Series RCM

AVENTICS™

AVENTICS Series RCM Rotary Compact Modules

EMERSON™

Series RCM

The AVENTICS Series RCM with its rotary modules can perform all standardized rotary and swivel movements. These modules can be installed directly on mini slides and are equipped with mechanical grippers.

- A combination of an opposed pneumatic double piston drive (rack/pinion) and a precise rotary flange guided without play
- High power density through optimum ratio of torque and space and absorption of outer transverse force and torque on the rotary flange
- Compact design offers high torque and functionality in the minimum amount of space

Product overview

Product overview

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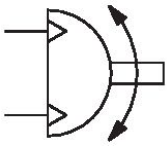
Accessories overview Mechanical accessories

Rotary Compact Module, Series RCM-SE

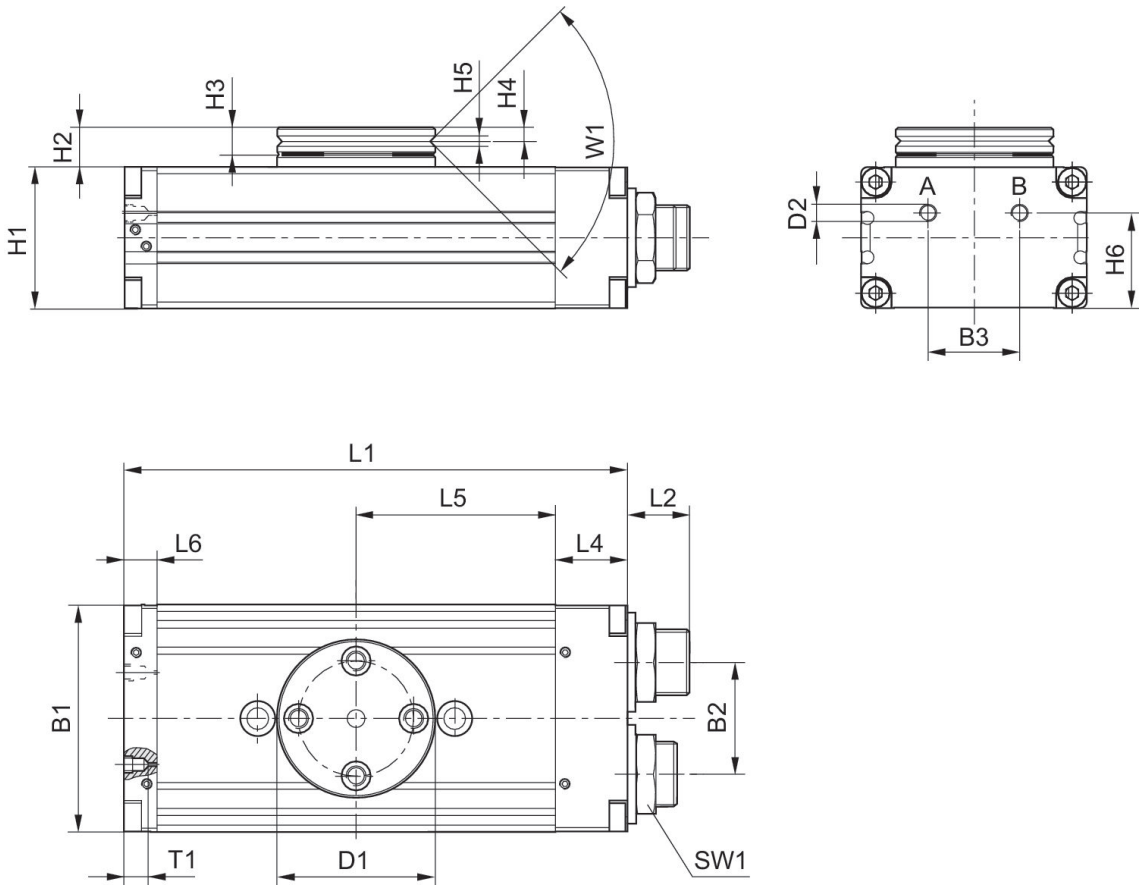
: Double piston with rack
: with magnetic piston
: elastic cushioning
Ambient temperature min./max.: 5 °C ... 60 °C
Medium temperature min./max.: 5 °C ... 60 °C
Working pressure min./max.: 2 bar ... 8 bar



Frame size	Compressed air connection	angle of rotation [°]	Min. swivel times [s]	Air consumption per rotation [cm³]	Max. permissible axial bearing load [N]	Max. permissible radial bearing load [N]	Max. permissible mass moment of inertia [kg cm²]	Part No.
RCM-06	M3	0, 90	0.08	1.13	170	170	0.08	R412000357
RCM-06	M3	0, 180	0.12	2.26	170	170	0.08	R412000358
RCM-08	M3	0, 90	0.1	2.14	280	300	0.25	R412000359
RCM-08	M3	0, 180	0.16	4.27	280	300	0.25	R412000360
RCM-12	M5	0, 90	0.1	5.86	330	360	0.7	R412000361
RCM-12	M5	0, 180	0.16	11.72	330	360	0.7	R412000362

Repetitive precision [°]	Theoretical torque [Nm]	Part No.
0.2	0.17	R412000357
0.2	0.17	R412000358
0.2	0.33	R412000359
0.2	0.33	R412000360
0.2	0.95	R412000361
0.2	0.95	R412000362

RCM-6/.../-25



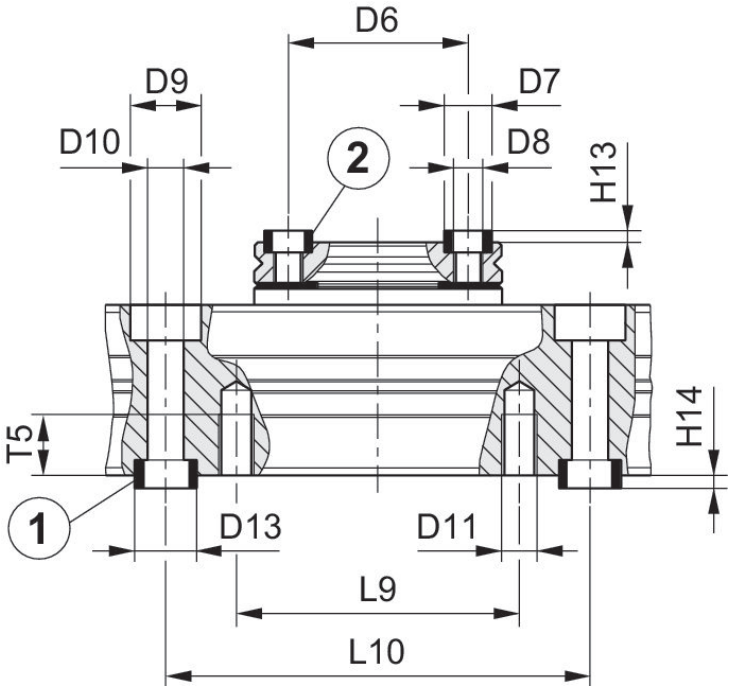
T1 = depth of thread

Frame size	Part No.	B1	B2	B3	Ø D1	Ø D2	H1	H2	H3
RCM-06	R412000357	31	13.6	11.6	26	M3	17	7.5	5
RCM-06	R412000358	31	13.6	11.6	26	M3	17	7.5	5
RCM-08	R412000359	35	15	13	28	M3	18	8	5
RCM-08	R412000360	35	15	13	28	M3	18	8	5
RCM-12	R412000361	43	18	18	35	M5	24	10.5	6
RCM-12	R412000362	43	18	18	35	M5	24	10.5	6

Frame size	H4	H5	H6	L1	L2	L4	L5	L6	SW1
RCM-06	2.4	2	12.9	71	9	7	28.5	7	8
RCM-06	2.4	2	12.9	71	9	7	28.5	7	8
RCM-08	2.4	2	14	77	9.5	7	31.5	7	10
RCM-08	2.4	2	14	77	9.5	7	31.5	7	10
RCM-12	2.9	2.5	18	103	12.5	14	40	9	15
RCM-12	2.9	2.5	18	103	12.5	14	40	9	15

Frame size	T1	W1
RCM-06	3	90°
RCM-06	3	90°
RCM-08	3	90°
RCM-08	3	90°
RCM-12	4	90°
RCM-12	4	90°

Mounting and assembly

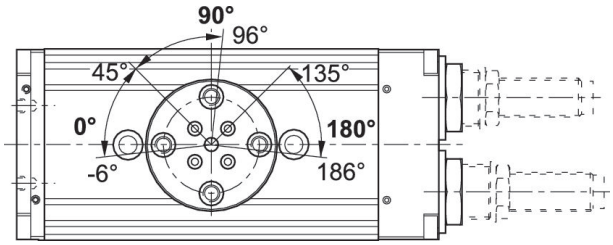


1) centering sleeve, included in the scope of delivery 2) centering sleeve

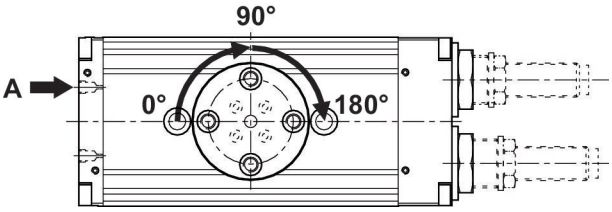
Frame size	Part No.	Ø D6 ±0,02	Ø D7 k6	Ø D8	Ø D9	Ø D10	Ø D11	Ø D12	Ø D13 k6
RCM-06	R412000357	18	5	M3	6	3.3	M4	–	5
RCM-06	R412000358	18	5	M3	6	3.3	M4	–	5
RCM-08	R412000359	20	5	M3	7.5	4.2	–	M5	7
RCM-08	R412000360	20	5	M3	7.5	4.2	–	M5	7
RCM-12	R412000361	25	7	M4	10	5.1	M5	–	9
RCM-12	R412000362	25	7	M4	10	5.1	M5	–	9

Frame size	H13 +0,2	H14 +0,2	L9	L10 ± 0,02	T5	T6
RCM-06	1.6	1.6	20	40	7	–
RCM-06	1.6	1.6	20	40	7	–
RCM-08	1.6	1.6	–	40	–	9.1
RCM-08	1.6	1.6	–	40	–	9.1
RCM-12	1.6	2.1	40	60	8.5	–
RCM-12	1.6	2.1	40	60	8.5	–

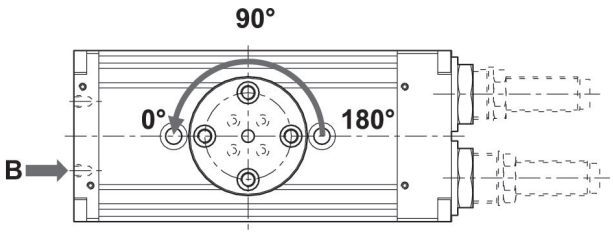
Setting range for end positions 0° / 90° / 180°



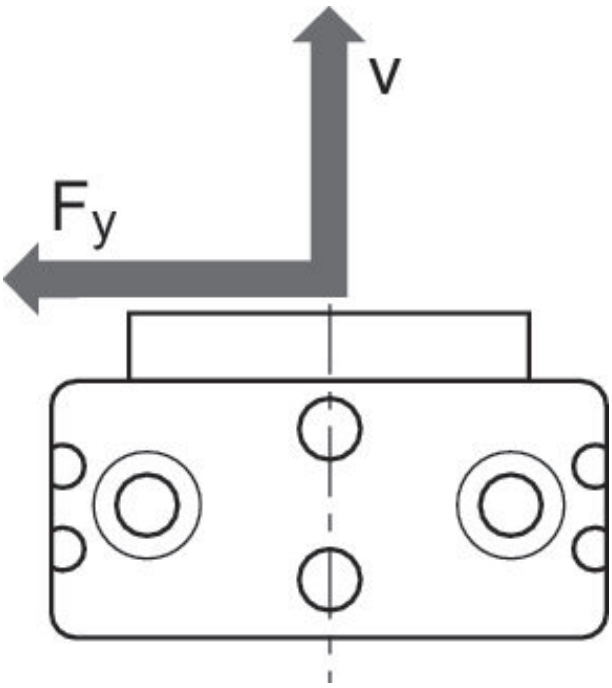
Movement into end position 90°/180°



Movement into end position 0°



Maximum permissible radial force Fy [N] as a function of v [mm]



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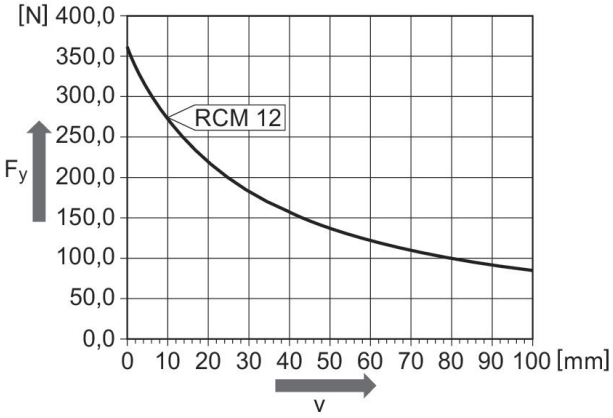

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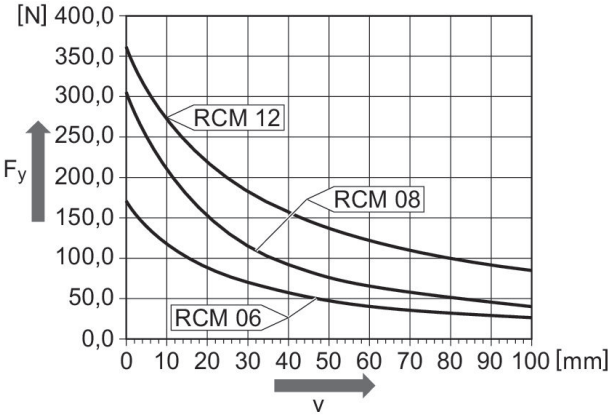
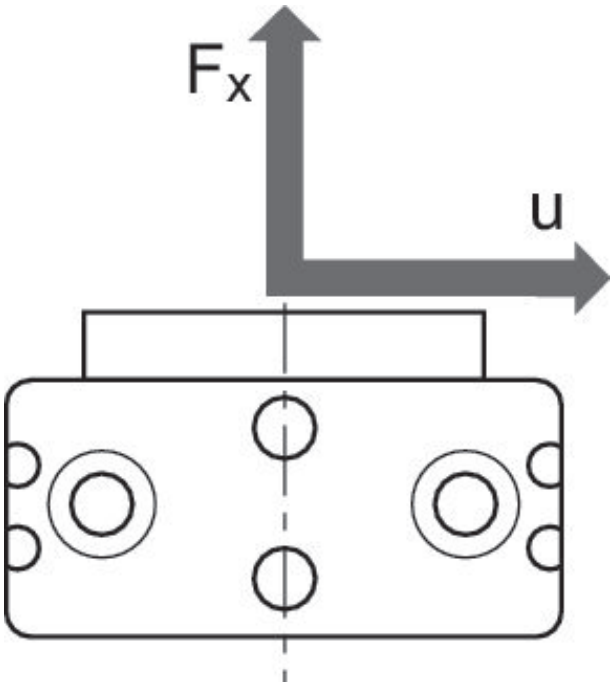
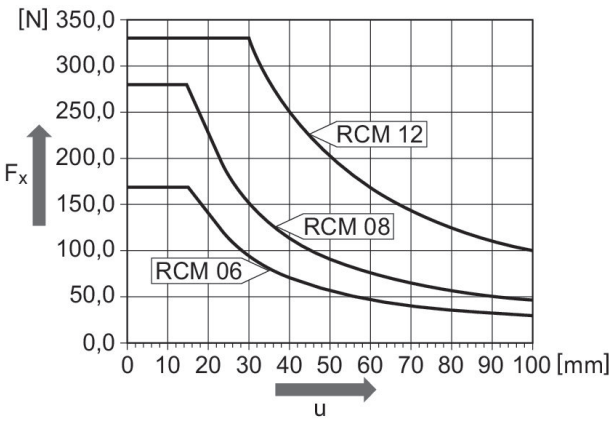


Maximum permissible axial force Fx [N] as a function of u [mm]



Maximum permissible axial force Fx [N] as a function of u [mm]



