT0X714D19P	UT0X714D19S
	Jam nut receptacle with stand off and with hold down clips	Without (Fig. 8)	UT0X714D19P32	UT0X714D19S32

For discrimination/keying methods see **Page 151**

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

Sealed unmated

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

Square flange receptacle - UTOX0, UTOX0M and UTOX0MS

[illegible]

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

Technical drawing of the SCURIAU lock cylinder. The drawing shows the front view of the cylinder with three horizontal slots and a central keyhole. Dimensions are indicated:

- Total length: 3.228" (82.0) max
- Keyhole diameter: Ø 0.877" (22.3)

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

Fig. 4

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

Fig. 6

Fig. 6

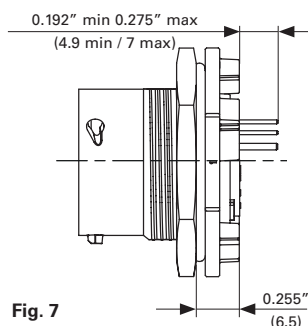


Fig. 7

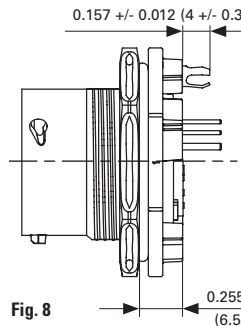


Fig. 8

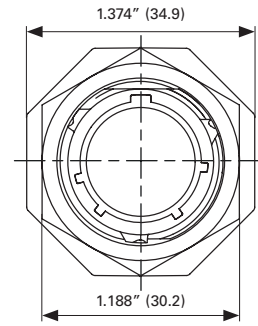


Fig. 9

Fig. 9

Square flange receptacle - UTOX0

0.905" (23.0)

Ø 0.125"

(3.2)

0.905"
w23.0

Rear mounting
Ø 0.989" (25.1)

Front mounting
Ø 0.946" (24.1)

Technical drawing showing a circular feature with the following dimensions:

- Horizontal dimension: $\varnothing 1.019''$ (25.9)
- Vertical dimension: 0.946 (24.04)
- Small horizontal dimension on the right: 0.118 (3)

Dimensions in inches (millimeters)

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. UTG614DC

Gasket



Part number
UTFD14B

Dummy contact #16



Part number
SMSPKE0

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

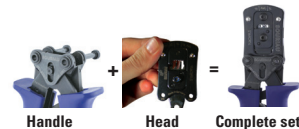
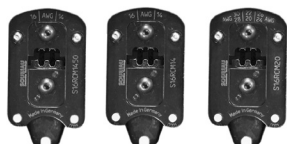
Tooling

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	RM/RC 24W3K ⁽¹⁾	S20RCM*
#20	RM/RC 20W3K ⁽¹⁾	S20RCM*
Ø 0.039" (1)	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 127**

(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)

Souriau UTOX series

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

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 127**

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

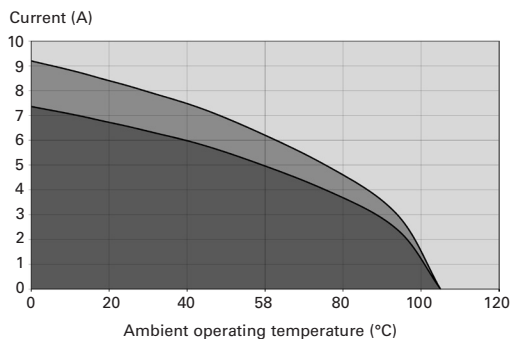
(3) For dimensions see **Pages 134 or 135**

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	4A 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.

Contacts

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.

The UTOX series is delivered with solder or PCB contacts for hi-seal versions and without contacts for standard crimp versions. The benefit of this standardization is to drastically reduce inventory. In addition, it eliminates the need for additional tooling and simplifies the assembly process. Souriau TRIM TRIO contacts are designed for **simple snap-in installation** that eliminates the need for an insertion tool.

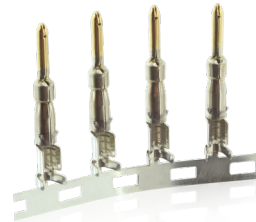
Contact plating selector guide

Once the contact size has been selected, the next step is to determine which electrical contact type should be used. We offer two main types of electrical contacts:

- Machined
- Stamped and formed



Machined contacts



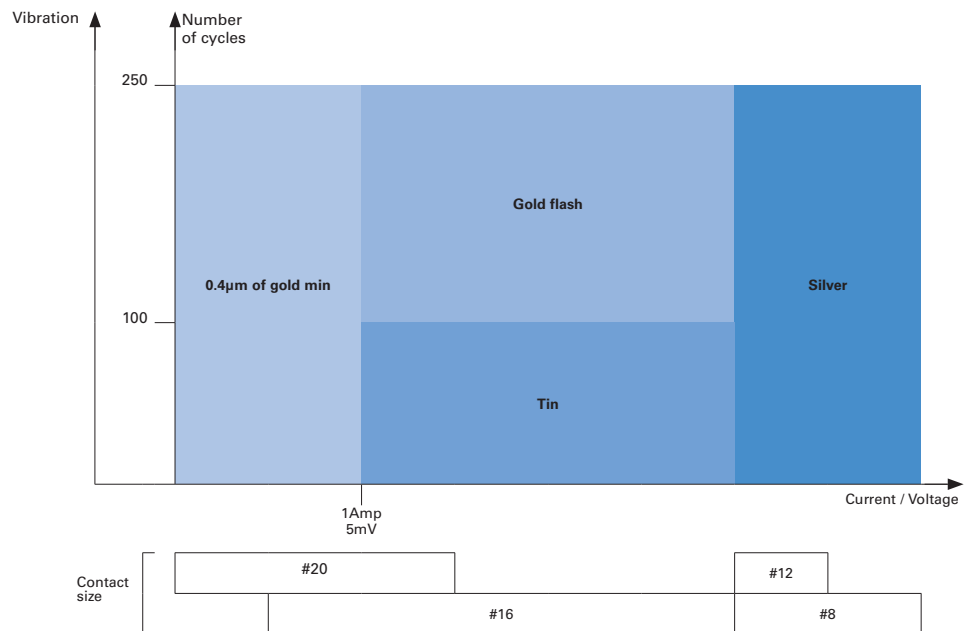
Stamped and formed contacts

Machined contacts are selected as a better solution for **power** applications or when **lower quantities** are needed.

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

The ideal plating is selected based on your application. Use the graph below to identify a plating based on the number of mating cycles, vibration and current/voltage needs for your application.

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

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

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.

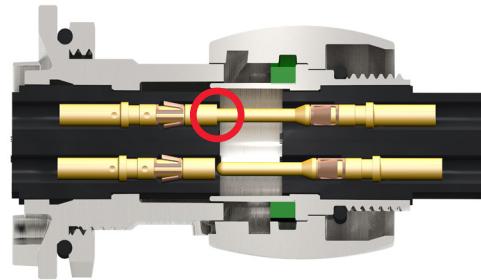
Contact size	Type	Wire size		Part number Male	Wire Ø max		Insulator Ø max		Color band		Available plating see Page 126
		AWG	inch ²		inch	mm	inch	mm	Front	Rear	
#16 Ø 0.062" (1.6)	Machined	30-28	0.001"-0.003"	RM28M1GE1K	0.021"	0.55	0.039"	1.0	-	Red	K
	Machined	26-24	0.005"-0.007"	RM24M9GE1K	0.031"	0.8	0.062"	1.6	Red	Red	K
Longer male contact +0.039" (+1)	Machined	22-20	0.012"-0.020"	RM20M12GE1K	0.045"	1.15	0.086"	2.2	Blue	Red	K
	Machined	18-16	0.036"-0.059"	RM16M23GE1K	0.070"	1.8	0.125"	3.2	-	Red	K
	Machined	16-14	0.059"-0.098"	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.

