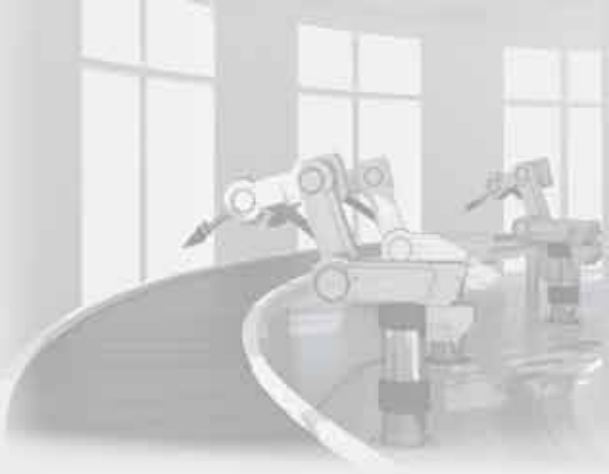
info@servotecnica.it
www.servotecnica.it



- Compact size
- Quick delivery
- Low cost
- Ideal for video, digital high frequency signals and data rate
- Gold alloy rings and brushes
- High reliability and duration
- Can be easily customised for special applications
- Some versions available with power circuits
- Low friction torque
- Smooth rotation
- In compliance with CE and ROHS standards

servotecnica

# SRC/SRW/SRF *Series*

## Slip Rings / Rotary Joints

Series **SRC e SRW**

Slip Rings can be used in any system requiring the transmission of electrical and/or power signals to an intermittently or continuously rotating shaft.

Thanks to the small ring diameter, the **SRC/SRW Series**, grants low peripheral speed between brushes and rings, as well as reduced dynamic imbalance what means very low wear, what means long life.

Designed to deliver a flexible, cost-effective, reliable and hi-quality solution, these units are available in many standard configurations and with 3 to 56 circuits. Their compact size allows installation into small systems thus requiring high performances. More applications can be met also based upon customized versions (special: connectors. cables, cable length, number of circuits etc.)

The **SRC Series** use noble metals (gold to gold alloy) assuring longlasting using life, reducing electric noise, interferences among circuits and low contact electric resistance. These units are therefore specially suited to transmission of critical signals, such as hi frequency signals and data rate, very low currents and voltages (strain gages, thermocouples, measuring equipment etc.), even if versions with up to 8A are available.

The **SRW Series** has been mainly conceived for power circuits up to 20A, despite its extremely compact size.

## Standard Applications

- Video systems / Ligthning
- Robots and downhole inspection equipment
- Manufacturing and process control equipment
- Medical equipment
- Packaging machines
- Windpower
- Reels

## Standard Features

| | |
|---|---|
| Voltage: | SRC: 240 VDC/240 VAC max; SRW: 120 VDC/120 VAC |
| Cables: | silver plated - PTFE insulation and colour coded<br>1A continuous/2A peak: AWG28; 2A: AWG26; 4A: AWG22; 6A: AWG20; 8÷12A: AWG16; 20A: AWG14 |
| Cable length: | 250 mm. standard (other lengths on demand) |
| Dielectric strength: | 500 VAC at 60 Hz |
| Insulation resistance: | > 500 MΩ / 500 Vcc |
| Noise: | < 100 mΩ at 6 Vcc and 50 mA (at 5 rpm) |
| Nominal speed: | 250 rpm (for higher speed up to 600 rpm please contact us) |
| Temperature: | -20°C to +80°C (option: -40 to +80°C) |
| Bearings: | miniature, precision steel ball bearings |
| Contact: | gold to gold (alloy) |
| Rating life: | $10^7$ revolutions (depending on speed and on enviromental conditions) |
| Protection: | IP 51 |

