

**Synchronous linear slide table**  
**Double acting**  
**Non-magnetic and magnetic**  
**Ø 6 mm**

**Precise synchronous slide table movement makes these units ideal for use as escapements or grippers**

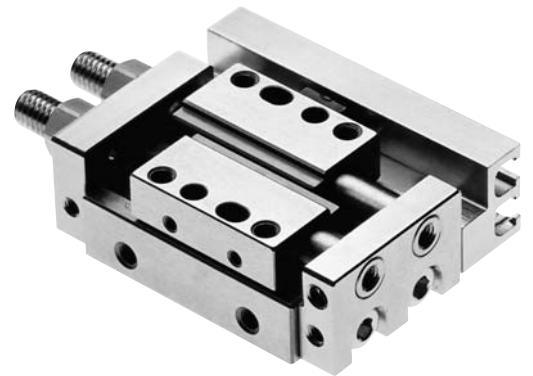
**Compact envelope dimensions**

**High cycle rate – 120 cycles/minute**

**Light weight**

**Magnetic switching for positional feedback**

**Excellent service life**



### Technical data

#### Medium:

Compressed air, filtered, lubricated or non-lubricated

#### Operation:

Double acting with synchronous slide table movement

#### Operating pressure:

3 to 7 bar

#### Operating temperature:

+5°C to +60°C

#### Piston diameter:

6 mm

#### Stroke lengths:

5, 10 mm

#### Operating speed:

120 cycles/minute maximum

#### Materials:

Slide tables: stainless steel

Guide rail: stainless steel

Side plates: nickel plated aluminium alloy and nickel plated steel

Piston rods: nickel plated aluminium alloy

Hexagon socket bolts: nickel plated steel

Stroke adjustment bolts: nickel plated steel

Stroke adjustment bolts with rubber stops: stainless steel and urethane rubber

Locknuts: nickel plated steel

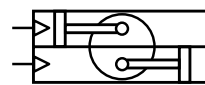
Elastomers: nitrile rubber

### Ordering information

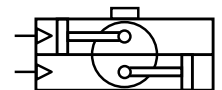
See page 2

### Alternative models

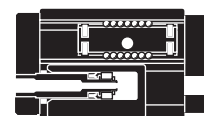
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Non-magnetic



Magnetic





## Alternative Cylinders

Symbol	Model (non-magnetic)	Symbol	Model (magnetic)	Description	Page
	M/261406/IR1		M/261406/MR1	Without stroke adjustment	6
	M/261406/IR3		M/261406/MR3	With stroke adjustment, metal stops	7
	M/261406/IR6		M/261406/MR6	With stroke adjustment, rubber stops	7
	M/261406/IR*/I		M/261406/MR*/I	Standard location of magnet and switch rail (right side of air ports)	6
	M/261406/IR*/S		M/261406/MR*/S	Alternative location of magnet and switch rail (left side of air ports)	6

## Option selector

M/261406/★R★/★/★★

Type	Substitute	Standard stroke lengths
Magnetic	M	5 and 10 mm
Non-magnetic	I	
Stroke adjustment	Substitute	Location of switch rail and stroke adjusters
No stroke adjustment	1	Standard (right side of ports)
Stroke adjustment, metal stops	3	Alternative (left side of ports)
Stroke adjustment, rubber stops	6	
		Substitute
		I
		S

## Standard strokes

Ø	Standard stroke (mm)	
mm	5	10
6	●	●

## Ordering examples

### Slide table

To order a Ø 6 mm synchronous linear slide table magnetic, stroke adjustment with rubber stops and a 5 mm stroke length

quote: **M/261406/MR6/I/5**

### Switches

To order a two wire solid state switch with LED indication, 1 m cable and 90° cable connection, specify part number

quote: **M/419/EAU/1**

## Warning

These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under 'Technical Data'.

Before using these products with fluids other than those specified, for non-industrial applications, life-support systems, or other applications not within published specifications, consult NORGREN.

Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes.





The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.

System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.

System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.








## Switches with LED

Reed In-line cable	Reed 90° cable	Solid state In-line cable	Solid state 90° cable
			
M/369/LSU/1	M/370/LSU/1	M/418/EAU/1	M/419/EAU/1
M/369/LSU/3	M/370/LSU/3	M/418/EAU/3	M/419/EAU/3
		M/420/EAN/1	M/421/EAN/1
		M/420/EAN/3	M/421/EAN/3

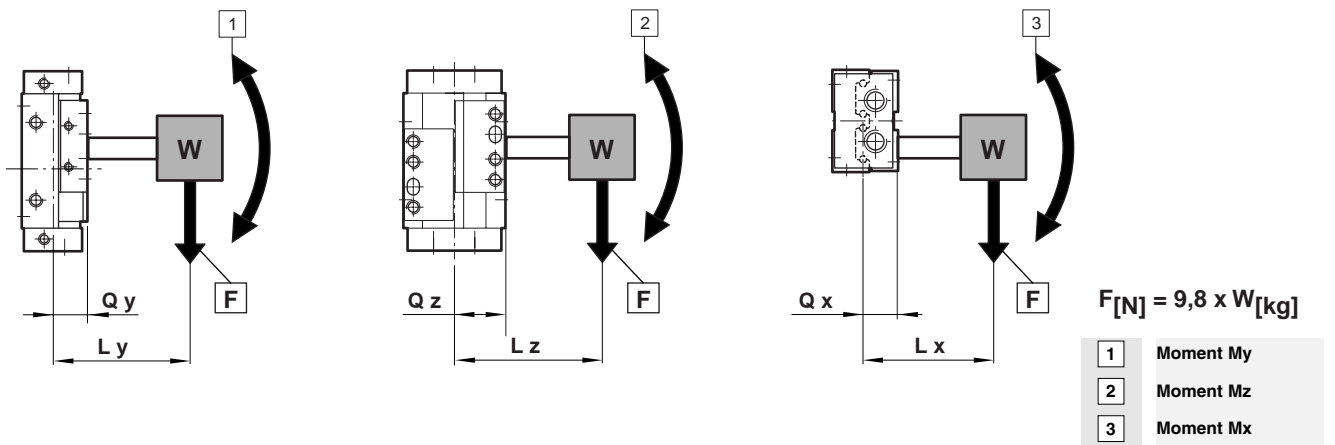
Model	Reed	Solid state	Voltage V d.c	Current max.	Temperature °C	Output	Protection rating	Cable wire, material	Cable type	Cable length	Page
M/369/LSU/1	—	—	12 to 24	24	+5 to +60	—	IP 67	PVC 2 x 0,18	In-line	1 m	N/UK 4.3.091
M/369/LSU/3	—	—	12 to 24	24	+5 to +60	—	IP 67	PVC 2 x 0,18	In-line	3 m	N/UK 4.3.091
M/370/LSU/1	—	—	12 to 24	24	+5 to +60	—	IP 67	PVC 2 x 0,18	90°	1 m	N/UK 4.3.091
M/370/LSU/3	—	—	12 to 24	24	+5 to +60	—	IP 67	PVC 2 x 0,18	90°	3 m	N/UK 4.3.091
—	—	M/418/EAU/1	12 to 24	40	+5 to +60	PNP	IP 67	PVC 2 x 0,15	In-line	1 m	N/UK 4.3.093
—	—	M/418/EAU/3	12 to 24	40	+5 to +60	PNP	IP 67	PVC 2 x 0,15	In-line	3 m	N/UK 4.3.093
—	—	M/419/EAU/1	12 to 24	40	+5 to +60	PNP	IP 67	PVC 2 x 0,15	90°	1 m	N/UK 4.3.093
—	—	M/419/EAU/3	12 to 24	40	+5 to +60	PNP	IP 67	PVC 2 x 0,15	90°	3 m	N/UK 4.3.093
—	—	M/420/EAN/1	5 to 24	50	+5 to +60	NPN	IP 67	PVC 3 x 0,18	In-line	1 m	N/UK 4.3.093
—	—	M/420/EAN/3	5 to 24	50	+5 to +60	NPN	IP 67	PVC 3 x 0,18	In-line	3 m	N/UK 4.3.093
—	—	M/421/EAN/1	5 to 24	50	+5 to +60	NPN	IP 67	PVC 3 x 0,18	90°	1 m	N/UK 4.3.093
—	—	M/421/EAN/3	5 to 24	50	+5 to +60	NPN	IP 67	PVC 3 x 0,18	90°	3 m	N/UK 4.3.093

