



The reliable connector to power up your device

The UTL series is a sealed plastic connector range able to carry up to 16A 277V.

- | | | |
|--|---|---|
| Key shape coupling with latching retention system | ✓ | No waste of time trying to find how to mate it |
| Designed to be overmoulded | ✓ | Secure against unwanted tampering. |
| UV resistant. F1 material + IP68 | ✓ | Suitable for outdoor use |
| Fire & smoke: UL 94 5VA | ✓ | Can be used in public environment |
| Compliant with luminaires standard
UL 1598, IEC 60598 | ✓ | Easy qualification of your system by regulation authorities |



UTL series



The philosophy of the UTL series is built around three key elements:

Dynamic IP68/69K



UTL series is rated at IP68/69K... even in dynamic conditions. This means that it remain sealed even when used continuously underwater or cleaned using a high pressure hose and cable is moving.

If this same level of performance is required even when connectors then we have special sealed contacts. This unique feature helps you to protect your electronics from ingress of water. This is particularly interesting when using with NEMA enclosure or outdoor luminaires.

UV Resistant



In most applications, our connectors are exposed to extreme climatic conditions; it was therefore key for us to select the materials best able to cope with the targeted environment.

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The UTL series uses an outdoor rated material. Underwriters Laboratories classifies it "F1".

UL/IEC Compliant



The utmost priority for any electrical installation is to protect personnel from any shock hazard.

In North America, Underwriters Laboratories insisted that connector manufacturers, depending of the application, respect their standards. The UTL series had thus been qualified, certified by this organisation and compliant with the UL 1598.

In Europe and in Asia, IEC standards are better known and trusted by end users. Like its American equivalent, the IEC refers to safety rules. The UTL series was obviously designed to respect these rules and especially the IEC 60598.

UTL series



Technical features

Mechanical

- Durability: 1000 cycles (with stamped & formed contacts & S18 plating)
- Vibration resistance: Sinusoidal vibrations per IEC 60512-4 - from 10 to 2000 Hz
- Body connector + Backshell: Thermoplastic
- Insert: Thermoplastic
- Nut: Metal

Electrical

- Working voltage: 277VAC per UL 1977
277/480VAC per UL 1977
- Rated current: 16A
- Connector for breaking circuit