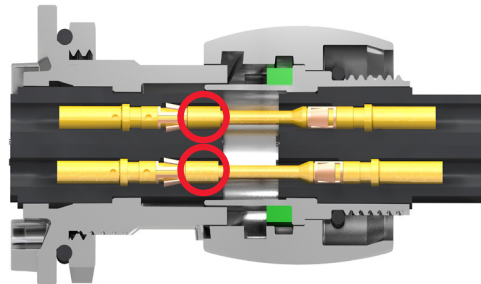
Please choose your contact from the table below.



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:



Contact size	Type	Wire size		Part number Male	Wire Ø max		Insulator Ø max		Color band		Available plating see Page 126
		AWG	inch ²		inch	mm	inch	mm	Front	Rear	
#16 Ø 0.062" (1.6)	Machined	30-28	0.001"-0.003"	RC28M1GE7K	0.021"	0.55	0.039"	1.0	-	Blue	K
	Machined	26-24	0.005"-0.007"	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"	RC20M13GE7K	0.045"	1.15	0.070"	1.8	Black	Blue	K
	Machined	22-20	0.012"-0.020"	RC20M12GE7K	0.045"	1.15	0.086"	2.2	Blue	Blue	K
	Machined	18-16	0.036"-0.059"	RC16M23GE1K	0.070"	1.8	0.125"	3.2	-	Blue	K
	Machined	16-14	0.059"-0.098"	RC14M30GE1K	0.089"	2.26	-	-	-	Blue	K

Coaxial contacts

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.



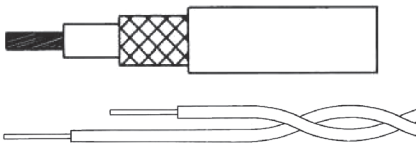
Multipiece crimp coaxial contact

- 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	48	Mono crimp	0.075"	1.91	0.034"	0.84	0.011"	0.3	0.054" max	1.37 max	RMDX6050D28	RCDX6016D28
RG152 / BU	48	Mono crimp	0.115"	2.92	0.06"	1.52	0.018"	0.48	0.088" max	2.24 max	RMDX6032D28	RCDX6032D28
RG174/U	48	Mono crimp	0.11"	2.79	0.06"	1.52	0.020"	0.51	0.078" max	1.98 max	RMDX6036D28	RCDX6036D28
RG188A/U	48	Mono crimp	0.107"	2.72	0.06"	1.52	0.020"	0.51	0.078" max	2.05 max	RMDX6036D28	RCDX6036D28
RG316/U	48	Mono crimp	0.12"	3.05	0.083"	2.11	0.025"	0.64	0.097"	2.46	RMDX6052D28	RCDX6052D28
Raychem 5024A3111	48	Mono crimp	0.083"	2.11	0.05"	1.27	0.018"	0.48	0.067"	1.7	RMDX6036D28	RCDX6036D28
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		Ø outer braid		Male contact kit for coaxial cable	Female contact kit for coaxial cable
			inch	mm	inch	mm	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"	RMDX6019D28 + YORX090	RCDX6019D28 + YORX090
—	Multi piece	24	—	1.25	—	—	—	0.275"x 0.007"	RMDX6019D28 + YORX090	RCDX6019D28 + YORX090
—	Multi piece	24	—	1.45	—	—	—	0.748"x 0.005"	RMDX6019D28 + YORX090	RCDX6019D28 + YORX090
—	Multi piece	26	—	0.7	—	—	—	0.275"x 0.006"	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

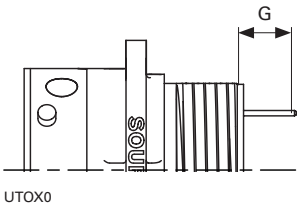
* Plating indication see Page 126

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

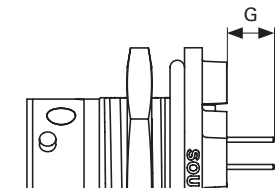
Dimension of dipsolder contacts out of connector (contacts to be ordered separately).

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



UTOX7

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

POF



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: UTSX, UTGX, UTOX, UTS, UTG, UTO, SMS, UTL.

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

Ordering information

Plastic optical fiber contact

Male contact	Female contact
RMPOF1000	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	SHANDLES	RX20D44
	RM/RC 20W3K	S20RCM	SHANDLES	RX20D44
	RM/RC 18W3K	S20RCM	SHANDLES	RX20D44
	SM 24WL3S*(1) SC 24WL3S*(1)	S20SCM20	SHANDLES	RX20D44
	SM/SC 20WL3S*(1)	S20SCM20	SHANDLES	RX20D44
#16 Ø 0.062" (1.6)	RM/RC 28M1*	S16RCM20	SHANDLES	RX2025GE1 or RX2031J long endurance tool
	RM/RC 24M9*	S16RCM20	SHANDLES	RX2025GE1 or RX2031J long endurance tool
	RM/RC 20M13*	S16RCM20	SHANDLES	RX2025GE1 or RX2031J long endurance tool
	RM/RC 20M12*	S16RCM20	SHANDLES	RX2025GE1 or RX2031J long endurance tool
	RM/RC 16M23*	S16RCM16	SHANDLES	RX2025GE1 or RX2031J long endurance tool
	RM/RC 14M30*	S16RCM14	SHANDLES	RX2025GE1 or RX2031J long endurance tool
	SM/SC 24ML1*(1)	S16SCM20	SHANDLES	RX2025GE1 or RX2031J long endurance tool
	SM/SC 20ML1*(1)	S16SCM20	SHANDLES	RX2025GE1 or RX2031J long endurance tool
	SM/SC 16ML1*(1)	S16SCML1	SHANDLES	RX2025GE1 or RX2031J long endurance tool
	SM/SC 14ML1*(1)	S16SCML1	SHANDLES	RX2025GE1 or RX2031J long endurance tool
	SM/SC 16ML11*(1)	S16SCML11	SHANDLES	RX2025GE1 or RX2031J long endurance tool

(1) loose contact

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

Contact size	Part number	Tool with separate locator		Extraction tools
		Hand tool	Positioner + locator setting	
#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 126 for plating options and other contact details

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

Contact size	Part number*	Hand tools	Tool with separate locator hand tool	Positioner + locator setting	Extraction tools
		(SHANDLES) Head			
#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 129 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 111	MONOCRIMP	S-80J	SL-105K	N/A	N/A
	RMDX6036D28	RMDX6036D28	see Page 111	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.

Souriau UTOX series

Automatic crimping tools

Automatic crimping tools

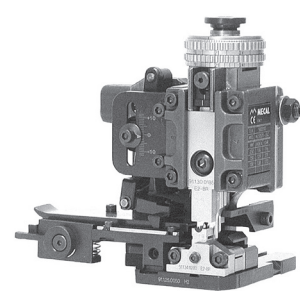
Contact Mecal for semi-automatic production tools.

Mecal sales network:

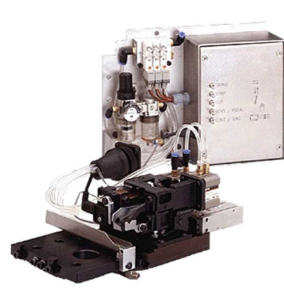
www.mecal.net

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



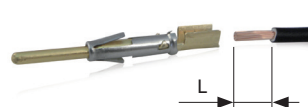
Contact size	Part number		Stripping length L	
	Male	Female	inch	mm
#20 Ø 0.039" (1)	RM24W3- / RM20W3- RM18W3-	RC24W3- / RC20W3- RC18W3-	0.188"	4.8
#16 Ø 0.062" (1.6)	RM28M1- / RM24M9- RM20M13- / RM20M12- RM16M23- / RM14M30-	RC28M1- / RC24M9- RC20M13- / RC20M12- RC16M23- / RC14M30-	0.188"	4.8
#8 Ø 0.141"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

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"	4
			0.183"	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"	6.35
			0.250"	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 126** for plating options and other contact details

