

## MQR Series Rotary Unions(can combine with electric wires)



### Features

- Compact body size
- Very low torque
- Can support 1/2/4/6/8/12/16 passages pneumatic or vacuum
- Standard connection size M5
- Air tube size can be customized on customer' s request
- Solid, no hole bore, small in size

### Part list

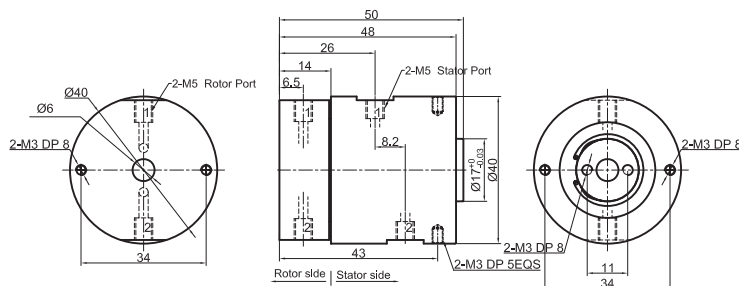
MQR series Pneumatic rotary union parts list						
Model	Pneumatic Passages	Signal/2A	Torque	Negative Vacuum	Max Pressure	Max Rotating Speed
MQR2	2 passages, M5	/	0.2N.m	-1.5kPa	1MPa	300RPM
MQR2-S12	2 passages, M5	12 wires	0.2N.m	-1.5kPa	1MPa	300RPM
MQR2-S24	2 passages, M5	24 wires	0.2N.m	-1.5kPa	1MPa	300RPM
MQR4	4 passages, M5	/	0.3N.m	-1.5kPa	1MPa	300RPM
MQR4-S12	4 passages, M5	12 wires	0.3N.m	-1.5kPa	1MPa	300RPM
MQR4-S24	4 passages, M5	24 wires	0.3N.m	-1.5kPa	1MPa	300RPM
MQR6	6 passages, M5	/	0.5N.m	-1.5kPa	1MPa	300RPM
MQR6-S12	6 passages, M5	12 wires	0.5N.m	-1.5kPa	1MPa	300RPM
MQR6-S24	6 passages, M5	24 wires	0.5N.m	-1.5kPa	1MPa	300RPM
MQR8	8 passages, M5	/	0.6N.m	-1.5kPa	1MPa	300RPM
MQR8-S12	8 passages, M5	12 wires	0.6N.m	-1.5kPa	1MPa	300RPM
MQR8-S24	8 passages, M5	24 wires	0.6N.m	-1.5kPa	1MPa	300RPM
MQR12	12 passages, M5	/	1.0N.m	-1.5kPa	1MPa	300RPM
MQR12-S12	12 passages, M5	12 wires	1.0N.m	-1.5kPa	1MPa	300RPM
MQR12-S24	12 passages, M5	24 wires	1.0N.m	-1.5kPa	1MPa	300RPM
MQR16	16 passages, M5	/	1.3N.m	-1.5kPa	1MPa	300RPM
MQR16-S12	16 passages, M5	12 wires	1.3N.m	-1.5kPa	1MPa	300RPM
MQR16-S24	16 passages, M5	24 wires	1.3N.m	-1.5kPa	1MPa	300RPM

### Specifications

Parameters			
Passages	1~16 passages	Max Pressure	1MPa
Vacuum Pressure	-1.5KPa	Max Rotating Speed	300RPM
Housing Material	Stainless Steel/Aluminium Alloy	Working Temperature	-40°C to 80°C
Connection Size	M5	Protection Grade	IP51
Shockproof Level	MIL-SID-810E	Operating Humidity	10% to 85% RH
Material	RoHs Compliant	CE Compliant	Yes

### Standard Model Drawing

MQR2 drawing 2 in 2 out, connection size M5



Technical drawing of the 2-M3 DP 5EQS motor assembly, showing front, side, and end views with dimensions and labels.

**Front View (Left):** Shows a circular motor body with a diameter of  $\varnothing 40$ . It features two mounting holes with a diameter of  $2-M3 DP 8$ . The distance between the mounting holes is  $34$ . The distance from the center to the mounting holes is  $14$ . The distance from the center to the rotor wires is  $6.5$ . The distance from the center to the stator wires is  $8.2$ . The distance from the center to the stator slide is  $43$ . The distance from the center to the stator slide is  $26$ . The distance from the center to the stator slide is  $67.4$ . The distance from the center to the stator slide is  $86$ .