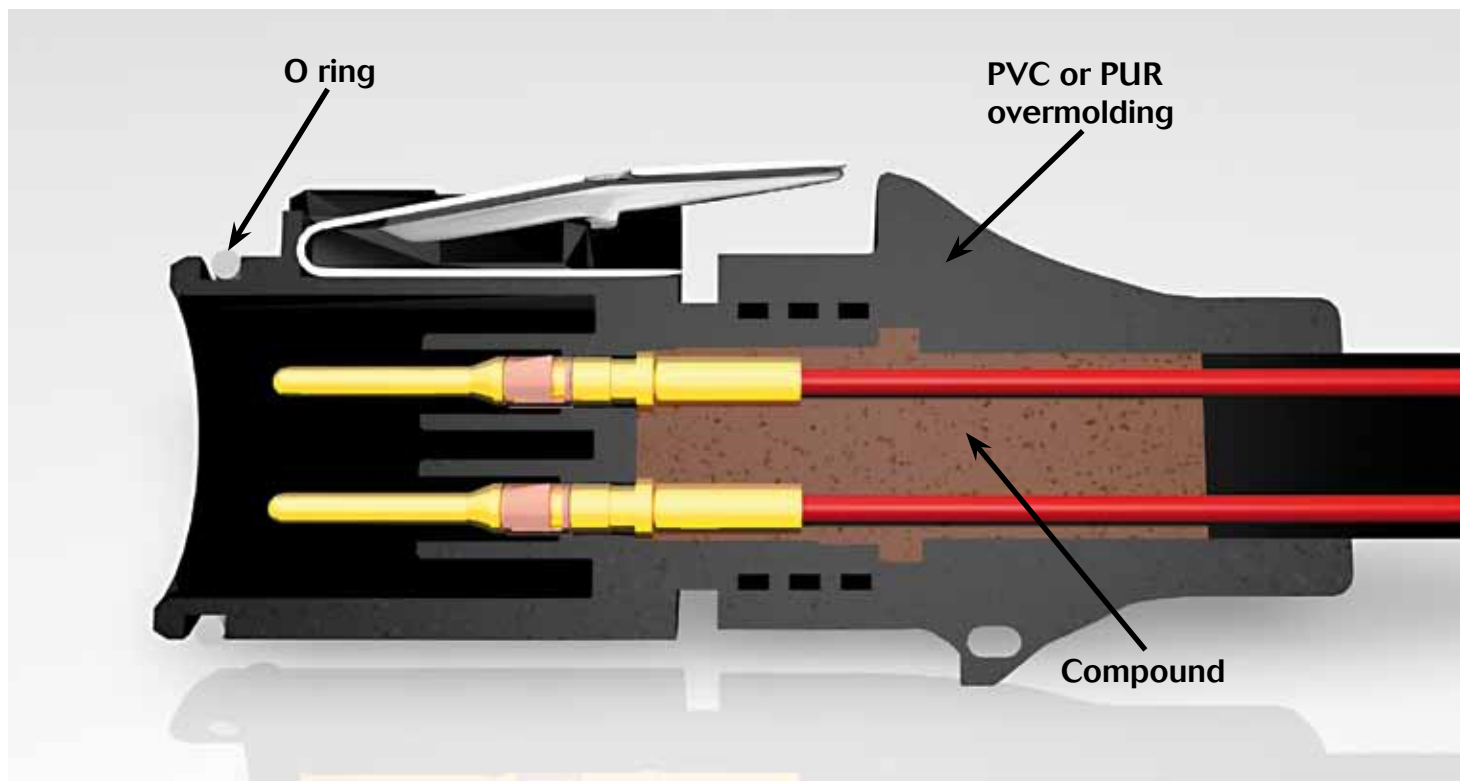


Environmental

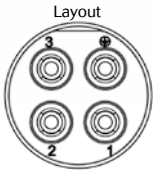
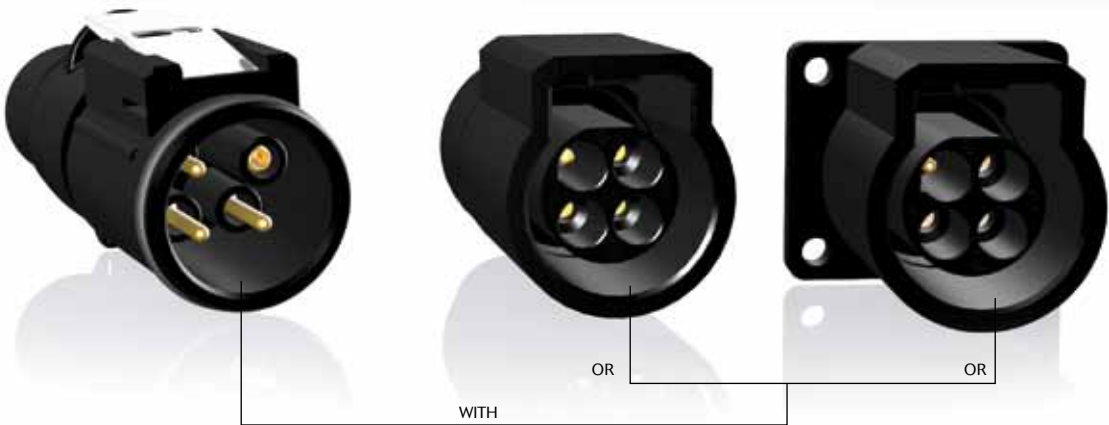
- Operating temperature: from -40°C to +105°C
- Flammability rating: UL 94 5VA
- Salt spray: ≥1000 hours
- UV resistant: F1 material per the UL 746C
- Sealing:
 - IP68/69K - IP6X mated & unmated
 - IPX8: mated (10m. underwater during 1 week)
 - IPX8: unmated with sealed contact (1m. underwater during 1 week)