| Model | Circuits total nbr. | Nbr. of circuits | | | | Outside diameter (mm) | Outside length "L" Ref. (mm) | Dimension "C" (mm) | Housing |
|---|---|---|---|---|---|---|---|---|---|
| | | 2A | 6A | 8A | Altri | | | | |
| **SRC 012-3-AB** | 3 | 3 * | - | - | - | 12,4 | 14 | 4 | ABS (hard plastic) |
| **SRC 012-6-AB** | 6 | 6 * | - | - | - | 12,4 | 14 | 4 | " |
| **SRC 012-12-AB** | 12 | 12 * | - | - | - | 12,4 | 19,5 | 4 | " |
| **SRC 012-18-AB** ■ | 18 | 18 * | - | - | - | 12,4 | 23 | 4,8 | " |
| **SRC 022-6-AB** | 6 | 6 | - | - | - | 22 | 19 | 7,8 | " |
| **SRC 022-12-AB** | 12 | 12 | - | - | - | 22 | 28 | 7,8 | " |
| **SRC 022-12-2P/2S-AB** | 4 | 2 | 2 | - | - | 22 | 28 | 7,8 | " |
| **SRC 022-18-AB** | 18 | 18 | - | - | - | 22 | 34 | 7,8 | " |
| **SRC 022-18-3P-AB** | 3 | - | - | 3 | - | 22 | 34 | 7,8 | " |
| **SRC 022-24-AB** | 24 | 24 | - | - | - | 22 | 42 | 7,8 | " |
| **SRC 022-24-4P/6S-AB** | 10 | 6 | 4 | - | - | 22 | 42 | 7.8 | " |
| **SRC 022-36-AB** ■ ■ | 36 | 36 * | - | - | - | 22 | 57 | 7,8 | " |
| **SRC 025-30-AL** | 30 | 30 | - | - | - | 25 | 52 | 9,8 | Aluminum |
| **SRC 025-30-4P/18S-AL** | 22 | 18 | 4 | - | - | 25 | 52 | 9,8 | " |
| **SRC 025-30-3P/15S-AL** | 18 | 15 | - | 3 | - | 25 | 52 | 9,8 | " |
| **SRC 025-36-AL** | 36 | 36 | - | - | - | 25 | 60 | 9,8 | " |
| **SRC 025-36-4P/24S-AL** | 28 | 24 | 4 | - | - | 25 | 60 | 9,8 | " |
| **SRC 025-36-4P/16S-AL** | 20 | 16 | - | 4 | - | 25 | 60 | 9,8 | " |
| **SRC 025-36-4P/20S-2RG178** | 26 | 20 | 4 | - | 2xRG178 | 25 | 60 | 9,8 | " |
| **SRC 025-46-AL** | 46 | 46 | - | - | - | 25 | 73 | 9,8 | " |
| **SRC 025-56-AL** | 56 | 56 * | - | - | - | 25 | 86 | 9,8 | " |
| **SRC 025-56-4P/44S-AL** | 48 | 44 | 4 | - | - | 25 | 86 | 9,8 | " |
| **SRC 025-56-4P/36S-AL** | 40 | 36 | - | 4 | - | 25 | 86 | 9,8 | " |
| **SRC 025-56-4P/40S-2RG178** | 46 | 40 | 4 | - | 2xRG178 | 25 | 86 | 9,8 | " |
| **SRW 022-6-3P-AB** | 3 | - | - | - | 3 x 4A | 22 | 21 | 7,8 | ABS (hard plastic) |
| **SRW 022-12-3P-AB** | 3 | - | - | 3 | 3 x 8A | 22 | 29 | 7,8 | " |
| **SRW 022-18-3P-AB** | 3 | - | - | - | 3 x 10A | 22 | 35 | 7,8 | " |
| **SRW 022-24-3P-AB** | 3 | - | - | - | 3 x 20A | 22 | 43 | 7,8 | " |

Note: - **SRC 012, SRC 022-36** and **SRC 025-56-AL**: AWG28 cables for 1A continuos - 2A peak - 240V.*
- **SRC 022** and **SRC 025**: available with fibre optic rotary joint, on demand.
- **SRC022** and **SRC 025**: available with 50 Ω RG178 and 75 Ω RG179 coax cable, on demand.

- - 40°C +80°C extended temperature versions available.
- Special versions with 15/16/18/20 mm ext. dia. available.
- Available with "A3" and "B" flange only. ■
- With big flange in the middle only available (standard version). ■ ■

## Order Code

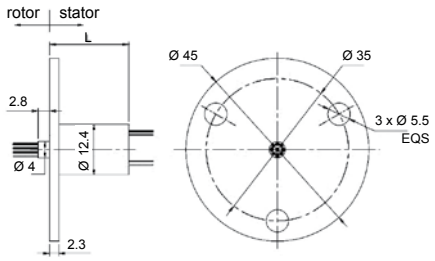
**SRC 012 - 06 - AL - XXX**

- **SR - Slip Ring**
- **C - C Series**
- **W - W Series**
- **F - F Series**
- **Size**
- **nbr. of circuits**
- **AL - Al housing**
- **AB - ABS housing**
- **Customization**

