

Introduction

The M-RMDG40 is an all metal sealed, linear-rotary feedthrough with independent rotation of the inner as well as the outer shaft. It's main purpose is to transport samples between UHV-chambers. The independent rotary motion of each shaft enhances operation of sample locking mechanisms and sample carrier platforms by being able to drive and also rotate them.

Two sets of rare earth magnets on the air- and vacuumsides provide the necessary force to ensure a rigid coupling from the handle to the shaft. All ball bearings are Dicronite™ (W-disulfide) dry lube coated. On request, the RMDG can be built with SiC ceramic hybrid ball bearings.

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 rotatable shaft magnetic transporter 300mm linear 50mm retracted DN40CF	M-RMDG40-300-50
Dual rotatable shaft magnetic transporter 500mm linear 50mm retracted DN40CF	M-RMDG40-500-50
Dual rotatable shaft magnetic transporter 100mm linear 50mm retracted DN40CF	M-RMDG40-750-50
Dual rotatable shaft magnetic transporter 300mm linear 50mm retracted DN40CF	M-RMDG40-1000-50
Dual rotatable shaft magnetic transporter Xmm linear Ymm shaft DN40CF	M-RMDG40-X-Y

YYYY retracted (minimum 45, standard 50)

XXXX + 170

XXXX linear travel

minimum 56

7

100.5

7

4x M3x4

DN40CF

Ø 60

39

Ø 6.35 h6 (0 -0.009)

25

10

13

11

8

2.8

Ø 15

□ 15

(1:4)

Ra 1.6 (✓)

general tolerances ISO 2768-K

+0.2
+0.1

-0.1
-0.2

Material: All UHV compatible		Nennmass	über	1	6	30	100	300	1000
		bis		6	30	100	300	1000	2000
Dual Shaft Rotateable Sample Transporter		Toleranz	±	0.05	0.1	0.3	0.5	0.8	1.2
RMDG40		Massstab	gezeichnet	U. Maier					
			Datum	06.05.2010					
			geändert	02.09.14 CW					
Ferrovac GmbH		1:1		RMDG40					
CH-8050 Zürich		(1:4)		sheet 1/1					
		Rev. C							

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