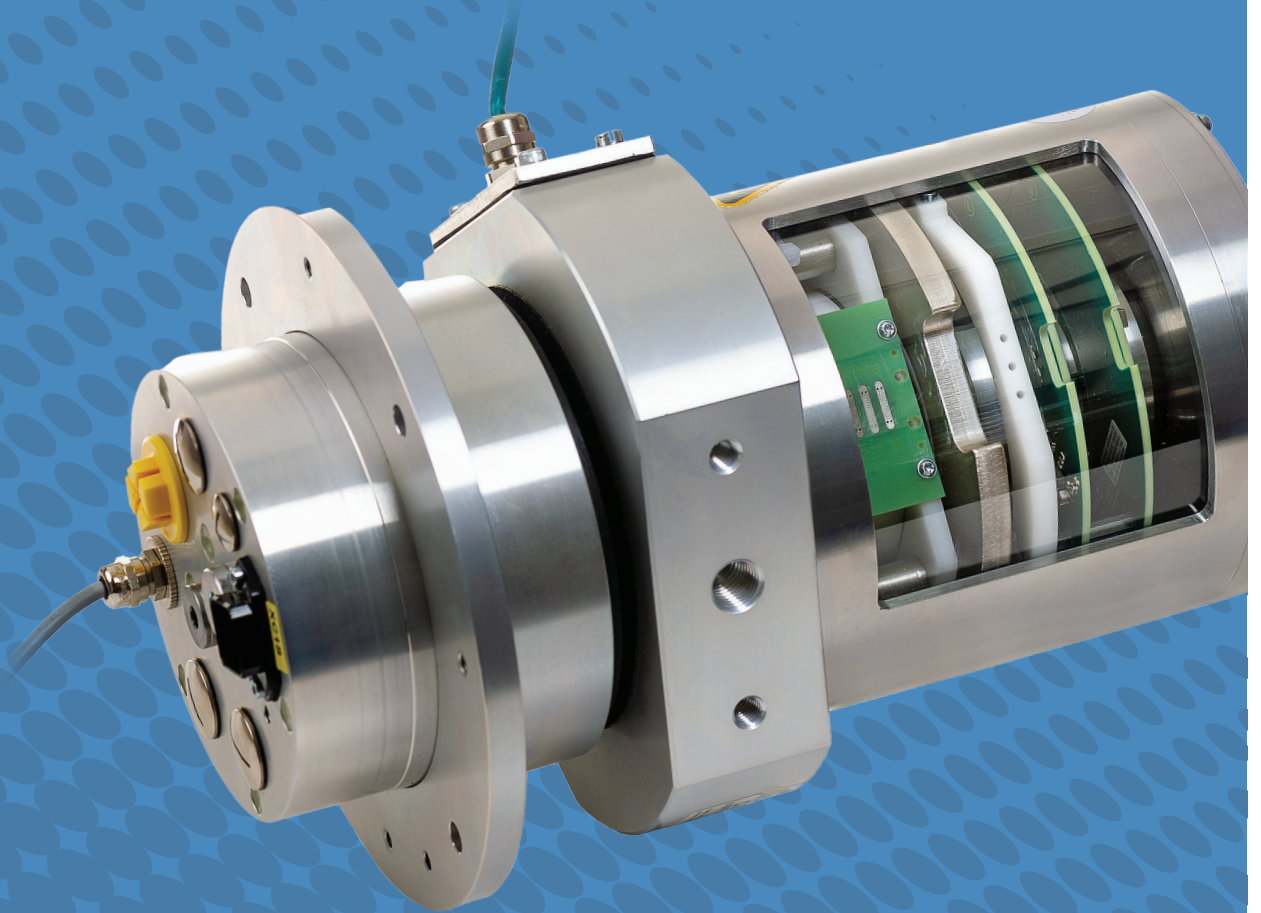


# ROTOCAP



SLIP RING WITH CONTACTLESS  
CAPACITIVE DATA TRANSMISSION



**GAT**<sup>®</sup>

**MOOG**

# ROTOCAP

## SLIP RING WITH CONTACTLESS CAPACITIVE DATA TRANSMISSION

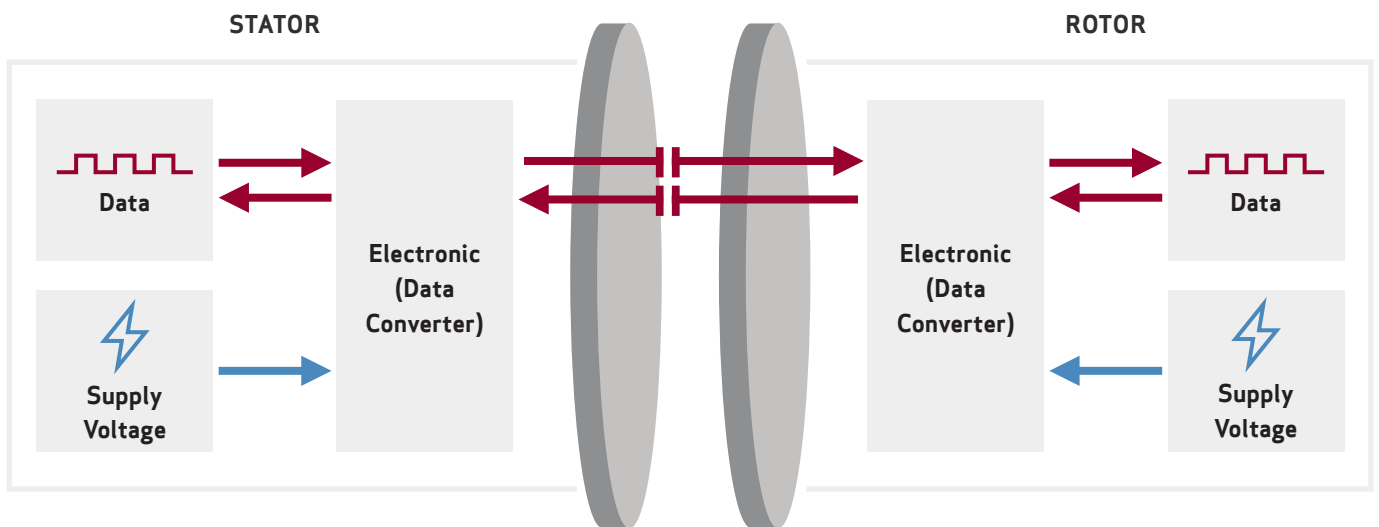
The RTOCAP is used wherever high data rates such as Ethernet must be reliably and safely transmitted to or from a rotating system. In combination with our contacting slip ring tracks, which are used for the power supply of the RTOCAP, we offer you a complete system. Besides a wide range of standard designs, individual solutions