Aurotac Sliprings

CAVOTEC

Manufactured by Eletca

Aurotac sliprings

The Cavotec Group

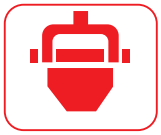
Cavotec is the name of a group of companies specialized in power supply technology for cranes and other industrial equipment. It is formed by 6 manufacturing companies located in Canada, Germany, Italy, Sweden and UK, and by 18 Cavotec sales companies which, together with a network of Distributors, serve more than 30 countries in five continents.
Each manufacturing company, no matter where it is located, aims at being a market leader in its field by providing innovative and reliable products to Group customers.
Although they manufacture different products in different countries, they are globally supported and coordinated by the Cavotec Group in their product development and marketing activities.
Each sales company, and each distributor, has a policy aiming at better serving its local market with the full support of the Cavotec Group.

Our aim is to be local everywhere

Great emphasis is put in providing the highest quality not only in the selected products, but also in service and backing to their customers. Our philosophy in fact is to be local everywhere.

Our fields of activity are

Mining, tunnelling



Steel Mills

Forestry

Ports, Terminals

Robots, Automation

Offshore

Construction

Cavotec Sales Companies

The products manufactured by Eletca S.p.A. described in the following pages, as well as other quality products in the field of crane and power technology, are distributed around the world by the Cavotec sales companies and by a network of selected Distributors.

The product

The Aurotac is a unique rotating electrical connector designed and manufactured by Eletca. Ideal for transmitting signal and control circuits, in applications where high revolutions per minute, low (electrical) noise, and low resistance prohibit the use of conventional sliprings. This durable, compact, maintenance free construction incorporating ball bearings is useful in many areas such as:

- **computers**
- **instrumentation**
- **thermocouples**
- **cable reels**
- **strain gauges**
- **packaging equipment**
- **robotics**
- **turntables**
- **advanced lighting**
- **windmills**
- **video and telephone**
- **testing and control devices**

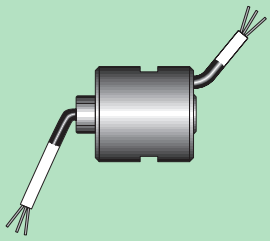
and in many others applications.

The highly sophisticated technology used with special surface treatments and gold-plated contacts together with the small size and the excellent and reliable performance distinguish the Aurotac slipring.
The specificated values on cross-talk and dynamic resistence are almost constant during the life time of the device.

The long-life sliding contacts are suitable for use with electronic circuits using analogue or digital signals as well as in power circuits up to 25 Amp.

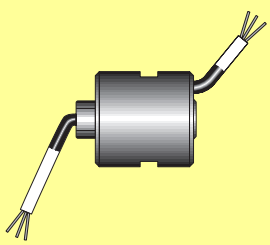
By optimising screening and trimming the circuits, it is possible in high frequency applications to improve the standing wave ratio (WSWR) values so also special circuits for serial lines (RS) and radio frequency lines (RF) can be created.

POWER + SIGNAL



	2 x 25A 2 x 5A	4 x 25A	4 x 25A 4 x 5A	4 x 25A 8 x 5A
TYPE 02	150C9202	150C9402	150C9802	150C9002
TYPE 03	—	150C9403	150C9803	150C9003
TYPE 04	—	150C9404	150C9804	150C9004

SIGNAL

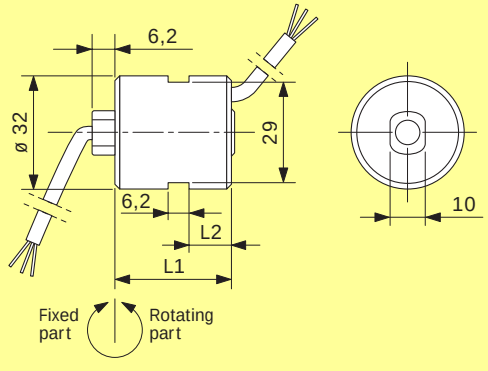


	3 x 5A	6 x 5A	9 x 5A	12 x 5A
TYPE 10	150C9310	150C9610	150C9910	150C9010
TYPE 15	150C9315	150C9615	150C9915	150C9015
TYPE 16	150C9316	150C9616	150C9916	150C9016
TYPE 17	150C9317	150C9617	150C9917	150C9017

Technical data

Circuit resistance:	<60 mohm
Insulation resistance at 500V dc - 50%RH:	>1000 Mohm
Dynamic resistance (noise):	<15 mhom
Current:	see size tabel
Voltage:	+500 Vac 750 Vdc
Speed (bidirectional):	1000 rpm Max
Temperature range:	-30 ÷ +85°C
Cross-talk:	>40db a 2MHz
Protection:	IP 67
Material:	anodized alluminium uni 3571
Cable:	tefzel awg 14, lenght 0,5 m;
Standard connecting cable:	tefzel awg 22, lenght 0,5 m
Rotation system:	ball bearing supported
Slipring life:	30.000 hours at 50 rpm (depending on type and cycle of use).