Wire stripping solder and screw versions

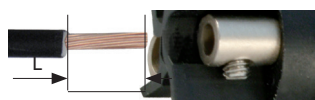
Solder contact delivered with connector



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

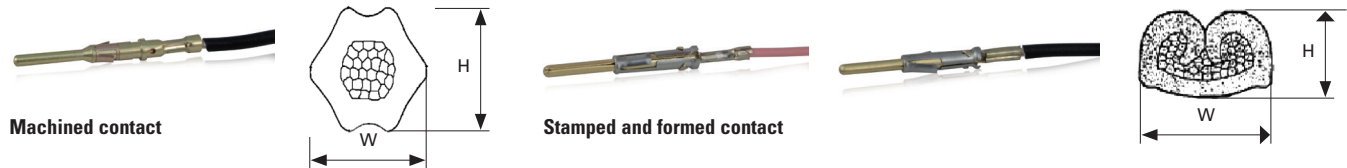


Contact size	Stripping length L	
	inch	mm
#16 / Ø 0.062" (1.6)	0.228"	5.8

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 127**

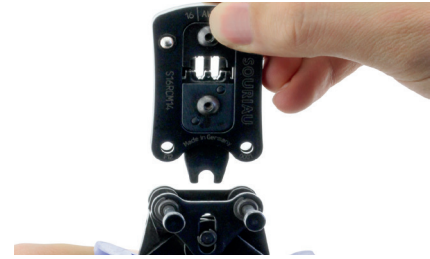
Note: Assembly operations mentioned above shall not interfere with or be in contradiction with the IPC-WHMA-A-620B.

Dimensions in inches (millimeters)

Crimping tooling



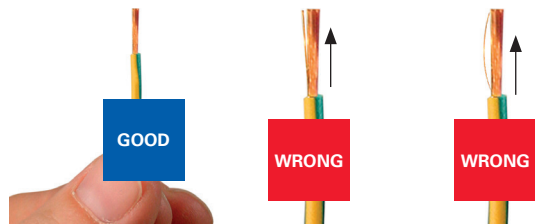
1) Fully close then release the tool, keep it open. Open the two pins.



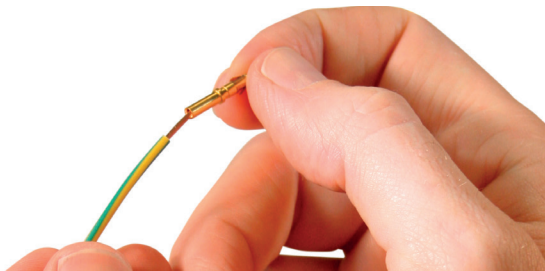
2) Choose the adapter head (sold separately). Keep vertical and slide it into the handle until the mechanical stop.



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 139.



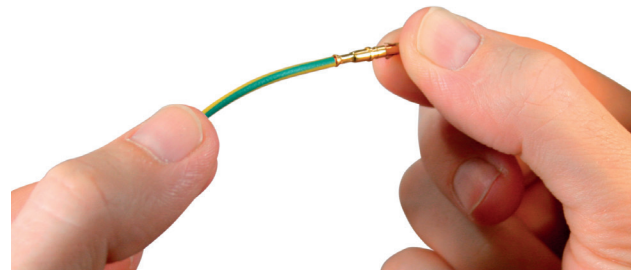
5) Place conductors, with no deterioration, in the contact bucket. All strands to be located in the crimp bucket.



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.

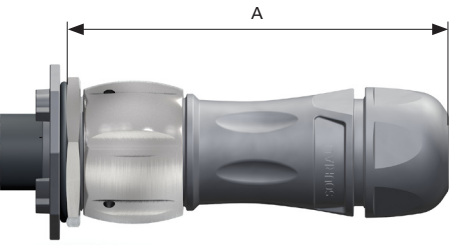


8) Control the quality of crimping (see Page 140).

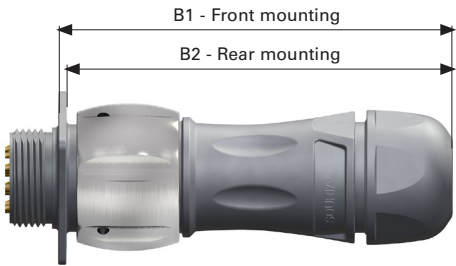
Note: Assembly operations mentioned above shall not interfere or to be in contradiction with the IPC-WHMA-A-620B.

Mated connector lengths

UTOX7 + UTOX6M or UTOX6MS

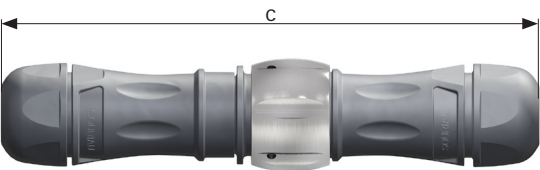


UTOX0 + UTOX6M or UTOX6MS

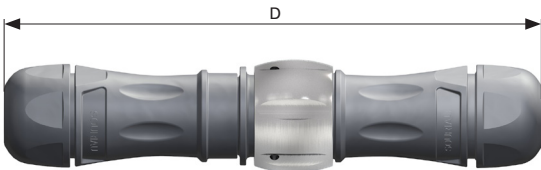


Shell size	UTOX7 + UTOX6M/MS		UTOX0 + UTOX6M/MS		B2 max	
	A max inch	mm	B1 max inch	mm	inch	mm
10	3.503"	89.0	3.314"	84.2	3.248"	82.5
12	3.543"	90.5	3.374"	85.7	3.307"	84.0
14	3.641"	92.5	3.452"	87.7	3.385"	86.0

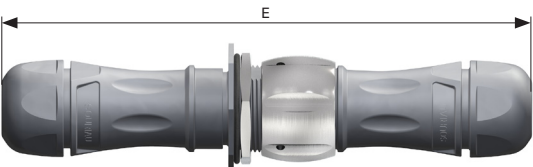
UTOX0M or UTOX0MS + UTOX6M or UTOX6MS



UTOX1M or UTOX1MS + UTOX6M or UTOX6MS



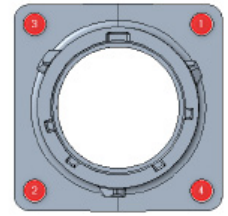
UTOX7M or UTOX7MS + UTOX6M or UTOX6MS



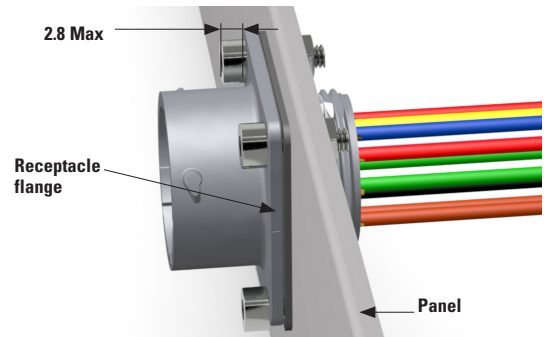
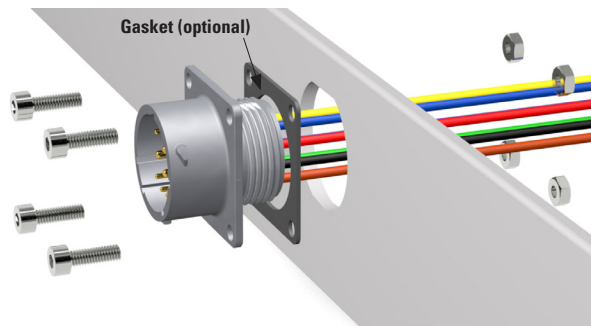
Shell size	UTOX0M/MS + UTOX6M/MS		UTOX1M/MS + UTOX6M/MS		UTOX7M/MS + UTOX6M/MS	
	C max inch	mm	D max inch	mm	E max inch	mm
10	5.893"	149.7	5.893"	149.7		
12	6.011"	152.7	6.011"	152.7		
14	6.173"	156.8	6.173"	156.8		

UTOX0 or UTOX0M or UTOX0MS assembly (mounting suggestion)

