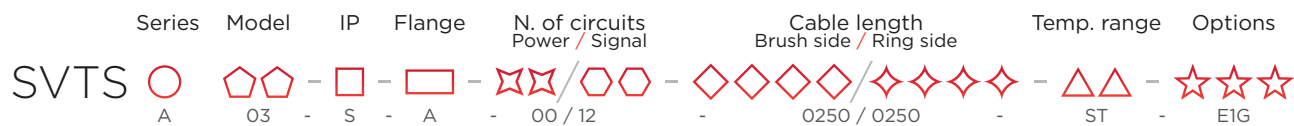


SLIP RINGS



Part number



Series

- A / Capsule Slip Rings
- B / Faston Slip Rings
- C / Through-Bore Slip Rings
- D / Stainless Steel Slip Rings
- E / Frameless Slip Rings
- F / Flat Slip Rings

IP grade

- R / IP00
- S / IP51
- T / IP54
- U / IP65

Power circuits

See specific section for available multiples

Cable length / Brush side

SVTS A /
Custom cable length increase
possible as multiple of 250mm

SVTS B, C, D, E, F /
Custom cable length increase
possible as multiple of 500mm

Temperature range

ST / -20°C +80°C

ET / -40°C +80°C

Special Options

SVTS A 03

- 001 / 4A circuits
- 002 / 8A circuits
- 003 / 10A circuits
- 004 / 20A circuits
- E1M / 100 BaseT Ethernet
- E1G / 1000 BaseT Ethernet

SVTS A 04

- E1M / 100 BaseT Ethernet
- E1G / 1000 BaseT Ethernet

SVTS A 06

- Coax cable
- 01* / RG174
- 02* / RG316
- 03* / RG178
- 04* / RG179

Connectors

- **1 / MMCX
- **2 / SMA
- **3 / SMB
- **4 / MCX
- **5 / BNC

Model

01, 02, 03, ... / See specific section

Flange

- A / Standard
- B, C, D, E, F / See specific section

Signal circuits

See specific section for available multiples

Cable length / Ring side

SVTS A /
Custom cable length increase
possible as multiple of 250mm

SVTS B, C, D, E, F /
Custom cable length increase
possible as multiple of 500mm

SVTS C 05

- E1M / 100 BaseT Ethernet
- E1G / 1000 BaseT Ethernet
- OP1 / 6mm air plastic passage
- OP2 / 10mm air plastic passage

SVTS E 01

- 001 / 20A Circuits
- 002 / 40A Circuits

SVTS E 03

- 001 / 20A Circuits
- 002 / 40A Circuits
- 003 / 60A Circuits

SVTS E 02

- 001 / 20A Circuits
- 002 / 40A Circuits

SVTS E 04

- 001 / 20A Circuits
- 002 / 40A Circuits
- 003 / 60A Circuits

SVTS A Series

Capsule Slip Rings

High-current Capsule Slip Rings

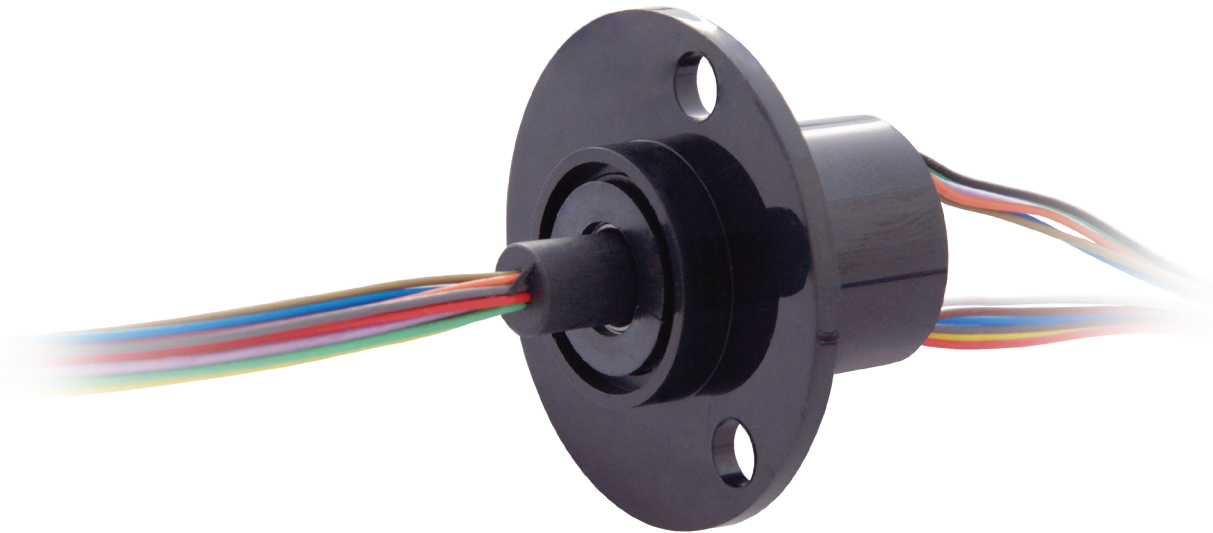
Radio Frequency Capsule Slip Rings

Contents

	Model	Out ø	Page
CAPSULE	SVTS A 01	12mm	14
	SVTS A 02	15mm	14
	SVTS A 03	22mm	15
	SVTS A 03 - Ethernet	22mm	15
	SVTS A 04	25mm	16
	SVTS A 04 Ethernet	25mm	16
	HIGH CURRENT	SVTS A 05	22mm
RF SVTS A 06		22mm	24
	Flange types		26

SVTS A Series

Capsule



OPTIMAL SIGNAL TRANSMISSION



COMPACT



HIGH CIRCUIT DENSITY

The capsule A Series Slip Rings, thanks to their reduced diameter, guarantees a low peripheral speed between rings and brushes, thus to reduce material consumption so as to enhance its lifetime and minimise electrical noise and interferences between rings.

This Series has been designed keeping signal transmission optimisation, compactness and reliability in mind. Moreover, this Slip Ring family is available in a wide range of configurations, from 3 to 56 circuits.

The gold-gold technology used for both rings and brushes, makes high data rate and high frequency signal transmission possible.

Benefits

Optimal signal transmission (gold-gold technology)

Compact

Light

Many customisations

High circuits density

Combinable with fluidic rotary joints and FORJ

Water resistant (IP65)*

Cost-effective

Main applications

Video systems

Moving head projectors

Packaging

Hose & cable reels






















Control systems











Medical / pharmaceutical

Wind turbines

*Optional: SVTS A 03 only

Product code (go to page 9 for the detailed coding system)

SVTS A   -  -  -   /   -     /     -   -   

-  Series
-  Model
-  IP grade ¹
-  Flange type
-  Power circuits
-  Signal circuits
-  Cable length (brush side)
-  Cable length (ring side)
-  Temperature range ²
-  Special options ³

¹ IP51 [S]; IP65 [U]

² Standard [ST]; Extended [ET]

³ Ethernet 100BaseT [E1M]; Ethernet 1000BaseT [E1G]

Features

Current	1A: continuous - 2A peak: AWG28 2A: AWG26 4A: AWG22 6A: AWG20 8A: AWG16
Voltage	240 VDC / 240 VAC
Cables	Silver plated / PTFE insulated / colour coded
Cables length	Standard: 250mm; custom cable length increase possible as multiples of 250mm
Dielectric strength	500 VAC @ 60Hz @ 60 sec
Insulation resistance	> 500 MΩ / 500 VDC
Dynamic contact resistance	< 10 mΩ
Nominal speed	250 rpm (higher speed, up to 600 rpm, upon request)
Bearings	Miniature high-precision stainless steel ball bearings
Housing	ABS (hard plastic); Alluminium (SVTS A04)
Contact	Gold-gold (alloy)
Temperature	-20°C to +80°C (-40°C as option)
Protection	IP51; IP65*
Expected lifetime	10 ⁷ revolutions (depending on speed, environmental conditions and size)