Rotary Compact Module, Series RCM-SE

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Medium temperature min./max.: 5 °C ... 60 °C
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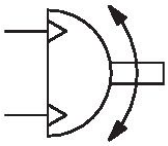
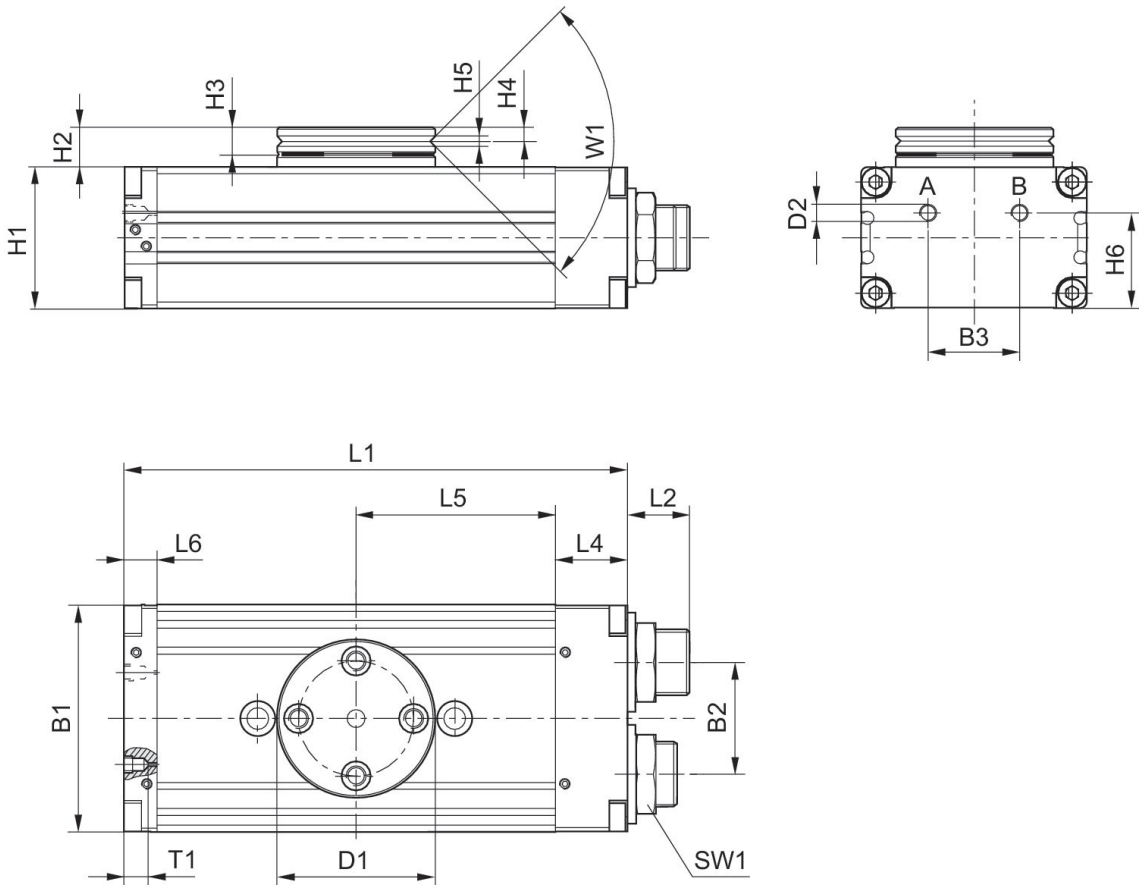


Frame size	Compressed air connection	angle of rotation [°]	Min. swivel times [s]	Air consumption per rotation [cm³]	Max. permissible axial bearing load [N]	Max. permissible radial bearing load [N]	Max. permissible mass moment of inertia	Part No.
RCM-16	M5	0, 90	0.13	10.36	490	580	1.6	R412000363
RCM-16	M5	0, 180	0.2	20.71	490	580	1.6	R412000364
RCM-20	M5	0, 90	0.16	17.92	620	780	3.2	R412000365
RCM-20	M5	0, 180	0.25	35.84	620	780	3.2	R412000366
RCM-25	M5	0, 90	0.16	38.75	1160	1480	6.3	R412000367
RCM-25	M5	0, 180	0.25	77.5	1160	1480	6.3	R412000368

Repetitive precision [°]	Theoretical torque [Nm]	Part No.
0.2	1.7	R412000363
0.2	1.7	R412000364
0.2	3	R412000365
0.2	3	R412000366
0.2	6.5	R412000367
0.2	6.5	R412000368

RCM-6/.../-25



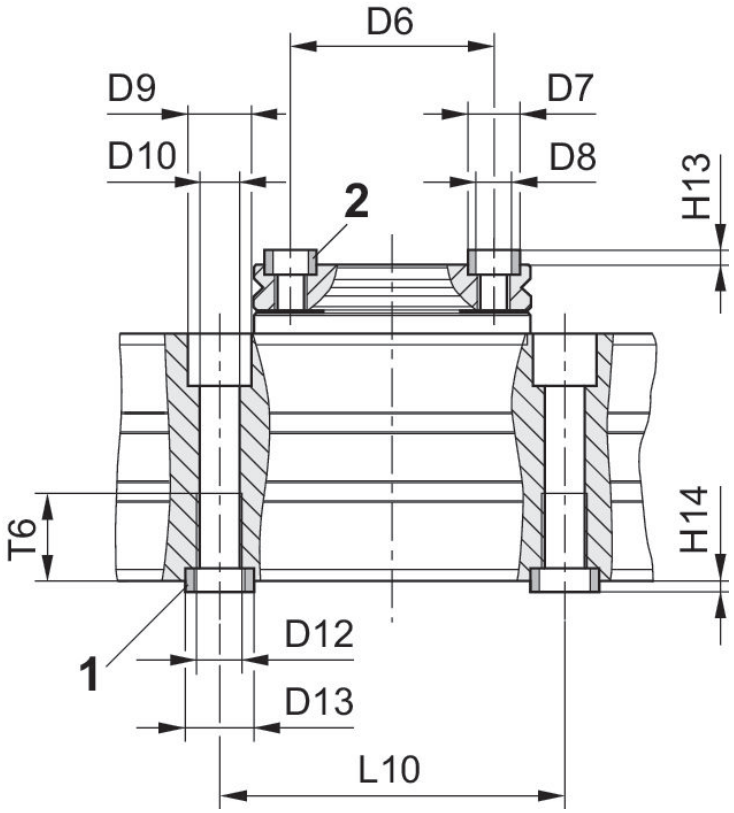
T1 = depth of thread

Frame size	Part No.	B1	B2	B3	Ø D1	Ø D2	H1	H2	H3
RCM-16	R412000363	52	24	20	40	M5	32	10	7
RCM-16	R412000364	52	24	20	40	M5	32	10	7
RCM-20	R412000365	58	30	20	42	M5	37	11	7
RCM-20	R412000366	58	30	20	42	M5	37	11	7
RCM-25	R412000367	69	34	28	48	M5	43	12	8
RCM-25	R412000368	69	34	28	48	M5	43	12	8

Frame size	H4	H5	H6	L1	L2	L4	L5	L6	SW1
RCM-16	3,3	2.5	21	108	15	18	40	10	19
RCM-16	3,3	2.5	21	108	15	18	40	10	19
RCM-20	3,3	3	26	114	15	19	43	9	19
RCM-20	3,3	3	26	114	15	19	43	9	19
RCM-25	4	3	29	153	19	22	60.5	10	23
RCM-25	4	3	29	153	19	22	60.5	10	23

Frame size	T1	W1
RCM-16	4	90°
RCM-16	4	90°
RCM-20	4	90°
RCM-20	4	90°
RCM-25	4	90°
RCM-25	4	90°

Mounting and assembly

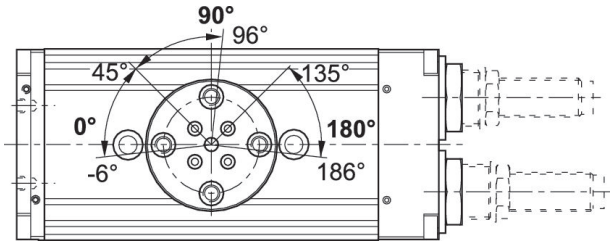


1) centering sleeve, included in the scope of delivery 2) centering sleeve

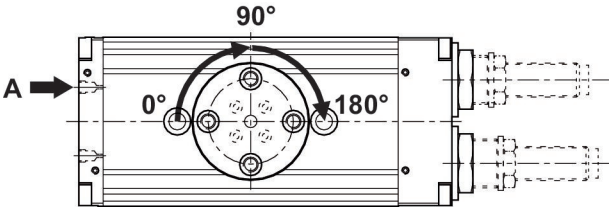
Frame size	Part No.	Ø D6 ±0,02	Ø D7 k6	Ø D8	Ø D9	Ø D10	Ø D11	Ø D12	Ø D13 k6
RCM-16	R412000363	30	7	M5	10	5	–	M6	9
RCM-16	R412000364	30	7	M5	10	5	–	M6	9
RCM-20	R412000365	30	7	M5	11	6.8	–	M8	12
RCM-20	R412000366	30	7	M5	11	6.8	–	M8	12
RCM-25	R412000367	35	9	M6	11	6.8	–	M8	12
RCM-25	R412000368	35	9	M6	11	6.8	–	M8	12

Frame size	H13 +0,2	H14 +0,2	L9	L10 ± 0,02	T5	T6
RCM-16	1.6	2.1	–	60	–	11.1
RCM-16	1.6	2.1	–	60	–	11.1
RCM-20	1.6	2.1	–	60	–	15.1
RCM-20	1.6	2.1	–	60	–	15.1
RCM-25	2.1	2.1	–	60	–	15.1
RCM-25	2.1	2.1	–	60	–	15.1

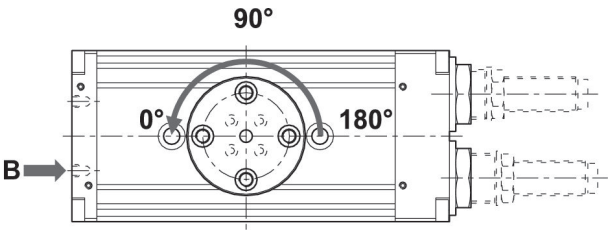
Setting range for end positions 0° / 90° / 180°



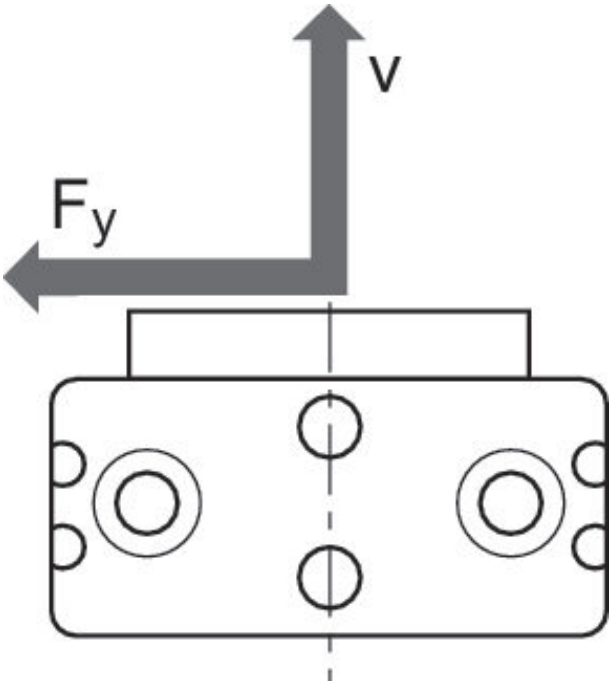
Movement into end position 90°/180°



Movement into end position 0°



Maximum permissible radial force Fy [N] as a function of v [mm]



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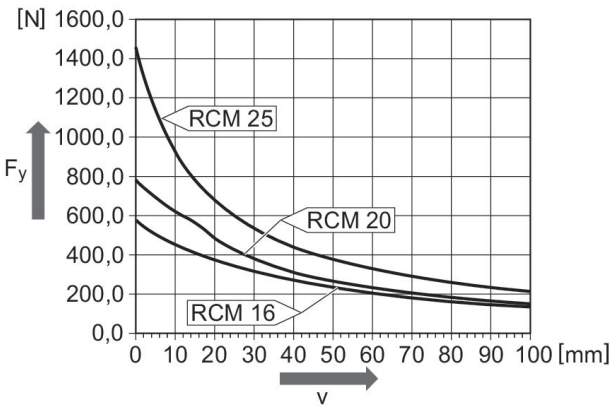
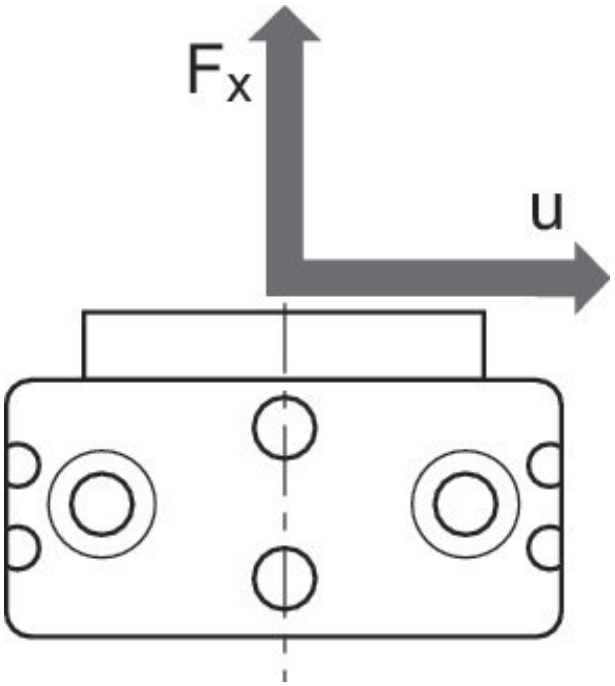
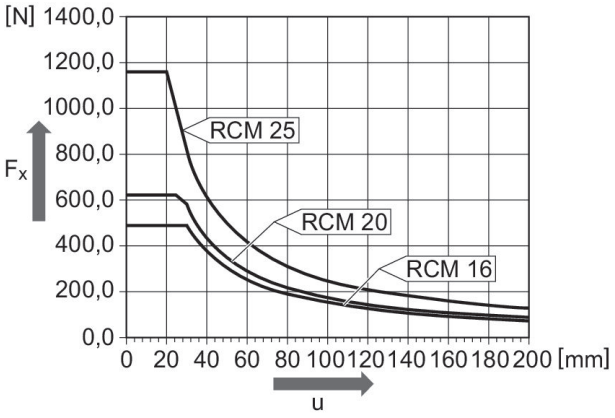


Maximum permissible axial force Fx [N] as a function of u [mm]

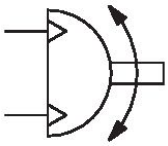


Maximum permissible axial force Fx [N] as a function of u [mm]



Rotary Compact Module, Series RCM-SH

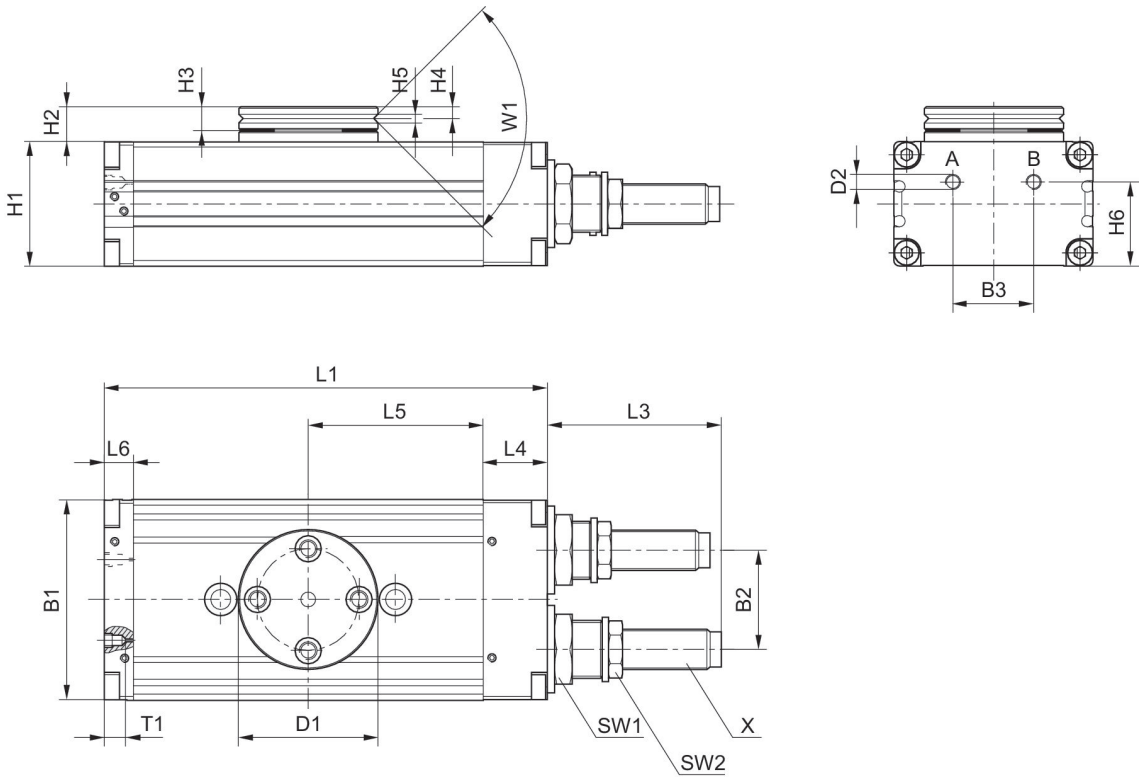
: Double piston with rack
: with magnetic piston
: hydraulic
: non-adjustable
Ambient temperature min./max.: 5 °C ... 60 °C
Medium temperature min./max.: 5 °C ... 60 °C
Working pressure min./max.: 2 bar ... 8 bar