## Mountings and accessories

Stroke mm	Stroke adjustment bolt with nut	Stroke adjustment bolt with rubber stop and nut	Mounting bracket (with fixing bolts)	Magnet with fixing screws	Switch rail with fixing bolts
5					
	M/P73424/1	M/P73425/1	QM/261406/5/22	M/P73431	M/P73427/1
10	M/P73424/1	M/P73425/1	QM/261406/10/22	M/P73431	M/P73427/1



## Forces, moments and loads



### Theoretical forces

ø mm	Theoretical forces (N) at 6 bar	
	Drive table	Driven table
6	10,8	4,1

### Position of the guide and adjuster bolt

ø mm	Guide centre line positions (m)	
	Qx	Qz
6	0,0085	0,0067

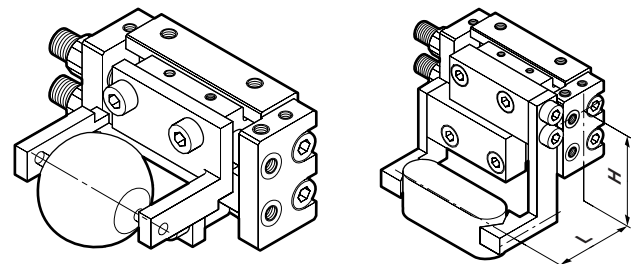
### Stroke adjustment

Models specified with stroke adjustment feature two stroke adjusting bolts. By adjusting these bolts the nominal stroke of either slide table can be decreased by 5 mm. However, it should be noted that, due to the table's synchronous movement, adjusting the stroke length of one table will determine the stroke of the other.

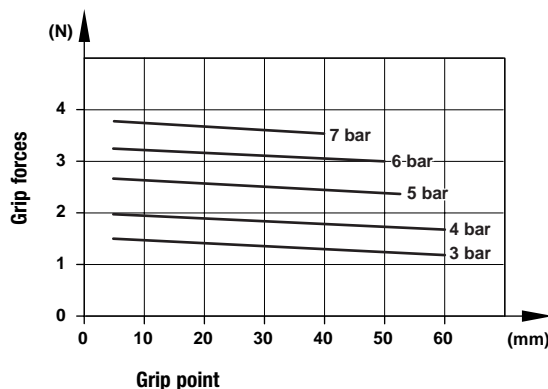
### Theoretical moments and maximum loads

ø mm	Theoretical moments (Nm)			Maximum loads (kg)
	Mx	My	Mz	
6	0,54	0,29	0,29	0,1