*Optional: SVTS A 03 only

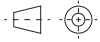
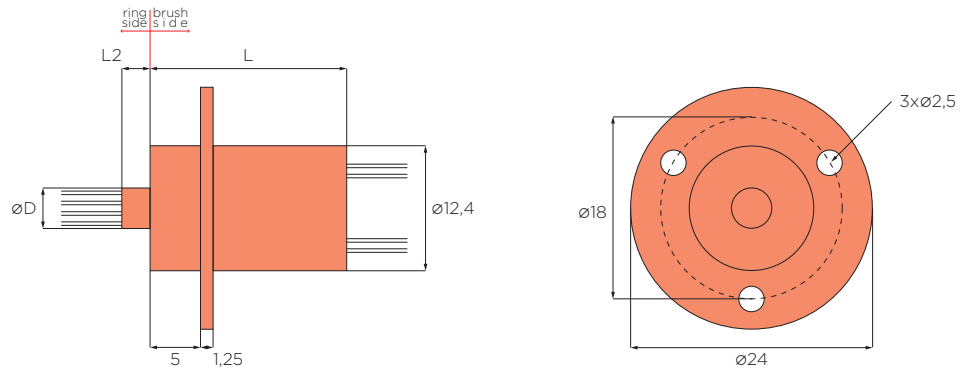
Combinations

Electric	Fieldbus	Fluidic (combined solutions)
Signals	EtherCAT	Air
	Profinet	Oil
	Sercos	Water
	Powerlink	
	Ethernet	

Customizations

Cables	Mechanical design	Flange
Materials		

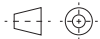
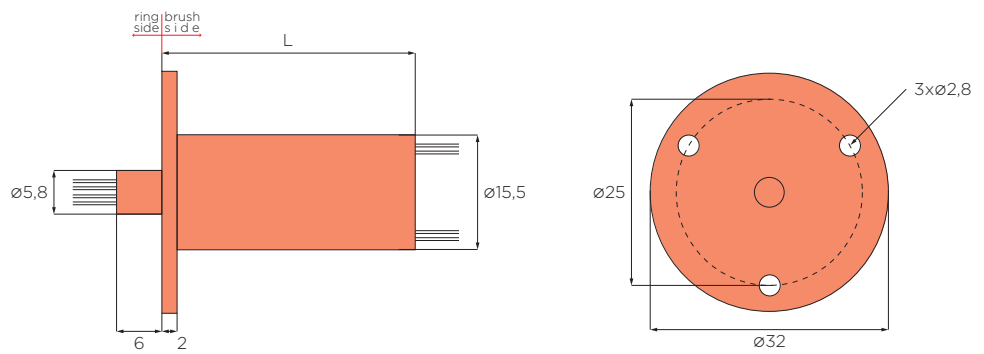
SVTS A 01



See page 26 for different flange options
 Custom cable length increase possible as multiples of 250mm

Model	Number of circuits		Dimensions				Housing
	Total	Signals	Outside \varnothing	L	L2	D	
		1-2A					
SVTS A 01-S-A-00/06	6	6	12.4	14	2.8	4	ABS
SVTS A 01-S-A-00/12	12	12	12.4	19.5	2.8	4	ABS
SVTS A 01-S-A-00/18	18	18	12.4	23	2.8	4	ABS
IP65 SVTS A 01-U-A-00/06	6	6	12.4	18	9.5	6	AI
SVTS A 01-U-A-00/12	12	12	12.4	23.5	9.5	6	AI
SVTS A 01-U-A-00/18	18	18	12.4	27	9.5	6	AI

SVTS A 02

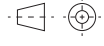
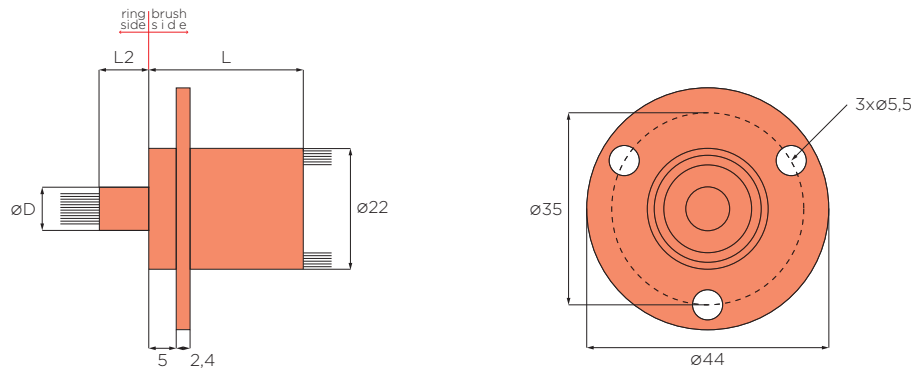


See page 26 for different flange options
 Custom cable length increase possible as multiples of 250mm

Model	Number of circuits			Dimensions		Housing	
	Total	Signals	Power	Outside \varnothing	L		
		1-2A	6A	8A			
SVTS A 02-S-A-00/24	24	24	-	-	15.5	34	ABS

All dimensions in millimeters, unless otherwise specified

SVTS A 03



See page 26 for different flange options
Custom cable length increase possible as multiples of 250mm

Model	Number of circuits				Dimensions			Housing	
	Total	Signals	Power		Outside ø	L	L2		D
		1-2A	6A	8A					
SVTS A 03-S-A-00/06	6	6	-	-	22	19	9	7,8	ABS
SVTS A 03-S-A-00/12	12	12	-	-	22	28	9	7,8	ABS
SVTS A 03-S-A-02/02	4	2	2	-	22	28	9	7,8	ABS
SVTS A 03-S-A-00/15	15	15	-	-	22	29,5	9	7,8	ABS
SVTS A 03-S-A-00/18	18	18	-	-	22	33,4	9	7,8	ABS
SVTS A 03-S-A-03/00	3	-	-	3	22	33,4	9	7,8	ABS
SVTS A 03-S-A-00/24	24	24	-	-	22	41,2	9	7,8	ABS
SVTS A 03-S-A-04/06	10	6	4	-	22	41,2	9	7,8	ABS
SVTS A 03-S-A-00/30	30	30	-	-	22	49,2	6	7,8	ABS
SVTS A 03-S-A-00/36	36	36	-	-	22	57	9	7,8	ABS
SVTS A 03-S-A-02/02	4	2	2	-	22	33,5	12,5	13	Al
SVTS A 03-S-A-00/15	15	15	-	-	22	38	12,5	13	Al
SVTS A 03-S-A-00/18	18	18	-	-	22	38	12,5	13	Al
SVTS A 03-S-A-04/06	10	6	4	-	22	45,2	12,5	13	Al
SVTS A 03-S-A-00/30	30	30	-	-	22	53,2	12,5	13	Al
SVTS A 03-S-A-00/36	36	36	-	-	22	61	12,5	13	Al
IP65 SVTS A 03-U-A-00/06	6	6	-	-	22	23	12,5	13	Al
SVTS A 03-U-A-00/12	12	12	-	-	22	32	12,5	13	Al
SVTS A 03-U-A-00/24	24	24	-	-	22	45,2	12,5	13	Al

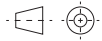
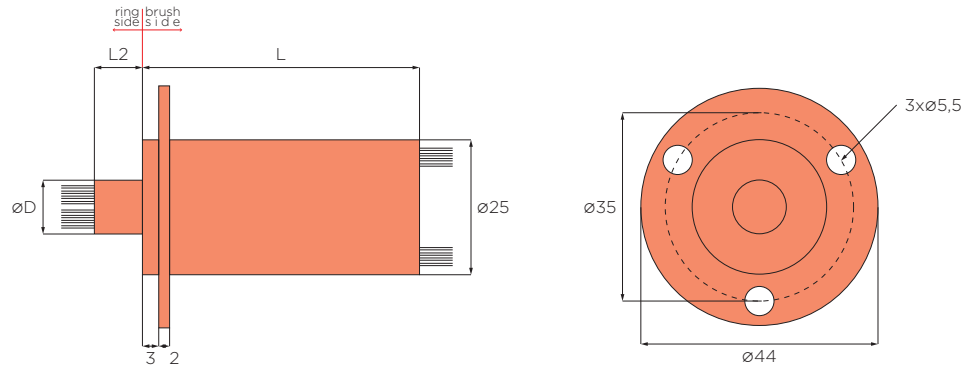
Ethernet option*