Frame size	Compressed air connection	angle of rotation [°]	Min. swivel times [s]	Air consumption per rotation [cm³]	Max. permissible axial bearing load [N]	Max. permissible radial bearing load [N]	Max. permissible mass moment of inertia [kg cm²]	Part No.
RCM-12	M5	0, 90	0.3	5.86	330	360	10	R412000369
RCM-12	M5	0, 180	0.3	11.72	330	360	10	R412000370

Repetitive precision [°]	Theoretical torque [Nm]	Part No.
0.05	0.95	R412000369
0.05	0.95	R412000370

RCM-12/.../-25



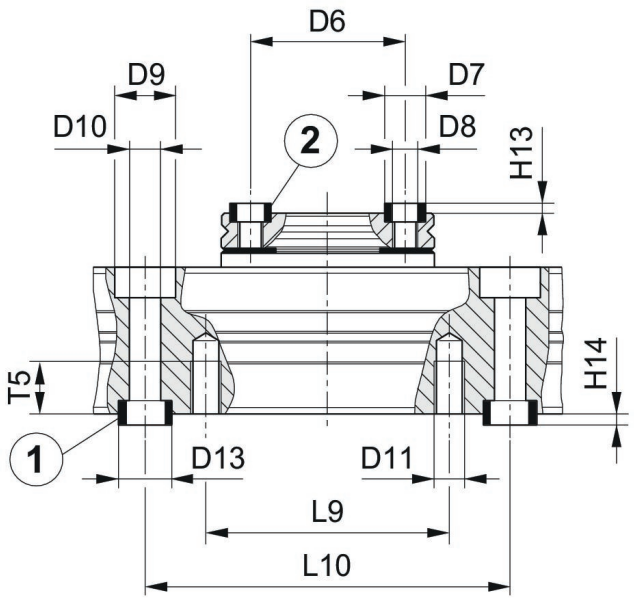
T1 = depth of thread

Part No.	B1	B2	B3	Ø D1	Ø D2	H1	H2	H3	H4
R412000369	43	18	18	35	M5	24	10.5	6	2.9
R412000370	43	18	18	35	M5	24	10.5	6	2.9

Part No.	H5	H6	L1	L3	L4	L5	L6	SW1	SW2
R412000369	2.5	18	103	33.5	14	40	9	15	11
R412000370	2.5	18	103	33.5	14	40	9	15	11

Part No.	T1	W1	X
R412000369	4	90°	M8x1
R412000370	4	90°	M8x1

Mounting and assembly

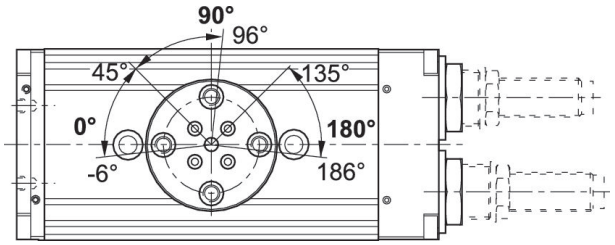


1) centering sleeve, included in the scope of delivery 2) centering sleeve

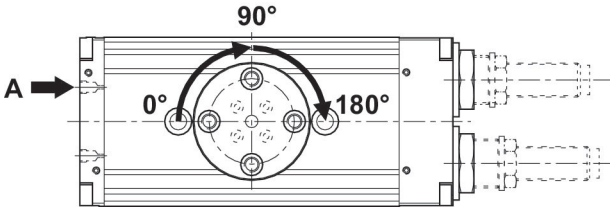
Part No.	Ø D6 ±0,02	Ø D7 k6	Ø D8	Ø D9	Ø D10	Ø D11	Ø D13 k6	H13 +0,2	H14 +0,2
R412000369	25	7	M4	10	5.1	M5	9	1.6	2.1
R412000370	25	7	M4	10	5.1	M5	9	1.6	2.1

Part No.	L9	L10 ±0,02	T5
R412000369	40	60	8.5
R412000370	40	60	8.5

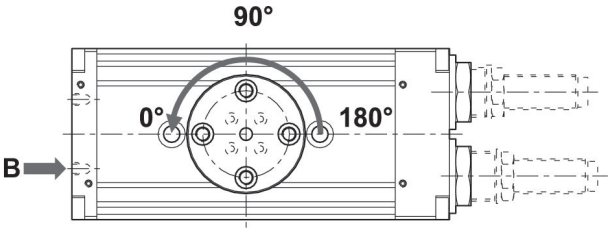
Setting range for end positions 0° / 90° / 180°



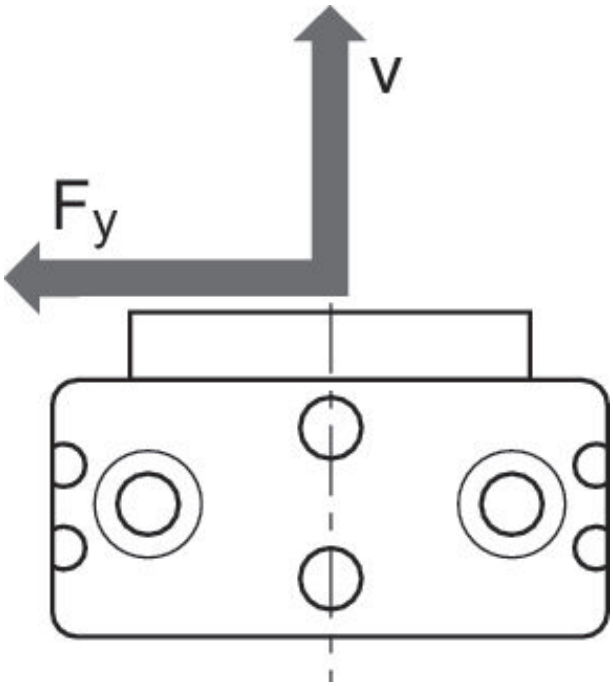
Movement into end position 90°/180°



Movement into end position 0°



Maximum permissible radial force Fy [N] as a function of v [mm]



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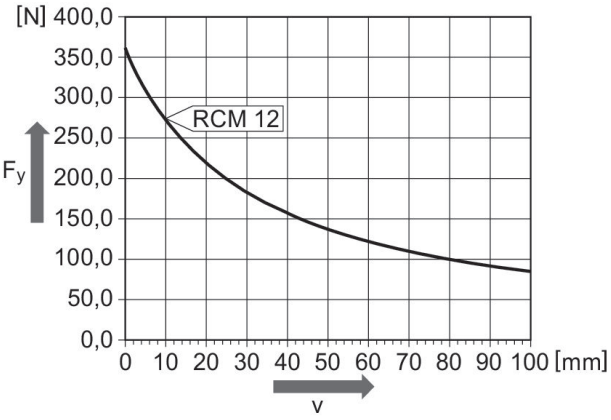
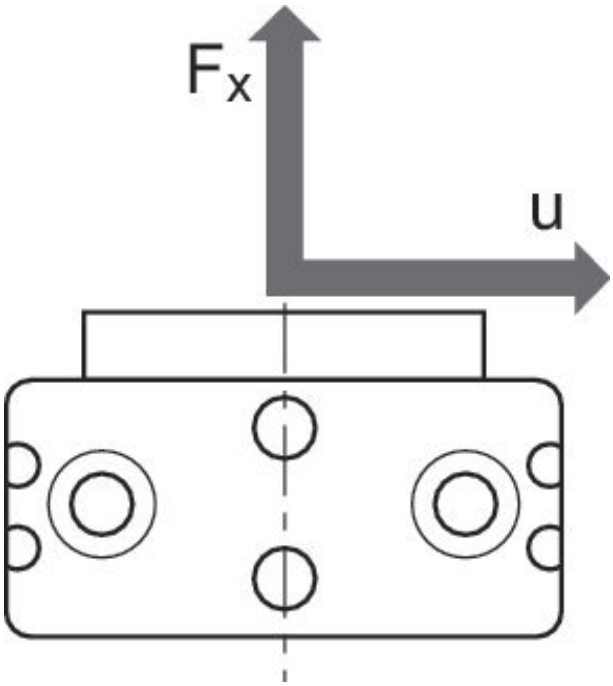


Maximum permissible axial force Fx [N] as a function of u [mm]



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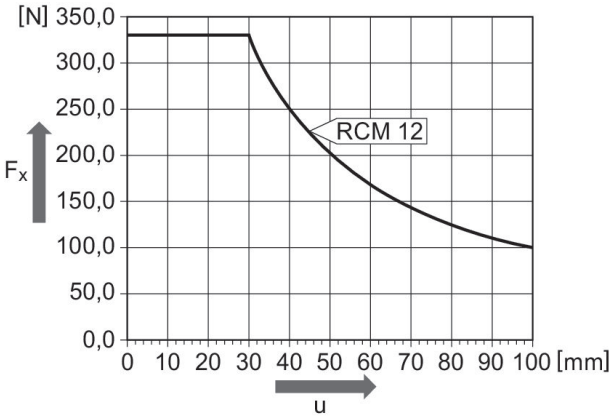

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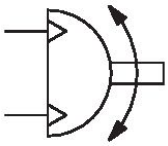
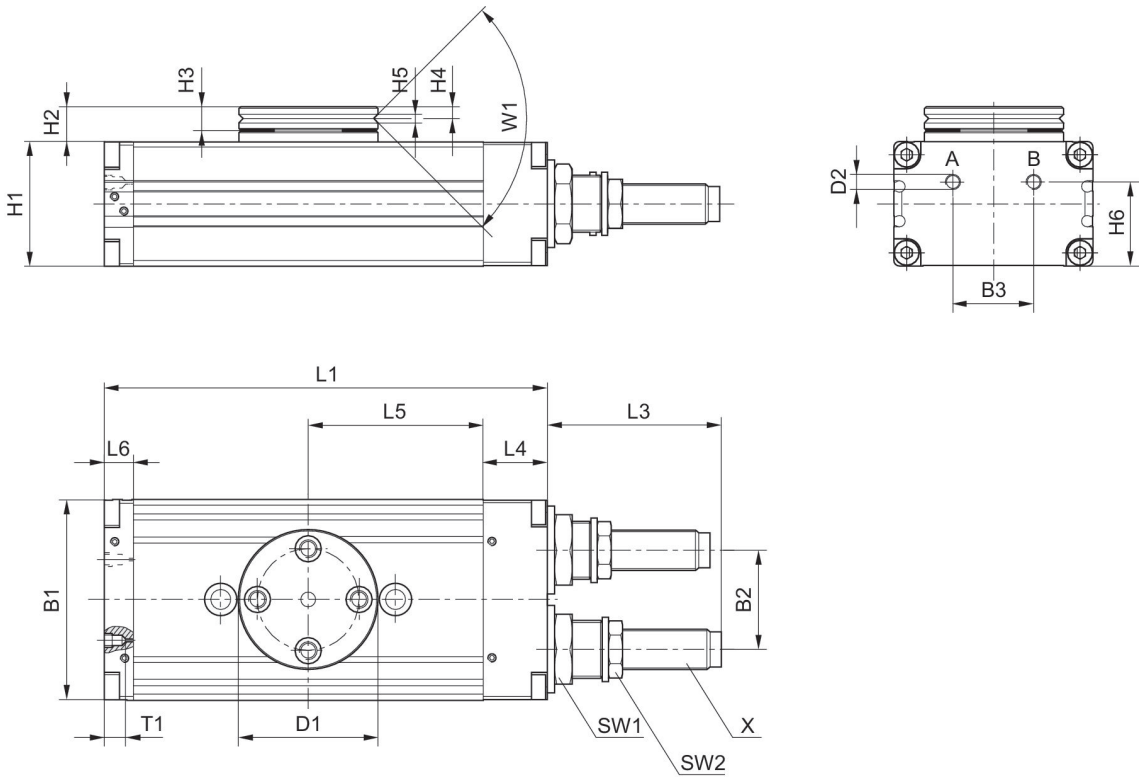
Medium temperature min./max.: 5 °C ... 60 °C
Working pressure min./max.: 2 bar ... 8 bar



Frame size	Compressed air connection	angle of rotation [°]	Min. swivel times [s]	Air consumption per rotation [cm³]	Max. permissible axial bearing load [N]	Max. permissible radial bearing load [N]	Max. permissible mass moment of inertia [kg cm²]	Part No.
RCM-16	M5	0, 90	0.32	10.36	490	580	80	R412000371
RCM-16	M5	0, 180	0.32	20.71	490	580	80	R412000372
RCM-20	M5	0, 90	0.48	17.92	620	780	180	R412000373
RCM-20	M5	0, 180	0.48	35.84	620	780	180	R412000374
RCM-25	M5	0, 90	0.6	38.75	1160	1480	450	R412000375
RCM-25	M5	0, 180	0.6	77.5	1160	1480	450	R412000376

Repetitive precision [°]	Theoretical torque [Nm]	Part No.
0.05	1.7	R412000371
0.05	1.7	R412000372
0.05	3	R412000373
0.05	3	R412000374
0.05	6.5	R412000375
0.05	6.5	R412000376

RCM-12/.../-25



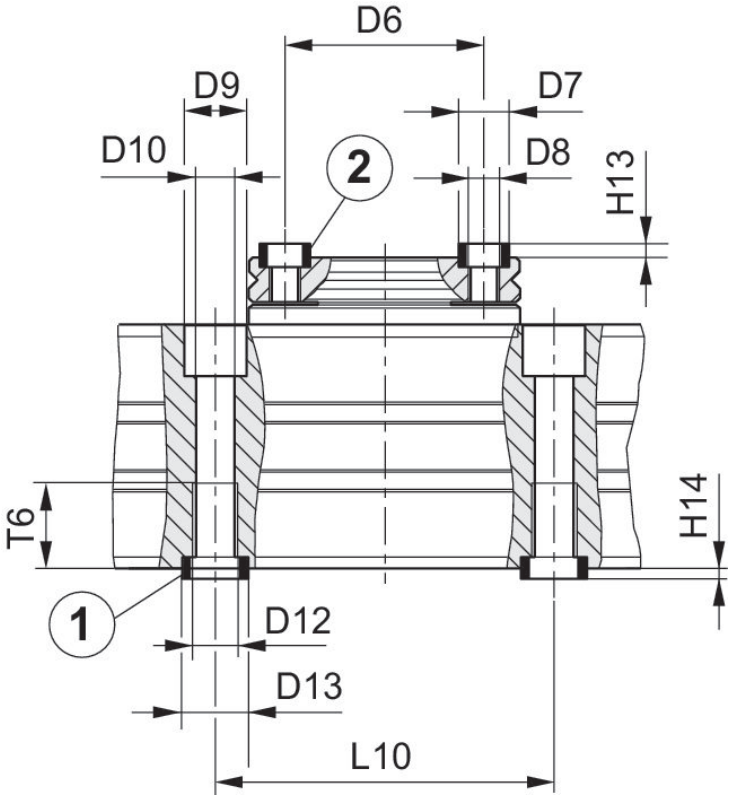
T1 = depth of thread

Part No.	B1	B2	B3	Ø D1	Ø D2	H1	H2	H3	H4
R412000371	52	24	20	40	M5	32	10	7	3.3
R412000372	52	24	20	40	M5	32	10	7	3.3
R412000373	58	30	20	42	M5	37	11	7	3.3
R412000374	58	30	20	42	M5	37	11	7	3.3
R412000375	69	34	28	48	M5	43	12	8	4
R412000376	69	34	28	48	M5	43	12	8	4

Part No.	H5	H6	L1	L3	L4	L5	L6	SW1	SW2
R412000371	2.5	21	108	34	18	40	10	19	13
R412000372	2.5	21	108	34	18	40	10	19	13
R412000373	3	26	114	48.5	19	43	9	19	15
R412000374	3	26	114	48.5	19	43	9	19	15
R412000375	3	29	153	60	22	60.5	10	23	17
R412000376	3	29	153	60	22	60.5	10	23	17

Part No.	T1	W1	X
R412000371	4	90°	M10x1
R412000372	4	90°	M10x1
R412000373	4	90°	M12x1
R412000374	4	90°	M12x1
R412000375	4	90°	M14x1,5
R412000376	4	90°	M14x1,5

