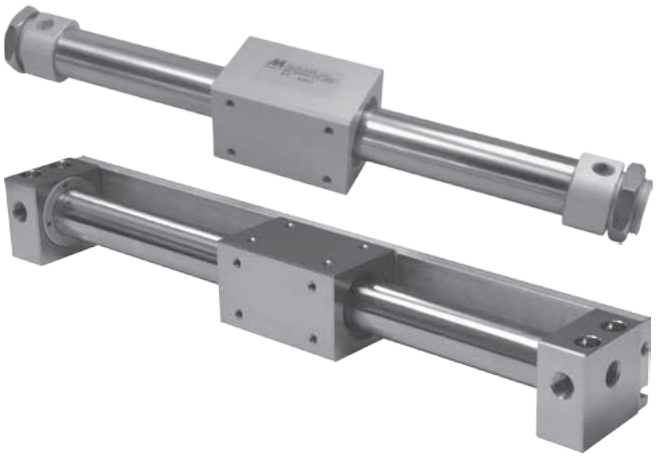
MAGNETICALLY COUPLED RODLESS PNEUMATIC CYLINDERS SERIES MCRPM

STRÁNSKÝ A PETRŽÍK



Magnetically coupled rodless cylinders series MCRPM offers long strokes with reduced installation place. Thanks to max. stroke up to 2 meters, these cylinders can be used in such an applications, where use of standard cylinder is impossible. There is no fix connection between piston and carriage, when the force of magnet is exceeded, the carriage will move independently on piston. This feature is utilized as a safety feature, in some applications. Force transmission is provided by strong magnets in piston and carriage. There is no adjustable cushioning at end of stroke.

Working pressure	0.6 MPa
Min. pressure	0.16 MPa
Max. pressure	0.7 MPa
Temp. range	+5°C to +60°C
Working medium	modified compressed air
Carriage speed	50 to 500 mms^{-1}

Piston diameter [mm]	10	15	20	25	32	40
Force at 0.6 MPa [N]	40	95	170	265	432	675
Holding force of magnets [N]	54	137	231	363	588	922
Connection	M5	M5	G1/8“	G1/8“	G1/8“	G1/4“
Max. stroke of standard type * / type with rail [mm]	500 / 500	900 / 700	1500 / 1000	2000 / 1000	2000 / 1000	2000 / –
Weight 0 mm stroke of standard type / type with rail [kg]	0.09 / 0.16	0.23 / 0.30	0.41 / 0.52	0.66 / 0.71	1.18 / 1.24	2.00 / –
Weight add. per 1 mm stroke of standard type / type with rail [kg]	0.027 / 0.067	0.032 / 0.080	0.043 / 0.102	0.046 / 0.115	0.066 / 0.150	0.083 / –

*) Values are valid for mounting on pad, max. strokes for mounting without pad are smaller. Please contact our technical dept.

Order codes

P MCRP M 20 100

Type	
M	standard
MD	with rail
MDG	with rail, centralized piping

Piston diameter	
10	10 mm
15	15 mm
20	20 mm
25	25 mm
32	32 mm
40*	40 mm

*) Only for cylinder type M

Stroke	
xxx	mm of stroke e.g.: 100 = stroke 100 mm, see table of standard strokes

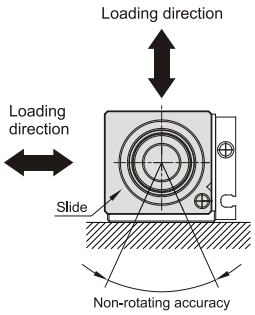
Piston diameter [mm]	Standard stroke [mm]*
10, 15	100, 150, 200, 250, 300, 400, 500
20 to 40	100, 150, 200, 250, 300, 350, 400, 450, 500, 600, 700, 800

*) Please consult us if stroke is out of specification, stroke increment is 1 mm

Allowable load of cylinder with rail

Piston dia. [mm]	Max. allowable load [N]	Non-rotating accuracy [°]	Max. torsion moment [Nm]
10	4	5	0.05
15	9	5	0.18
20	11	4	0.23
25	11	4	0.40
32	15	4	0.12

Note: Non-rotating accuracy will be reduced by distorsion due to longer stroke and switch rail. Values are for 300 mm stroke.