Model	Number of circuits			L	Weight (kg)
	Total	Signals 2A	Ethernet		
SVTS A 03-S-A-00/00-...-E1M	5	-	100BaseT	19	0,03
SVTS A 03-S-A-00/06-...-E1M	11	6	100BaseT	28	0,05
SVTS A 03-S-A-00/09-...-E1M	14	9	100BaseT	29,5	0,05
SVTS A 03-S-A-00/12-...-E1M	17	12	100BaseT	33,4	0,05
SVTS A 03-S-A-00/18-...-E1M	23	18	100BaseT	41,2	0,07
SVTS A 03-S-A-00/30-...-E1M	35	30	100BaseT	57	0,08
SVTS A 03-S-A-00/00-...-E1G	9	-	1000BaseT	28	0,05
SVTS A 03-S-A-00/03-...-E1G	12	3	1000BaseT	29,5	0,05
SVTS A 03-S-A-00/06-...-E1G	15	6	1000BaseT	33,4	0,05
SVTS A 03-S-A-00/12-...-E1G	21	12	1000BaseT	41,2	0,07
SVTS A 03-S-A-00/24-...-E1G	33	24	1000BaseT	57	0,08

*RJ 45 connectors included

All dimensions in millimeters, unless otherwise specified

SVTS A 04



See page 26 for different flange options
Custom cable length increase possible as multiples of 250mm

Model	Number of circuits				Dimensions				Housing
	Total	Signals	Power		Outside ø	L	L2	D	
		1-2A	6A	8A					
SVTS A 04-S-A-00/30	30	30	-	-	25	51.5	9	9.8	AI
SVTS A 04-S-A-04/18	22	18	4	-	25	51.5	9	9.8	AI
SVTS A 04-S-A-03/15	18	15	-	3	25	51.5	9	9.8	AI
SVTS A 04-S-A-00/36	36	36	-	-	25	59.5	9	9.8	AI
SVTS A 04-S-A-04/24	28	24	4	-	25	59.5	9	9.8	AI
SVTS A 04-S-A-04/16	20	16	-	4	25	59.5	9	9.8	AI
SVTS A 04-S-A-00/46	46	46	-	-	25	72.5	9	9.8	AI
SVTS A 04-S-A-00/56	56	56	-	-	25	85.5	9	9.8	AI
SVTS A 04-S-A-04/44	48	44	4	-	25	85.5	9	9.8	AI
SVTS A 04-S-A-04/36	40	36	-	4	25	85.5	9	9.8	AI
IP65 SVTS A 04-U-A-00/30	30	30	-	-	25	55.7	12.5	11.5	AI
SVTS A 04-U-A-04/18	22	18	4	-	25	55.7	12.5	11.5	AI
SVTS A 04-U-A-03/15	18	15	-	3	25	55.7	12.5	11.5	AI
SVTS A 04-U-A-00/36	36	36	-	-	25	63.5	12.5	11.5	AI
SVTS A 04-U-A-04/24	28	24	4	-	25	63.5	12.5	11.5	AI
SVTS A 04-U-A-04/16	20	16	-	4	25	63.5	12.5	11.5	AI
SVTS A 04-U-A-00/46	46	46	-	-	25	76.5	12.5	11.5	AI
SVTS A 04-U-A-00/56	56	56	-	-	25	89.5	12.5	11.5	AI
SVTS A 04-U-A-04/44	48	44	4	-	25	89.5	12.5	11.5	AI
SVTS A 04-U-A-04/36	40	36	-	4	25	89.5	12.5	11.5	AI

Ethernet option*

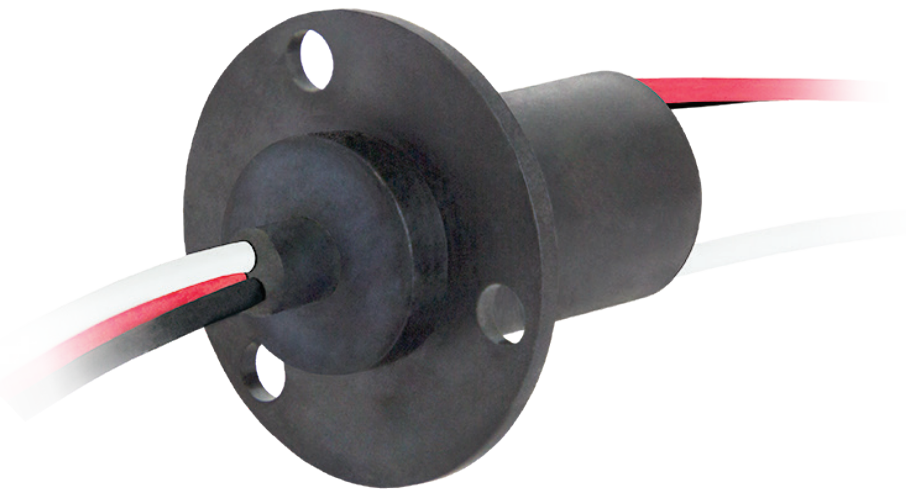
Model	Number of circuits			L	Weight (kg)
	Total	Signals 2A	Ethernet		
SVTS A 04-S-A-00/24-...-E1M	24	24	100BaseT	51,5	0,10
SVTS A 04-S-A-00/30-...-E1M	30	30	100BaseT	59,5	0,12
SVTS A 04-S-A-00/40-...-E1M	40	40	100BaseT	72,5	0,14
SVTS A 04-S-A-00/50-...-E1M	50	50	100BaseT	85,5	0,16
SVTS A 04-S-A-00/18-...-E1G	18	18	1000BaseT	51,5	0,10
SVTS A 04-S-A-00/24-...-E1G	24	24	1000BaseT	59,5	0,12
SVTS A 04-S-A-00/34-...-E1G	34	34	1000BaseT	72,5	0,14
SVTS A 04-S-A-00/44-...-E1G	44	44	1000BaseT	85,5	0,16

*RJ 45 connectors included

All dimensions in millimeters, unless otherwise specified

SVTS A Series

High current capsule Slip Rings



 HIGH POWER

 COMPACT

 COST-EFFECTIVE

The high-current capsule A Series Slip Rings, thanks to their extreme compactness, guarantees a low outer speed between rings and brushes, thus to reduce material consumption so as to enhance its lifetime. This Series has been designed keeping flexibility, cost-effectiveness and reliability in mind. Moreover, this Slip Ring family is available in a wide range of configurations, from 3 to 56 circuits. The gold-gold technology used between rings and brushes, minimise noise and interferences between the rings, allowing high data rate and frequency signal transmission.

In addition, the SVTS A 05 model has been designed to guarantee power circuits in a very small footprint (up to 20 A @ 250 VAC).