Mounting and assembly

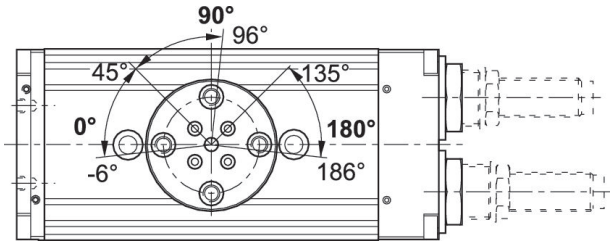


1) centering sleeve, included in the scope of delivery 2) centering sleeve

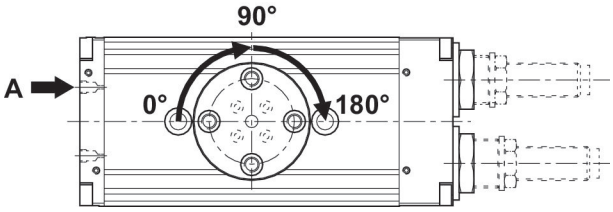
Part No.	Ø D6 ±0,02	Ø D7 k6	Ø D8	Ø D9	Ø D10	Ø D11	Ø D12	Ø D13 k6	H13 +0,2
R412000371	30	7	M5	10	5	–	M6	9	1.6
R412000372	30	7	M5	10	5	–	M6	9	1.6
R412000373	30	7	M5	11	6.8	–	M8	12	1.6
R412000374	30	7	M5	11	6.8	–	M8	12	1.6
R412000375	35	9	M6	11	6.8	–	M8	12	2.1
R412000376	35	9	M6	11	6.8	–	M8	12	2.1

Part No.	H14 +0,2	L9	L10 ±0,02	T5	T6
R412000371	2.1	–	60	–	11.1
R412000372	2.1	–	60	–	11.1
R412000373	2.1	–	60	–	15.1
R412000374	2.1	–	60	–	15.1
R412000375	2.1	–	60	–	15.1
R412000376	2.1	–	60	–	15.1

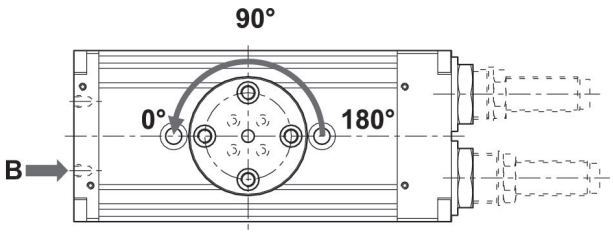
Setting range for end positions 0° / 90° / 180°



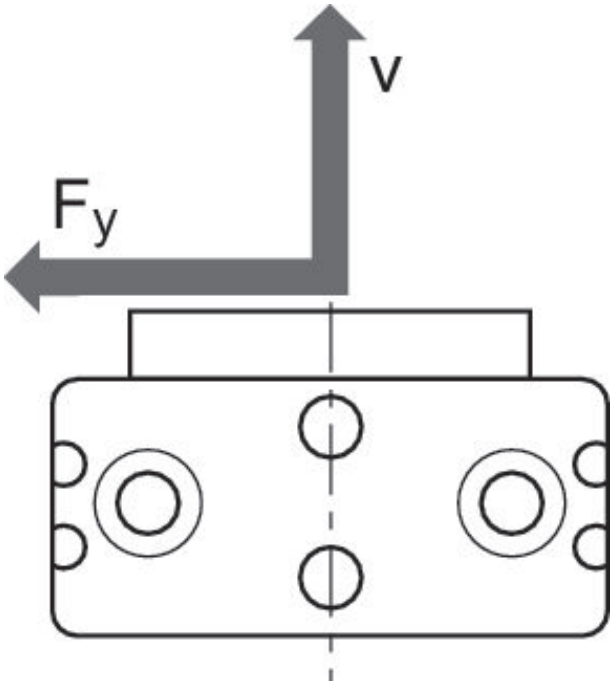
Movement into end position 90°/180°



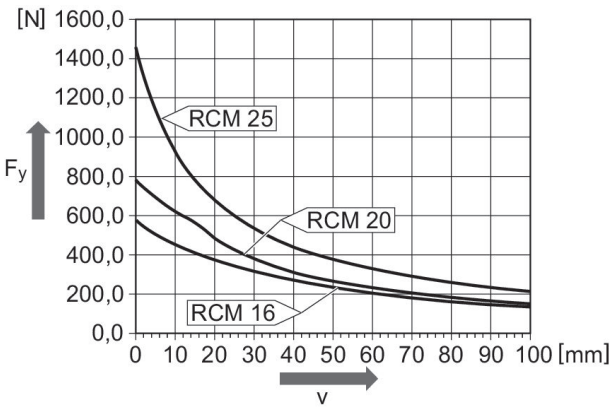
Movement into end position 0°



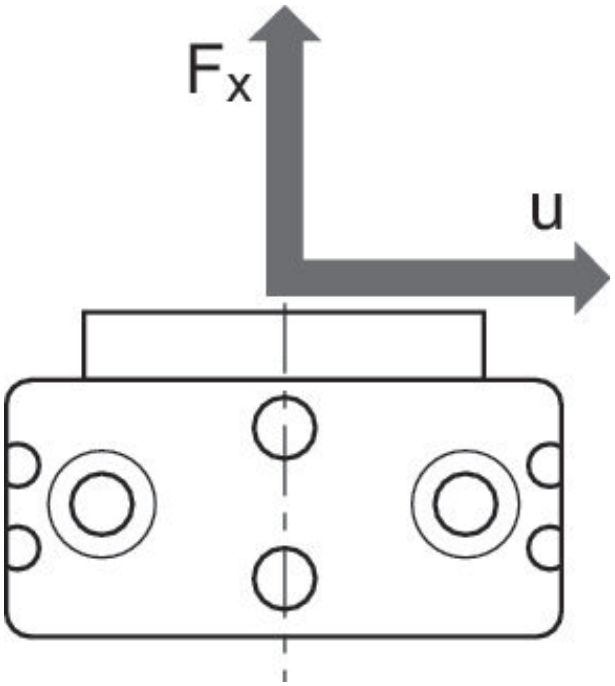
Maximum permissible radial force Fy [N] as a function of v [mm]



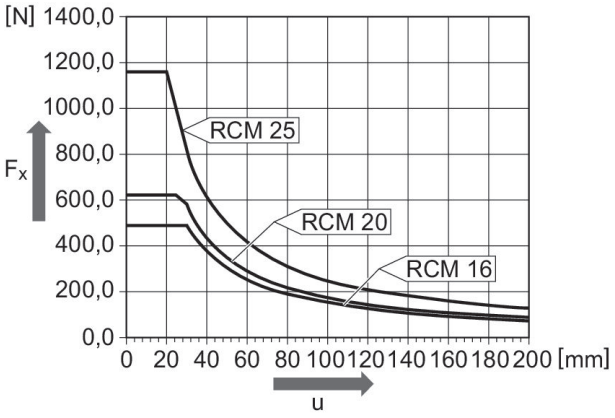
Maximum permissible radial force Fy [N] as a function of v [mm]



Maximum permissible axial force Fx [N] as a function of u [mm]

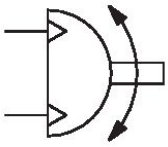


Maximum permissible axial force Fx [N] as a function of u [mm]



Rotary Compact Module, Series RCM-SE

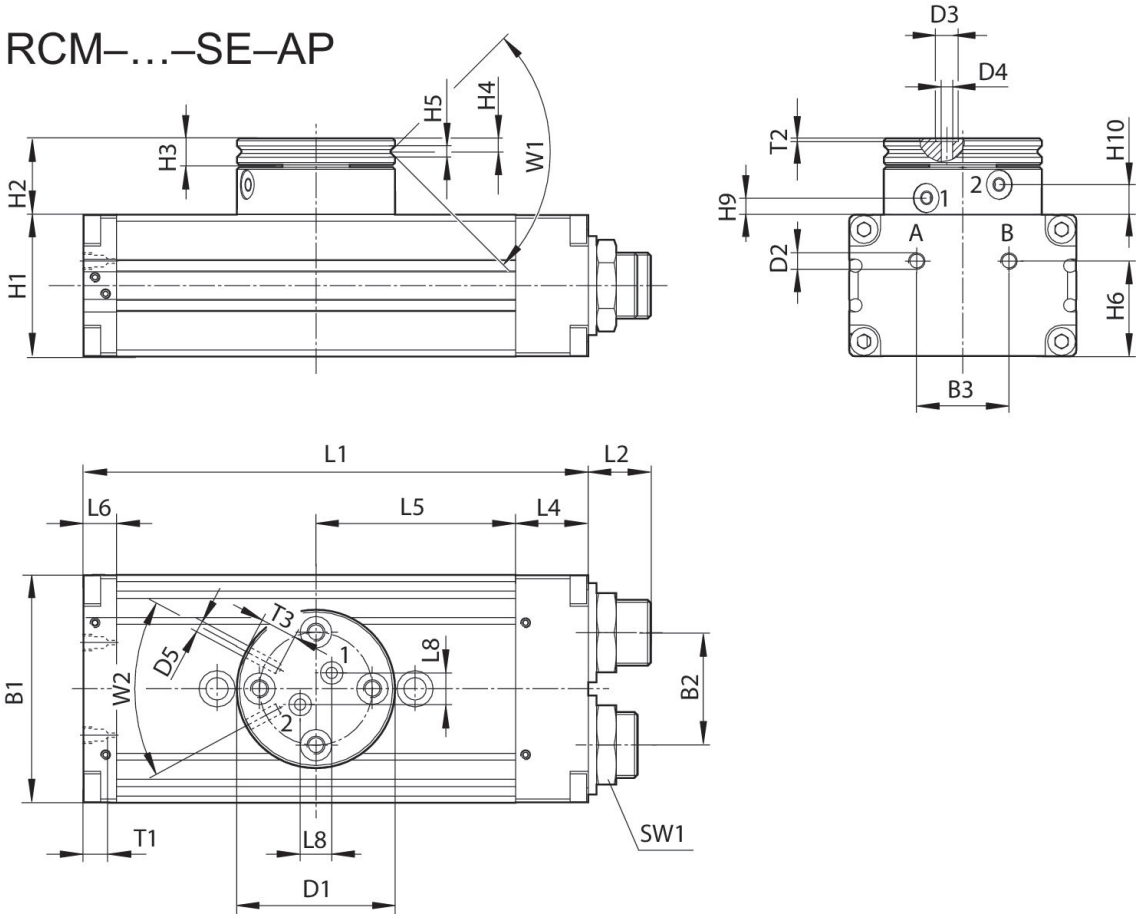
: Double piston with rack
: with magnetic piston
: elastic cushioning
: with air duct
Ambient temperature min./max.: 5 °C ... 60 °C
Medium temperature min./max.: 5 °C ... 60 °C
Working pressure min./max.: 3.5 bar ... 8 bar



Frame size	Compressed air connection	angle of rotation [°]	Min. swivel times [s]	Air consumption per rotation [cm³]	Number of air ducts	Max. permissible axial bearing load [N]	Max. permissible radial bearing load [N]	Part No.
RCM-08	M3	0, 90	0.2	2.14	2	280	210	R412000377
RCM-08	M3	0, 180	0.28	4.27	2	280	210	R412000378

Max. permissible mass moment of inertia [kg cm²]	Repetitive precision [°]	Theoretical torque [Nm]	Part No.
0.25	0.2	0.33	R412000377
0.25	0.2	0.33	R412000378

RCM-8/-12



T1 = depth of thread

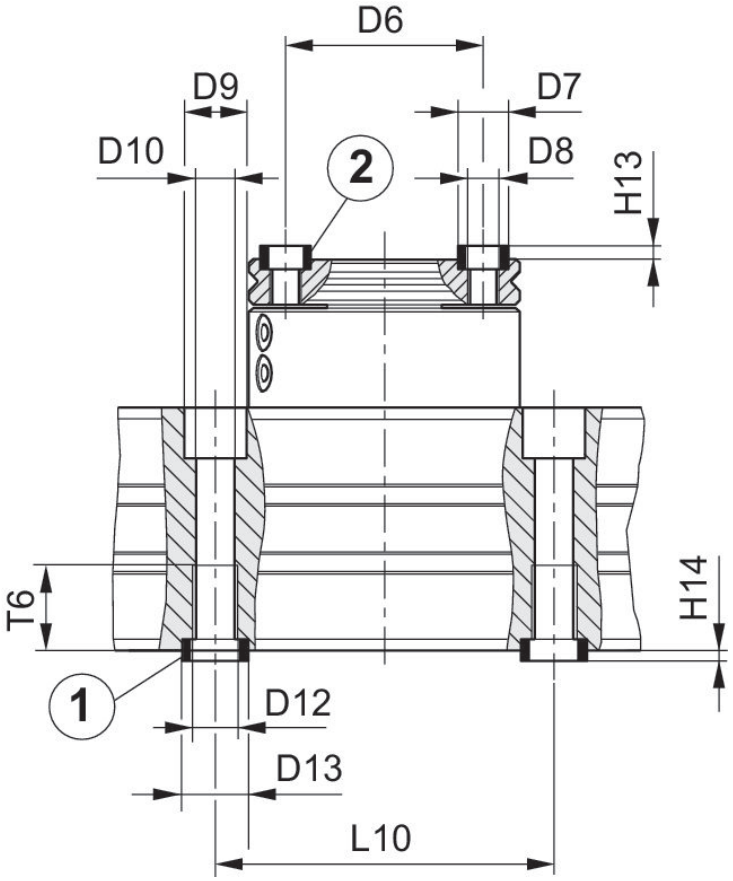
Part No.	B1	B2	B3	Ø D1	Ø D2	Ø D3	Ø D4	Ø D5	H1
R412000377	35	15	13	28	M3	3	1.5	M3	18
R412000378	35	15	13	28	M3	3	1.5	M3	18

Part No.	H2	H3	H4	H5	H6	H9 ±0,2	H10 ±0,2	L1	L2
R412000377	16.5	5	2.4	2	14	4.3	7.2	77	9.5
R412000378	16.5	5	2.4	2	14	4.3	7.2	77	9.5

Part No.	L4	L5	L6	L8	SW1	T1	T2	T3	W1
R412000377	7	31.5	7	4	10	3	0.35	4	90°
R412000378	7	31.5	7	4	10	3	0.35	4	90°

Part No.	W2
R412000377	60°
R412000378	60°

Mounting and assembly

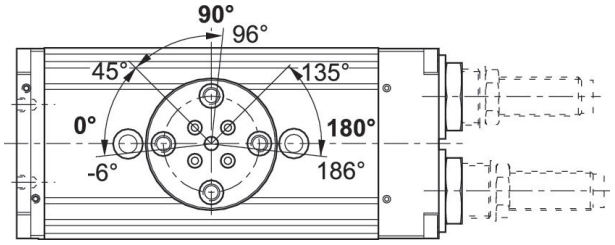


1) centering sleeve, included in the scope of delivery 2) centering sleeve

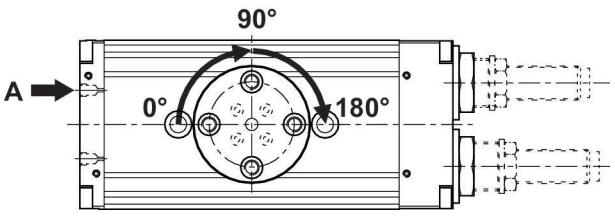
Part No.	Ø D6 ±0,02	Ø D7 k6	Ø D8	Ø D9	Ø D10	Ø D11	Ø D12	Ø D13 k6	H13 +0,2
R412000377	20	5	M3	7.5	4.2	–	M5	7	1.6
R412000378	20	5	M3	7.5	4.2	–	M5	7	1.6

Part No.	H14 +0,2	L9	L10 ± 0,02	T5	T6
R412000377	1.6	–	40	–	9.1
R412000378	1.6	–	40	–	9.1

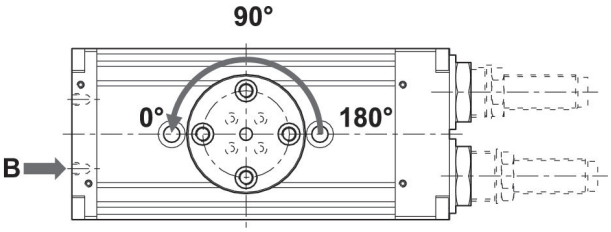
Setting range for end positions 0° / 90° / 180°