Cable assembly

Souriau provides connectors in various applications for more than 90 years in the most extreme environment. Being conscious about the difficulty to find a quick and a reliable harness manufacturer, we decided years ago to start in house cable assembly production. It allows customers to reduce the number of suppliers, and to take advantage of the "best in class" quality of the Souriau group. Overmoulding is a process that further enhances the sealing properties of the UTL range, especially over many years of use. Overmoulding provides the opportunity to change the cable exit from straight through 90 degrees and avoid any stress on the cable terminated to the connector. Also, as the wires are encapsulated inside the moulding, a barrier is created which prevents from any liquid from entering the equipment through the connector if the cable jacket is breached.



UTL series



Specifications

Contact type	Connector type	Part number	
		Male insert	Female insert
Crimp contacts supply separately	Plug	UTL6103G1P	UTL6103G1S
	Square flange receptacle	UTL0103G1P	UTL0103G1S
	Jam nut receptacle	UTL7103G1P	UTL7103G1S
	Inline receptacle	UTL1103G1P	UTL1103G1S

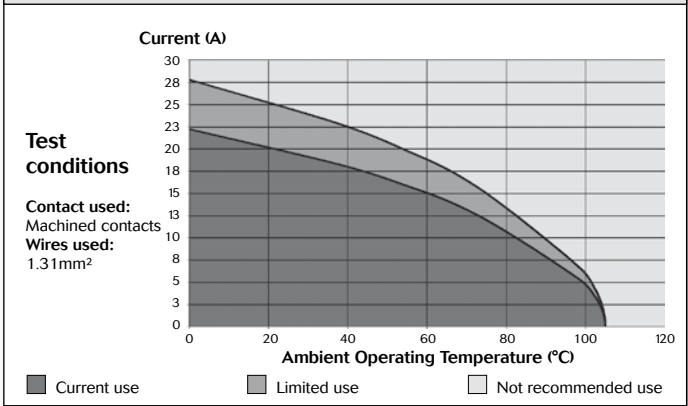
Sealed unmated: see page ?

Electrical characteristics

UL: 16A 277V UL94 5VA

IEC: 16A 250V 4kV 4 for Classe II equipment

UTL 103G1 derating curves



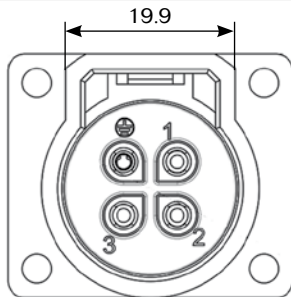
UTL series



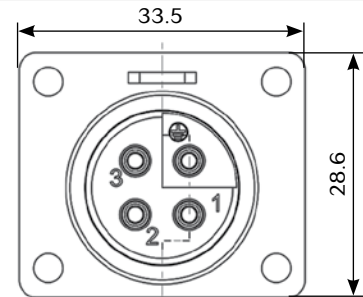
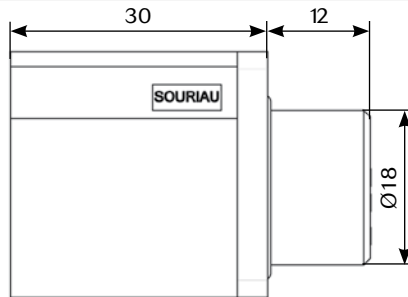
Dimensions

