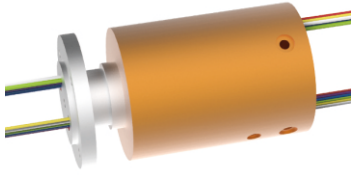


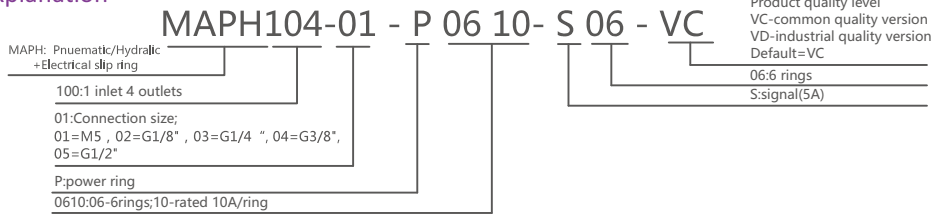
# MAPH104

## 1 Inlet 4 Outlet Fluid Electrical Slip Ring

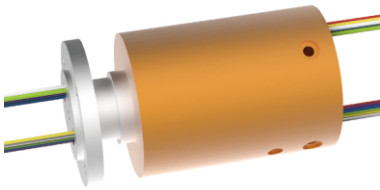


MAPH104 is 1 passage Pneumatic /Hydraulic + 2~96rings Electrical Slip Ring.  
 Connection size including: M5,G1/8", G1/4", G3/8",G1/2" and bigger on request.  
 Electrical rings including power wire, signal wire,Ethernet, USB, Industrial BUS, control Net, and all kinds of sensitive signal, etc. Normally use flange for installation, hollow shaft intallation on request.  
 Media Types: Air/Gas,hydrogen,Nitrogen,Chemical, Water,Oil,etc.