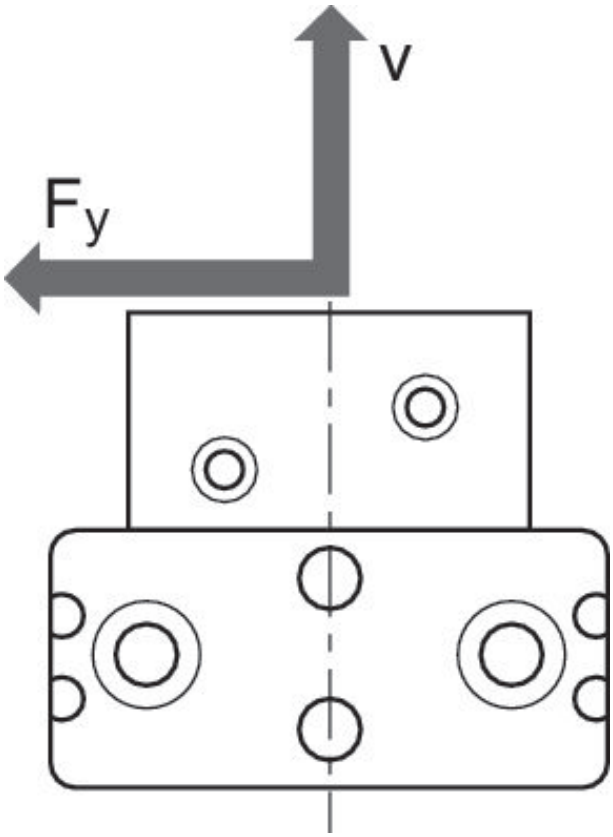
Movement into end position 90°/180°



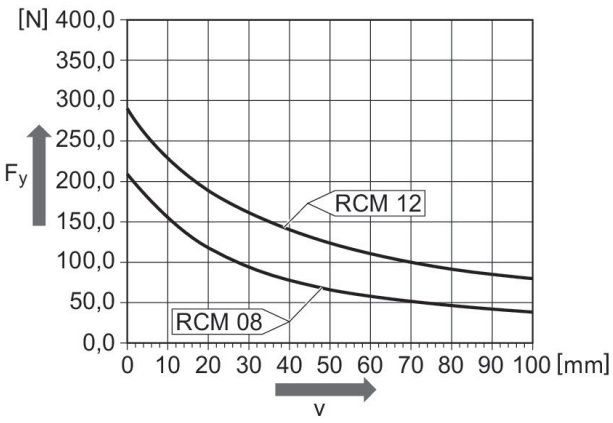
Movement into end position 0°



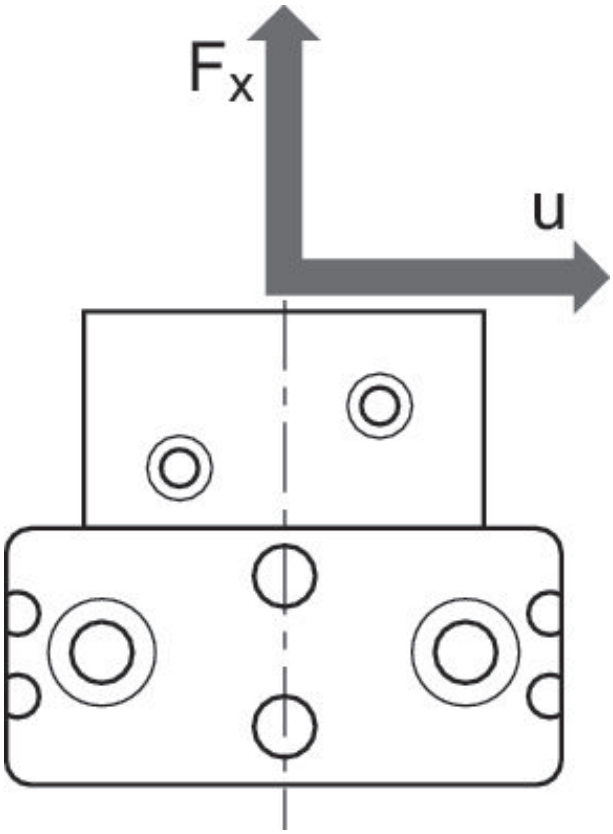
Maximum permissible radial force Fy [N] as a function of v [mm]



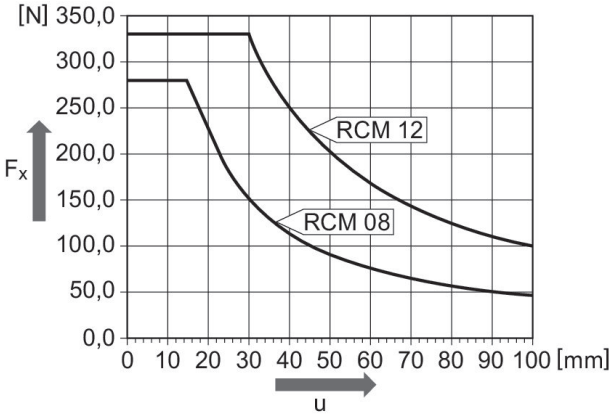
Maximum permissible radial force Fy [N] as a function of v [mm]



Maximum permissible radial force Fy [N] as a function of v [mm]

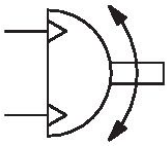


Maximum permissible radial force Fy [N] as a function of v [mm]



Rotary Compact Module, Series RCM-SE

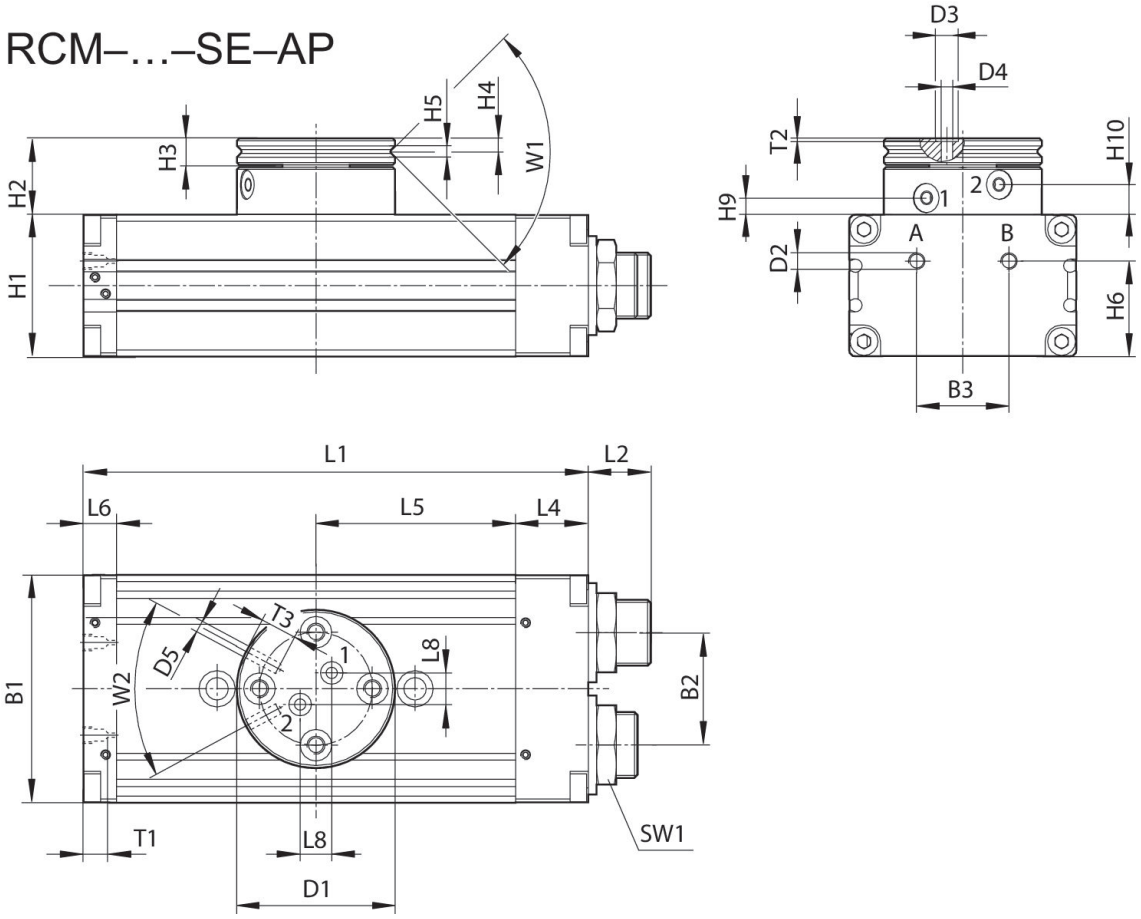
: Double piston with rack
: with magnetic piston
: elastic cushioning
: with air duct
Ambient temperature min./max.: 5 °C ... 60 °C
Medium temperature min./max.: 5 °C ... 60 °C
Working pressure min./max.: 8 bar



Frame size	Compressed air connection	angle of rotation [°]	Min. swivel times [s]	Air consumption per rotation [cm³]	Number of air ducts	Max. permissible axial bearing load [N]	Max. permissible radial bearing load [N]	Part No.
RCM-12	M5	0, 90	0.2	5.86	2	330	290	R412000379
RCM-12	M5	0, 180	0.28	11.72	2	330	290	R412000380

Max. permissible mass moment of inertia [kg cm²]	Repetitive precision [°]	Theoretical torque [Nm]	Part No.
0.7	0.2	0.95	R412000379
0.7	0.2	0.95	R412000380

RCM-8/-12



T1 = depth of thread

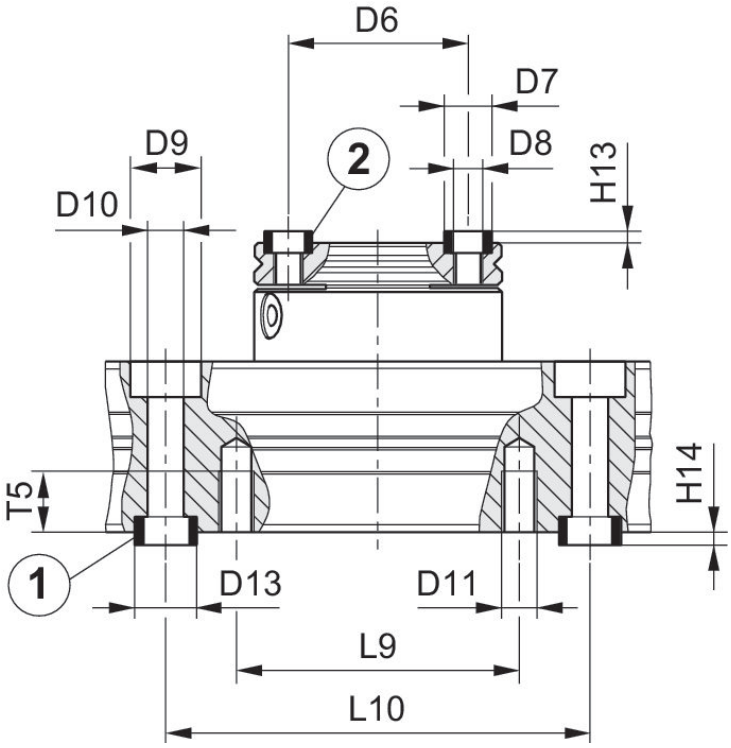
Part No.	B1	B2	B3	Ø D1	Ø D2	Ø D3	Ø D4	Ø D5	H1
R412000379	43	18	18	35	M5	5	2.5	M3	24
R412000380	43	18	18	35	M5	5	2.5	M3	24

Part No.	H2	H3	H4	H5	H6	H9 ±0,2	H10 ±0,2	L1	L2
R412000379	17	6	2.9	2.5	18	3.8	6.7	103	12.5
R412000380	17	6	2.9	2.5	18	3.8	6.7	103	12.5

Part No.	L4	L5	L6	L8	SW1	T1	T2	T3	W1
R412000379	14	40	9	7	15	4	0.7	4	90°
R412000380	14	40	9	7	15	4	0.7	4	90°

Part No.	W2
R412000379	56°
R412000380	56°

Mounting and assembly

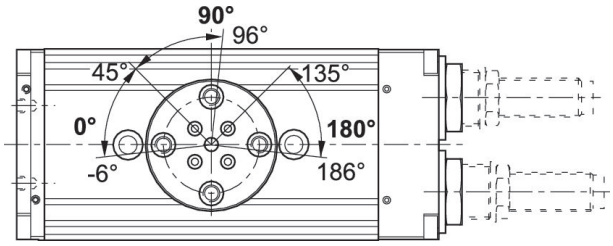


1) centering sleeve, included in the scope of delivery 2) centering sleeve

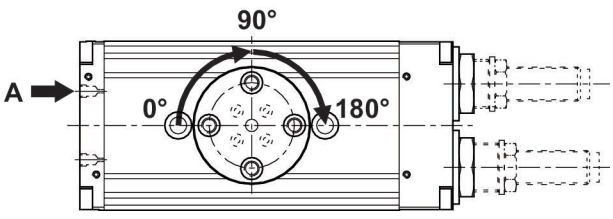
Part No.	Ø D6 ±0,02	Ø D7 k6	Ø D8	Ø D9	Ø D10	Ø D11	Ø D13 k6	H13 +0,2	H14 +0,2
R412000379	25	7	M4	10	5.1	M5	9	1.6	2.1
R412000380	25	7	M4	10	5.1	M5	9	1.6	2.1

Part No.	L9	L10 ± 0,02	T5
R412000379	40	60	8.5
R412000380	40	60	8.5

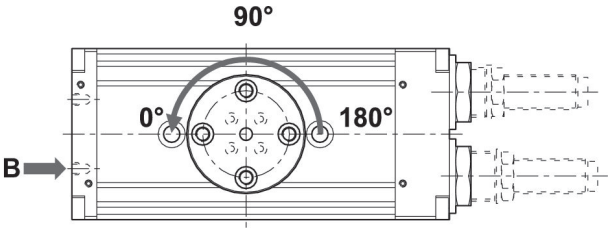
Setting range for end positions 0° / 90° / 180°



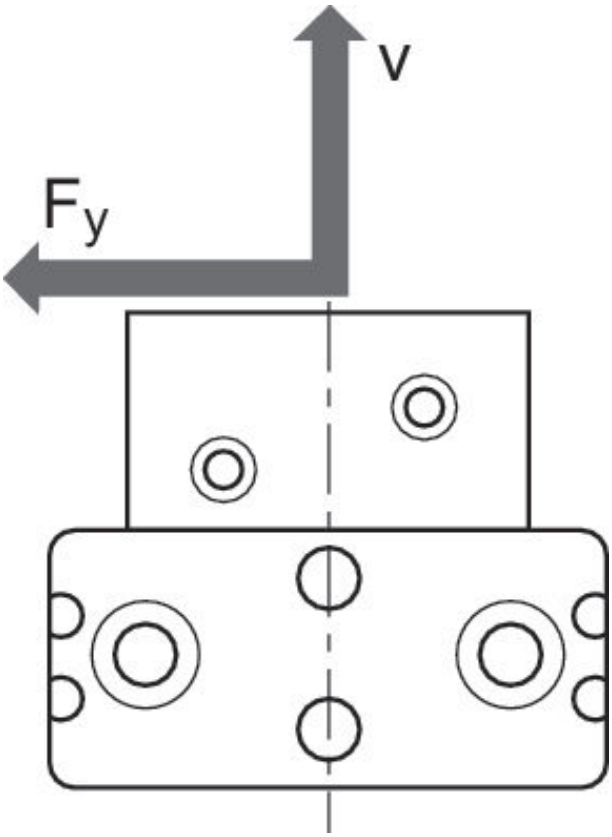
Movement into end position 90°/180°



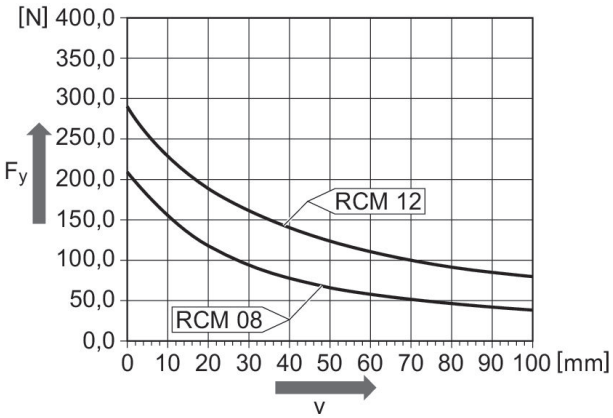
Movement into end position 0°



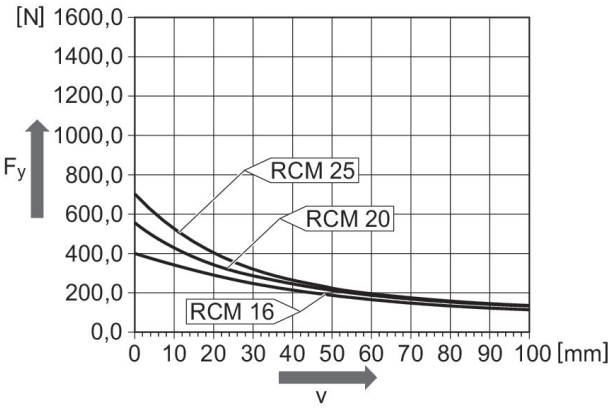
Maximum permissible radial force Fy [N] as a function of v [mm]