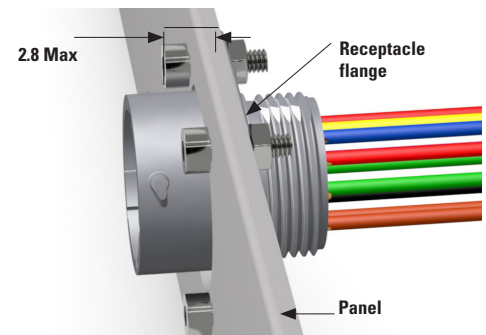
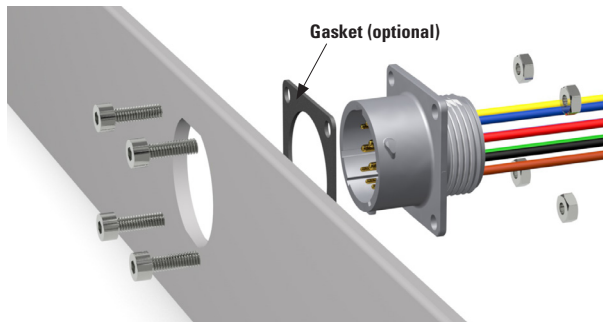
- Strip wires, crimp or solder contacts (see **Page 119**)
- Insert contacts into connector cavities (insert manually or use tool RTM205 crimp contacts)
- Place receptacle in the panel cut-out
- Secure receptacle with screws (not supplied)
- Tighten screws: M2.5 (recommended torque: see table below)
- 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

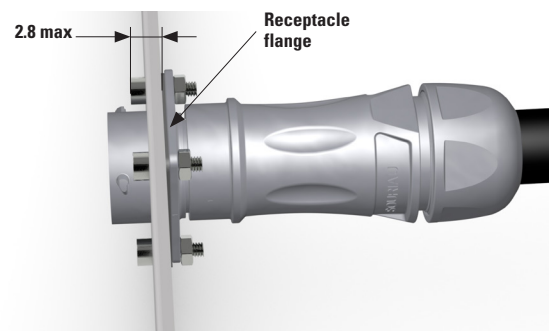
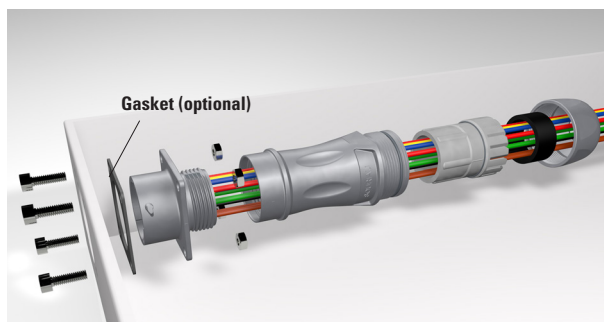


Rear mounting



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)

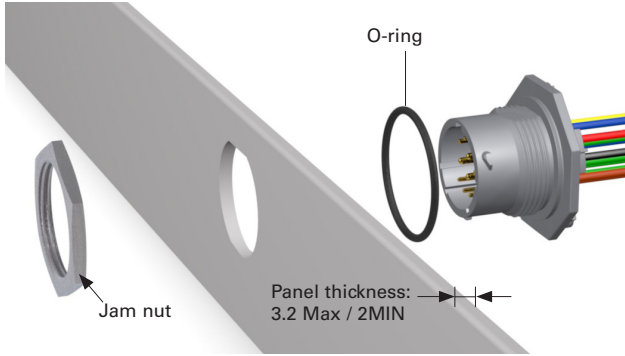
Souriau UTOX series

UTOX7 assembly (mounting suggestion)

UTOX7 assembly (mounting suggestion)

- Strip wires and crimp contacts (see **Pages 139 and 140**)
- 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

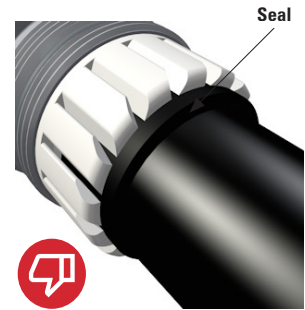
Crimp or solder version



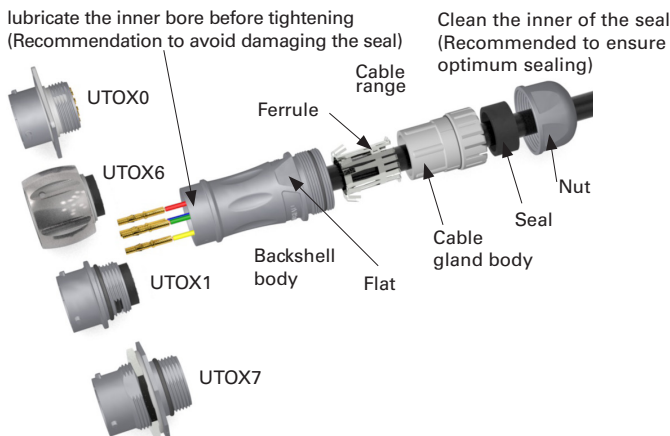
Shell size	Jam nut torque (Nm) max	Exterior jam nut dim.		Ø Wire Standard version max		Discrete wire sealing	
		inch	mm	inch	mm	inch	mm
10	6	0.874"	20.2	1.125"	3.2	From 0.066"	From 1.7
12	9	1.062"	27.0	1.125"	3.2	to 0.118"	to 3.0
14	10	1.185"	30.1	1.125"	3.2		

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 139 and 140**)
- 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!

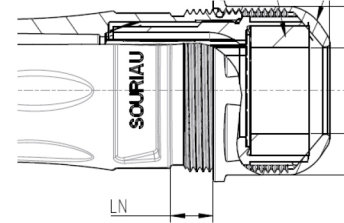


Make sure the seal is positioned as shown.



Only one type of Seal (See cable range table)

Standard

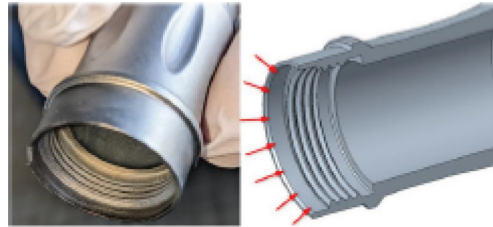


Shell size	Recommended jacket strip length		Backshell body tightening torque (Nm)	Wrench size for backshell body	Nut tightening 'LN' distance ^{Note 1}	Wrench size for Nut	Ø Cable range Standard seal		Ø Wire
	Male inch	Female mm					inch	mm	
10	0.826"	21	6	size 10: 16mm	For diameter 5mm cable: 2.5 / For diameter 7mm cable: 3	size 10: 18mm	0.197 / 0.276	5 / 7	From 0.066"
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	From 1.7
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	to 3.0

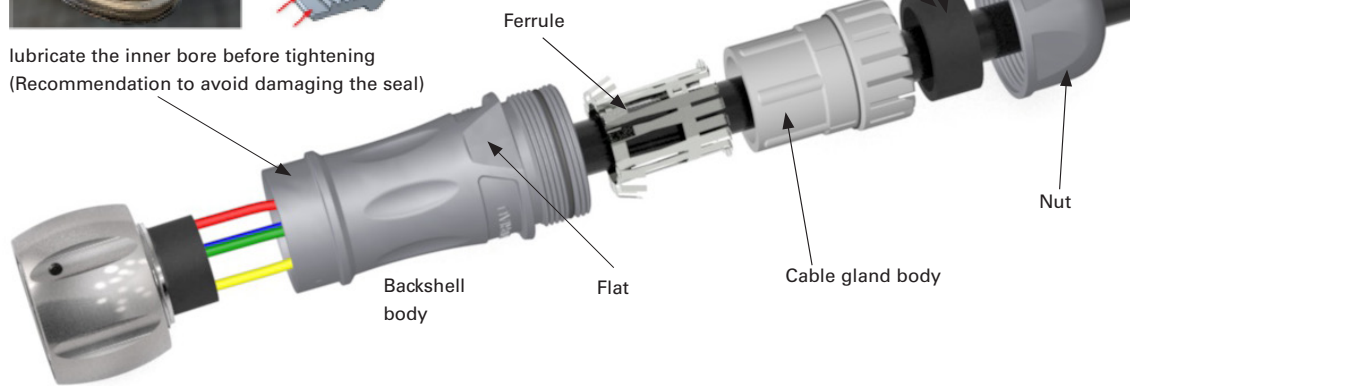
Note 1: The nut must be tightened to the recommended length (LN) using a flat wrench to hold the backshell body in place