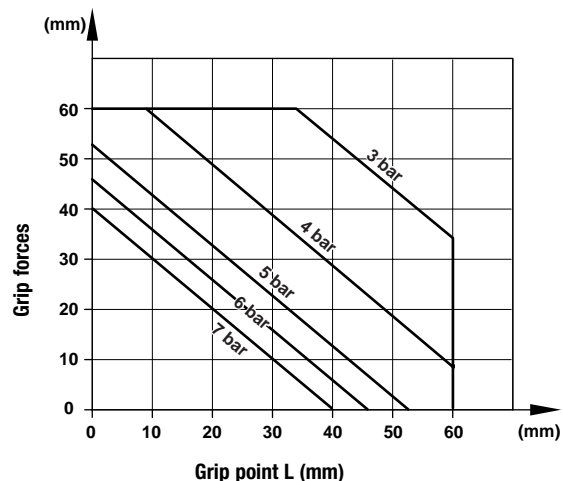
To calculate a theoretical moment use the following formula -  
 Gravity acting on load (9,8) x mass of load (kg) x distance between centre line of linear slide table and load's centre of gravity.  
 Calculated values should not exceed those in the table above.



### Effective closing grip force

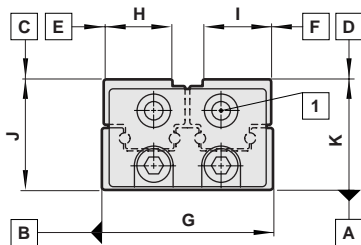


### Grip point limitation range





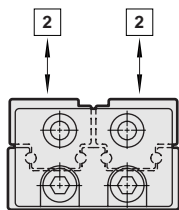
## Accuracy



1 Port

ø mm	Parallelism Plane C and D with respect to plane A	Parallelism Plane E and F with respect to plane B	Running parallelism Plane C and D with respect to plane A	Running parallelism Plane E and F with respect to plane B	Level difference between surfaces C and D	Tolerance of dimension				
						G	H	I	J	K
6	0,03	0,03	0,005	0,005	0,02	0-0,1	0-0,1	0-0,1	±0,05	±0,05

## Radial clearance and preloading

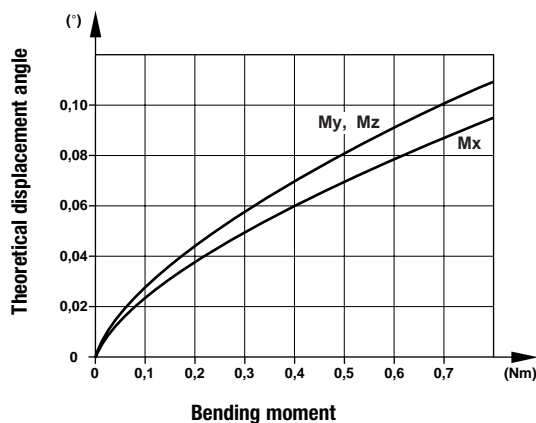
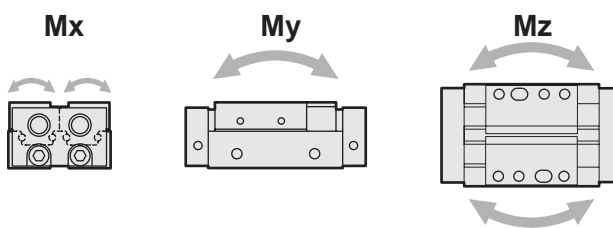


2 Radial clearance

Radial clearance means clearance in vertical direction (see left figure) under constant light load. To minimise this clearance and increase rigidity, all bearings used for M/261400 are preloaded.