Benefits

High power in little space

Compact

Light

Cost-effective

Main applications

Wind turbines

Packaging

Hose & cable reels

Control systems

Packaging

Moving head projectors

Medical / pharmaceutical

Product code (go to page 9 for the detailed coding system)

SVTS A 05 - □ - □ - ☆☆ / ○○ - ◇◇◇◇ / ◆◆◆◆ - △△ - ☆☆☆

A Series 05 Model □ IP grade¹ □ Flange type ☆ Power circuits ○ Signal circuits
 ◇ Cable length (brush side) ◆ Cable length (ring side) △ Temperature range² ☆ Special options³

¹ Only IP51 [S]
² Standard [ST]; Extended [ET]
³ 4A circuits [001]; 8A circuits [002]; 10A circuits [003]; 20A circuits [004]

Features

Current	4A: AWG22 6A: AWG20 8A/10A: AWG16 20A: AWG14
Voltage	240 VDC / 240 VAC
Cables	Tin plated / PTFE insulated / colour coded
Cables length	Standard: 250mm; custom cable length increase possible as multiples of 250mm
Dielectric strength	500 VAC @ 60Hz @ 60 sec
Insulation resistance	> 500 MΩ / 500 VDC
Dynamic contact resistance	< 10 mΩ
Nominal speed	250 rpm
Bearings	Miniature high-precision stainless steel ball bearings
Housing	ABS (hard plastic)
Contact	Gold-gold (alloy)
Temperature	-20°C to +80°C (-40°C as option)
Protection	IP51
Expected lifetime	10 ⁷ revolutions (depending on speed, environmental conditions and size)

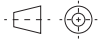
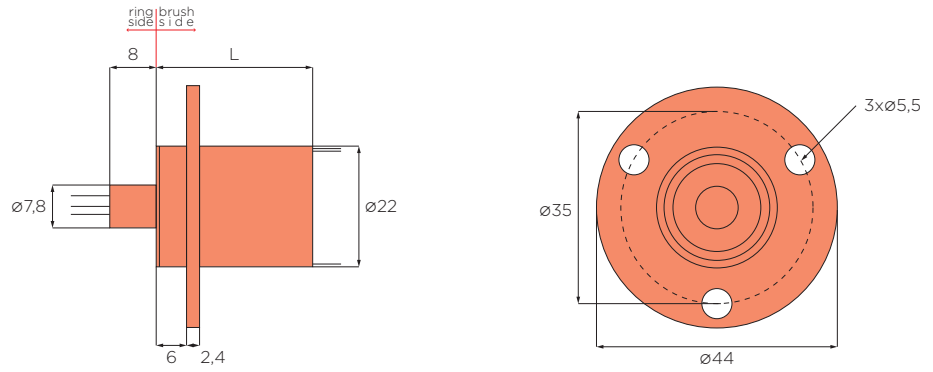
Combinations

Electric	Fluidic (combined solutions)
Power	Air
	Oil
	Water

Customizations

Cables	Mechanical design	Flange
Materials		

SVTS A 05



See page 26 for different flange options
 Custom cable length increase possible as multiples of 250mm

Model	Number of circuits					Dimensions		Housing
	Total	Power				Outside \varnothing	L	
		4A	8A	10A	20A			
SVTS A 05-S-A-03/00-...-001	3	3	-	-	-	22	21	ABS
SVTS A 05-S-A-03/00-...-002	3	-	3	-	-	22	29	ABS
SVTS A 05-S-A-03/00-...-003	3	-	-	3	-	22	35	ABS
SVTS A 05-S-A-03/00-...-004	3	-	-	-	3	22	43	ABS

All dimensions in millimeters, unless otherwise specified

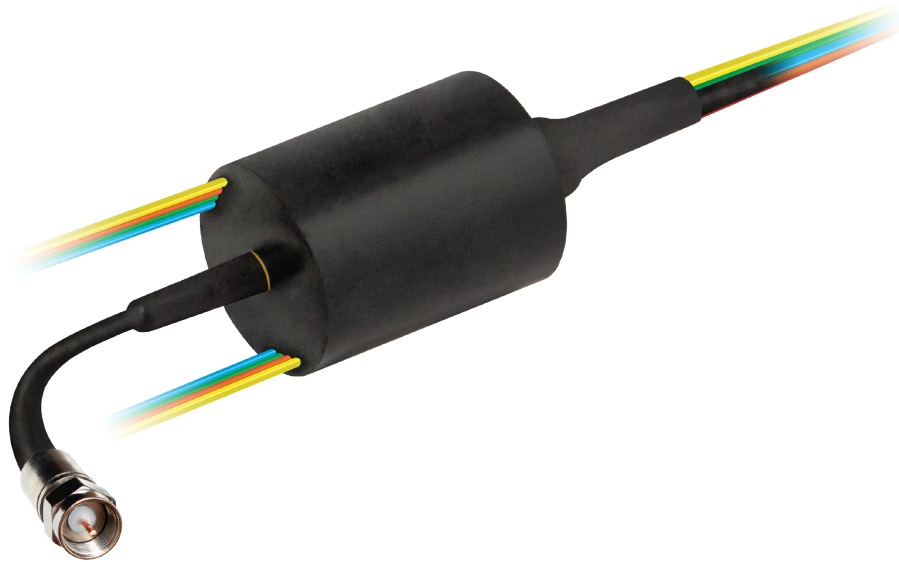
Notes

All dimensions in millimeters, unless otherwise specified

Specifications subject to change.

SVTS A Series

Radio frequency capsule Slip Rings



 HI-DEF VIDEO TRANSMISSION

 COMPACT

 HIGH CIRCUITS DENSITY

The radio frequency A Series Slip Rings are used to transfer up to 24 electrical signals from a stationary to a rotating structure, in conjunction with an RF channel.

The RF channel can transfer up to 3 GHz. Designed specifically for transferring high definition video signals (1080p / 3G-SDI o 1080i/HD-SDI), this series can fit RG178, RG316 and RG174 type coaxial cables.

Benefits

RF coaxial connection

High definition video transmission

Optimal signal transmission (gold-gold technology)

Compact

Light

High circuits density

Combinable with fluidic rotary joints and FORJ

Cost-effective

Main applications

RF systems

High definition video systems / CCTV

Optical heads

Product code (go to page 9 for the detailed coding system)

SVTS A 06 - □ - □ - ☆☆ / ○○ - ◇◇◇◇ / ☆☆☆☆ - △△ - ☆☆☆

A Series 06 Model □ IP grade¹ □ Flange type ☆ Power circuits ○ Signal circuits

◇ Cable length (brush side) ☆ Cable length (ring side) △ Temperature range² ☆ Special options³

¹ Only IP51 [S]

² Standard [ST]; Extended [ET]

³ RG174 [01*]; RG316 [02*]; RG178 [03*]; RG179 [04*]; MMCX [**1]; SMA [**2]; SMB [**3]; MCX [**4]; BNC [**5]

Features

Speed	100 rpm
Temperature	-20°C +80°C (-40°C as option)
Contact	Gold-gold (alloy)
Bearings	Miniature high-precision stainless steel ball bearings
Housing	ABS (hard plastic)
Connector	MMCX, SMA, SMB, MCX, BNC
Cable	RG174, RG136, RG178, RG179

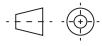
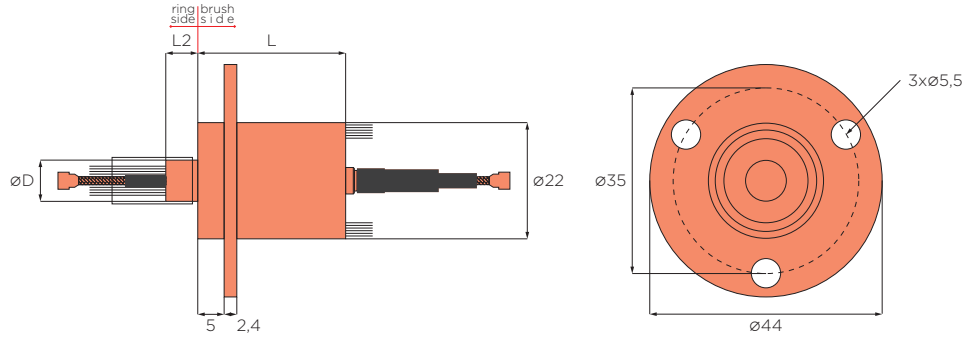
Combinations