are available that are optimally adapted to your applications and installation conditions.



### ROTOCAP for FANUC Bus 150 Mbit/s FSSB CAP220-FB1-0

Supply voltage	12 V DC - 24 V DC
Power requirement	max. 10 W
Bit error rate	better $10^{-12}$
Device status indication	Voltage / Signal OK - visual display and for control
Speed	max. 500 rpm
Ambient temperature	0° C - 70° C
Vibration	Based on DIN 61373, Class B: $5.72\text{m/s}^2$
Shock	$50\text{ m/s}^2$ , 3 times

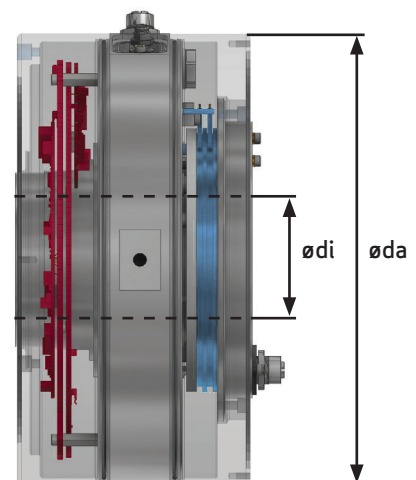
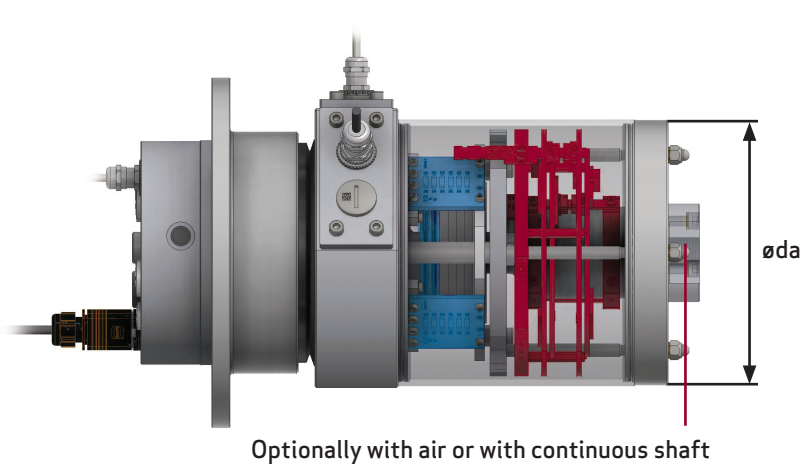
## SCHEMATIC FUNCTION PRINCIPLE



