

MSPH Series Fluid/Electrical Rotary Union



Features

- Od36mm , 360 degree rotating while transfer gas,liquid etc media.
- Support 1/2/3/4 passages pneumatic/Hydraulic.
- Standard port:M5
- Tube size: 3mm , 4mm , 6mm
- Can transfer air,Vacuum,hydraulic oil,water,hot water,cooling water,steam etc media.
- Can custom special joints for high speed, high temp,high pressure.

MSPH Series Models

Model#	Passage	Port size	Tube size	rings
MSPH100	1 in 1 out	M5	3mm~6mm	1~12
MSPH200	2 in 2 out	M5	3mm~6mm	1~12
MSPH300	3 in 3 out	M5	3mm~6mm	1~12
MSPH400	4 in 4 out	M5	3mm~6mm	1~12

MSPH100 Series

(Miniature 1 Passage Fluid / Electrical Rotary Union)

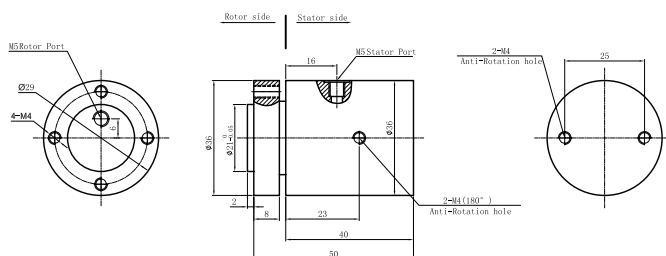
Miniature MSPH100,1 passage pneumatic/electrical slip ring, rotary joint,connection size with M5,it can combine Power wires,Signal wires,Industrial Bus,Control cable,Solenoid valve,Induction cable etc.Standard flange mounting.

Media Types: Compress Air/Gas, Vacuum;Can combine 6,12 circuits(2A),can also use pneumatic part,without circuits.

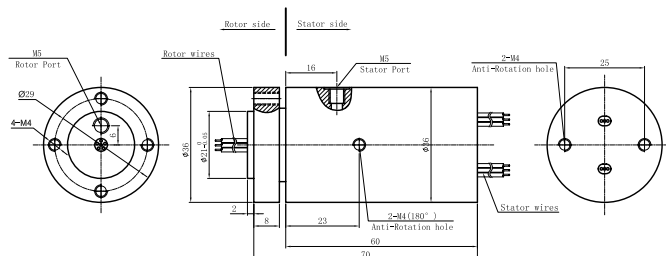
Part# Explanation

MSPH100-S 06 - VC		Products quality level
		VC common quality version
		VD industrial quality version
		Default =VC version
		06: 6 rings
		S: Signal or 2A
MSPH:Miniature pneumatic/ electrical rotary joint		
100 : 1 ports in,1 ports out		

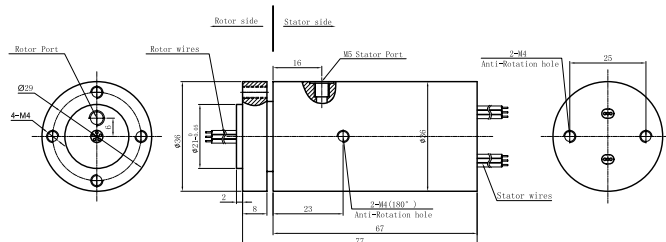
MSPH100 Dimensions



MSPH100-S06 Dimensions



MSPH100-S12 Dimensions



Parts# List

MSPH100 Miniature Pneumatic/Electrical rotary joint Parts List				
Part#	Passage	Torque(N.M)	Connection size	Signal or 2A
MSPH100	1	0.2N.m	M5	--
MSPH100-S06	1	0.2N.m	M5	6
MSPH100-S12	1	0.2N.m	M5	12

Note:N channels 2A rings parallel can be used as 1 channel N*2A current. For example: 2 rings 2A parallel could be used as 1 wires 4A.

Specifications

Rotary Joint Specifications			Mechanical Data	
Parameter	Value		Parameter	Value
Passages	1port in,1 port out, M5		Working Life	See Product Quality Level Table
Max pressure	5MPa (can be customized) , Vacuum 0.01torr		Rotating Speed	See Product Quality Level Table
Torque	See Part#List		Working Temperature	-30℃~80℃
Electrical Data			Operating Humidity	0~85% RH
Parameter	Value		Contact Material	See Product Quality Level Table
	Power	Signal	Housing Material	aluminium alloy
Rated Voltage	0~440VAC/VDC	0~440VAC/VDC	Rotational Torque	0.5N.m ; +0.03N.m/6rings
Insulation Resistance	≥1000MΩ/500VDC	≥1000MΩ/500VDC	Protection Grade	IP51
Lead Wires	AWG28#Teflon	AWG28#Teflon		
Lead Length	Standard 300mm (adjustable)			
Dielectric Strength	500VAC@50Hz , 60s			
Electrical Noise	<0.01Ω			