Electric	
Signals	
Video	

Customizations

Cables	Mechanical design	Flange
Materials		

SVTS A 06

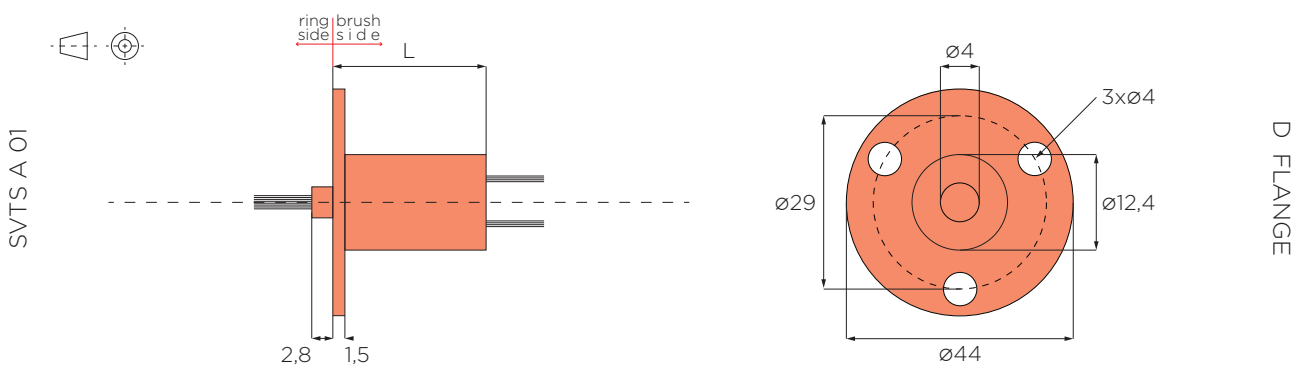
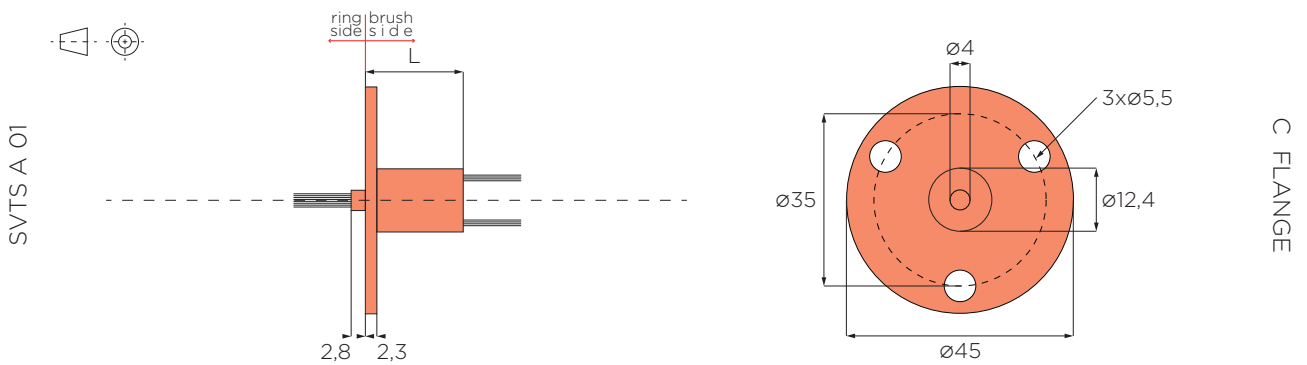
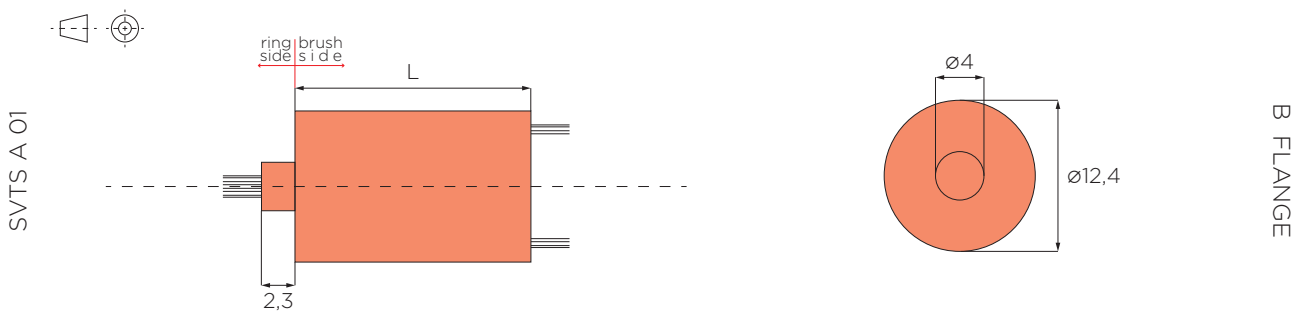
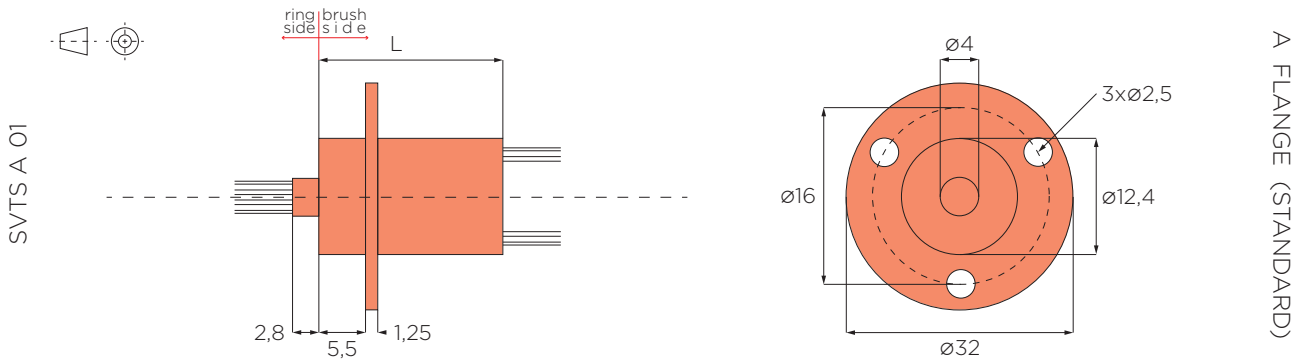


See page 26 for different flange options
 Custom cable length increase possible as multiples of 250mm