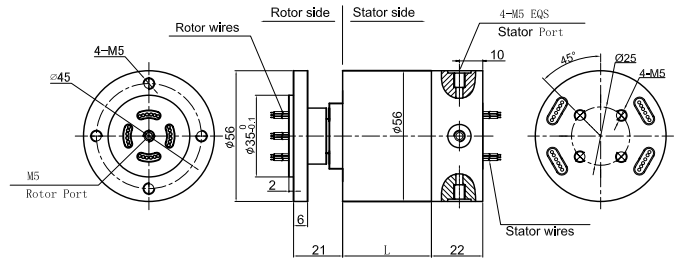
### Part# Explanation



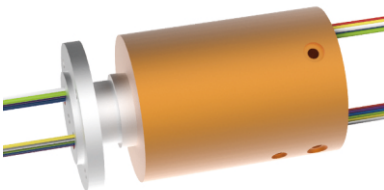
1 inlet 4 outlets, M5 Joint



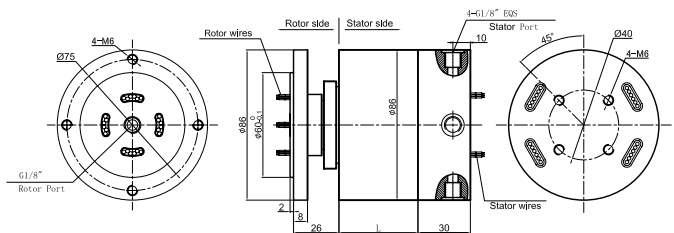
MAPH104-01 Dimensions



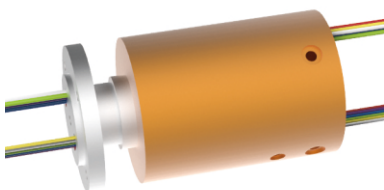
1 inlet 4 outlets, G1/8 Joint



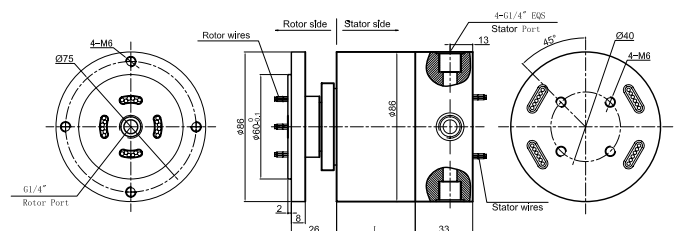
MAPH104-02 Dimensions



1 inlet 4 outlets, G1/4 Joint

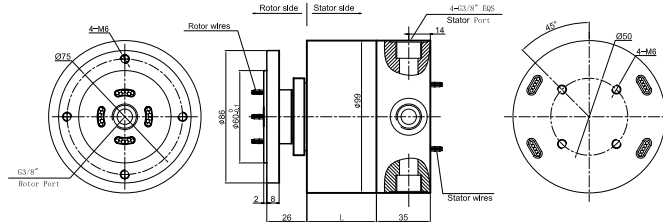
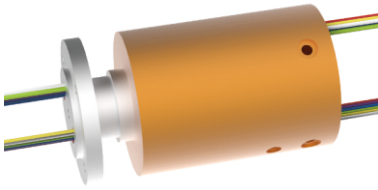


MAPH104-03 Dimensions



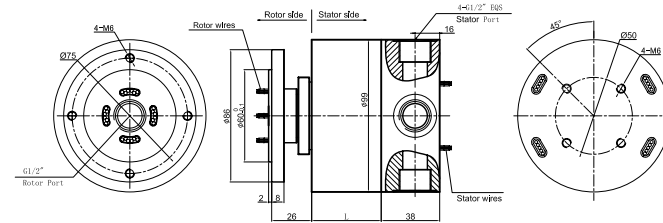
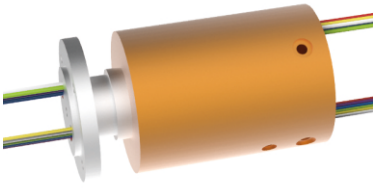
### 1 inlet 4 outlets, G3/8 Joint

### MAPH104-04 Dimensions



### 1 inlet 4 outlets, G1/2 Joint

### MAPH104-05 Dimensions



## Specifications

Rotary Union Specifications			Mechanical Data	
Parameter	Value		Parameter	Value
Passage	1 inlet 4 outlets		Working life	See Product Quality Level Table
Max Pressure	10MPa; Vacuum 100KPa		Rotating Speed	See Product Quality Level Table
Torque	depend on conection size		Working Temperature	-30°C~80°C
Electrical Data			Operating Humidity	0~85% RH
Parameter	Value		Contact Material	Precious Metal
	Power	Signal	Housing Material	Aluminium Alloy
Rated Voltage	0~440VAC/VDC	0~440VAC/VDC	Protection Grade	IP51
Insulation Resistance	≥1000MΩ/500VDC	≥1000MΩ/500VDC		
Lead Wires	AWG16#Teflon AWG17#Teflon (MAPH104-01)			
Lead Length	standard 300mm(adjustable)			
Insulation Strength	500VAC@50Hz,60s			
Electrical Noise	<0.01Ω			