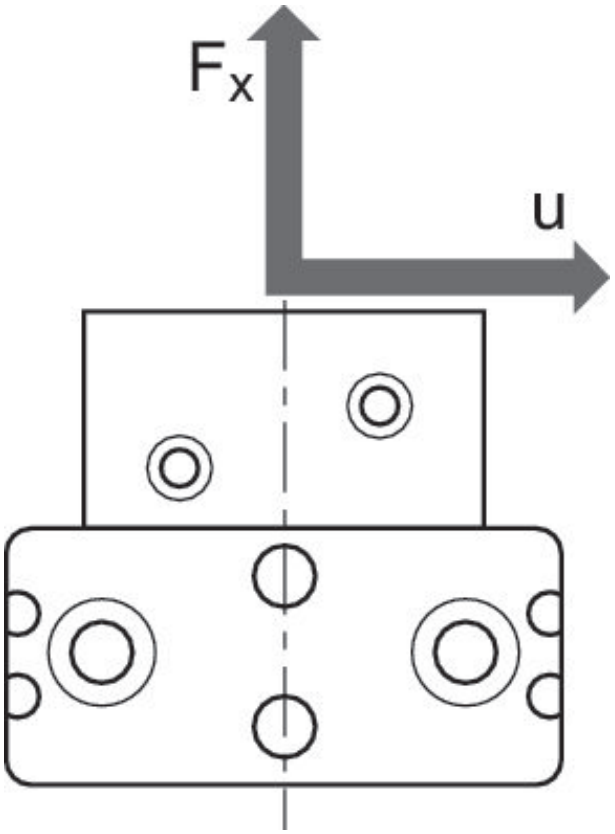
Maximum permissible radial force Fy [N] as a function of v [mm]



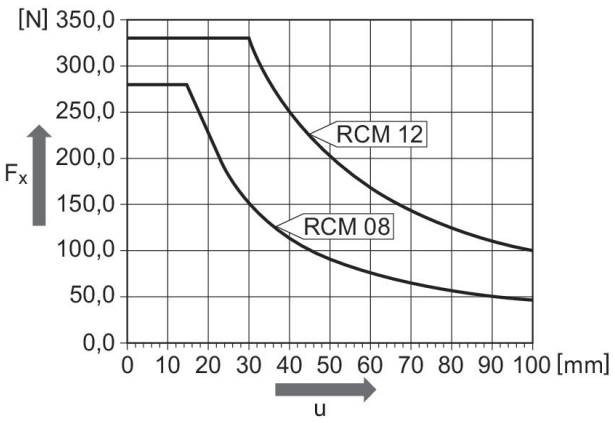
Maximum permissible radial force Fy [N] as a function of v [mm]



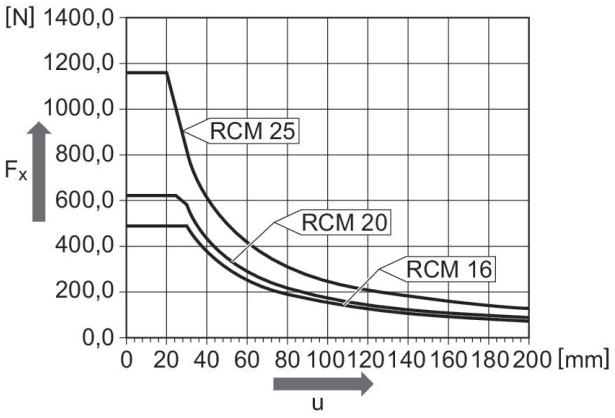
Maximum permissible radial force Fy [N] as a function of v [mm]



Maximum permissible radial force Fy [N] as a function of v [mm]



Maximum permissible axial force Fx [N] as a function of u [mm]



Rotary Compact Module, Series RCM-SE

: Double piston with rack
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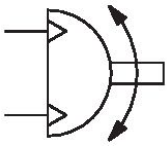
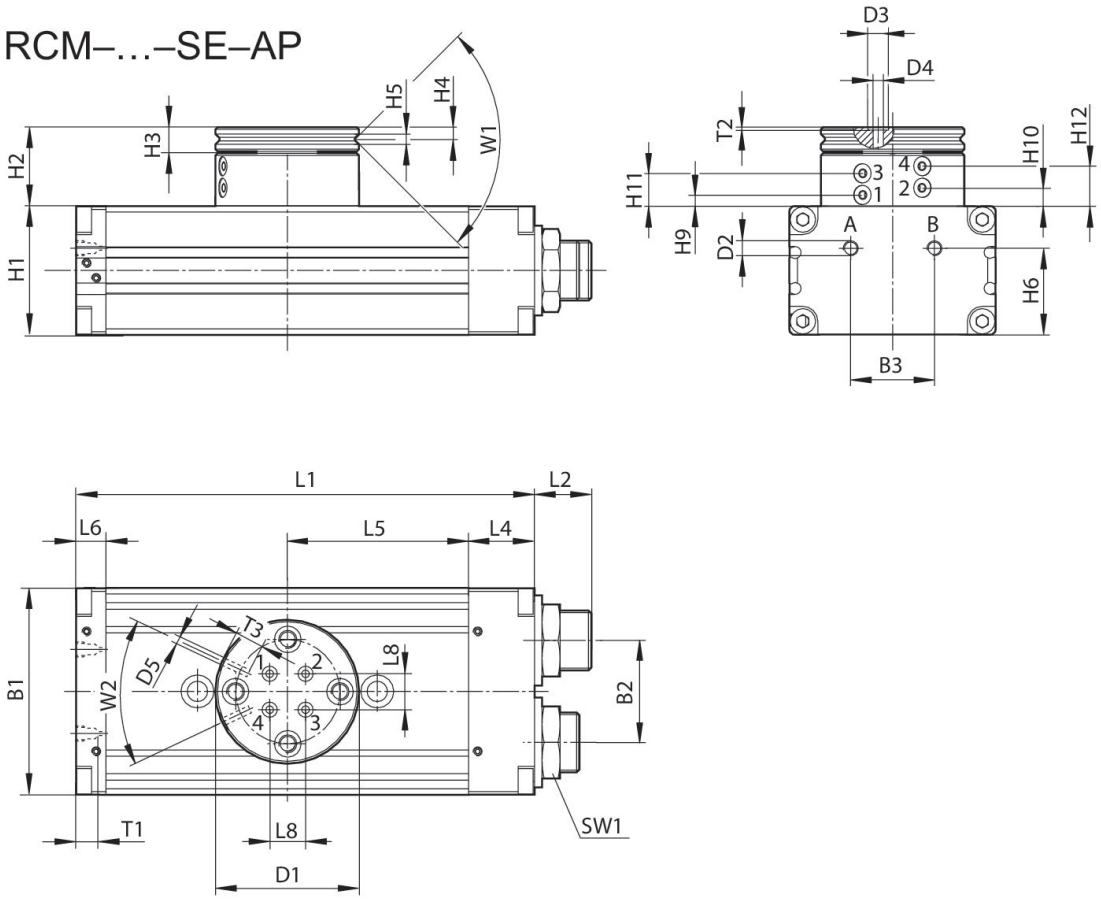
Medium temperature min./max.: 5 °C ... 60 °C
Working pressure min./max.: 8 bar



Frame size	Compressed air connection	angle of rotation [°]	Min. swivel times [s]	Air consumption per rotation [cm³]	Number of air ducts	Max. permissible axial bearing load [N]	Max. permissible radial bearing load [N]	Part No.
RCM-16	M5	0, 90	0.2	10.36	4	490	400	R412000381
RCM-16	M5	0, 180	0.25	20.71	4	490	400	R412000382
RCM-20	M5	0, 90	0.22	17.92	4	620	560	R412000383
RCM-20	M5	0, 180	0.3	35.84	4	620	560	R412000384
RCM-25	M5	0, 90	0.22	38.75	4	1160	700	R412000385
RCM-25	M5	0, 180	0.3	77.5	4	1160	700	R412000386

Max. permissible mass moment of inertia [kg cm²]	Repetitive precision [°]	Theoretical torque [Nm]	Part No.
1.6	0.2	1.7	R412000381
1.6	0.2	1.7	R412000382
3.2	0.2	3	R412000383
3.2	0.2	3	R412000384
6.3	0.2	6.5	R412000385
6.3	0.2	6.5	R412000386

RCM-16/.../-25



T1 = depth of thread

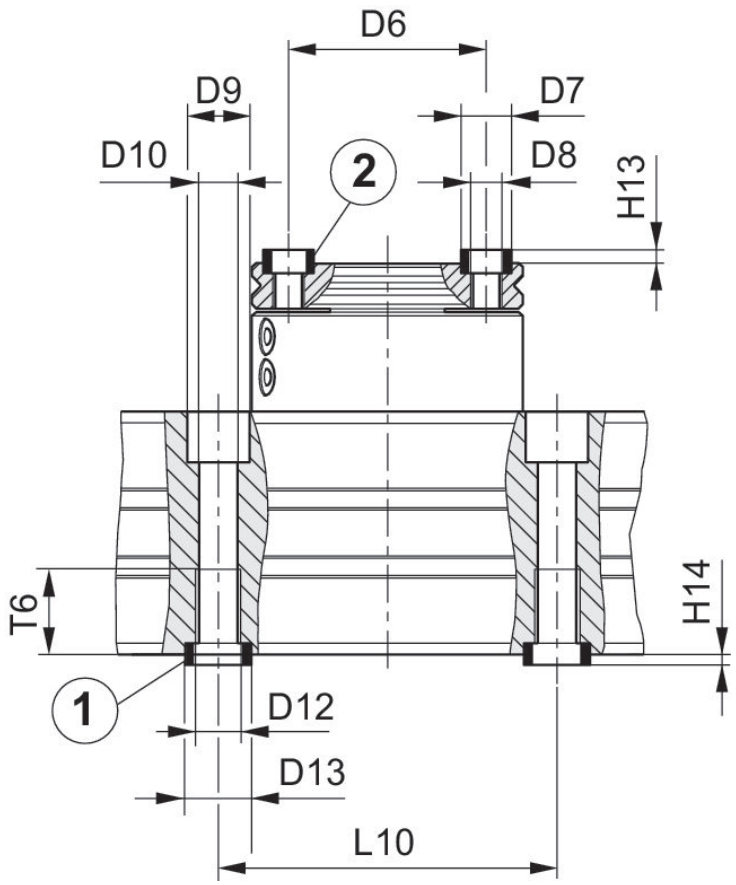
Part No.	B1	B2	B3	Ø D1	Ø D2	Ø D3	Ø D4	Ø D5	H1
R412000381	52	24	20	40	M5	5	2.5	M3	32
R412000382	52	24	20	40	M5	5	2.5	M3	32
R412000383	58	30	20	42	M5	5	2.5	M3	37
R412000384	58	30	20	42	M5	5	2.5	M3	37
R412000385	69	34	28	48	M5	5	2.5	M3	43
R412000386	69	34	28	48	M5	5	2.5	M3	43

Part No.	H2	H3	H4	H5	H6	H9 ±0,2	H10 ±0,2	H11 ±0,2	H12 ±0,2
R412000381	25.5	7	3.3	2.5	21	3.9	6.5	11.1	13.7
R412000382	25.5	7	3.3	2.5	21	3.9	6.5	11.1	13.7
R412000383	26	7	3.3	3	26	4.4	7	11.6	14.2
R412000384	26	7	3.3	3	26	4.4	7	11.6	14.2
R412000385	26.5	8	4	3	29	3.9	6.5	11.1	13.7
R412000386	26.5	8	4	3	29	3.9	6.5	11.1	13.7

Part No.	L1	L2	L4	L5	L6	L8	SW1	T1	T2
R412000381	108	15	18	40	10	6	19	4	0.7
R412000382	108	15	18	40	10	6	19	4	0.7
R412000383	114	15	19	43	9	10	19	4	0.7
R412000384	114	15	19	43	9	10	19	4	0.7
R412000385	153	19	22	60.5	10	12	23	4	0.7
R412000386	153	19	22	60.5	10	12	23	4	0.7

Part No.	T3	W1	W2
R412000381	4	90°	50°
R412000382	4	90°	50°
R412000383	4	90°	50°
R412000384	4	90°	50°
R412000385	4	90°	50°
R412000386	4	90°	50°

Mounting and assembly

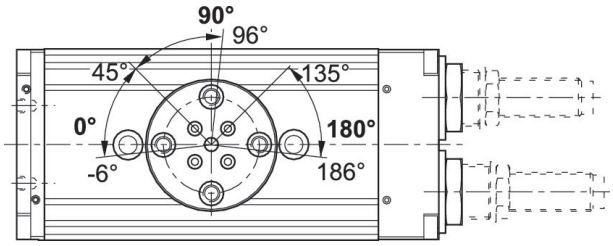


1) centering sleeve, included in the scope of delivery 2) centering sleeve

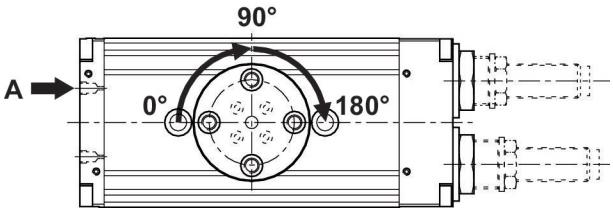
Part No.	Ø D6 ±0,02	Ø D7 k6	Ø D8	Ø D9	Ø D10	Ø D12	Ø D13 k6	H13 +0,2	H14 +0,2
R412000381	30	7	M5	10	5	M6	9	1.6	2.1
R412000382	30	7	M5	10	5	M6	9	1.6	2.1
R412000383	30	7	M5	11	6.8	M8	12	1.6	2.1
R412000384	30	7	M5	11	6.8	M8	12	1.6	2.1
R412000385	35	9	M6	11	6.8	M8	12	2.1	2.1
R412000386	35	9	M6	11	6.8	M8	12	2.1	2.1

Part No.	L10 ± 0,02	T6
R412000381	60	11.1
R412000382	60	11.1
R412000383	60	15.1
R412000384	60	15.1
R412000385	60	15.1
R412000386	60	15.1

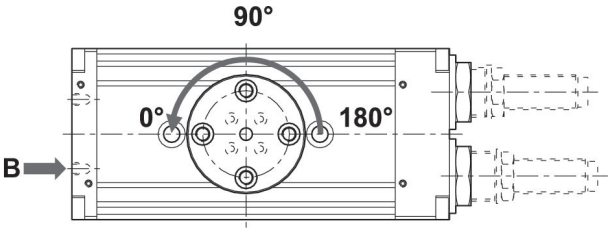
Setting range for end positions 0° / 90° / 180°



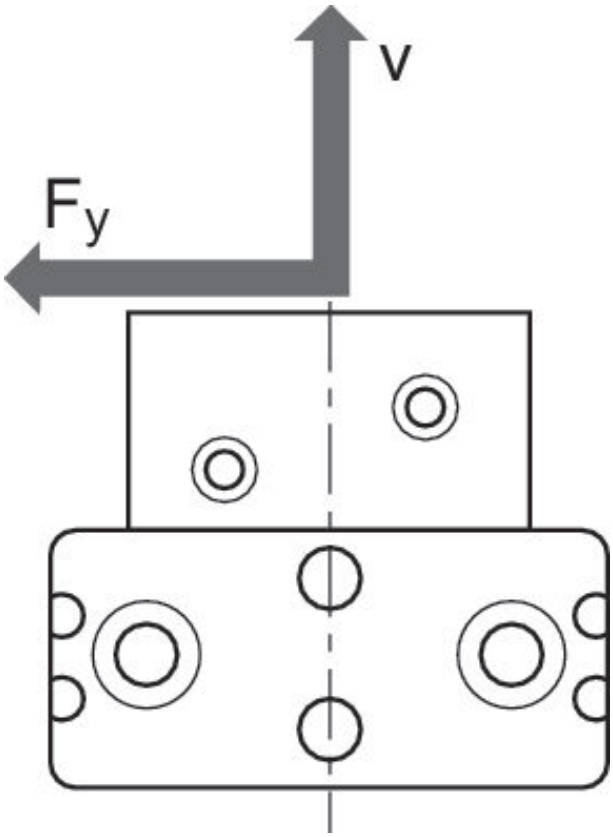
Movement into end position 90°/180°



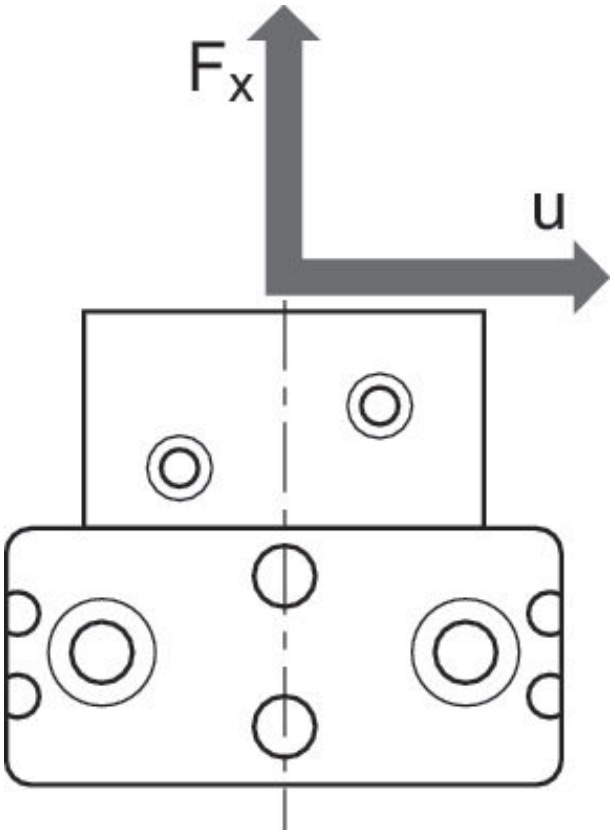
Movement into end position 0°



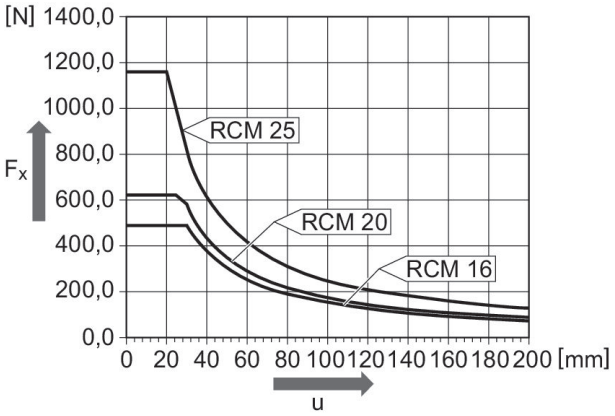
Maximum permissible radial force Fy [N] as a function of v [mm]



