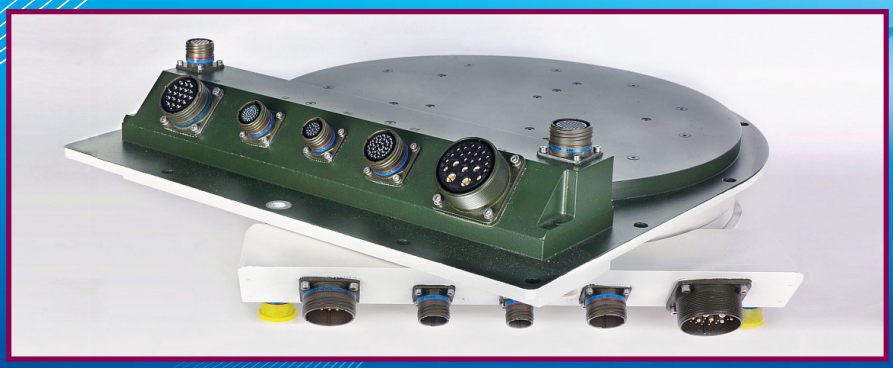
MORGAN REKOFA

Rotary Transfer Systems

Slip Rings for Defense Applications



Rotary Transfer Systems:

Your solution for continous rotating transmission of

- Power Supply & High Current
- Signals
- Data and Video
- Gases & Liquids

Slip Rings for Plug-in Optical Payloads

Our slip ring F 5623 B transfers signals and data as well as power to control motors as per below specification.

Our small size slip rings have been especially designed for the requirements of the transfer of signals and data under reduced space and weight requirements.

Typical applications
- optical vision systems
- reconnaissance units
- forward looking infrared cameras (FLIR)
- thermal imaging systems
- night vision systems

MR-System	F 5623 B No. of slip rings		Currents	Outer-Diameter	Height
Gold Wire	33	4	Video	ø 75 mm	26 mm
		17	Signal		
		10	1-5 A		
		2	up to 10 A		

Slip Rings for Ground Based Systems

Land warfare systems are subjected to harsh environments, extreme temperature ranges, severe shocks, electronic interference, etc.. In addition to dimensional restrictions driven by strength and mobility requirements, the importance of sensitive data transmission without distortion or loss of critical information cannot be compromised.

MR-System	F 5586 A No. of slip rings		Currents	Outer-Diameter	Height
Gold Wire and Brushes	212	12	Video	ø 480 mm	140 mm
		23	Can Bus		
		158	Signal / Encorder / Segmented Rings + - 0,5 °		
		17	up to 40 A		
		2	250 A		

Our solutions are tailored to meet these multiple requirements.

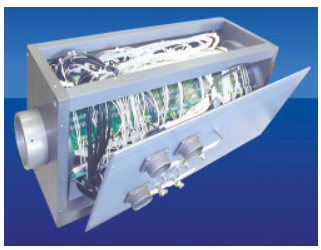
Our solutions are successfully applied for:
- Combat Vision and Reconnaissance Systems
- Armored Vehicle Turrets

Slip Rings for Radars

Each radar requires – besides of the transfer of the Super High Frequency-signal - the transfer of a number of supply, control and data signals. Further, a radar runs usually 7 days a week, 24 hours a day.

We have built and replaced slip rings for this application with low transmission loss and high crosstalk attenuation.

System and specification have been developed to ensure a long life time and low wear.



MR-System	F 4869 B No. of slip rings		Currents	Inner-bore	Outer-Diameter	Height
Gold wire	189	14	15A, 160 V	ø 100 mm	ø 224/326 mm	651 mm
		96	15A, 110 V			
		43	5A, 60 V			
		36	video and sensor signals			

Slip Rings for Remote Handling Devices

Our fibre optic transfer units function today in all kind of EOD robots. Immune to electrical interferences of all kind as well as to temperature variations, shocks and vibrations, they are a crucial component of this product which is decisive to the survival of our troops in enemy territory.

Our optical slip rings fit to the requirements of renowned German manufacturers and industrial companies.

Our optical fibre slip rings offer reliable data transfer of optical signals with low attenuation and high crosstalk attenuation as well as utmost protection from electrical interferences and can be used as well in vehicles, aircraft or on vessels, wherever required.