The integrated „data converter“ of the ROTOCAP processes and cleans the data signals.

## STANDARD DESIGNS

### SCHEMATIC DEVICE PRINCIPLE



### SIZES

Type	ødi (inner diameter)	øda (outer diameter)
CAP 160	0 - 50 mm	160 mm
CAP 220	0 - 90 mm	220 mm
CAP 350	0 - 220 mm	350 mm
CAP 400	0 - 250 mm	400 mm

- **ROTOCAP**  
Capacitive data transmission
- **Contacting slip ring tracks**  
Voltage supply

The construction length depends on the contacting slip ring paths and the number of ROTOCAP modules!

## MODULAR SYSTEM DESIGNS

### Electronic module

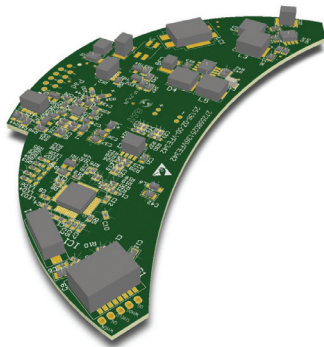
Contains the electronic,  
suitable for all structural  
models



### Structure module

Contains the antenna  
for transmitting and  
receiving

### FAST-ETHERNET-MODULE (ELECTRONIC MODULE)



Data transmission rates with  
100 Mbit/s Fast Ethernet

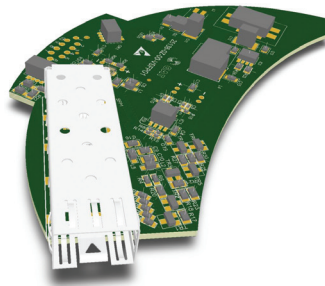
#### Transmittable protocols

- PROFINET
- SERCOS III
- POWERLINK

#### Qualified protocols

- EtherCAT
- MECHATROLINK-III

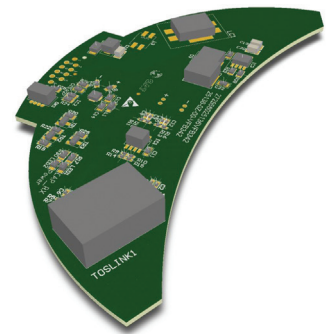
### SFP-MODULE (ELECTRONIC MODULE)