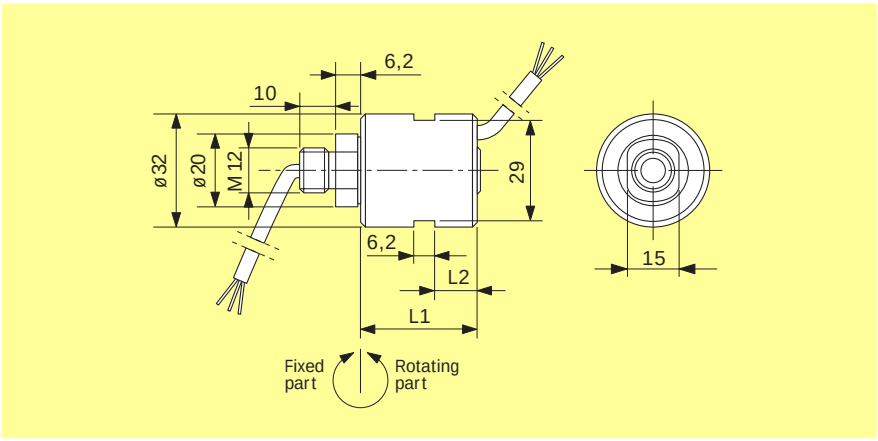
Basic units



POWER + SIGNAL		TYPE 02
CHANNELS	L1	L2
2 x 25A + 2 X 5A	38	14
4 x 25A	42	18
4 x 25A + 4 X 5A	58	30
4 x 25A + 8 x 5A	81	42