## Part# List

MAPH104-01 Pneumatic/Hydraulic Slip Ring 1) XX=01, Connection size=M5' Pipe size3~6mm									
Part#	Pneumatic/Hydraulic Passage	10A	Signal 5A	Length (mm)	Part#	Pneumatic/Hydraulic Passage	10A	Signal 5A	Length (mm)
MAPH104-XX-S06	1 Passage	0	6	38	MAPH104-XX-P0810-S10	1 Passage	8	10	71.6
MAPH104-XX-P0210-S04	1 Passage	2	4	38	MAPH104-XX-P1010-S08	1 Passage	10	8	71.6
MAPH104-XX-P0410-S02	1 Passage	4	2	38	MAPH104-XX-P1210-S06	1 Passage	12	6	71.6
MAPH104-XX-P0610	1 Passage	6	0	38	MAPH104-XX-P1410-S04	1 Passage	14	4	71.6
MAPH104-XX-S12	1 Passage	12	0	54.8	MAPH104-XX-P1610-S02	1 Passage	16	2	71.6
MAPH104-XX-P0210-S10	1 Passage	2	10	54.8	MAPH104-XX-S24	1 Passage	0	24	88.4
MAPH104-XX-P0310-S09	1 Passage	3	9	54.8	MAPH104-XX-P0410-S20	1 Passage	4	20	88.4
MAPH104-XX-P0610-S06	1 Passage	6	6	54.8	MAPH104-XX-P0610-S18	1 Passage	6	18	88.4
MAPH104-XX-P0810-S04	1 Passage	8	4	54.8	MAPH104-XX-P1210-S12	1 Passage	12	12	88.4
MAPH104-XX-P1010-S02	1 Passage	10	2	54.8	MAPH104-XX-S30	1 Passage	0	30	105.2
MAPH104-XX-P1210	1 Passage	12	0	54.8	MAPH104-XX-P0610-S24	1 Passage	6	24	105.2
MAPH104-XX-S18	1 Passage	0	18	71.6	MAPH104-XX-S36	1 Passage	0	36	125
MAPH104-XX-P0210-S16	1 Passage	2	16	71.6	MAPH104-XX-S42	1 Passage	0	42	141.8
MAPH104-XX-P0410-S14	1 Passage	4	14	71.6	MAPH104-XX-S48	1 Passage	0	48	158.6
MAPH104-XX-P0610-S12	1 Passage	6	12	71.6					

Note:N channels 10A rings parallel can be used as 1 channel N\*10A current. For example: 2 rings 10A parallel could be used as 1 wires 20A.  
10A and Signal(5A) can be combine in any way as you need.Max.ring:96 rings,can be customized based on standard slip rings.Please contact us.

### Part# List

MAPH104-03, MAPH104-04, MAPH104-05 Pneumatic/Hydraulic Slip Ring 1) XX=03, Connection size=G1/4", Pipe size 3~12mm 2) XX=04, Connection size=G3/8", Pipe size 8~16mm 3) XX=05, Connection size=G1/2", Pipe size 10~20mm									
Part#	Pneumatic/Hydraulic Passage	10A	Signal or 5A	Length (mm)	Part#	Pneumatic/Hydraulic Passage	10A	Signal or 5A	Length (mm)
MAPH104-XX-S06	1 Passage	0	6	45.2	MAPH104-XX-S30	1 Passage	0	30	126.8
MAPH104-XX-P0210-S04	1 Passage	2	4	45.2	MAPH104-XX-P0610-S24	1 Passage	6	24	126.8
MAPH104-XX-P0410-S02	1 Passage	4	2	45.2	MAPH104-XX-S36	1 Passage	0	36	150.2
MAPH104-XX-P0610	1 Passage	6	0	45.2	MAPH104-XX-P0610-S30	1 Passage	6	30	150.2
MAPH104-XX-S12	1 Passage	0	12	65.6	MAPH104-XX-P1210-S24	1 Passage	12	24	150.2
MAPH104-XX-P0210-S10	1 Passage	2	10	65.6	MAPH104-XX-P3610	1 Passage	36	0	150.2
MAPH104-XX-P0310-S09	1 Passage	3	9	65.6	MAPH104-XX-S42	1 Passage	0	42	170.6
MAPH104-XX-P0610-S06	1 Passage	6	6	65.6	MAPH104-XX-P0610-S36	1 Passage	6	36	170.6
MAPH104-XX-P0810-S04	1 Passage	8	4	65.6	MAPH104-XX-P1210-S30	1 Passage	12	30	170.6
MAPH104-XX-P1010-S02	1 Passage	10	2	65.6	MAPH104-XX-P4210	1 Passage	42	0	170.6
MAPH104-XX-P1210	1 Passage	12	0	65.6	MAPH104-XX-S48	1 Passage	0	48	193.2
MAPH104-XX-S18	1 Passage	0	18	86	MAPH104-XX-P0610-S42	1 Passage	6	42	193.2
MAPH104-XX-P0210-S16	1 Passage	2	16	86	MAPH104-XX-P1210-S36	1 Passage	12	36	193.2
MAPH104-XX-P0410-S14	1 Passage	4	14	86	MAPH104-XX-P1810-S30	1 Passage	18	30	193.2
MAPH104-XX-P0610-S12	1 Passage	6	12	86	MAPH104-XX-P2410-S24	1 Passage	24	24	193.2
MAPH104-XX-P0810-S10	1 Passage	8	10	86	MAPH104-XX-P4810	1 Passage	48	0	193.2
MAPH104-XX-P1010-S08	1 Passage	10	8	86	MAPH104-XX-S60	1 Passage	0	60	234
MAPH104-XX-P1210-S06	1 Passage	12	6	86	MAPH104-XX-P0610-S54	1 Passage	6	54	234
MAPH104-XX-P1410-S04	1 Passage	14	4	86	MAPH104-XX-P0910-S51	1 Passage	9	51	234
MAPH104-XX-P1610-S02	1 Passage	16	2	86	MAPH104-XX-P1210-S48	1 Passage	12	48	234
MAPH104-XX-S24	1 Passage	0	24	106.4	MAPH104-XX-P2410-S36	1 Passage	24	36	234
MAPH104-XX-P0410-S20	1 Passage	4	20	106.4	MAPH104-XX-S72	1 Passage	0	72	277.8
MAPH104-XX-P0610-S18	1 Passage	6	18	106.4	MAPH104-XX-P1210-S60	1 Passage	12	60	277.8
MAPH104-XX-P1210-S12	1 Passage	12	12	106.4	MAPH104-XX-P2410-S48	1 Passage	24	48	277.8
MAPH104-XX-P1810-S06	1 Passage	18	6	106.4	MAPH104-XX-P3610-S36	1 Passage	36	36	277.8
MAPH104-XX-P2410	1 Passage	24	0	106.4					