Product Quality Level Table

Products Level Code	Max Rotating Speed	Working Life	Contact Material
VC	100RPM	10 Million Revs	Precious Metal
VD	300RPM	30 Million Revs	Gold-plated

Lead Wires Color Code

Lead Wires Color Code					
Ring	Color	Ring	Color	Ring	Color
1	BLK	5	BLU	9	YEL
2	RED	6	WHT	10	GRN
3	YEL	7	BLK	11	BLU
4	GRN	8	RED	12	WHT

Note: (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 pressure 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

MSPH200

(Miniature 2 passages Fluid / Electrical Rotary Union)

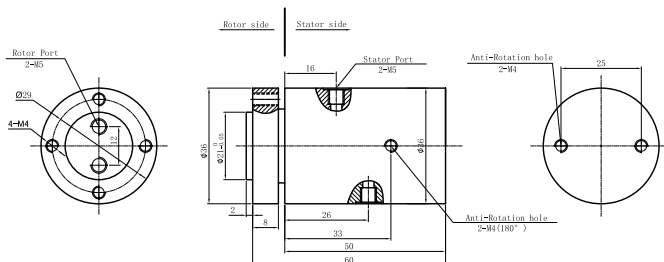
Miniature MSPH200,2 passages pneumatic/electrical slip ring, rotary joint,connection size with M5,it can combine Power wires,Signal wires,Industrial Bus,Control cable,Solenoid valve,Induction cable etc.Standard flange mounting.

Media Types: Compress Air/Gas, Vacuum;Can combine 6,12 circuits(2A),can also use pneumatic part,without circuits.

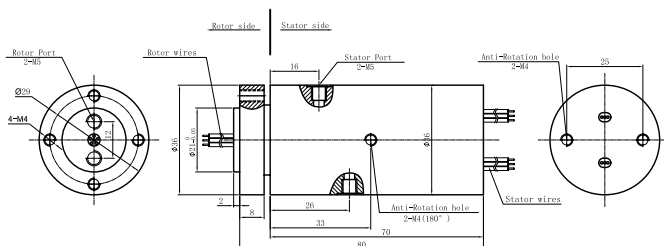
Part# Explanation

MSPH:Miniature pneumatic/ electrical rotary joint	MSPH200-S 06 - VC	Products quality level VC common quality version VD industrial quality version Default =VC version
200 : 2ports in,2 ports out		06: 6 rings S: Signal or 2A

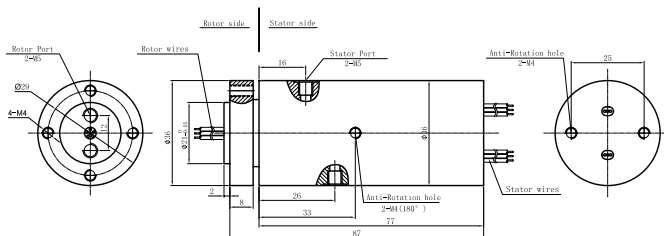
MSPH200 Dimensions



MSPH200-S06 Dimensions



MSPH200-S12 Dimensions



Parts# List

MSPH200 Miniature Pneumatic/Electrical rotary joint Parts List				
Part#	Passage	Torque(N.M)	Connection Size	Signal or 2A
MSPH200	2 ports in 2 ports out	0.4N.m	M5	--
MSPH200-S06	2 ports in 2 ports out	0.4N.m	M5	6
MSPH200-S12	2 ports in 2 ports out	0.4N.m	M5	12

Note:N channels 2A rings parallel can be used as 1 channel N*2A current. For example: 2 rings 2A parallel could be used as 1 wires 4A.

Specifications

Rotary Joint Specifications			Mechanical Data	
Parameter	Value		Parameter	Value
Passages	2ports in,2 ports out, M5		Working Life	See Product Quality Level Table
Max Pressure	5MPa (can be customized) , Vacuum 0.01torr		Rotating Speed	See Product Quality Level Table
Torque	See Part#List		Working Temperature	-30℃~80℃
Electrical Data			Operating Humidity	0~85% RH
Parameter	Value		Contact Material	See Product Quality Level Table
	Power	Signal	Housing Material	aluminium alloy
Rated Voltage	0~440VAC/VDC	0~440VAC/VDC	Rotational Torque	0.5N.m ; +0.03N.m/6rings
Insulation Resistance	≥1000MΩ/500VDC	≥1000MΩ/500VDC	Protection Grade	IP51
Lead Wires	AWG28#Teflon	AWG28#Teflon		
Lead Length	Standard 300mm (adjustable)			
Dielectric Strength	500VAC@50Hz , 60s			
Electrical Noise	<0.01Ω			