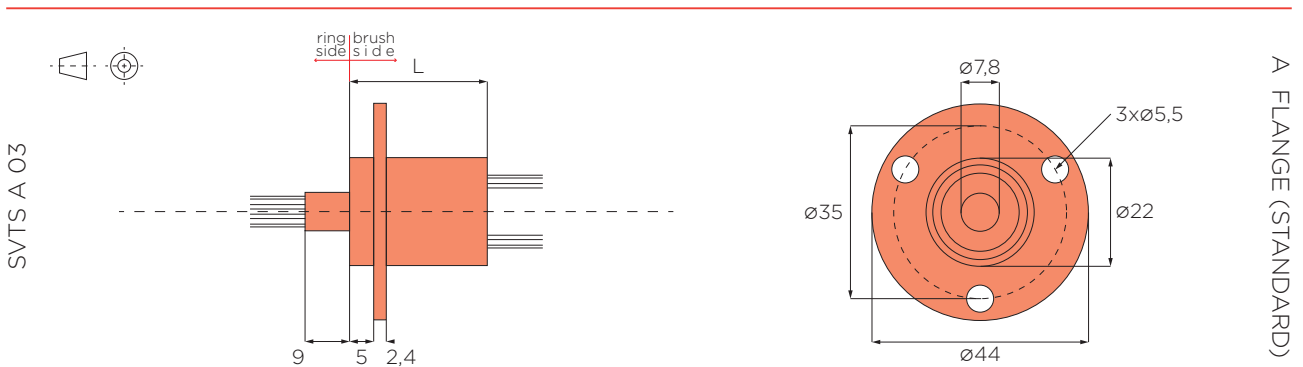
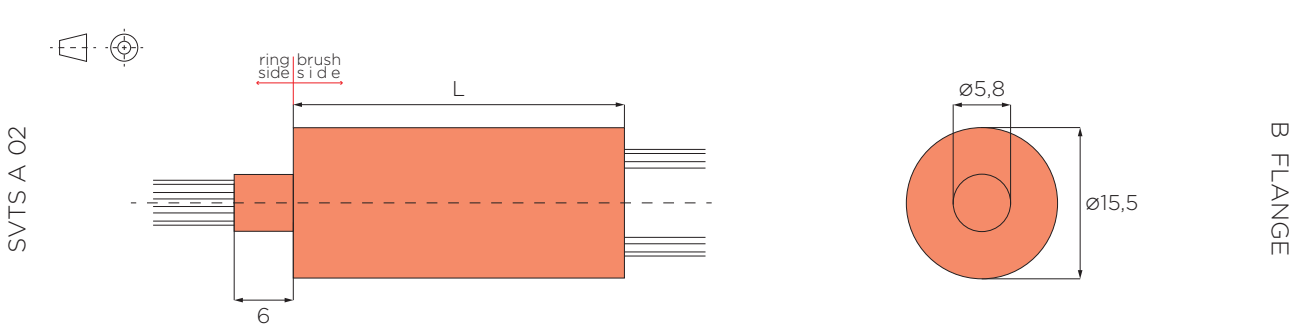
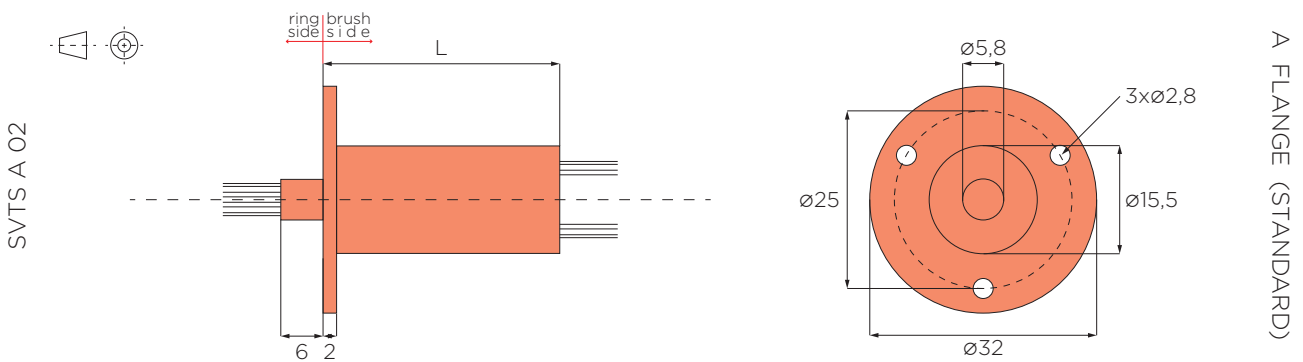
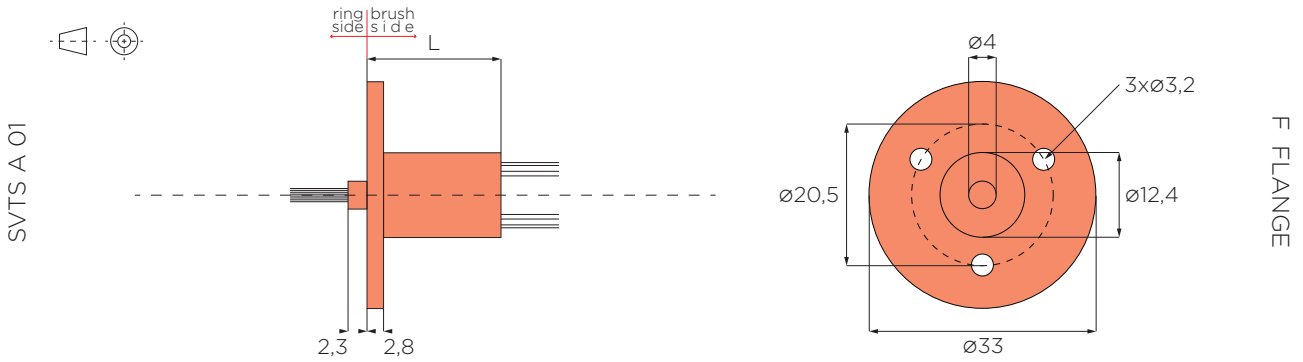
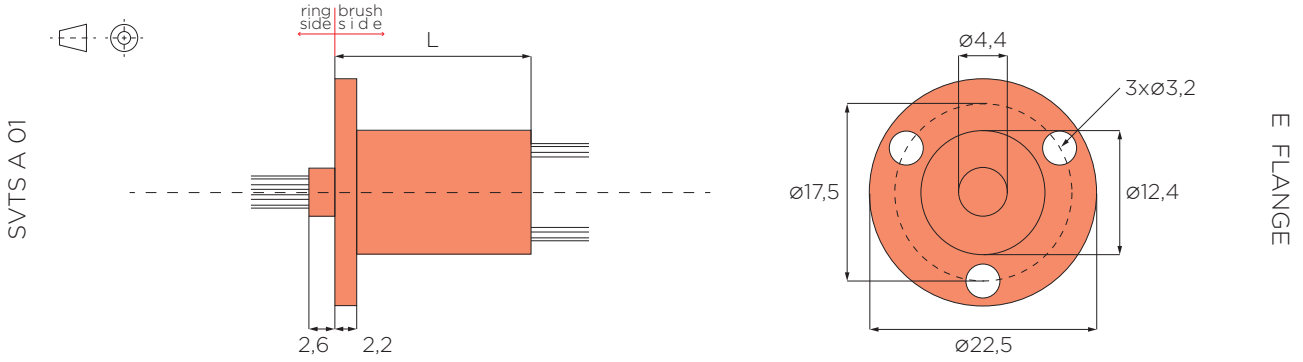
Model	Number of circuits		Dimensions			
	Total	Signals 2A	Outside ø	D	L1	L2
SVTS A 06-S-A-00/08	8	8	22	8	24	6
SVTS A 06-S-A-00/12	12	12	22	8	28	6
SVTS A 06-S-A-00/18	18	18	22	8,8	38	6,8
SVTS A 06-S-A-00/24	24	24	22	12	43	8,2