UTOX6M/MS assembly: solder version

- Slide accessories onto the cable
- Mate the plug with a corresponding receptacle
- Strip external cable jacket (see **Pages 139 and 140**)
- 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

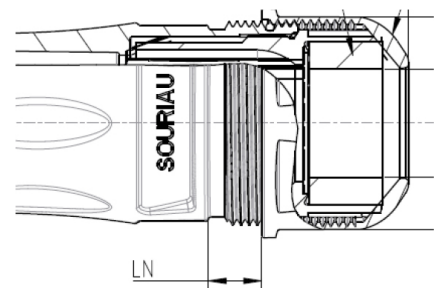


lubricate the inner bore before tightening
(Recommendation to avoid damaging the seal)



Only one type of Seal (See cable range table)

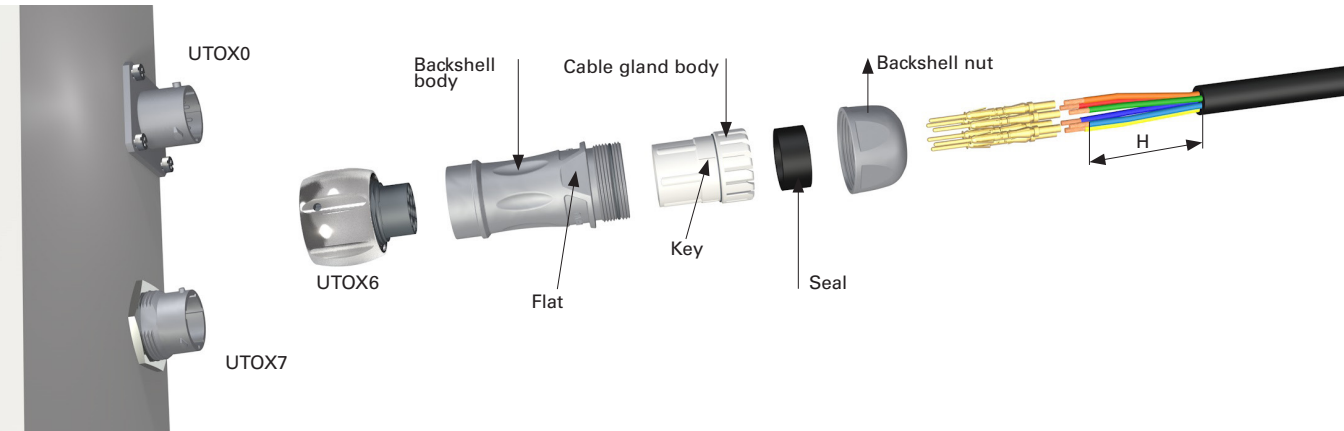
Standard



Shell size	Backshell body tightening torque (Nm)	Wrench size for backshell body	Nut tightening 'LN' distance	Wrench size for Nut	Ø Cable range Standard seal inch	mm	Ø Wire inch	mm
10	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	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	to
14	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 140 and 141**)
- 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

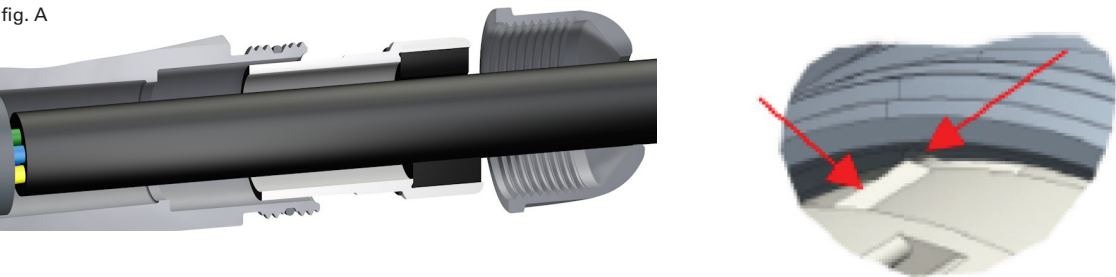


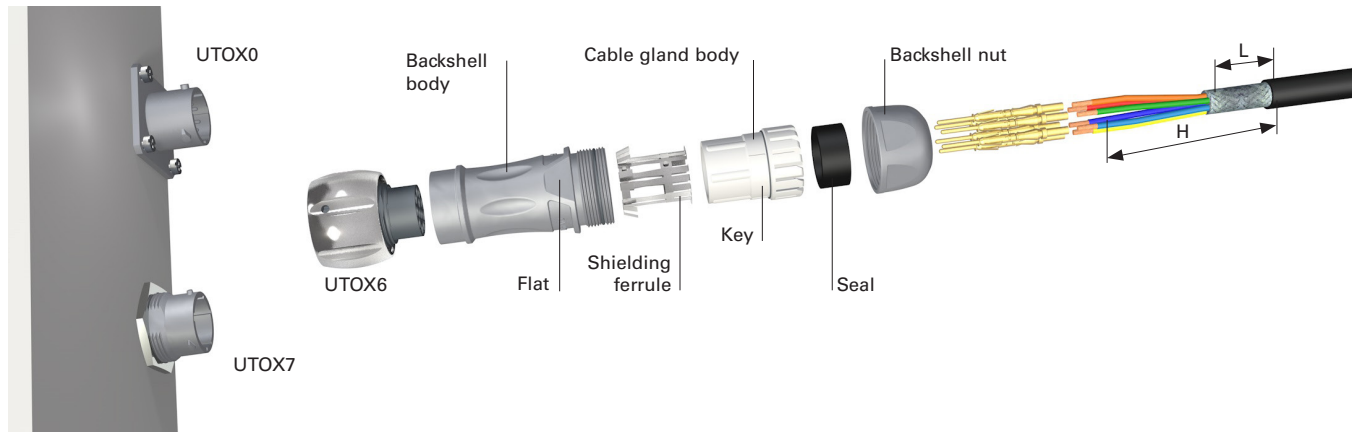
fig. B



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 140 and 141**)
- 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

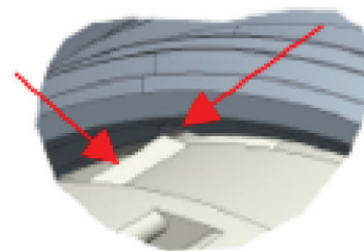
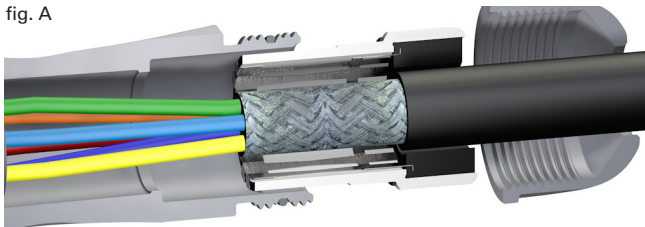
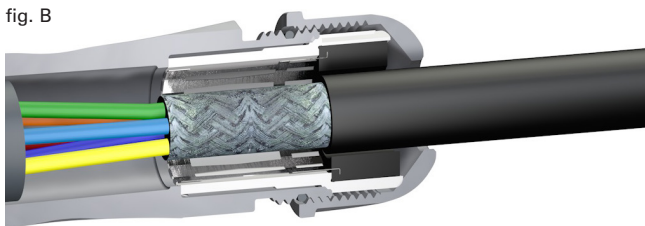


fig. B



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		Braid diameter acceptance range	
							Male	Female	Male	Female		Male	Female	Male	Female	inch	mm	inch	mm
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

Mating procedure

UTOX coupling procedure

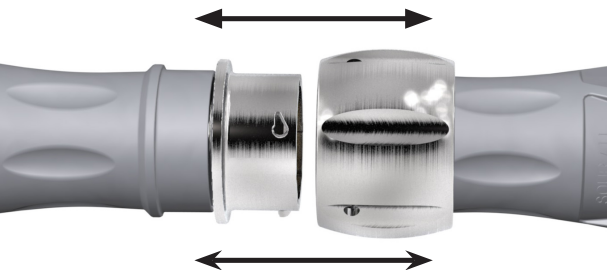
The images presented below offer a detailed guide on the sequential process of connecting a plug and receptacle, ensuring a careful mating to prevent any potential damage to the contacts.