Product Quality Level Table

Products Level Code	Max Rotating Speed	Working Life	Contact Material
VC	100RPM	10 Million Revs	Precious Metal
VD	300RPM	30 Million Revs	Gold-plated

Lead Wires Color Code

Lead Wires Color Code					
Ring	Color	Ring	Color	Ring	Color
1	BLK	5	BLU	9	YEL
2	RED	6	WHT	10	GRN
3	YEL	7	BLK	11	BLU
4	GRN	8	RED	12	WHT

Note: (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 pressure 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

MSPH300

(Miniature 3 Passages Fluid / Electrical Rotary Union)

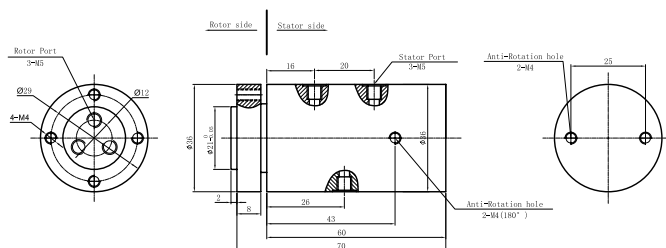
Miniature MSPH300,3 passages pneumatic/electrical slip ring, rotary joint,connection size with M5,it can combine Power wires,Signal wires,Industrial Bus,Control cable,Solenoid valve,Induction cable etc.Standard flange mounting.

Media Types: Compress Air/Gas, Vacuum;Can combine 6,12 circuits(2A),can also use pneumatic part,without circuits.

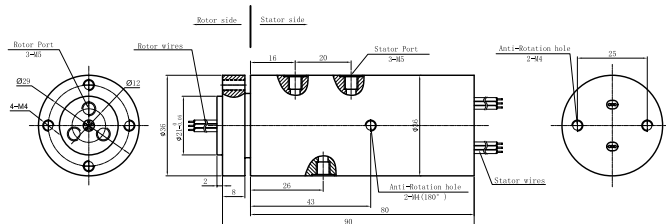
Part# Explanation

MSPH:Miniature pneumatic/ electrical rotary joint	300 : 3 ports in,3 ports out	MSPH300-S 06 - VC	Products quality level
			VC common quality version VD industrial quality version Default =VC version
			06: 6 rings
			S: Signal or 2A

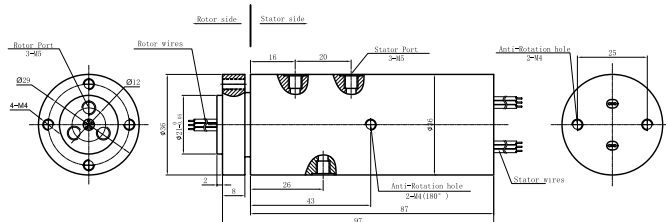
MSPH300 Dimensions



MSPH300-S06 Dimensions



MSPH300-S12 Dimensions



Parts# List

MSPH300 Miniature Pneumatic/Electrical rotary joint Parts# List				
Part#	Passage	Torque(N.M)	Connection size	Signal or 2A
MSPH300	3 ports in 3 ports out	0.8N.m	M5	--
MSPH300-S06	3 ports in 3 ports out	0.8N.m	M5	6
MSPH300-S12	3 ports in 3 ports out	0.8N.m	M5	12

Note:N channels 2A rings parallel can be used as 1 channel N*2A current. For example: 2 rings 2A parallel could be used as 1 wires 4A.

Specifications

Rotary Joint Specifications			Mechanical Data	
Parameter	Value		Parameter	Value
Passages	3 ports in,3 ports out, M5		Working Life	See Product Quality Level Table
Max Pressure	5MPa (can be customized) , Vacuum 0.01torr		Rotating Speed	See Product Quality Level Table
Torque	See Part#List		Working Temperature	-30℃~80℃
Electrical Data			Operating Humidity	0~85% RH
Parameter	Value		Contact Material	See Product Quality Level Table
	Power	Signal	Housing Material	aluminium alloy
Rated Voltage	0~440VAC/VDC	0~440VAC/VDC	Rotational Torque	0.5N.m ; +0.03N.m/6rings
Insulation Resistance	≥1000MΩ/500VDC	≥1000MΩ/500VDC	Protection Grade	IP51
Lead Wires	AWG28#Teflon	AWG28#Teflon		
Lead Length	Standard 300mm (adjustable)			
Dielectric Strength	500VAC@50Hz , 60s			
Electrical Noise	<0.01Ω			

Product Quality Level Table

Products Level Code	Max Rotating Speed	Working Life	Contact Material
VC	100RPM	10 Million Revs	Precious Metal
VD	300RPM	30 Million Revs	Gold-plated

Lead Wires Color Code

Lead Wires Color Code					
Ring	Color	Ring	Color	Ring	Color
1	BLK	5	BLU	9	YEL
2	RED	6	WHT	10	GRN
3	YEL	7	BLK	11	BLU
4	GRN	8	RED	12	WHT

Note: (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 pressure 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

MSPH400

(Miniature 4 Passages Fluid / Electrical Rotary Union)

Miniature MSPH400,4 passages pneumatic/electrical slip ring, rotary joint,connection size with M5,it can combine Power wires,Signal wires,Industrial Bus,Control cable,Solenoid valve,Induction cable etc.Standard flange mounting.