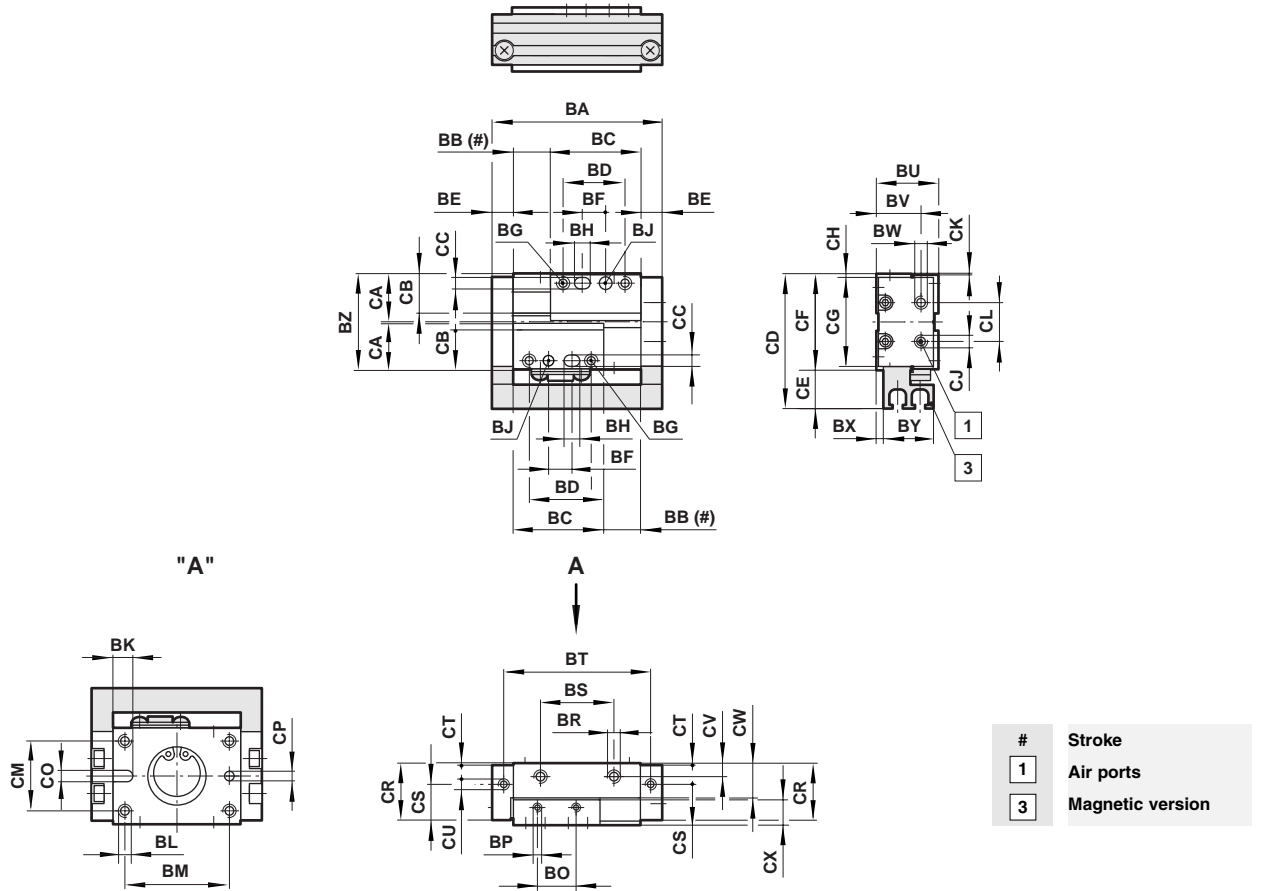
ø mm	Radial clearance
6	0 ≈ -0,002

## Theoretical displacement of table by moment





M/261406/.R1/..., Standard synchronous linear slide table (Ø 6 mm)