## Series SRC

### SRC012A (Standard - big flange on the top)

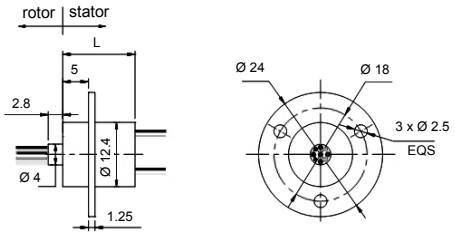
**Dimensions (mm)**




| Model | L (mm) |
|---|---|
| SRC012A-6 | 14 |
| SRC012A-12 | 19.5 |

### SRC012 (small flange in the middle)

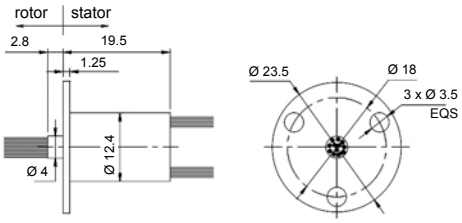
**Dimensions (mm)**




| Model | L (mm) |
|---|---|
| SRC012-6 | 14 |
| SRC012-12 | 19.5 |

### SRC012A2 (small flange on the top)

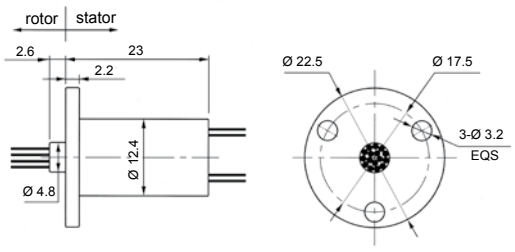
**Dimensions (mm)**




| Model | L (mm) |
|---|---|
| SRC012A2-6 | 14 |
| SRC012A2-12 | 19.5 |

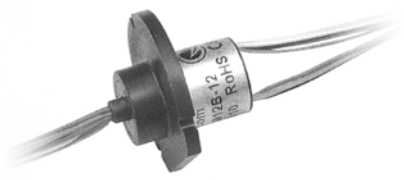
### SRC012A3

**Dimensions (mm)**

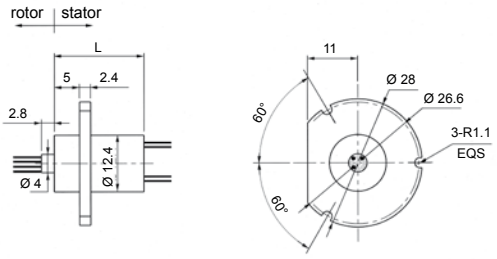



| Model | L (mm) |
|---|---|
| SRC012A3-18 | 23 |

### SRC012B



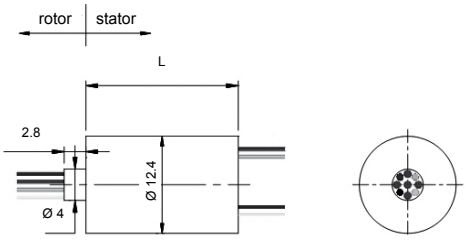
**Dimensions (mm)**




| Model | L (mm) |
|---|---|
| SRC012B-18 | 23 |

### SRC012C (without flange)

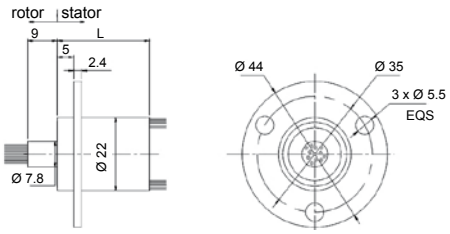
**Dimensions (mm)**




| Model | L (mm) |
|---|---|
| SRC012C-6 | 14 |
| SRC012C-12 | 19.5 |

## SRC022 (Standard - big flange in the middle)

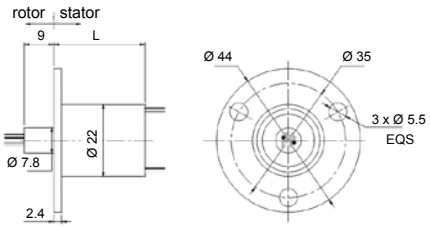
### Dimensions (mm)




| Model | L (mm) |
|---|---|
| SRC022-6 | 19 |
| SRC022-12 | 28 |
| SRC022-15 | 30 |
| SRC022-18 | 34 |
| SRC022-24 | 42 |
| SRC022-36 | 57 |

## SRC022A (big flange on the top)

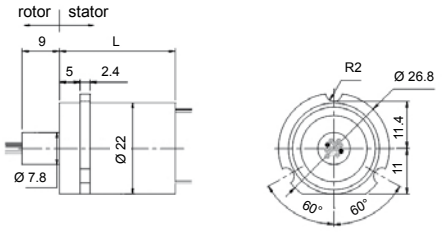
### Dimensions (mm)




| Model | L (mm) |
|---|---|
| SRC022A-6 | 19 |
| SRC022A-12 | 28 |

## SRC022B (special flange in the middle)

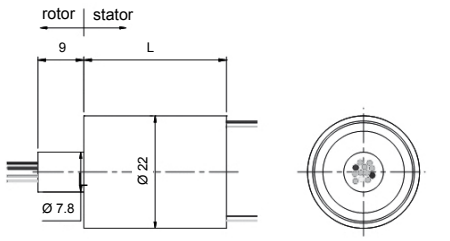
### Dimensions (mm)




| Model | L (mm) |
|---|---|
| SRC022B-6 | 19 |
| SRC022B-12 | 28 |
| SRC022B-18 | 34 |
| SRC022B-24 | 42 |