All dimensions in millimeters, unless otherwise specified

Flange types

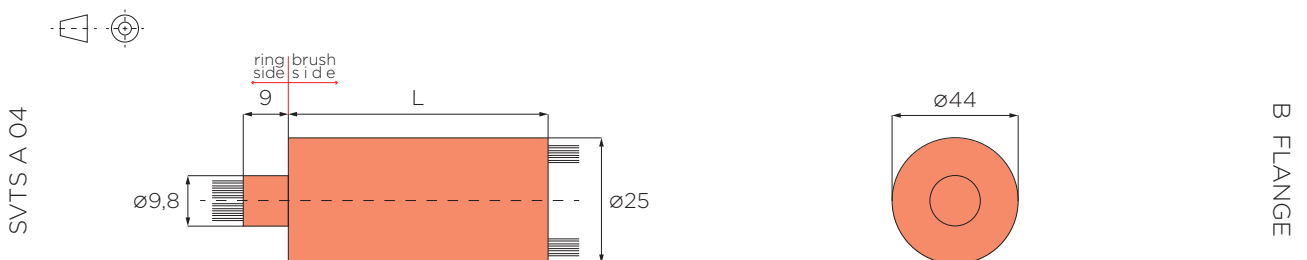
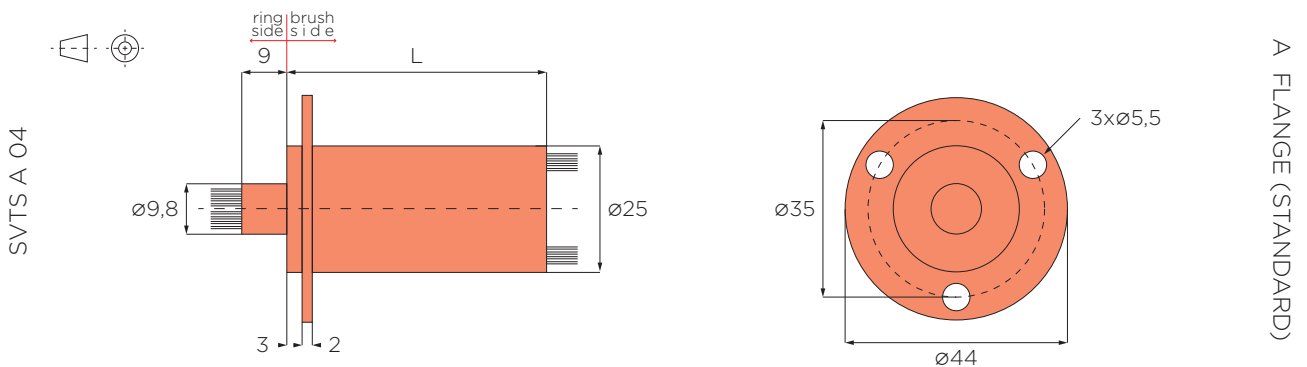
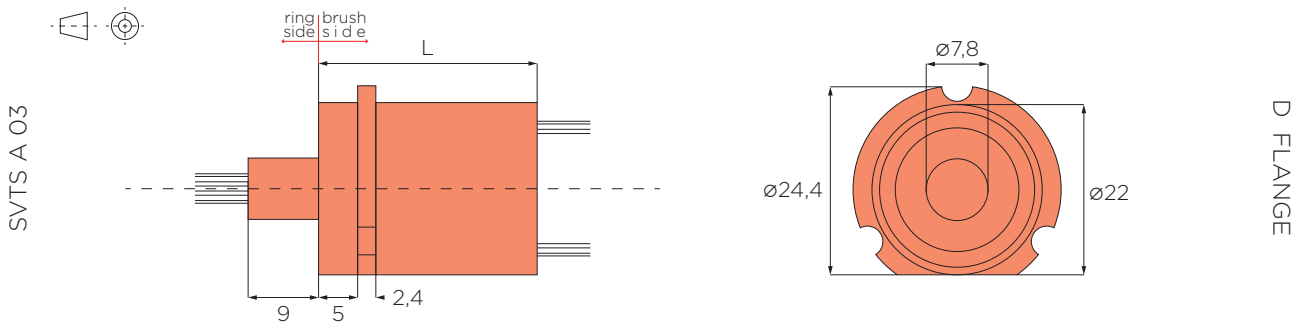
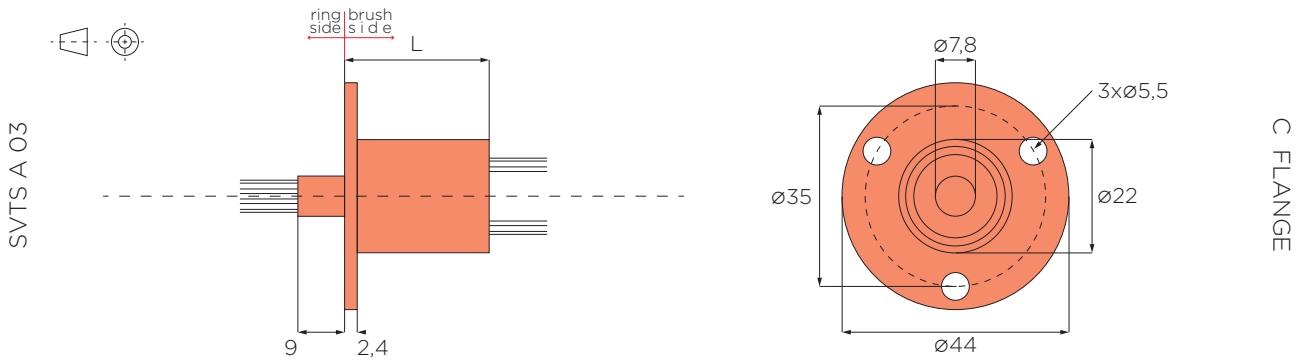
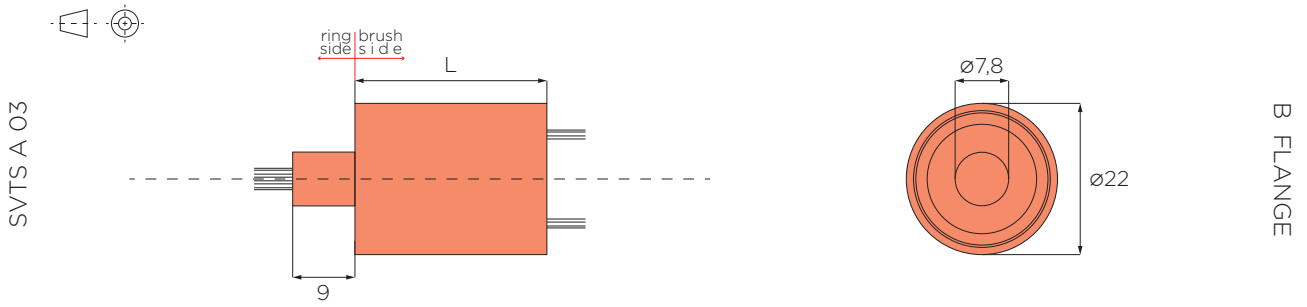