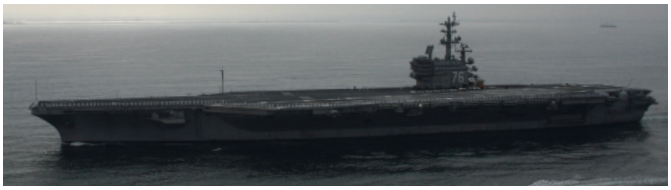
MR-System	F 4957 No. of ways	Currents	Outer-Diameter	Height
Glass fibre	1	Data	ø 36 mm	32 mm

Cable Reels

In order not to interfere with movements and action, cables are preferably stored in cable reels. Cable reels maintain combat mobility and are used in a variety of applications.
Our solutions are tailor-made and include seaworthy cable reels for data cable as well as power supply cable for launchers.

Cable lengths of several 100 m, diameters from as little as several centimetres up to man size are feasible – and this in seaworthy designs or under harsh environmental conditions. We provide special cables for data transfer as well as for optical transfer or any other available special requirements.

Cable drum for a launching system (drum diameter up to 900 mm)



MR-System	H-0016/N23 No. of slip rings		Currents	Outer-Diameter	Height
Brushes	7	7	Signals	ø 400 mm	365 mm

Precision Testing Equipment

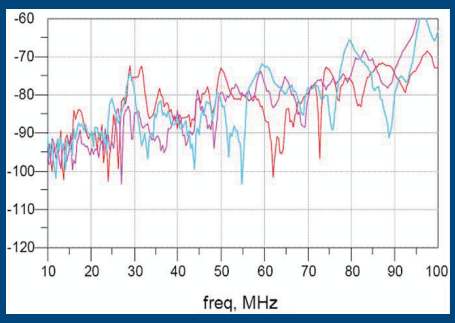
Our slip rings fit well into the requirements of extremely high rotational speeds or angular preciseness even under different ambient conditions.

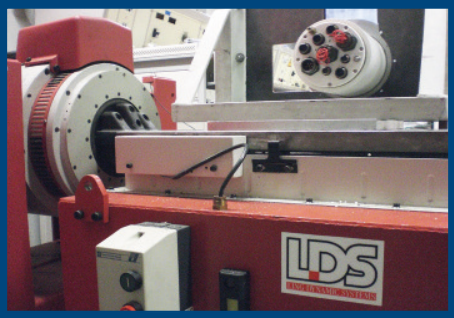
Besides perfect operation in testing equipment, our slip ring can – wherever needed – maintain a long and maintenance free life of every feasible testing or production equipment when rotating power transfer is required. Having met tough industrial standards it goes without saying that we can provide products for the defence industrial production as well.

This product range is very wide. We have been active in all areas of industry (automotive, medical, food, printing, production) so that we are confident to provide the optimal solution.

MR-System	F 5623 B No. of slip rings		Currents	Outer-Diameter	Height
Brushes	150	30	24V, 10A	ø 78 mm	450 mm
		16	24V, 5A		
		102	24V, 2A		
		2	50V, 2A		

Testing – all slip rings are tested according to the applicable military standards





We test our products in cooperation with renowned German institutions to make sure that all requirements are met.
It goes without saying that we can test according to MIL-STD-810 or virtually any other testing requirements set out by you
Proper documentation as needed will be provided.

Typical Testing Parameters	
Noise	Circuit Resistance
Crosstalk	Dielectric Strength
VSWR	Temperature
Humidity	Rain
Dust and Sand	Salt and Fog
Fungus	Shock and Vibration

Our product range covers

Gold Wire Systems, Optical Fibre Systems, Brush Systems, Media Distributors, Metal/Metal Systems, Metal Graphite Systems, Contactless Systems			
Max. no. of ways:	600	Medias:	all liquids and gases
Max. Speed:	10.000 rpm	Temperature range:	-70 + 150° C
Max. Current:	64.000 A	Vibration/ shock:	50 G
Max. Voltage:	10.000 V	Protection class:	up to IP 68
Max. Frequency:	5 GHz	Max. inner bore:	1.000 mm
Max. Data rate:	up to 1 GBit/s	Max. outer diameter:	1.200 mm
Maintenance:	Up to free	Min. outer diameter:	12 mm

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The photos which are shown are for illustration only and do not always show the actual application.