**Side View (Middle):** Shows the motor body with a diameter of  $\varnothing 40$ . It features two mounting holes with a diameter of  $2-M3 DP 5EQS$ . The distance between the mounting holes is  $34$ . The distance from the center to the mounting holes is  $14$ . The distance from the center to the rotor wires is  $6.5$ . The distance from the center to the stator wires is  $8.2$ . The distance from the center to the stator slide is  $43$ . The distance from the center to the stator slide is  $26$ . The distance from the center to the stator slide is  $67.4$ . The distance from the center to the stator slide is  $86$ .

**End View (Right):** Shows the motor body with a diameter of  $\varnothing 40$ . It features two mounting holes with a diameter of  $2-M3 DP 5EQS$ . The distance between the mounting holes is  $34$ . The distance from the center to the mounting holes is  $14$ . The distance from the center to the rotor wires is  $6.5$ . The distance from the center to the stator wires is  $8.2$ . The distance from the center to the stator slide is  $43$ . The distance from the center to the stator slide is  $26$ . The distance from the center to the stator slide is  $67.4$ . The distance from the center to the stator slide is  $86$ .

**Labels:** Rotor wires, Stator wires, Rotor slide, Stator slide.

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Technical drawing of the motor housing showing three views: front, side, and top. The front view shows a circular housing with a central shaft hole (Ø38) and four mounting holes (Ø6). The side view shows the housing's profile with dimensions for the rotor and stator ports. The top view shows the housing's top surface with dimensions for the rotor and stator ports. The rotor side is labeled "Rotor side" and the stator side is labeled "Stator side".

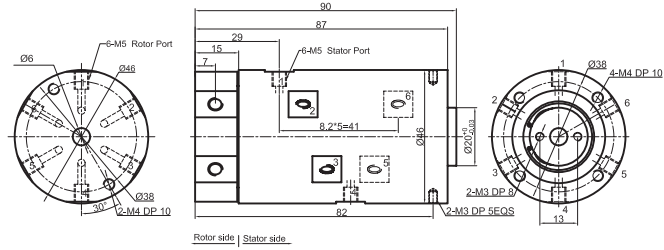
Technical drawing of the motor assembly showing front, side, and end views with dimensions and labels.

**Front View (Left):** Shows a circular rotor with four ports. Dimensions include a total diameter of  $\varnothing 44$ , a port diameter of  $\varnothing 38$ , and a 45° angle. Labels include "4-M5 Rotor Port", "2-M4 DP 10", and "Rotor wires".

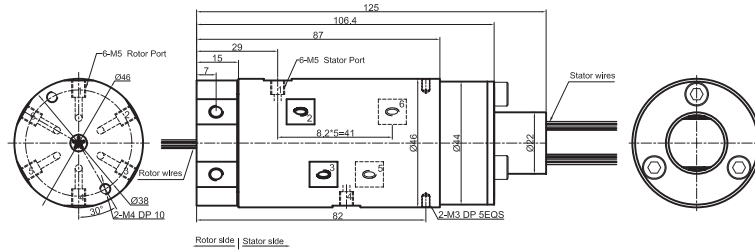
**Side View (Middle):** Shows the motor's profile with dimensions: 106 (total length), 87.4 (stator length), 68 (rotor length), 27 (rotor offset), 14 (rotor thickness), 6.5 (rotor offset), 8.2" (206 mm) (rotor length), 63 (rotor thickness), and 11 (rotor offset). Labels include "4-M5 Stator Port", "Stator wires", "Rotor side | Stator side", and "2-M3 DP 5EQS".

**End View (Right):** Shows a circular stator with four ports. Dimensions include a total diameter of  $\varnothing 44$  and a port diameter of  $\varnothing 32$ .

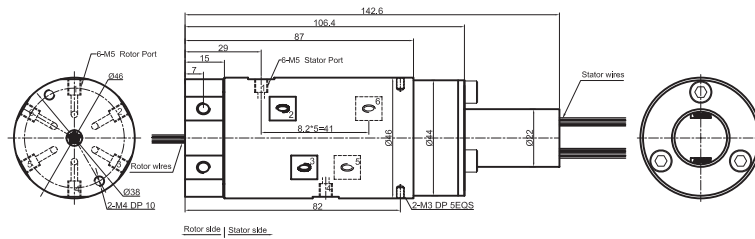
MQR6 drawing 6 in 6 out, connection size M5



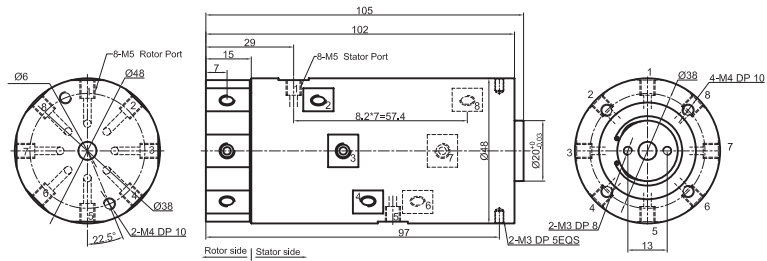
MQR6-S12 drawing 6 in 6 out, connection size M5 + 12 wires x signal(2A)