Media Types: Compress Air/Gas, Vacuum;Can combine 6,12 circuits(2A),can also use pneumatic part,without circuits.

Part# Explanation

MSPH400-S 06 - VC

MSPH:Miniature pneumatic/
electrical rotary joint

400 : 4 ports in,4ports out

Products quality level

VC common quality version

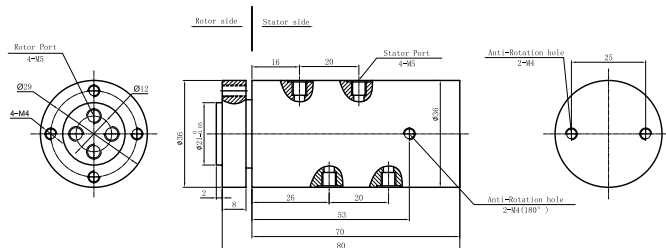
VD industrial quality version

Default =VC version

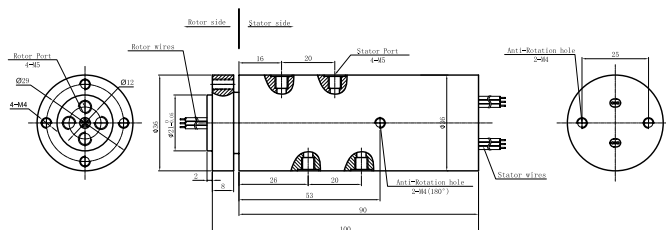
06: 6 rings

S: Signal or 2A

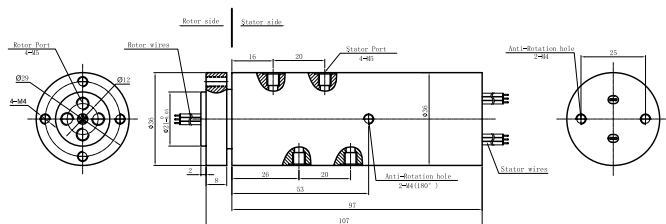
MSPH400 Dimensions



MSPH400-S06 Dimensions



MSPH400-S12 Dimensions



Parts# List

MSPH400 Miniature Pneumatic/Electrical rotary joint Parts List

Part#	Passage	Torque(N.M)	Connection size	Signal or 2A
MSPH400	4 ports in 4 ports out	1.2N.m	M5	--
MSPH400-S06	4 ports in 4 ports out	1.2N.m	M5	6
MSPH400-S12	4 ports in 4 ports out	1.2N.m	M5	12

Note:N channels 2A rings parallel can be used as 1 channel N*2A current. For example: 2 rings 2A parallel could be used as 1 wires 4A.

Specifications

Rotary Joint Specifications			Mechanical Data	
Parameter	Value		Parameter	Value
Passages	4 ports in,4 ports out, M5		Working Life	See Product Quality Level Table
Max Pressure	5MPa (can be customized) , Vacuum 0.01torr		Rotating Speed	See Product Quality Level Table
Torque	See Part#List		Working Temperature	-30℃~80℃
Electrical Data			Operating Humidity	0~85% RH
Parameter	Value		Contact Material	See Product Quality Level Table
	Power	Signal	Housing Material	aluminium alloy
Rated Voltage	0~440VAC/VDC	0~440VAC/VDC	Rotational Torque	0.5N.m ; +0.03N.m/6rings
Insulation Resistance	≥1000MΩ/500VDC	≥1000MΩ/500VDC	Protection Grade	IP51
Lead Wires	AWG28#Teflon	AWG28#Teflon		
Lead Length	Standard 300mm (adjustable)			
Dielectric Strength	500VAC@50Hz , 60s			
Electrical Noise	<0.01Ω			

Product Quality Level Table

Products Level Code	Max Rotating Speed	Working Life	Contact Material
VC	100RPM	10 Million Revs	Precious Metal
VD	300RPM	30 Million Revs	Gold-plated

Lead Wires Color Code

Lead Wires Color Code					
Ring	Color	Ring	Color	Ring	Color
1	BLK	5	BLU	9	YEL
2	RED	6	WHT	10	GRN
3	YEL	7	BLK	11	BLU
4	GRN	8	RED	12	WHT

Note: (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 pressure 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