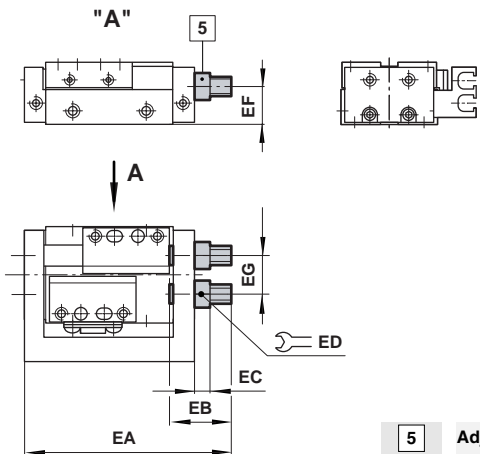
Model	ø	BC	BD	BE	BF	BG	BH	ø BJ	BK	BL	BO
M/261406/.R1/..	6	22,4 -0,1	16	5,5	6	M3 x 3 deep	4	3 x 2,5 deep	5	M3 x 3 deep	10
Model	ø	BP	BR	BU	BV	BX	BY	BZ	CA	CB	
M/261406/.R1/..	6	M2 x 2,5 deep	M3 x 3 deep	16 ±0,05	11,5	1,8	13	24,4 ±0,05	12	10 -0,1	
Model	ø	CC	CD	CE	CF	CG	CH	CJ	CK	CL	CM
M/261406/.R1/..	6	3 x 2,5 deep	35	10	25 -0,1	23	1	M3	0,3 ±0,1	10	18
Model	ø	CO	CP	CR	CS	CT	CU	CV	CW	CX	
M/261406/.R1/..	6	3 x 3 deep	Ø 3 x 3 deep	14,7	9,2	0,5	M 2,5 x 3 deep	3,5	9	6,5	

Model	ø	Stroke	BA	BB	BM	BS	BT	Weight kg	Magnet kg
M/261406/.R1/./5	6	5	39	5 +0 -0,7	22	14	33	0,070	0,008
M/261406/.R1/./10	6	10	44	10 +0 -0,7	27	19	38	0,075	0,008



M/261406/.R3/..., synchronous linear slide table with metal stops (Ø 6 mm)

M/261406/.R6/..., synchronous linear slide table with rubber stops (Ø 6 mm)

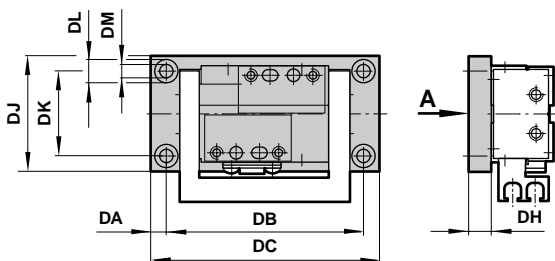


5 Adjustment bolt

Model	ø	EB	EC	ED	EF	EG
6	6	16	4	7	10,5	10

Model	ø	Stroke	EA max.	Weight kg (basic model +)
6	6	5	49,5	0,005
6	6	10	54,5	0,005

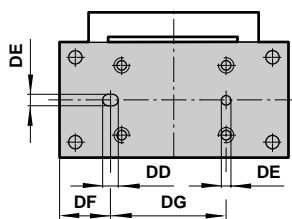
### QM/261406/.22 – Mounting bracket



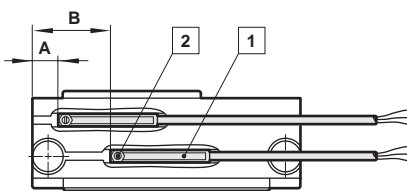
ø	DA	DD	ø DE +0,05	DF	DH
6	4	4	3 x 3 deep	10	6
ø	DJ	DK	ø DL	DM	
6	30	22	6 x 3,2 deep	Ø 3,5	

ø	Stroke max.	DB	DC	Weight kg
6	5	46	54	0,027
6	10	51	59	0,030

"A"



### Switches



- 1 Switch
- 2 Fixing screw

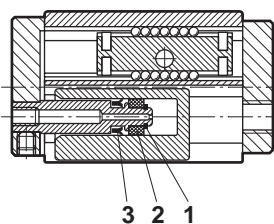
#### Reed switches

ø mm	stroke	Setting position	
		A	B
6	5	3	9
6	10	3	14

#### Solid states

ø mm	stroke	Setting position	
		A	B
6	5	5	11
6	10	5	16

### Spares



ø mm	Spares kit	Comprising item	Description	Quantity
6	QM/261406/00	1	Stopper ring	2
		2	Wear ring	2
		3	Piston seal	2