1 - Identify the primary key of each connector.



4 - Offer the plug to the receptacle.



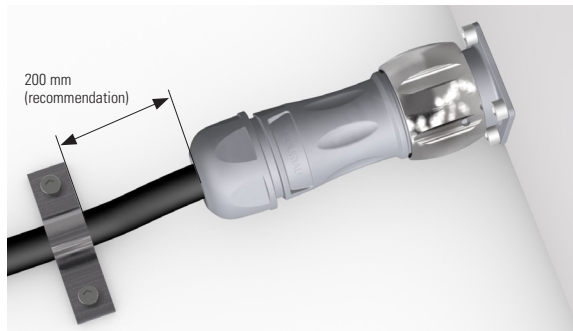
2 - Align the primary keys of the connectors.



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

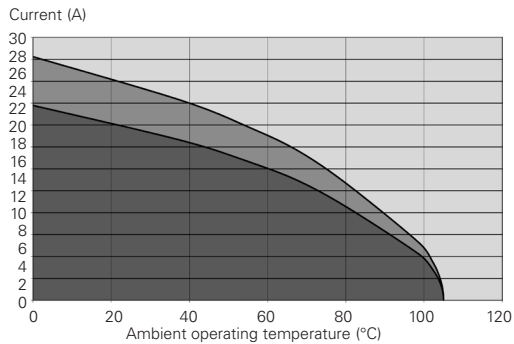


Fig.1: UTO 12-4 – Wire section 16 AWG

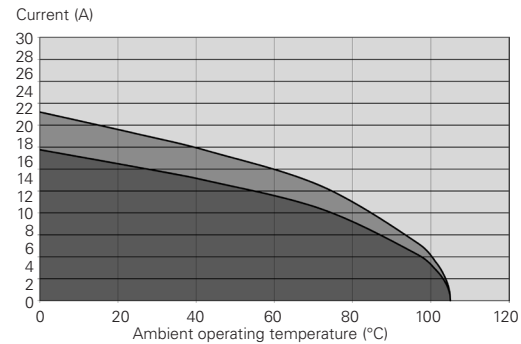


Fig.2: UTO 12-8 – Wire section 16 AWG

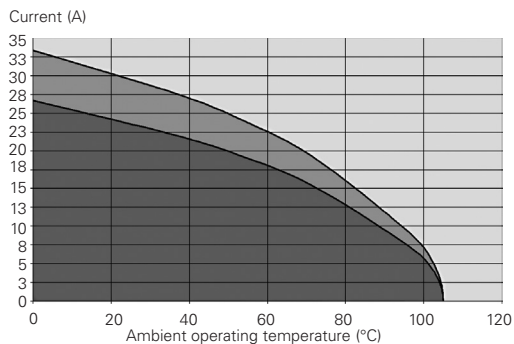


Fig.3: UTO 12-4 – Wire section 20 AWG

■ Current use
 ■ Limited use
 ■ Not recommended

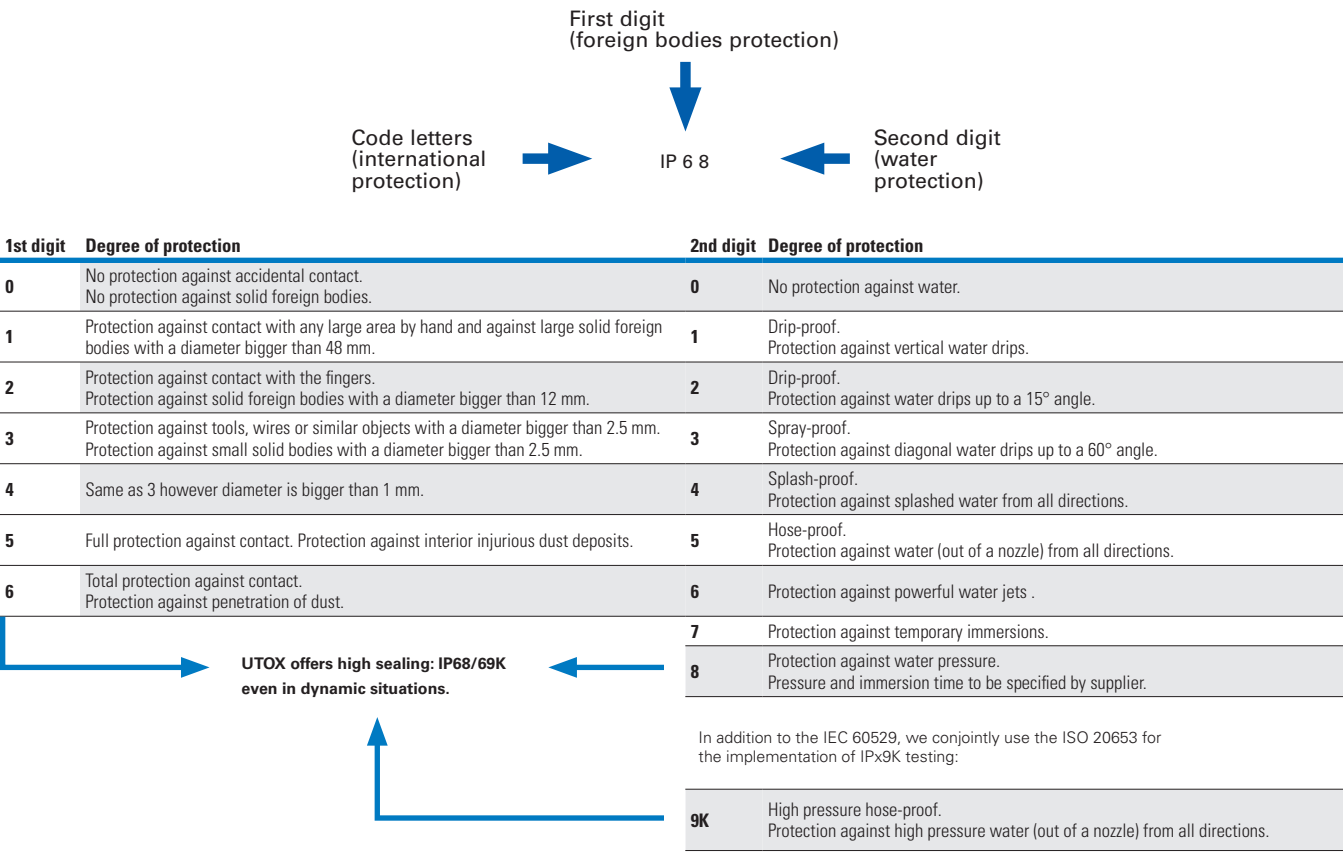
The rated current is defined as uninterrupted continuous current that a connector can take when all contacts are energized simultaneously without exceeding the maximum limit of temperature. The ground contact is never loaded.

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.