Data transmission rates  
with 2.5 Gbit/s

- Gigabit Ethernet
- Video

### FANUC-MODULE (ELECTRONIC MODULE)



Data transmission rates  
with 150 Mbit/s

- FANUC Bus FSSB

EtherCAT®

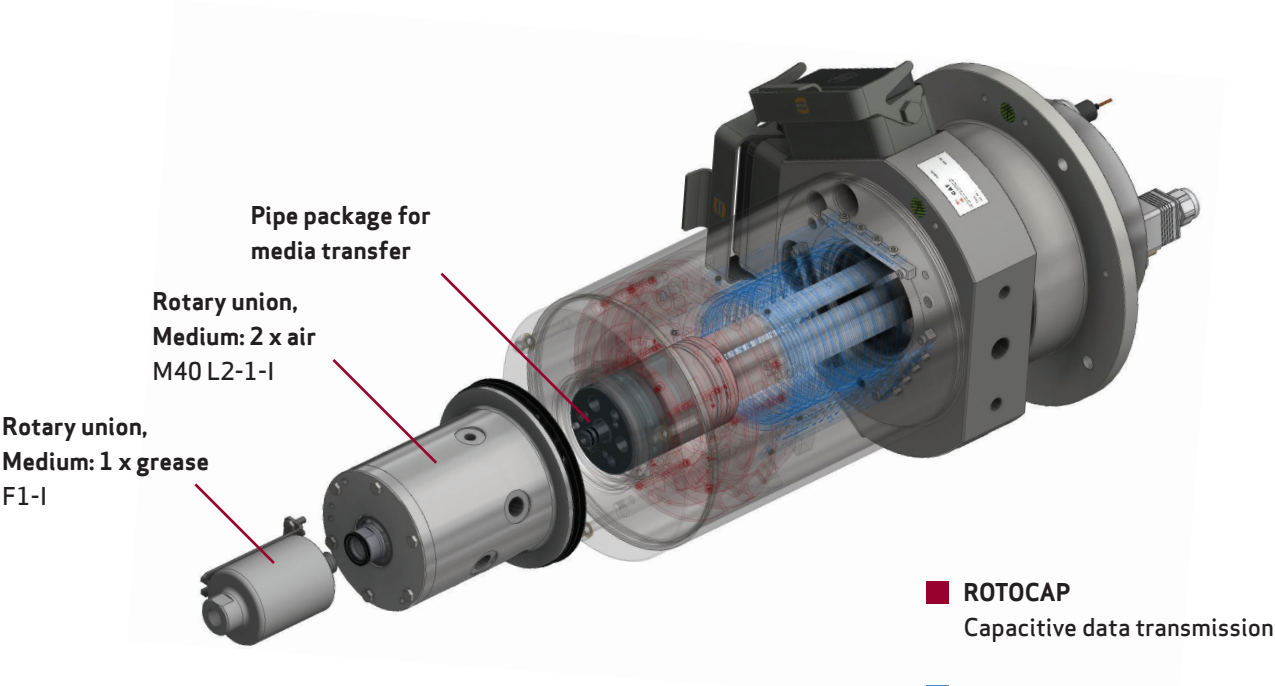
MECHATROLINK

### DIFFERENT SFP MODULES AVAILABLE



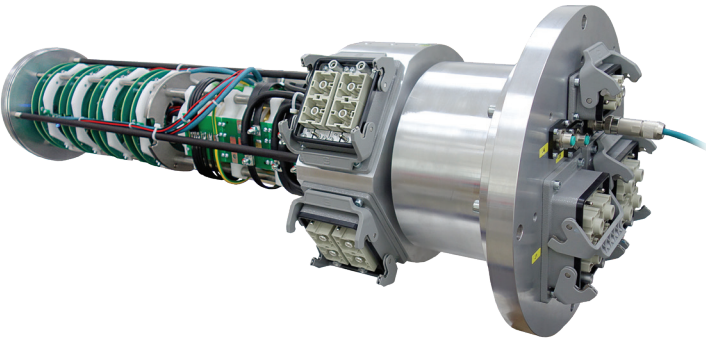
On request we can offer you customer-specific solutions!

COMBINATIONS WITH ROTARY UNIONS



Complex combination of rotary unions with different sealing technologies, contacting slip ring tracks and ROTOCAP.

APPLICATION EXAMPLES



Complete system with 4 ROTOCAP modules  
CAP200-FE4-0/122/14

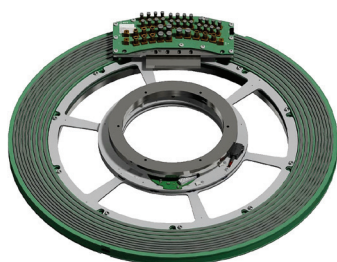
Power	4 x 600 VAC / 70 A 1 x PE
Power	2 x 80 VDC / 20 A
Ethernet	4 x Fast Ethernet 100 Base-TX IEEE 802.3 Clause 25
Speed	max. 50 rpm





**Combination of contacting slip ring tracks,  
ROTOCAP and rotary union**  
CAP160-FE1-0//51/33-L2-1-G3/8 + M60 L2-1-I + S0-I

Power	9 x 600 VAC / 5 A
Power	10 x 230 VAC / 15 A 1 x PE
Power	6 x 24 VDC / 20 A 1 x PE
Power	13 x 24 VDC / 10 A
Ethernet	1 x Fast Ethernet 100 Base-TX IEEE 802.3 Clause 25
Air	2 x 10 bar
Grease	1 x 150 bar
Speed	max. 50 rpm



**Open slip ring system with large  
inner diameter ø 260 mm, CAP844-036/024/02.5G**

Power	2 x 400 VAC / 20 A 1 x PE
Power	6 x 48 VDC / 5 A
Signal	2,5 Gbit/s Video
Speed	max. 150 rpm

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