SIGNAL		TYPE 10
CHANNELS	L1	L2
3 x 5A	30	11
6 x 5A	42	18
9 x 5A	54	25
12 x 5A	66	29

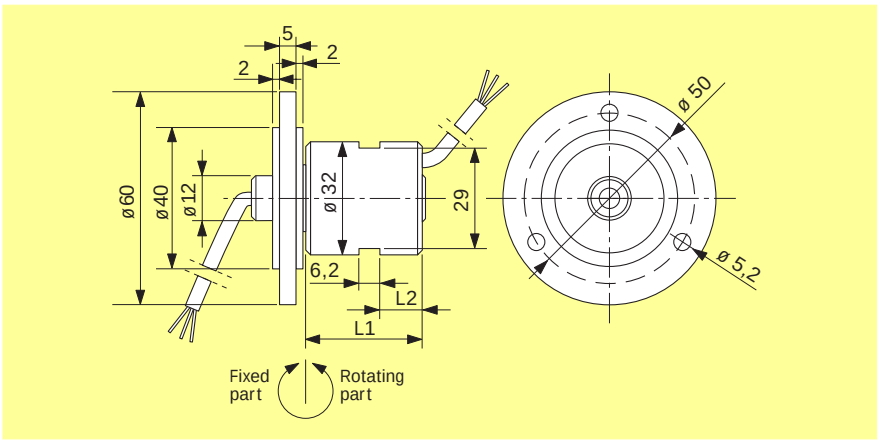
Threaded units



POWER + SIGNAL		TYPE 03
CHANNELS	L1	L2
4 x 25A	43,5	18
4 x 25A + 4 x 5A	59,5	30
4 x 25A + 8 x 5A	83,5	42

SIGNAL		TYPE 15
CHANNELS	L1	L2
3 x 5A	32,5	11
6 x 5A	44,5	18
9 x 5A	56,5	25
12 x 5A	68,5	29

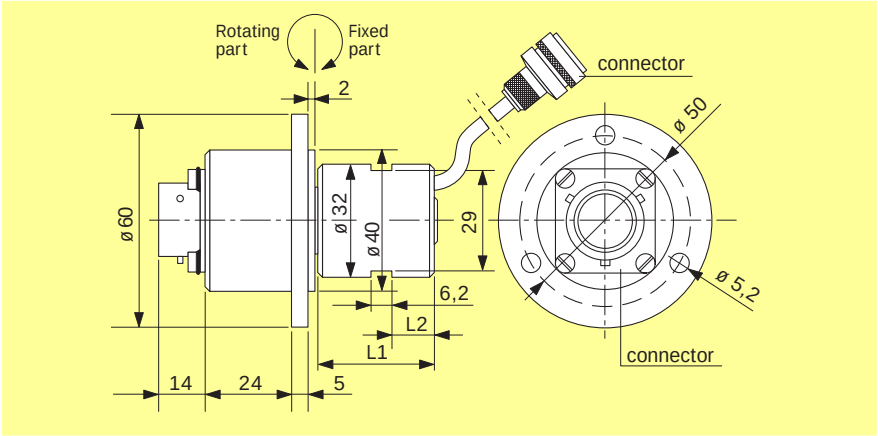
Flanged units



POWER + SIGNAL		TYPE 04
CHANNELS	L1	L2
4 x 25A	43,5	18
4 x 25A + 4 x 5A	59,5	30
4 x 25A + 8 x 5A	83,5	42

SIGNAL		TYPE 16
CHANNELS	L1	L2
3 x 5A	32,5	11
6 x 5A	44,5	18
9 x 5A	56,5	25
12 x 5A	68,5	29

With connector



SIGNAL		TYPE 17
CHANNELS	L1	L2
3 x 5A	32,5	11
6 x 5A	44,5	18
9 x 5A	56,5	25
12 x 5A	68,5	29

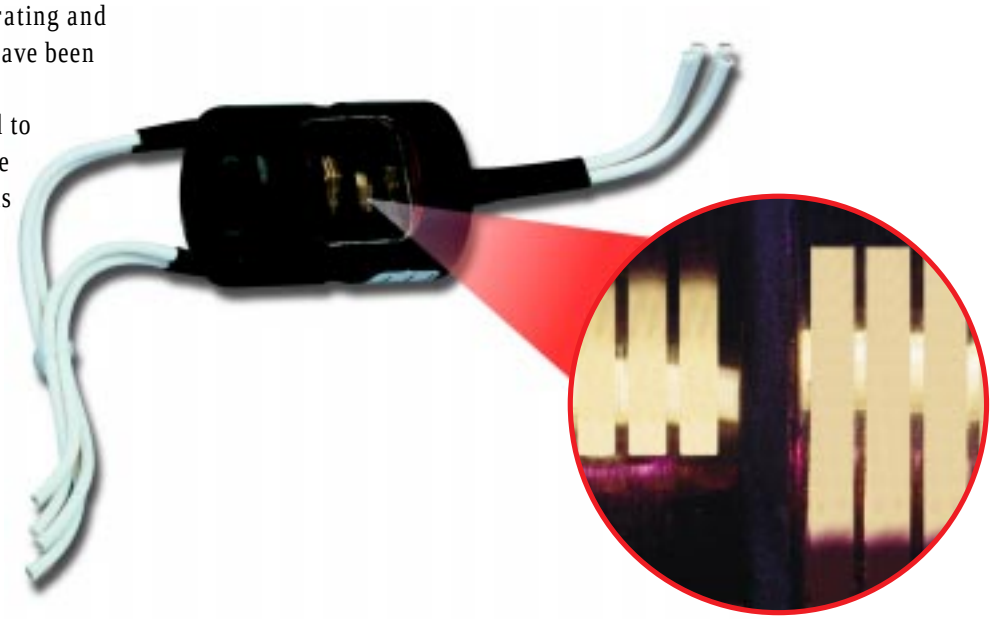
Construction

The mechanical parts of the slipring are made of anodised aluminium to withstand harsh environmental conditions as temperature, vibrations and shock.
The standard range of sliprings are manufactured in different models with flange, shaft or screw fixing, to accommodate different fixing methods and facilitate the application on the clients equipment.
Special solutions, mechanically and electrically, are made on request.