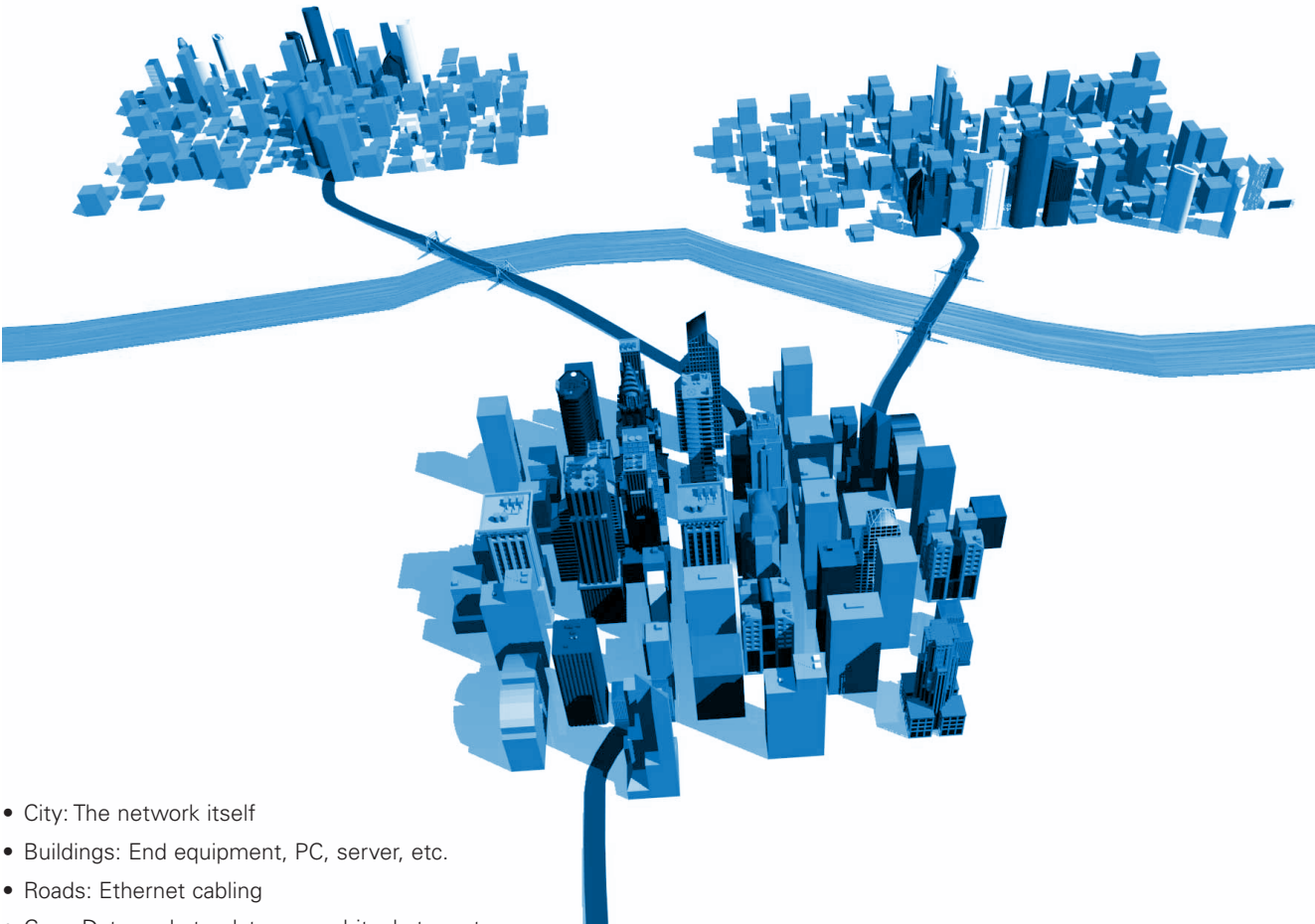
Protection provided by an enclosure

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.



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

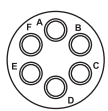
In connectors and cables, fast ethernet uses two pairs, one for transmit and one for receive. This way data traffic can flow in both directions simultaneously. To carry 100Mb/s data signals, 100BaseTX or fast ethernet, it is recommended to use Cat5e connectors as well as Cat5e cables with the support 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

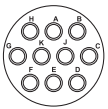
Standard solutions



10E6* 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

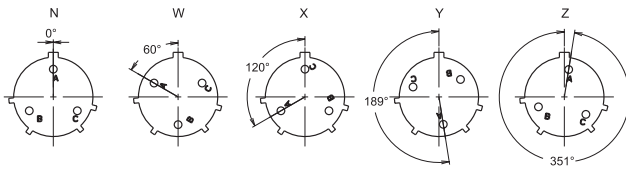
- 1 (Pair 1) = C
- 2 (Pair 1) = B
- 3 (Pair 2) = G
- 4 (Pair 2) = H

Shielding continuity done in cavity CandF.

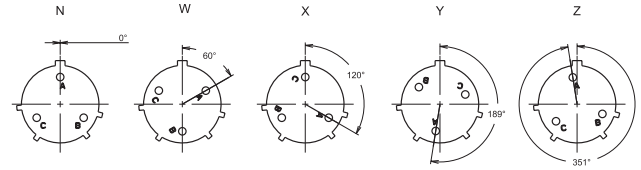
Note: Shielding can be replaced by DC power.

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

UT0X1M or UT0X1MS102W2P	32
UT0X1M or UT0X1MS102W2S	32
UT0X1M or UT0X1MS103P	15
UT0X1M or UT0X1MS103S	15
UT0X1M or UT0X1MS103W3P	43
UT0X1M or UT0X1MS103W3S	43
UT0X1M or UT0X1MS104S	36
UT0X1M or UT0X1MS106P	48
UT0X1M or UT0X1MS106S	48
UT0X1M or UT0X1MS1210P	76
UT0X1M or UT0X1MS1210S	76
UT0X1M or UT0X1MS124P	25
UT0X1M or UT0X1MS124S	25
UT0X1M or UT0X1MS128P	65
UT0X1M or UT0X1MS128S	65
UT0X1M or UT0X1MS1412P	80
UT0X1M or UT0X1MS1412S	80
UT0X1M or UT0X1MS1419P	101
UT0X1M or UT0X1MS1419S	101
UT0X1M or UT0X1MS142G1P	19
UT0X1M or UT0X1MS142G1S	19
UT0X1M or UT0X1MS147P	55
UT0X1M or UT0X1MS147S	55
UT0X1M or UT0X1MS148P	72
UT0X1M or UT0X1MS148S	72
UT0X1M or UT0X1MS1492P	87
UT0X1M or UT0X1MS1492S	87

Jam nut receptacle with cable gland

UT0X7M103P	15
UT0X7MS103P	15
UT0X7M103S	15
UT0X7MS103S	15

Jam nut receptacle only

UT0X7102W2P	32
UT0X7102W2S	32
UT0X7103P	15
UT0X7103S	15
UT0X7103W3P	43
UT0X7103W3S	43
UT0X7104P	36
UT0X7104S	36
UT0X7106P	48
UT0X7106S	48
UT0X710D6P	48
UT0X710D6P32	48
UT0X710D6S	48
UT0X710D6S32	48
UT0X710D7P	62
UT0X710D7P32	62
UT0X710D7S	62
UT0X710D7S32	62
UT0X710D98P	52
UT0X710D98P32	52
UT0X710D98S	52
UT0X710D98S32	52
UT0X710E6P	48
UT0X710E6S	48
UT0X710E7P	62
UT0X710E7S	62
UT0X710E98P	52
UT0X710E98S	52
UT0X71210P	76

