

Introduction

The M-RMJ40 is an all metal sealed, linear-rotary feedthrough with independent rotation of the inner shaft. It's main purpose is to transport samples between UHV-chambers. The independent rotary motion can be used to operate a sample locking mechanism or to rotate a sample carrier platform. The square shaft makes this feedthrough especially sturdy. A set of rare earth magnets on the air- and vacuumside provides the necessary force to ensure a rigid coupling from the handle to the shaft. It's main bearings are of the sliding type, which ensures durability and smooth operation, even over the course of numerous bake out cycles.

Pincer grips fitted to the M-RMJ40 are oriented vertically. For horizontal orientation of the pincer, see M-RMJ40(H).

Specifications:

Materials

All UHV compatible

Vacuum Range

CF flanged atm to 1×10^{-11} mbar

Temperature Range*

CF flanged -196 to 150°C

Load

Linear force 70N typical

Torque 5Nm typical

Retracted Shaft Length

Dual shaft 50mm



Description	Part Code
Dual shaft single rotary magnetic transporter with slide bearings 300mm linear, 50mm retracted DN40CF independantly rotatable inner shaft	M-RMJ40-300-50
Dual shaft single rotary magnetic transporter with slide bearings 500mm linear, 50mm retracted DN40CF independantly rotatable inner shaft	M-RMJ40-500-50
Dual shaft single rotary magnetic transporter with slide bearings 750mm linear, 50mm retracted DN40CF independantly rotatable inner shaft	M-RMJ40-0750-50
Dual shaft single rotary magnetic transporter with slide bearings 1000mm linear, 50mm retracted DN40CF independantly rotatable inner shaft	M-RMJ40-1000-50
Dual shaft single rotary magnetic transporter with slide bearings Xmm linear, Ymm retracted DN40CF independantly rotatable inner shaft	M-RMJ40-X-Y
Dual shaft single rotary magnetic transporter for horizontal pincer with slide bearings 300mm linear, 50mm retracted DN40CF independantly rotatable inner shaft	M-RMJ40(H)-300-50
Dual shaft single rotary magnetic transporter for horizontal pincer with slide bearings 500mm linear, 50mm retracted DN40CF independantly rotatable inner shaft	M-RMJ40(H)-500-50
Dual shaft single rotary magnetic transporter for horizontal pincer with slide bearings 750mm linear, 50mm retracted DN40CF independantly rotatable inner shaft	M-RMJ40(H)-0750-50
Dual shaft single rotary magnetic transporter for horizontal pincer with slide bearings 1000mm linear, 50mm retracted DN40CF independantly rotatable inner shaft	M-RMJ40(H)-1000-50
Dual shaft single rotary magnetic transporter for horizontal pincer with slide bearings Xmm linear, Ymm retracted DN40CF independantly rotatable inner shaft	M-RMJ40(H)-X-Y

YYYY retracted (minimum 45, standard 50)

XXXX + 120

XXXX linear travel

minimum 56

50

4x M3x4

7.5

1.5

39

∅ 60

DN40CF

∅ 6.35 h6 ($\begin{matrix} 0 \\ -0.009 \end{matrix}$)

25

10

13

11

∅ 15

□ 15

(1:4)

Ra 1.6

+0.2
+0.1

-0.1
-0.2

general tolerances ISO 2768-K

Material: all UHV compatible	nominal	min.	1	6	30	100	300	1000
Dual Shaft Sample Transporter	dimension	max.	6	30	100	300	1000	2000
	tolerance	±	0.05	0.1	0.3	0.5	0.8	1.2
RMJ40	Scale	Drawn	S.Michels					
		Date	30.11.2016					
		Revised					
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		Rev. C						

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YYYY retracted (minimum 45, standard 50)

XXXX + 120

XXXX linear travel

minimum 56

50

4x M3x4

8

1.5

39

∅ 60

DN40CF

∅ 6.35 h6 (0 / -0.009)

25

10

13

11

∅ 15

□ 15

(1:4)

√ Ra 1.6 (√)

+0.2
+0.1

-0.1
-0.2

general tolerances ISO 2768-K

Material: all UHV compatible		nominal	min.	1	6	30	100	300	1000
Dual Shaft Sample Transporter (horizontal)		dimension	max.	6	30	100	300	1000	2000
RMJ40		tolerance	±	0.05	0.1	0.3	0.5	0.8	1.2
		Scale	Drawn	S.Michels					
			Date	30.11.2016					
			Revised					
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