Note: N channels 10A rings parallel can be used as 1 channel N\*10A current. For example: 2 rings 10A parallel could be used as 1 wires 20A. 10A and Signal(5A) can be combine in any way as you need. Max.ring:96 rings, can be customized based on standard slip rings. Please contact us.

### Product Quality Level Table

Products Level Code	Max Rotating Speed	Working Life	Sealing Element
VC	100RPM	10 Million Revs	Common Seals
VD	300RPM	30 Million Revs	High-Quality Seals

### Lead Wires Color Code

Ring	1	2	3	4	5	6	7	8	9	10	11	12
Color	BLK	RED	YLW	GRN	BLU	WHT	BLK	RED	YLW	GRN	BLU	WHT

(6 wires for 1 group color, from 7-12, repeat the same color as 1...6, indicated with number code pipe)

### Options for custom slip ring

Note: Below special demands can be customized. According, the delivery date will be extended 3 to 15 days; also the cost will be increased 30% to 50%. Most of our basic parts are standard and modular, which can save the cost and lead time.

- ① Cable exit way and cable length can be customized for both rotor and stator.
- ② Because of the structure limitation, length/height/OD can be customized on your request.
- ③ Support current or signal up to 200 rings.
- ④ Aviation plug, terminal and heat-shrink tube are optional.
- ⑤ Hybrid slip ring for Yaskawa/Panasonic/Siemens servo control signal, power line and encoder line.
- ⑥ Support mixed high speed data transmission (including Ethernet, USB, RS232, RS485, Profibus, CanBUS, CANOPEN, DeviceNET, CC-LINK, ProfINET, EtherCAT, etc.)

- ⑦ Can combine temperature control signal with thermocouple signal.
  - ⑧ Special environment can be customized, such as quakeproof, high temperature, etc.
  - ⑨ Hybrid Pneumatic/hydraulic and electric slip ring can be mixed.
  - ⑩ High temperature can up to 500 degrees.
  - ⑪ High voltage can up to 110KV
  - ⑫ Rotating speed can up to 10000RPM
  - ⑬ Maximum current can up to 5000 amperes.
  - ⑭ Military grade
  - ⑮ Optional for underwater IP65, IP68.
  - ⑯ Optional for stainless steel housing
- Technical support    technical@moflon.com