UT0X71210S	76
UT0X7124P	25
UT0X7124PSCR	25
UT0X7124S	25
UT0X7124SSCR	25
UT0X7128P	65
UT0X7128PSEK9	65
UT0X7128S	65
UT0X712D10P	76
UT0X712D10P32	76
UT0X712D10S	76
UT0X712D10S32	76
UT0X712D14P	91
UT0X712D14P32	91
UT0X712D14S	91
UT0X712D14S32	91
UT0X712D3P	22
UT0X712D3P32	22
UT0X712D3S	22
UT0X712D3S32	22
UT0X712D4P	29
UT0X712D4P32	29
UT0X712D4S	29
UT0X712D4S32	29
UT0X712D8P	69
UT0X712D8P32	69
UT0X712D8S	69
UT0X712D8S32	69
UT0X712E10P	76
UT0X712E10S	76
UT0X712E14P	91
UT0X712E14S	91
UT0X712E3P	22
UT0X712E3S	22
UT0X712E4P	29
UT0X712E4S	29
UT0X712E8P	69
UT0X712E8S	69
UT0X71412P	80
UT0X71412S	80
UT0X71419P	101
UT0X71419S	101
UT0X7142G1P	113
UT0X7142G1S	113
UT0X7147P	55
UT0X7147PSCR	55
UT0X7147S	55
UT0X7147SSCR	55
UT0X7148P	72
UT0X7148S	72
UT0X71492P	87
UT0X71492S	87
UT0X714D12P	84
UT0X714D12P32	84
UT0X714D12S	84
UT0X714D12S32	84
UT0X714D15P	95
UT0X714D15P32	95
UT0X714D15S	95
UT0X714D15S32	95
UT0X714D18P	98
UT0X714D18P32	98
UT0X714D18S	98

UT0X714D18S32.....	98
UT0X714D19P.....	101
UT0X714D19P32.....	101
UT0X714D19S.....	101
UT0X714D19S32.....	101
UT0X714D5P.....	40
UT0X714D5P32.....	40
UT0X714D5S.....	40
UT0X714D5S32.....	40
UT0X714D7P.....	59
UT0X714D7P32.....	59
UT0X714D7S.....	59
UT0X714D7S32.....	59
UT0X714E12P.....	84
UT0X714E12S.....	84
UT0X714E15P.....	95
UT0X714E15S.....	95
UT0X714E18P.....	98
UT0X714E18S.....	98
UT0X714E19P.....	101
UT0X714E19S.....	101
UT0X714E5P.....	40
UT0X714E5S.....	40
UT0X714E7P.....	59
UT0X714E7S.....	59

Plug only

UT0X6102W2P.....	32
UT0X6102W2S.....	32
UT0X6103P.....	15
UT0X6103S.....	15
UT0X6103W3P.....	43
UT0X6103W3S.....	43
UT0X6104P.....	36
UT0X6104S.....	36
UT0X6106P.....	48
UT0X6106S.....	48
UT0X610E6P.....	48
UT0X610E6S.....	48
UT0X610E7P.....	62
UT0X610E7S.....	62
UT0X610E98P.....	52
UT0X610E98S.....	52
UT0X61210P.....	76
UT0X61210S.....	76
UT0X6124P.....	25
UT0X6124S.....	25
UT0X6128P.....	65
UT0X6128S.....	65
UT0X612E10P.....	76
UT0X612E10S.....	76
UT0X612E14P.....	91
UT0X612E14S.....	91
UT0X612E3P.....	22
UT0X612E3S.....	22
UT0X612E4P.....	29
UT0X612E4S.....	29
UT0X612E8P.....	69
UT0X612E8S.....	69
UT0X61412P.....	80
UT0X61412S.....	80
UT0X61419P.....	101
UT0X61419S.....	101
UT0X6142G1P.....	19
UT0X6142G1S.....	19
UT0X6147P.....	55
UT0X6147S.....	55

UT0X6148P.....	72
UT0X6148S.....	72
UT0X61492P.....	87
UT0X61492S.....	87
UT0X614E12P.....	84
UT0X614E12S.....	84
UT0X614E15P.....	95
UT0X614E15S.....	95
UT0X614E18P.....	98
UT0X614E18S.....	98
UT0X614E19P.....	101
UT0X614E19S.....	101
UT0X614E5P.....	40
UT0X614E5S.....	40
UT0X614E7P.....	59
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UT0X6M or UT0X6MS14E18P	98
UT0X6M or UT0X6MS14E18S	99
UT0X6M or UT0X6MS14E19P	101
UT0X6M or UT0X6MS14E19S	101
UT0X6M or UT0X6MS14E5P	40
UT0X6M or UT0X6MS14E5S	40
UT0X6M or UT0X6MS14E7P	59
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UT0X0106P	48
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UT0X010D7P	62
UT0X010D7S	62
UT0X010D98P	52
UT0X010D98S	52
UT0X010E6P	48
UT0X010E6S	48
UT0X010E7P	62
UT0X010E7S	62
UT0X010E98P	52
UT0X010E98S	52
UT0X01210P	76
UT0X01210S	76
UT0X0128P	65
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UT0X012D10P	76
UT0X012D10S	76
UT0X012D14P	91
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UT0X012D3P	22
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UT0X012D4P	29
UT0X012D4S	29
UT0X012D8P	69
UT0X012D8S	69
UT0X012E10P	76
UT0X012E10S	76
UT0X012E14P	91
UT0X012E14S	91
UT0X012E3P	22
UT0X012E3S	22
UT0X012E4P	29
UT0X012E4S	29
UT0X012E8P	69
UT0X012E8S	69
UT0X01412P	80
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UT0X01419P	101
UT0X01419S	101
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UT0X0142G1S	19
UT0X0147P	55
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UT0X0148P	72
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UT0X014E15P	95
UT0X014E15S	95
UT0X014E18P	98
UT0X014E18S	99
UT0X014E19P	101
UT0X014E19S	101
UT0X014E5P	40
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UT0X014E7P	59
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Square flange receptacle with cable gland

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UT0X0M or UT0X0MS102W2S	32
UT0X0M or UT0X0MS103P	43
UT0X0M or UT0X0MS103S	43
UT0X0M or UT0X0MS104P	36
UT0X0M or UT0X0MS104S	36
UT0X0M or UT0X0MS106P	48
UT0X0M or UT0X0MS106S	48
UT0X0M or UT0X0MS1210P	76
UT0X0M or UT0X0MS1210S	76
UT0X0M or UT0X0MS124P	25
UT0X0M or UT0X0MS124S	25
UT0X0M or UT0X0MS128P	65
UT0X0M or UT0X0MS128S	65
UT0X0M or UT0X0MS1412P	80
UT0X0M or UT0X0MS1412S	80
UT0X0M or UT0X0MS1419P	101
UT0X0M or UT0X0MS1419S	101
UT0X0M or UT0X0MS142G1P	19
UT0X0M or UT0X0MS142G1S	19
UT0X0M or UT0X0MS147P	55
UT0X0M or UT0X0MS147S	55
UT0X0M or UT0X0MS148P	72
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UT014DC	74
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UTG612DC	24
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82911461NA	35
82911462A	35
82911463NA	35
82911464A	35
82911465NA	35
82911466A	35
82911467NA	35
82913600A	108
82913601A	108
82913602A	108
82913603A	108
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RC28M1GE7K	109
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RM14M30K	18
RM16M23GE1K	109
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RM18W3K	35
RM20M12GE1K	108
RM20M12K	18
RM20M13K	18
RM20W3K	35
RM24M9GE1K	109
RM24M9K	18
RM24W3K	35
RM28M1GE1K	109
RM28M1K	18
SC14M1TK6	18
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SC16M1TK6	18
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SC16ML1TK6	120
SC20M1TK6	18
SC20ML1TK6	120
SC20W3TK6	35
SC20WL3TK6	120
SC24M1TK6	18
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SC24W3S25	35
SC24W3TK6	35
SC24WL3TK6	120
SM14M1TK6	18
SM14ML1TK6	120
SM16M11TK6	18
SM16M1TK6	18
SM16ML11TK6	120
SM16ML1TK6	120
SM20M1TK6	18
SM20ML1TK6	18
SM20W3S26	35
SM20W3TK6	35
SM20WL3TK6	35
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RCDX6018D28	111
RCDX6024D28	111
RCDX6026D28	111
RCDX6032D28	111
RCDX6034D28	111
RCDX6036D28	111
RCDX6052D28	111
RCDX60xxD28	18
RCDXK1D28	18
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RMDX6024D28	111
RMDX6026D28	111
RMDX6032D28	111
RMDX6034D28	111
RMDX6036D28	111
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