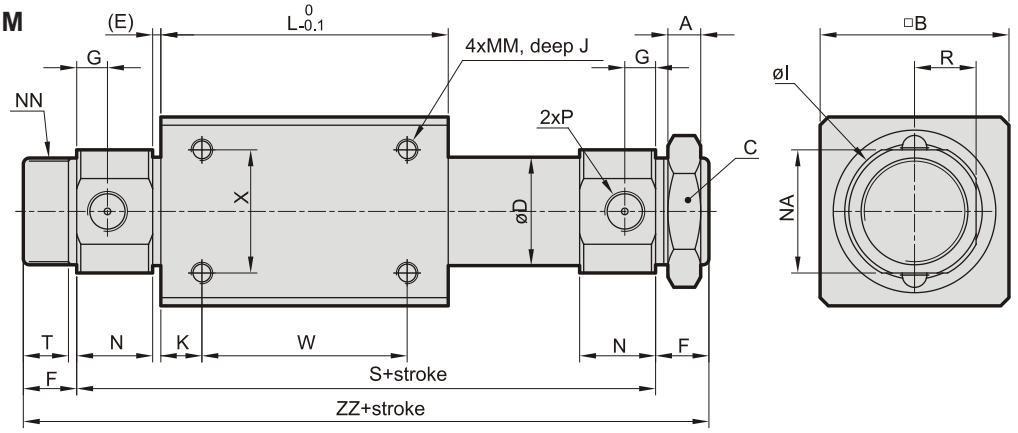
Construction / materials

- caps, carriage, rail: anodized aluminium alloy
- tube: stainless steel
- yokes: nickel plated carbon steel
- seals: NBR

In case of proximity sensing request for cylinders with rail, please use switches series RCE/RPE/RNE - see page 3-8 for detail. There is no possible to use proximity sensing for standard cylinders (without rail).