All dimensions in millimeters, unless otherwise specified

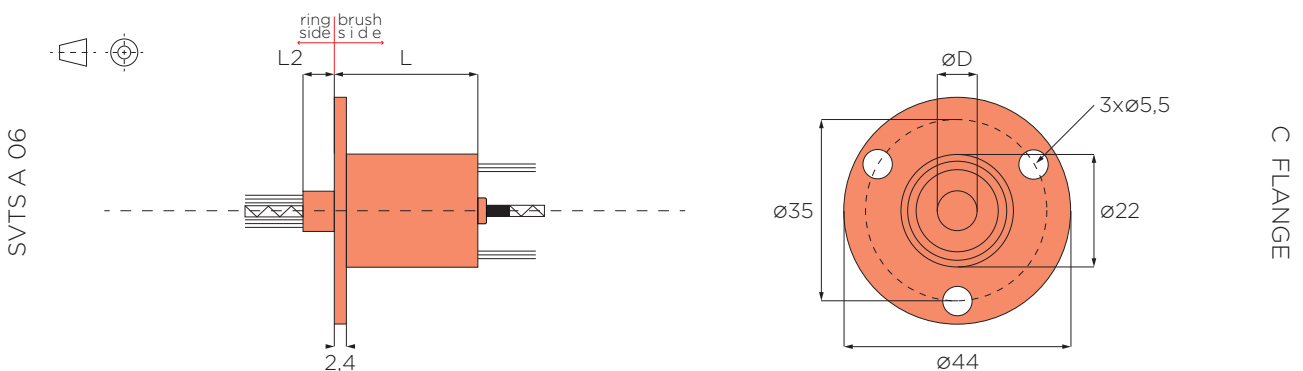
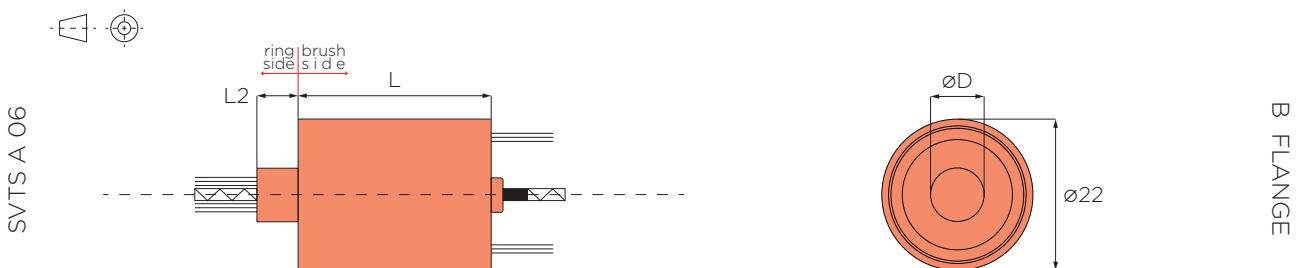
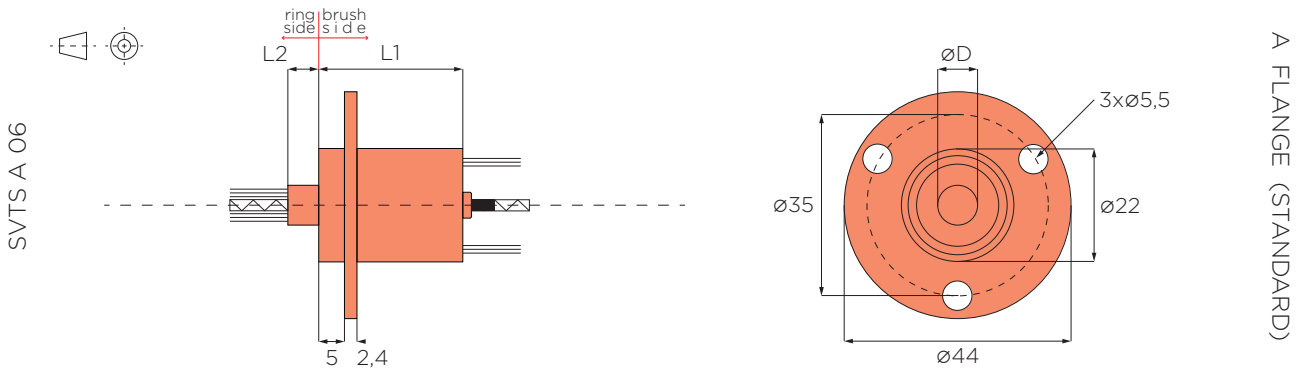
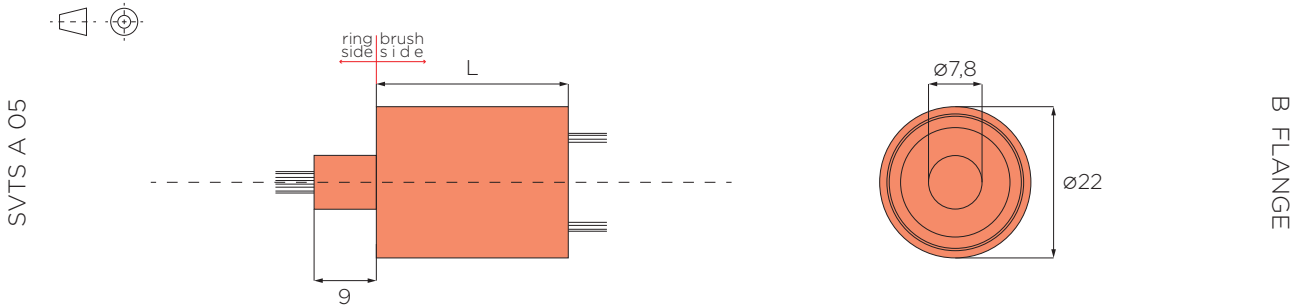
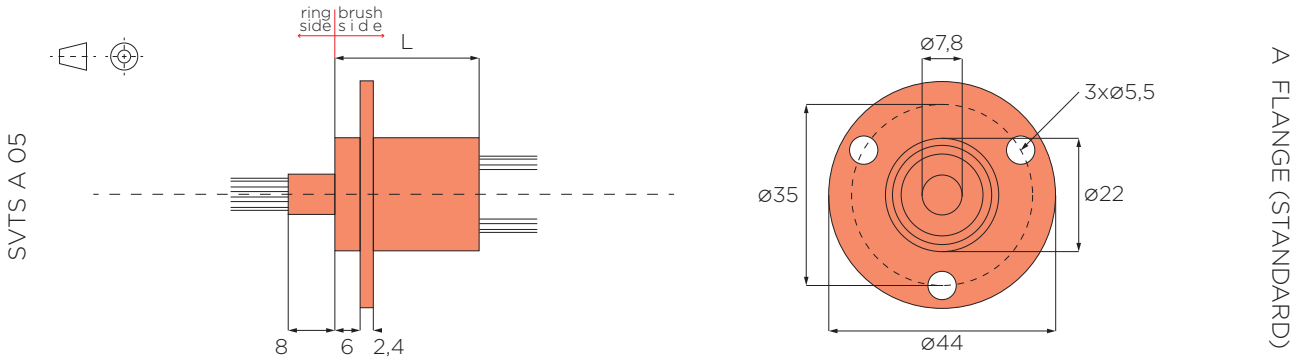


All dimensions in millimeters, unless otherwise specified

Specifications subject to change.



All dimensions in millimeters, unless otherwise specified



All dimensions in millimeters, unless otherwise specified

Specifications subject to change.

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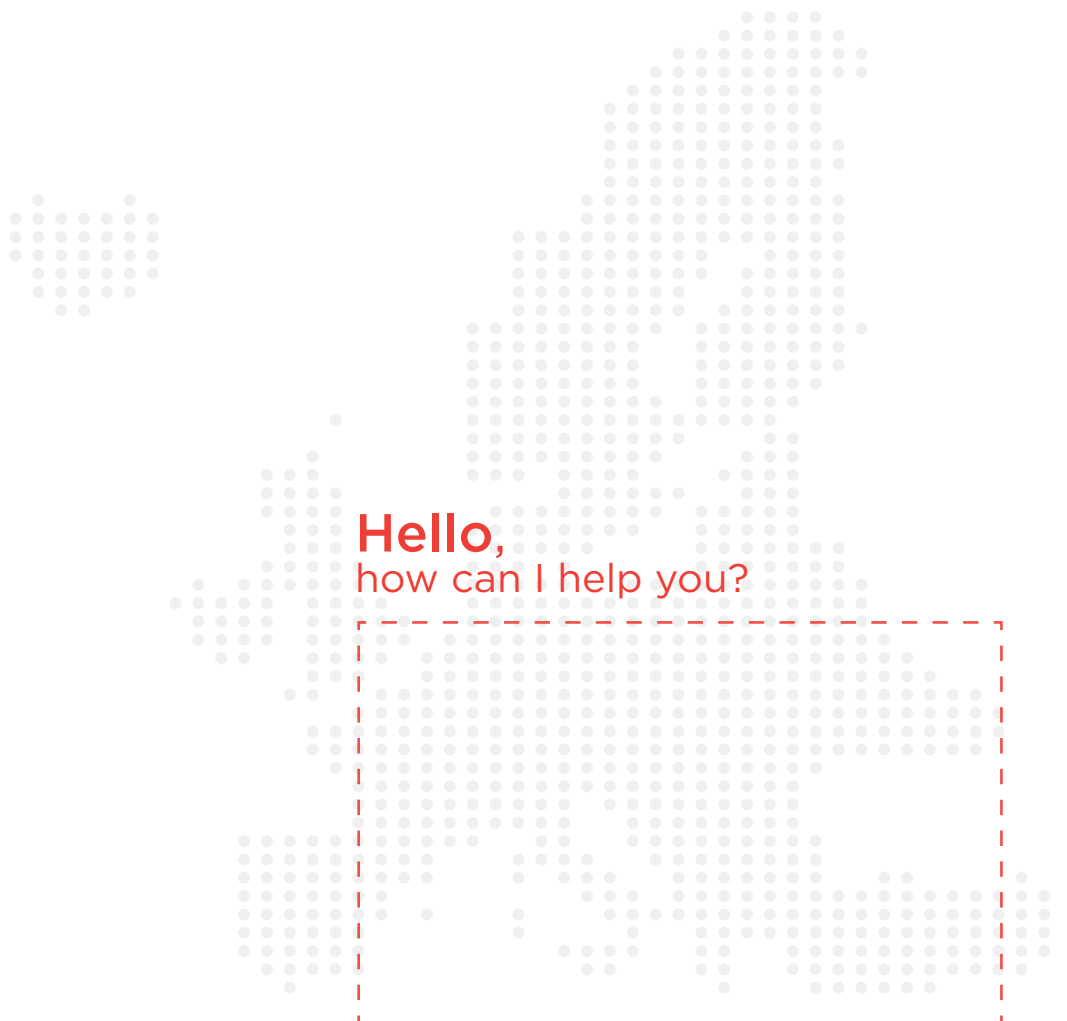
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