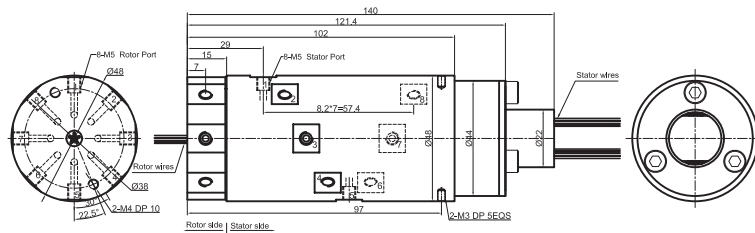
MQR6-S24 drawing 6 in 6 out, connection size M5 + 24 wires x signal(2A)



MQR8 drawing 8 in 8 out, connection size M5



MQR8-S12 drawing 8 in 8 out, connection size M5 + 12 wires x signal(2A)



Technical drawing of the motor assembly showing rotor and stator side views with dimensions and labels.

**Dimensions:**

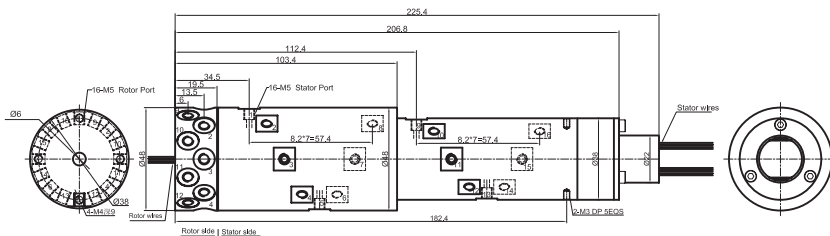
- 157.6
- 121.4
- 102
- 29
- 15
- 7
- 8.2"±57.4
- 72.5
- 97
- Ø48
- Ø38
- Ø4.8
- Ø4.4
- Ø2.2

**Labels:**

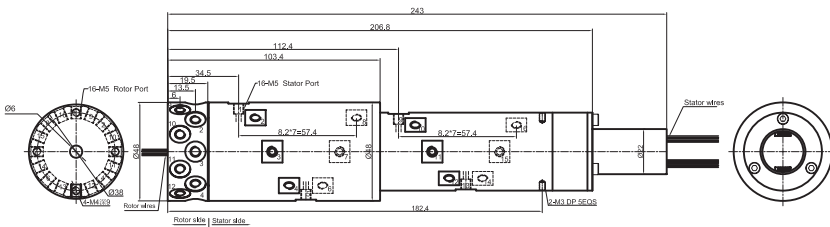
- 8-M5 Rotor Port
- 8-M5 Stator Port
- Rotor wires
- Stator wires
- 2-M4 DP 10
- 2-M3 DP SEQS
- Rotor side | Stator side

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MQR16-S12 drawing 16 in 16 out, connection size M5 + 12 wires x signal(2A)



MQR16-S24 drawing 16 in 16 out, connection size M5 + 24 wires x signal(2A)



## Product Quality Level Table

Products Level Code	Max Rotating Speed	Working Life	Sealing element
Common Quality Level	100RPM	10 Million Revs	Domestic famous brand seals
Industrial Quality Level	200RPM	30 Million Revs	Imported sealing elements

## Rings lead color code

Rings	1	2	3	4	5	6	7	8	9	10	11	12
Color	Black	Red	Yellow	Green	Blue	White	Black	Red	Yellow	Green	Blue	White

Note: 6 wires for one group color, from 7-12, repeat the same color as 1...6, indicate with number code pipe.

## Options for Custom Slip Ring

Note: Below special demands can be customized. The delivery date will be extended about 3 to 15 days;also the cost will be increase about 5% to 50%. Most of our basic parts are standard and modular,which can save the cost and lead time.

1. Inner bore size, cable exit way and cable length for both rotor and stator can be customized.
2. Because of the structure limitation, length/height/OD can be customized on your request.
3. Max support 200 rings of power/signal.
4. Aviation plug, terminal and heat-shrink tube are optional.
5. Combined slip ring for Yaskawa, Panasonic and 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. Combined Pneumatic/hydraulic joint with electric slip ring.
10. High temperature can up to 500 degree centigrade.
11. High voltage can up to 110KV.
12. Rotating speed can up to 10000RPM.
13. Maximum current can up to 5000(A) amperes.
14. Military Grade.
15. Optional for underwater IP65, IP68.
16. Optional for stainless steel housing.

Technical support: [technical@moflon.com](mailto:technical@moflon.com)