Maximum permissible radial force Fy [N] as a function of v [mm]

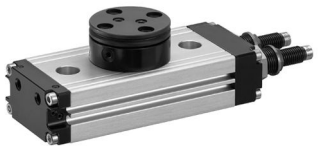


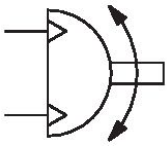
Maximum permissible axial force Fx [N] as a function of u [mm]



Rotary Compact Module, Series RCM-SH

: Double piston with rack
: with magnetic piston
: hydraulic
: non-adjustable
: with air duct
Ambient temperature min./max.: 5 °C ... 60 °C
Medium temperature min./max.: 5 °C ... 60 °C
Working pressure min./max.: 8 bar

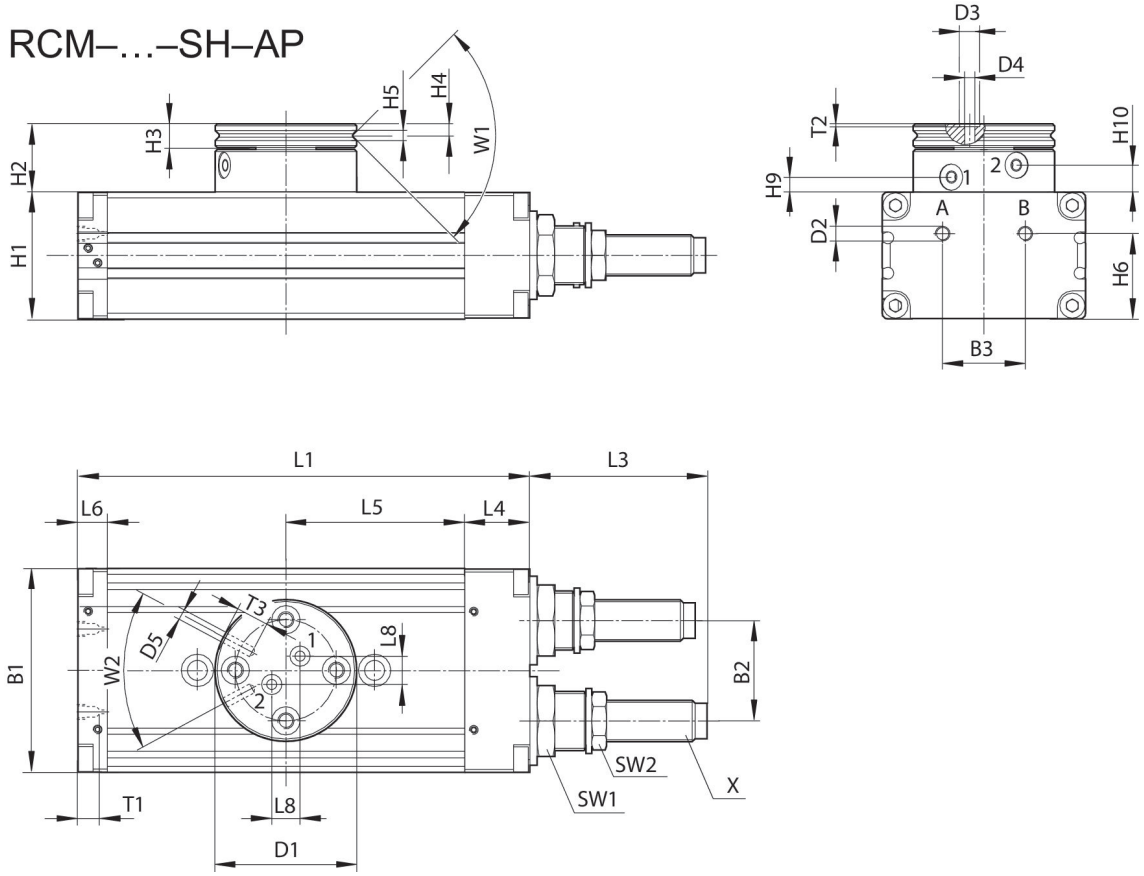




Frame size	Compressed air connection	angle of rotation [°]	Min. swivel times [s]	Air consumption per rotation [cm³]	Number of air ducts	Max. permissible axial bearing load [N]	Max. permissible radial bearing load [N]	Part No.
RCM-12	M5	0, 90	0.3	5.86	2	330	290	R412000387
RCM-12	M5	0, 180	0.3	11.72	2	330	290	R412000388

Max. permissible mass moment of inertia [kg cm²]	Repetitive precision [°]	Theoretical torque [Nm]	Part No.
10	0.05	0.95	R412000387
10	0.05	0.95	R412000388

RCM-12



T1 = depth of thread

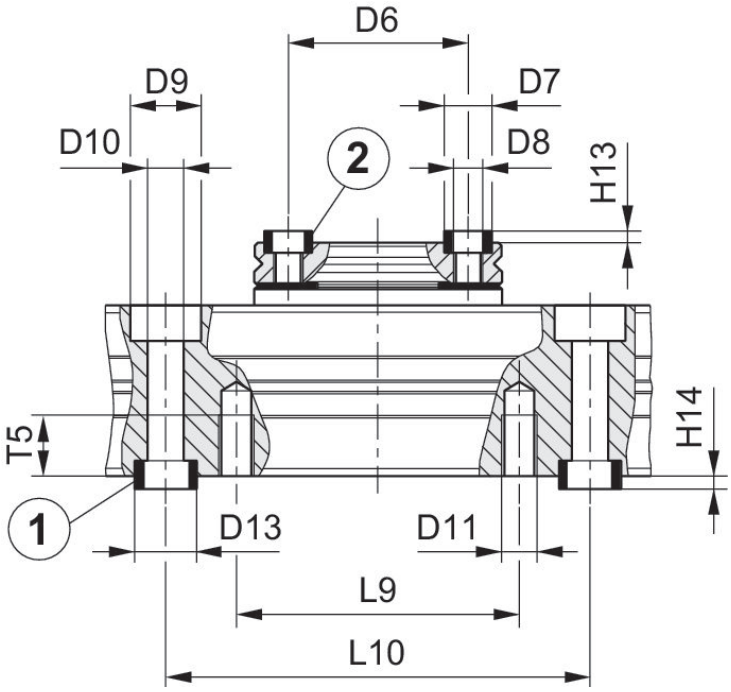
Part No.	B1	B2	B3	Ø D1	Ø D2	Ø D3	Ø D4	Ø D5	H1
R412000387	43	18	18	35	M5	5	2.5	M3	24
R412000388	43	18	18	35	M5	5	2.5	M3	24

Part No.	H2	H3	H4	H5	H6	H9 ±0,2	H10 ±0,2	L1	L3
R412000387	17	6	2.9	2.5	18	3.8	6.7	103	33.5
R412000388	17	6	2.9	2.5	18	3.8	6.7	103	33.5

Part No.	L4	L5	L6	L8	SW1	SW2	T1	T2	T3
R412000387	14	40	9	7	15	11	4	0.7	4
R412000388	14	40	9	7	15	11	4	0.7	4

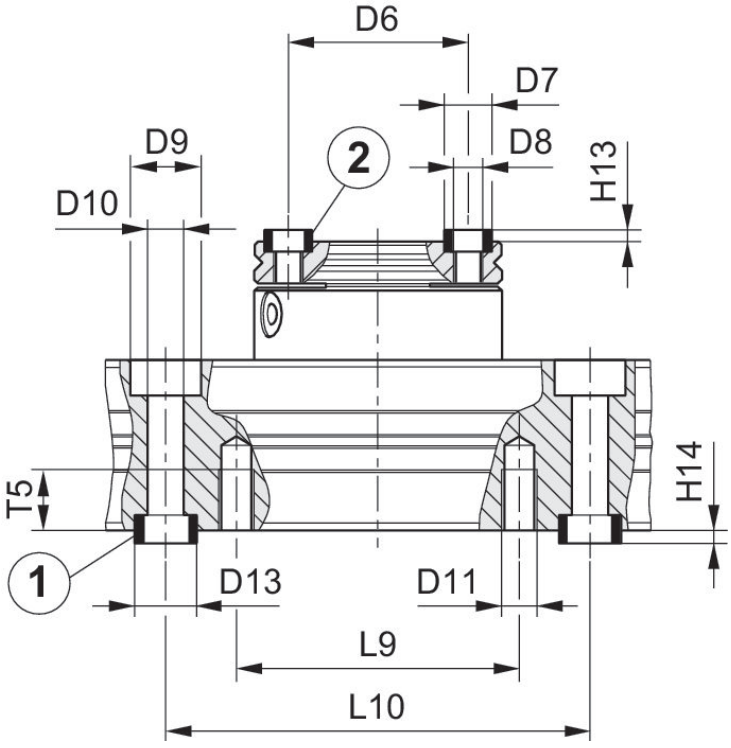
Part No.	W1	W2	X
R412000387	90°	56°	M8x1
R412000388	90°	56°	M8x1

Mounting and assembly



1) centering sleeve, included in the scope of delivery 2) centering sleeve

Mounting and assembly

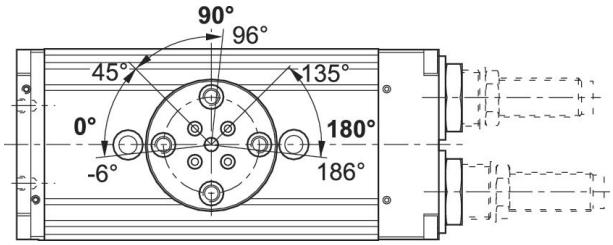


1) centering sleeve, included in the scope of delivery 2) centering sleeve

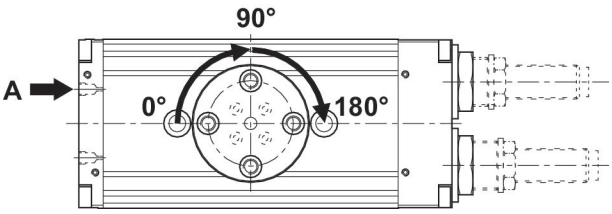
Part No.	Ø D6 ±0,02	Ø D7 k6	Ø D8	Ø D9	Ø D10	Ø D11	Ø D13 k6	H13 +0,2	H14 +0,2
R412000387	25	7	M4	10	5.1	M5	9	1.6	2.1
R412000388	25	7	M4	10	5.1	M5	9	1.6	2.1

Part No.	L9	L10 ±0,02	T5
R412000387	40	60	8.5
R412000388	40	60	8.5

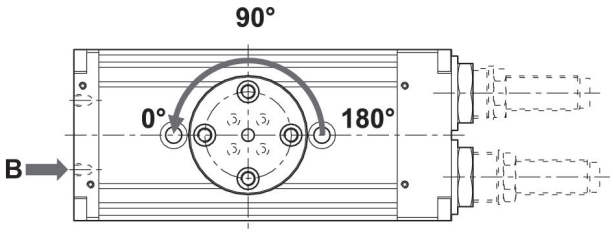
Setting range for end positions 0° / 90° / 180°



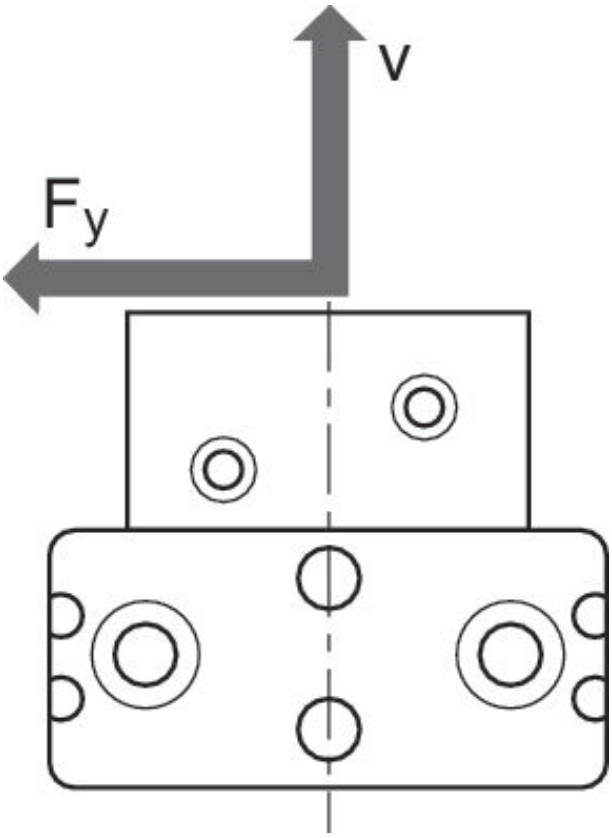
Movement into end position 90°/180°



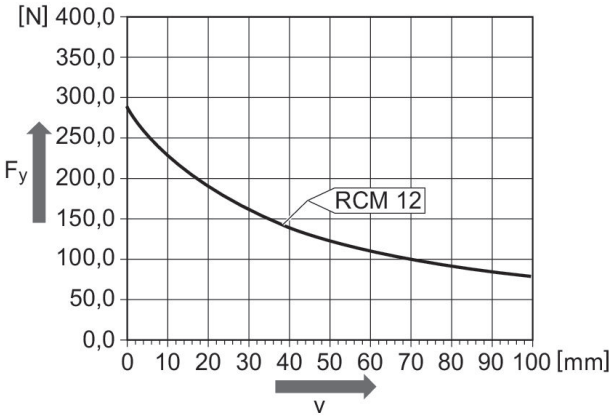
Movement into end position 0°



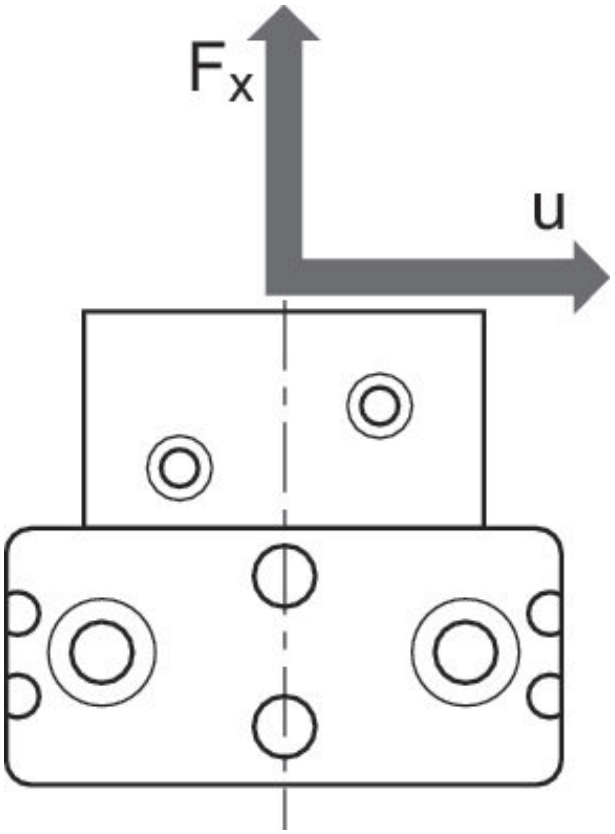
Maximum permissible radial force Fy [N] as a function of v [mm]