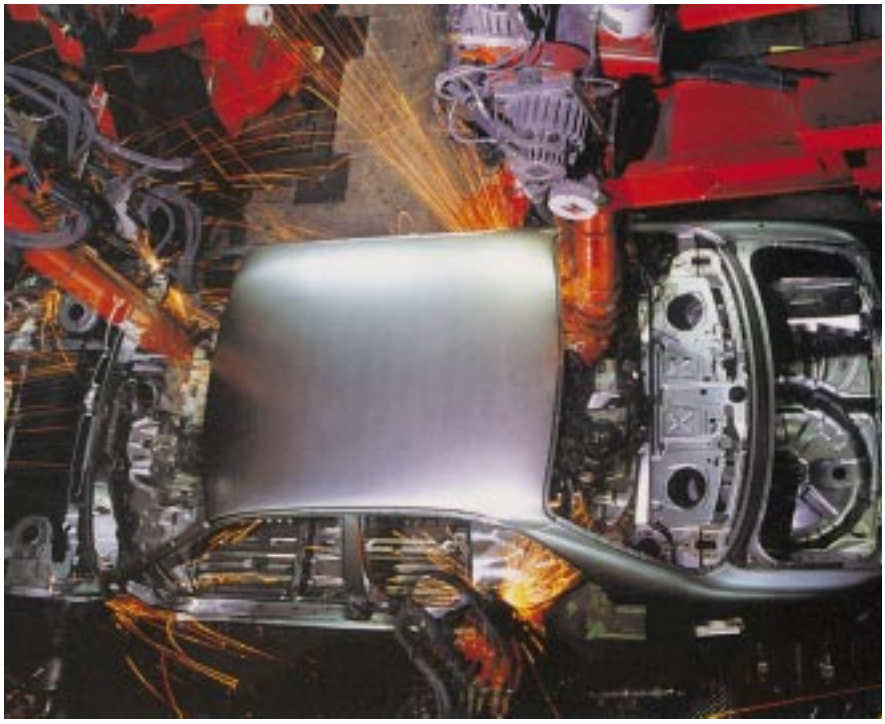
A view of Aurotac slipring range.

Warranty

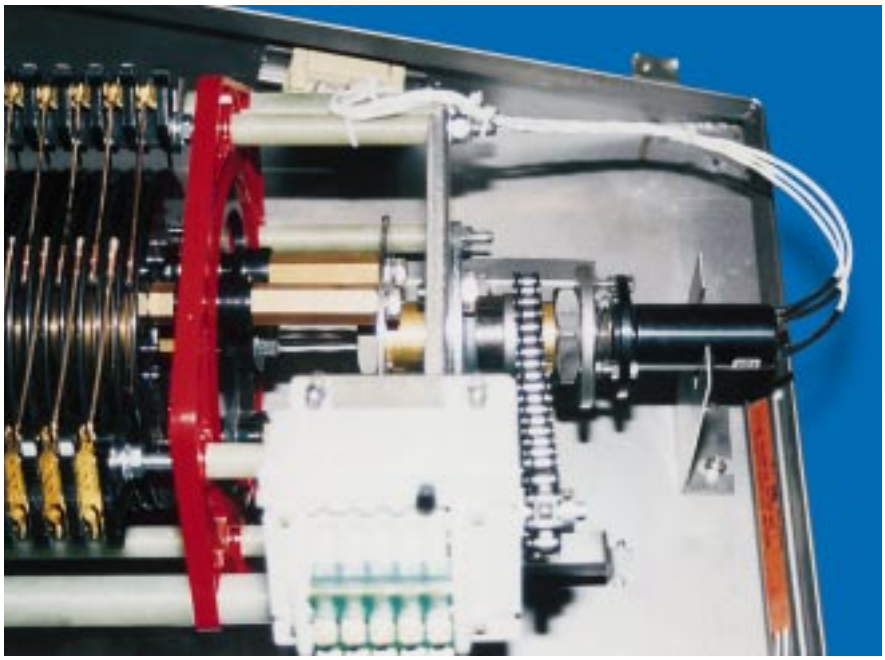
The sliprings are guaranteed for manufacturing and material defects, considering that the material has not been damaged or misused and that the indications in the operating and installation instructions have been followed.
The warranty is restricted to the free replacement of the defective part ex our works after examination of the defective part from our side.



An enlarged view of the heart of the Aurotac slipring: the gold-plated contacts.



An Aurotac application in a turntable robot.



An Aurotac slipring mounted on a Specimas slipring column for transmission of a serial line (1 Mbit/s) and a black & white video signal (5 MHz).

Aurotac sliprings are also used in motor-driven and spring-driven cable reels. Their duty is to transfer power and signals for computers, videos, TV, monitors, geological equipment, etc.