## SRC022C (without flange)

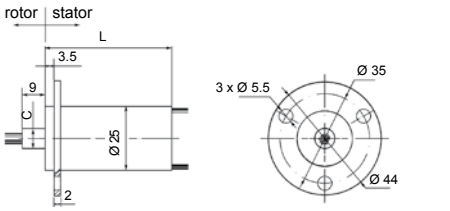
### Dimensions (mm)




| Model | L (mm) |
|---|---|
| SRC022C-6 | 19 |
| SRC022C-12 | 28 |
| SRC022C-18 | 34 |
| SRC022C-24 | 42 |

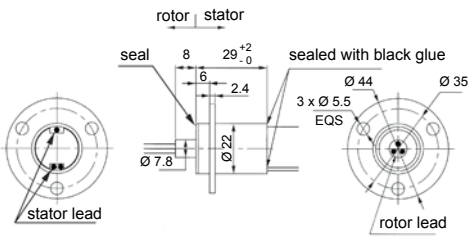
## SRC025

### Dimensions (mm)




## SRW022

### Dimensions (mm)




| Model | L (mm) |
|---|---|
| SRW022-6-3P | 21 |
| SRW022-12-3P | 29 |
| SRW022-18-3P | 35 |
| SRW022-24-3P | 43 |

# SRC/SRW/SRF *Slip Rings*

servotecnica SpA

## *Series* SRF

These series can transfer up to 12 electrical signals besides one RF coaxial channel from a stationary to a rotating structure. Said channel can transfer up to 3 Gbps and 3 GHz. Unit particularly fit for transmission of hi definition signals (1080p/3G- SDI or 1080i/HD-SDI). Normally used coaxial cables: RG178, RG316 and RG174. Estimated lifetime: 1M revolutions.

| Model | Circuits total nbr. | Outside diameter (mm) | Outside length "L" Ref. (mm) |
|---|---|---|---|
| **SRF 022-8 /1RF** | 8 | 22 | 24 |
| **SRF 022-12 /1RF** | 12 | 22 | 29 |

### Slip Ring Features

- Voltage: 240V
- Current: 2A
- Cables: silver plated - FEP insulation and colour coded
- Cable length: 250 mm. standard (other lengths on demand)
- Dielectric strength: 500 VAC at 60 Hz, 60 VDC
- Insulation resistance: 500 MΩ / 500 Vcc
- Noise: < 100 mΩ at 6 Vcc and 50 mA (at 5 rpm)

### RF Coaxial Joint Features

- Frequency: DC - 3 GHz
- Data rate: ≥3 Gbps
- Specific impedance: 50 Ω
- Coaxial cable: RG316 (others on demand)
- RF connector: MMCX (others on demand)

CATSRC/SRW/SRF-REV13EN-180212

### Mechanical Data

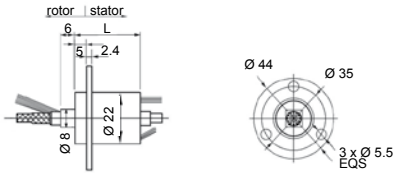
- Speed: 100 rpm
- Temperature: -20° C +80° C
- Contact: Precious metals (alloy)
- Bearings: Miniature, precision steel ball bearings

### Standard Applications

- Hi definition video systems
- RF systems
- Radar antennas

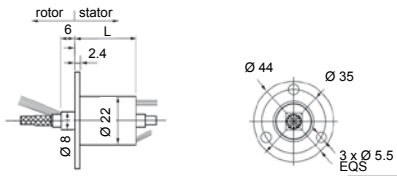
**SRF022**

**Dimensions (mm)**



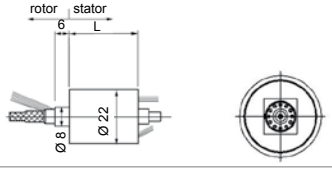

**SRF022A**

**Dimensions (mm)**




**SRF022C**

**Dimensions (mm)**




servotecnica SpA

• 50052 Certaldo FI - Tel. (0571) 664857 - Fax (0571) 667279
• 35030 Villafranca PD - Tel. (049) 8666597 - Fax (049) 8638252

ICIM Cert. n° 2039 UNI EN ISO 9001: 2008

20834 Nova Milanese - Via E. Majorana, 4 - Tel. +39 0362 492.1 - Fax +39 0362 44337- e-mail: info@servotecnica.it - www.servotecnica.it