3 + ground
16A/277V
per UL 1977

Square flange receptacle - UTL0

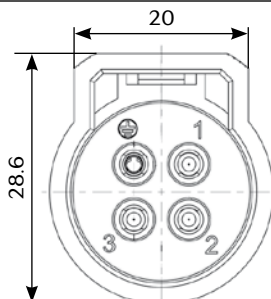


Mating face

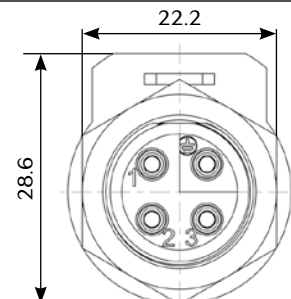
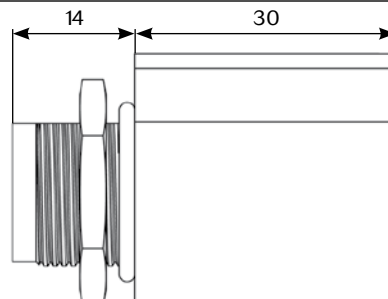


Wiring face

Receptacle - UTL7

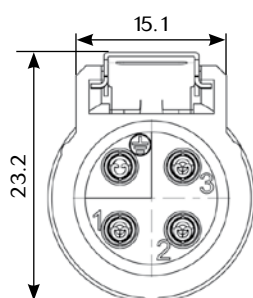


Mating face

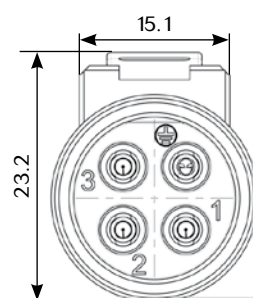
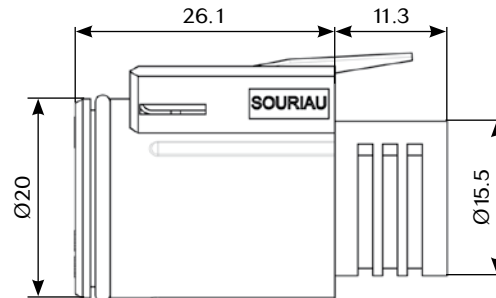


Wiring face

Plug - UTL6



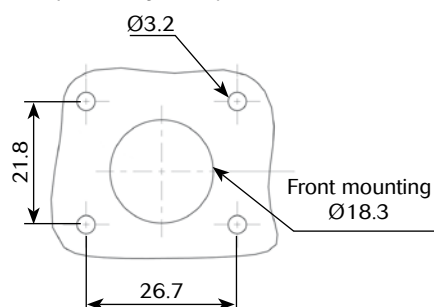
Wiring face



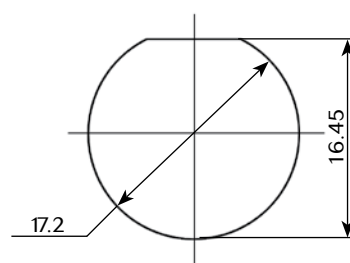
Wiring face

Panel cut out

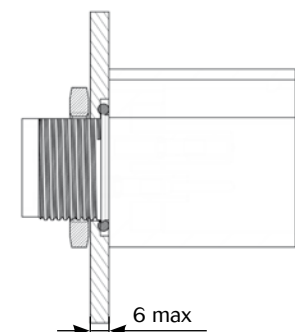
Square flange receptacle - UTL0



Jam nut receptacle - UTL7



Panel thickness



Note: all dimensions are in mm

UTL series



Contacts # 16

Part number				
Standard contacts				
Type	Wire size		Part numbers	
	AWG	mm ²	Male	Female
Machined	30-28	0.05-0.08	RM28M1K	RC28M1K
Machined	26-24	0.13-0.2	RM24M9K	RC24M9K
Stamped & Formed	26-24	0.13-0.25	SM24M1S18 ^{(A)(1)}	SC24M1S18 ^{(A)(1)}
			SM24ML1S18 ^{(A)(2)}	SC24ML1S18 ^{(A)(2)}
Machined	22-20	0.32-0.52	RM20M13K	RC20M13K
			RM20M12K	RC20M12K
Stamped & Formed	22-20	0.35-0.5	SM20M1S18 ^{(A)(1)}	SC20M1S18 ^{(A)(1)}
			SM20ML1S18 ^{(A)(2)}	SC20ML1S18 ^{(A)(2)}
Machined	20-16	0.52-1.5	RM16M23K	RC16M23K
Stamped & Formed	18-16	0.8-1.5	SM16M1S18 ^{(A)(1)}	SC16M1S18 ^{(A)(1)}
			SM16ML1S18 ^{(A)(2)}	SC16ML1S18 ^{(A)(2)}
Stamped & Formed	18-16	0.8-1.5	SM16M11S18 ^{(A)(1)}	SC16M11S18 ^{(A)(1)}
			SM16ML11S18 ^{(A)(2)}	SC16ML11S18 ^{(A)(2)}
Machined	16-14	1.5-2.5	RM14M50K	RC14M50K
Machined	16-14	1.5-2.5	RM14M30K	RC14M30K
Stamped & Formed	14	2.0-2.5	SM14M1S18 ^{(A)(1)}	SC14M1S18 ^{(A)(1)}
			SM14ML1S18 ^{(A)(2)}	SC14ML1S18 ^{(A)(2)}