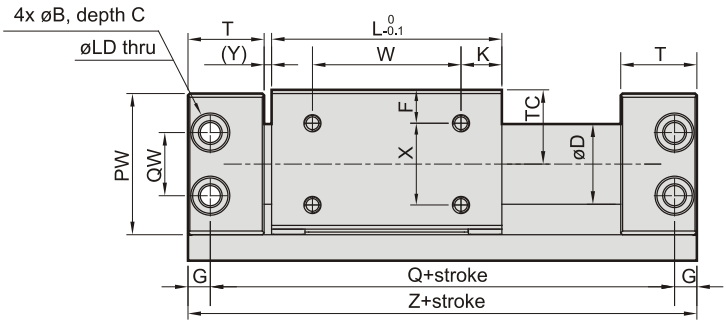
Dimensions

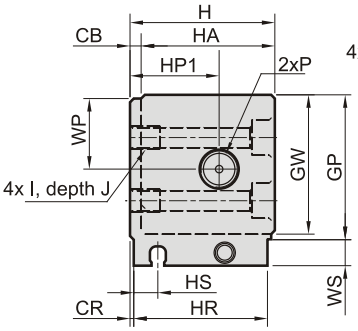
Standard type - M



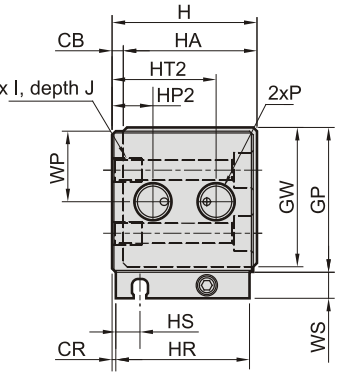
∅	A	B	C	D	E	F	G	I	J	K	L	MM	N	NA	NN	R	S	T	W	X	ZZ	P
10	4	25	14	12	1.5	9	5	16	4.5	4	38	M3	11	14	M10x1	7	63	7.5	30	16	81	M5
15	4	35	14	16.6	2	10	5.5	22	5	11	57	M4	11	20	M10x1	10	83	8.5	35	19	103	M5
20	8	36	26	21.6	2	13	7.5	28	6	8	66	M4	18	24	M20x1.5	12	106	10.5	50	25	132	G1/8“
25	8	46	32	26.4	2	13	7.5	34	8	10	70	M5	18.5	30	M26x1.5	15	111	10.5	50	30	137	G1/8“
32	8	60	32	33.6	2	16	8	40	8	15	80	M6	20	36	M26x1.5	18	124	14	50	40	156	G1/8“
40	10	70	41	41.6	3	16	11	50	10	16	92	M6	26	46	M32x2	23	150	13	60	40	182	G1/4“

Type with rail - MD and MDG



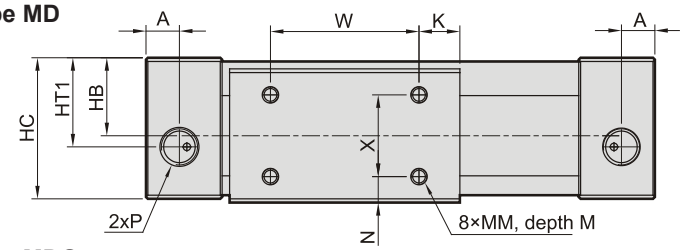


Type MD



Type MDG

Type MD



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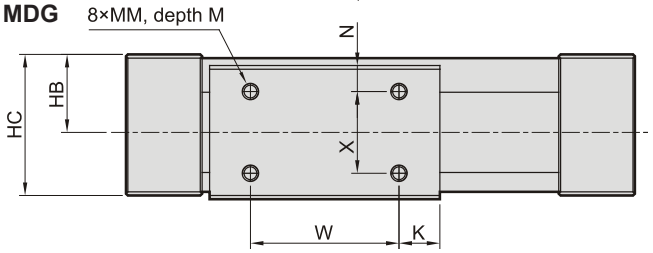

∅	A	B	C	CB	CR	D	F	G	GP	GW	H	HA
10	8.5	6.5	3.2	2	0.5	12	6.5	4	27	25.5	26	24
15	9.5	8	4.2	2	0.5	16.6	8	5	33	31.5	32	30
20	9	9.5	5.2	3	1	21.6	9	6	39	37.5	39	36
25	9	9.5	5.2	3	1	26.4	8.5	6	44	42.5	44	41
32	10.5	11	6.5	3	1.5	33.6	10.5	7	55	53.5	55	52

∅	HB	HC	HP	HP*	HR	HS	HT	HT*	I	J	K	L
10	13	25	14	—	24	4.5	14	—	M4	6	9	38
15	17	31	17	8,5	30	4.9	17	22	M5	7	14	53
20	21	38	24	11	36	6.5	24	28	M6	8	11	62
25	23.5	43	23.5	14.5	41	6.5	23.5	33.5	M6	8	15	70
32	29	54	29	20	51	6	29	40	M8	10	13	76

∅	LD	M	MM	N	P	PW	Q	QW	T	TC	W	WP	WP*	WS	X	Y	Z
10	3.3	4.5	M3	4.5	M5	26	68	14	17.5	14	20	13	—	7	15	1.5	76
15	4.3	5	M4	6	M5	32	84	18	19	17	25	16	13 / 19	7	18	1.5	94
20	5.4	5	M4	7	G1/8“	38	95	17	20.5	20	40	19	19	7	22	2	107
25	5.4	6	M5	6.5	G1/8“	43	105	20	21.5	22.5	40	21.5	21.5	7	28	2	117
32	6.8	7	M6	8.5	G1/8“	54	116	26	24	28	50	27	27	7	35	3	130

*) Values for model MDG