Sealed contacts

Type	Wire size		Part numbers	
	AWG	mm ²	Male	Female
Machined	18-16	0.8-1.5	RM16M25K	RC16M25K
Machined	16-14	1.5-2.5	RM14M25K	RC14M25K

(A): Plating available (S31, S18)
Do not mix tin plating & gold plating

(1): Contact reeled
(2): Loose contact

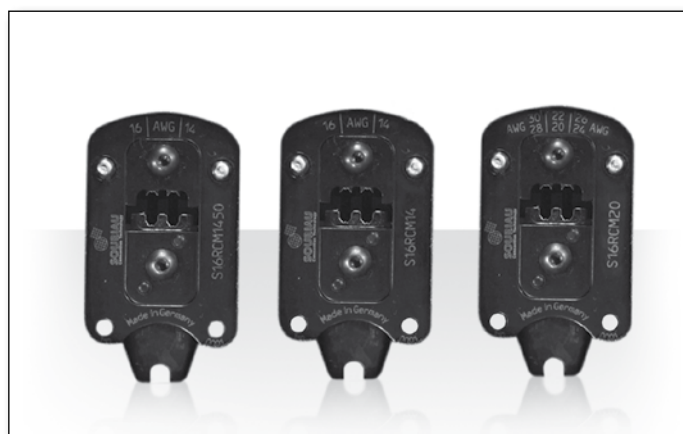
Available platings (contact supply separately)	
K	Min 0.4µ gold over 2µ Ni
S31	Active part: Gold flash over Ni Crimp area: Nickel
S18	Active part: 0.75µ gold min over 2µ Ni Crimp area: 1.3µ tin over Ni / Other: Nickel

Accessories

Dustcap	
Part number	
UTL10DCG	

Tooling

Handle	Tool kit
Part number	Part number
SHANGLES	TOOLKIT



Contacts	Contact size	Part number of head
RM/RC 28M1K ⁽¹⁾	Standard contacts # 16 Ø 1.6mm	S16RCM20
RM/RC 24M9K ⁽¹⁾		S16RCM20
RM/RC 20M13K ⁽¹⁾		S16RCM20
RM/RC 20M12K ⁽¹⁾		S16RCM20
RM/RC 16M23K ⁽¹⁾		S16RCM16
RM/RC 14M50K ⁽¹⁾		S16RCM1450
RM/RC 14M30K ⁽¹⁾		S16RCM14
SM/SC 24ML1S18 ⁽¹⁾		S16SCM20
SM/SC 20ML1S18 ⁽¹⁾		S16SCM20
SM/SC 16ML1S18 ⁽¹⁾		S16SCML1
SM/SC 14ML1S18 ⁽¹⁾		S16SCML1
SM/SC 16ML11S18 ⁽¹⁾		S16SCML11
RM/RC 16M23K ⁽¹⁾	Standard contacts # 16 Ø 1.6mm	S16RCM16
RM/RC 14M30K ⁽¹⁾		S16RCM14

(1): example of plating

For further information, click here www.souriau-industrial.com
Or contact us click here contactindustry@souriau.com