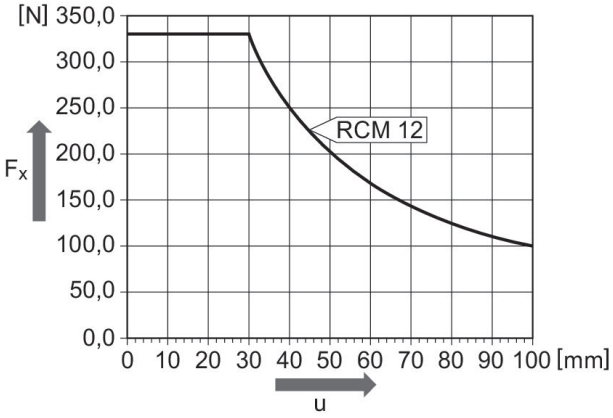
Maximum permissible radial force Fy [N] as a function of v [mm]



Maximum permissible axial force Fx [N] as a function of u [mm]

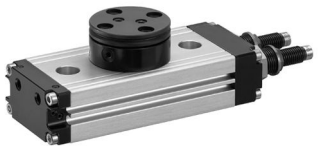


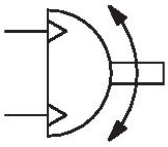
Maximum permissible axial force Fx [N] as a function of u [mm]



Rotary Compact Module, Series RCM-SH

: Double piston with rack
: with magnetic piston
: hydraulic
: non-adjustable
: with air duct
Ambient temperature min./max.: 5 °C ... 60 °C
Medium temperature min./max.: 5 °C ... 60 °C
Working pressure min./max.: 2 bar ... 8 bar

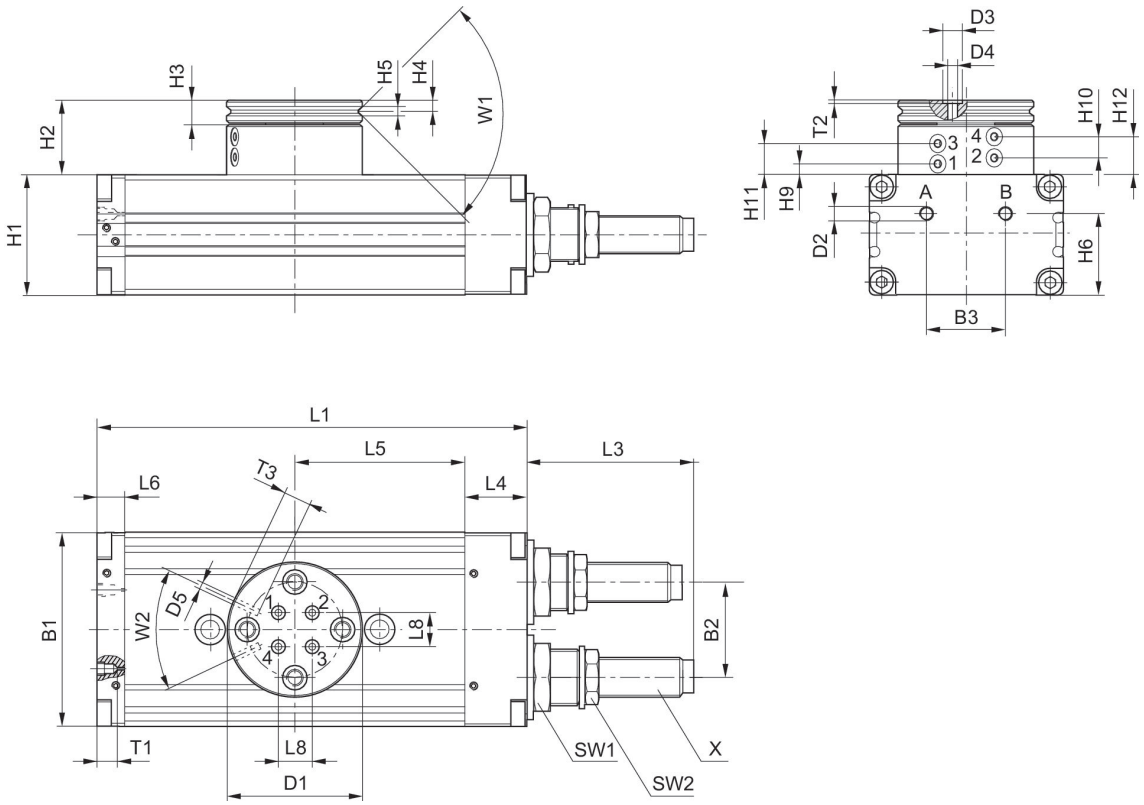




Frame size	Compressed air connection	angle of rotation [°]	Min. swivel times [s]	Air consumption per rotation [cm³]	Number of air ducts	Max. permissible axial bearing load [N]	Max. permissible radial bearing load [N]	Part No.
RCM-16	M5	0, 90	0.32	10.36	4	490	400	R412000389
RCM-16	M5	0, 180	0.32	20.71	4	490	400	R412000390
RCM-20	M5	0, 90	0.48	17.92	4	620	560	R412000391
RCM-20	M5	0, 180	0.48	35.84	4	620	560	R412000392
RCM-25	M5	0, 90	0.6	38.75	4	1160	700	R412000393
RCM-25	M5	0, 180	0.6	77.5	4	1160	700	R412000394

Max. permissible mass moment of inertia [kg cm²]	Repetitive precision [°]	Theoretical torque [Nm]	Part No.
80	0.05	1.7	R412000389
80	0.05	1.7	R412000390
180	0.05	3	R412000391
180	0.05	3	R412000392
450	0.05	6.5	R412000393
450	0.05	6.5	R412000394

RCM-16/.../-25



T1 = depth of thread

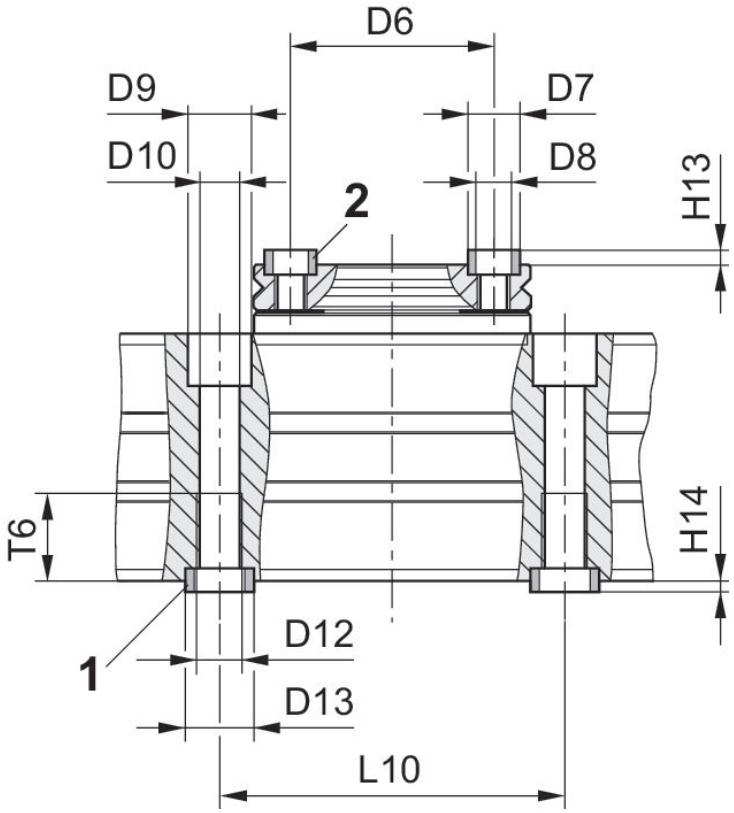
Part No.	B1	B2	B3	Ø D1	Ø D2	Ø D3	Ø D4	Ø D5	H1
R412000389	52	24	20	40	M5	5	2.5	M3	32
R412000390	52	24	20	40	M5	5	2.5	M3	32
R412000391	58	30	20	42	M5	5	2.5	M3	37
R412000392	58	30	20	42	M5	5	2.5	M3	37
R412000393	69	34	28	48	M5	5	2.5	M3	43
R412000394	69	34	28	48	M5	5	2.5	M3	43

Part No.	H2	H3	H4	H5	H6	H9 ±0,2	H10 ±0,2	H11 ±0,2	H12 ±0,2
R412000389	25.5	7	3.3	2.5	21	3.9	6.5	11.1	13.7
R412000390	25.5	7	3.3	2.5	21	3.9	6.5	11.1	13.7
R412000391	26	7	3.3	3	26	4.4	7	11.6	14.2
R412000392	26	7	3.3	3	26	4.4	7	11.6	14.2
R412000393	26.5	8	4	3	29	3.9	6.5	11.1	13.7
R412000394	26.5	8	4	3	29	3.9	6.5	11.1	13.7

Part No.	L1	L3	L4	L5	L6	L8	SW1	SW2	T1
R412000389	108	34	18	40	10	6	19	13	4
R412000390	108	34	18	40	10	6	19	13	4
R412000391	114	48.5	19	43	9	10	19	15	4
R412000392	114	48.5	19	43	9	10	19	15	4
R412000393	153	60	22	60.5	10	12	23	17	4
R412000394	153	60	22	60.5	10	12	23	17	4

Part No.	T2	T3	W1	W2	X
R412000389	0.7	4	90°	50°	M10x1
R412000390	0.7	4	90°	50°	M10x1
R412000391	0.7	4	90°	50°	M12x1
R412000392	0.7	4	90°	50°	M12x1
R412000393	0.7	4	90°	50°	M14x1,5
R412000394	0.7	4	90°	50°	M14x1,5

Mounting and assembly

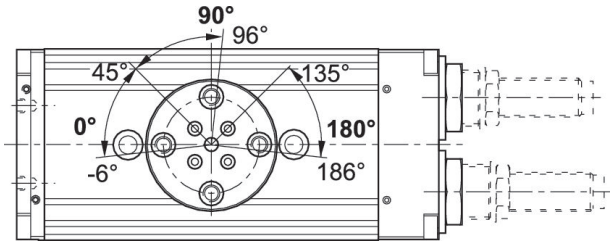


1) centering sleeve, included in the scope of delivery 2) centering sleeve

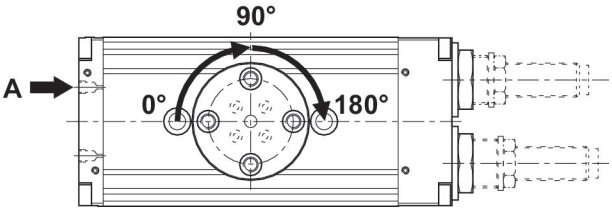
Part No.	Ø D6 ±0,02	Ø D7 k6	Ø D8	Ø D9	Ø D10	Ø D12	Ø D13 k6	H13 +0,2	H14 +0,2
R412000389	30	7	M5	10	5	M6	9	1.6	2.1
R412000390	30	7	M5	10	5	M6	9	1.6	2.1
R412000391	30	7	M5	11	6.8	M8	12	1.6	2.1
R412000392	30	7	M5	11	6.8	M8	12	1.6	2.1
R412000393	35	9	M6	11	6.8	M8	12	2.1	2.1
R412000394	35	9	M6	11	6.8	M8	12	2.1	2.1

Part No.	L10 ±0,02	T6
R412000389	60	11.1
R412000390	60	11.1
R412000391	60	15.1
R412000392	60	15.1
R412000393	60	15.1
R412000394	60	15.1

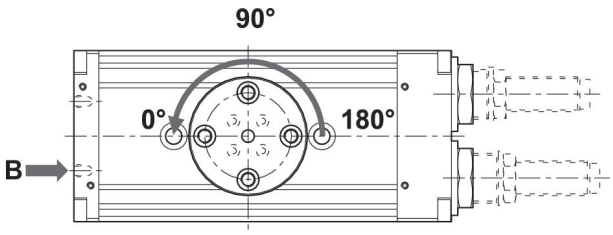
Setting range for end positions 0° / 90° / 180°



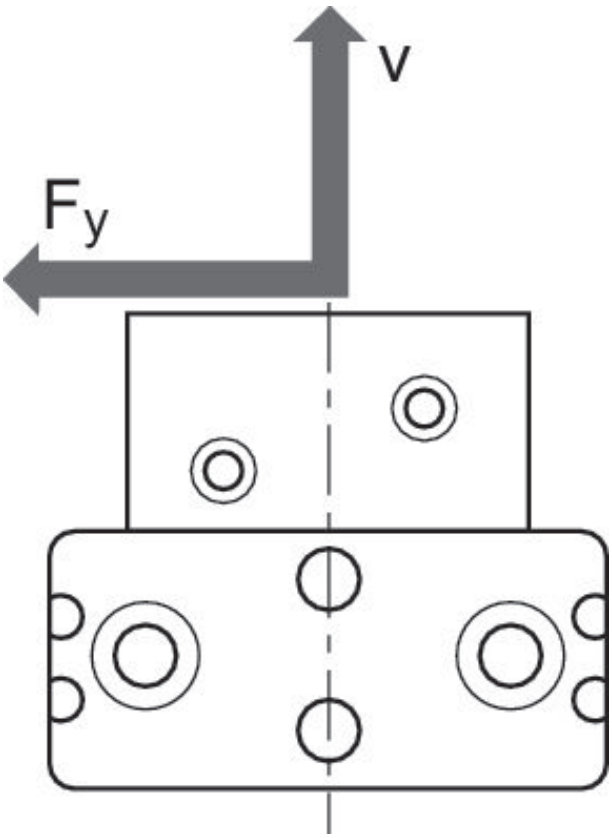
Movement into end position 90°/180°



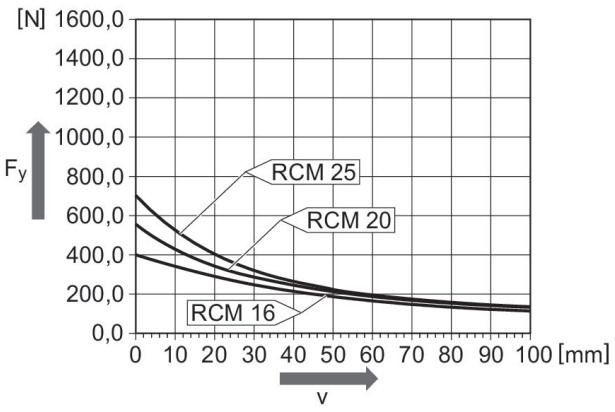
Movement into end position 0°



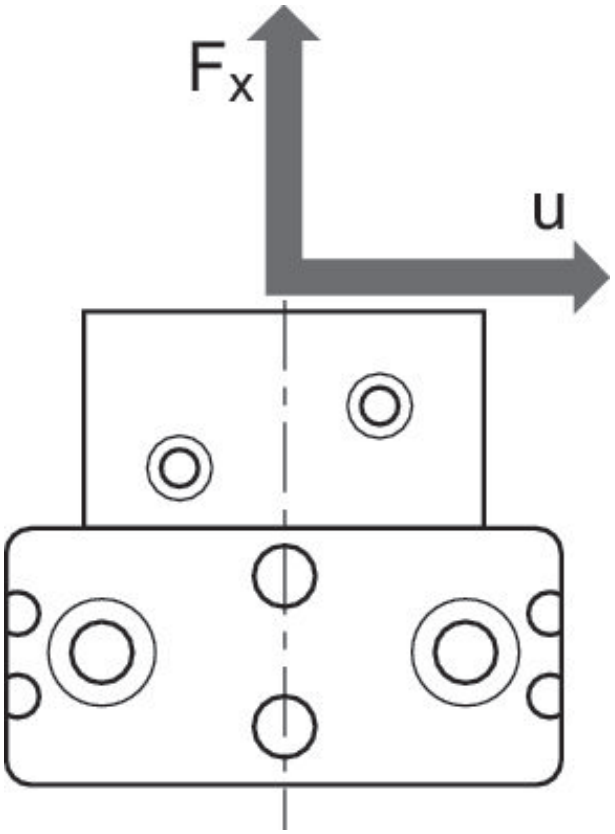
Maximum permissible radial force Fy [N] as a function of v [mm]



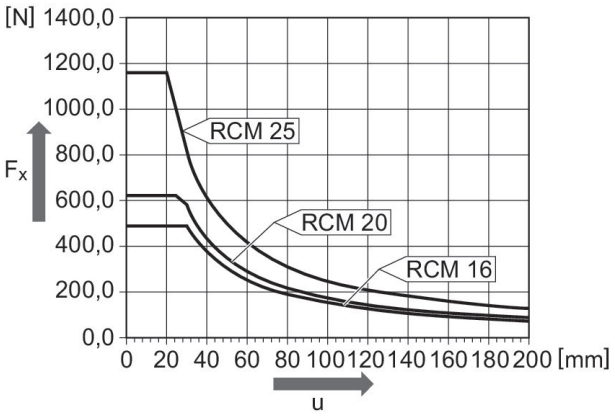
Maximum permissible radial force Fy [N] as a function of v [mm]



Maximum permissible axial force Fx [N] as a function of u [mm]

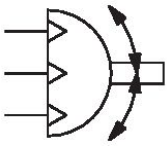


Maximum permissible axial force Fx [N] as a function of u [mm]



Rotary Compact Module, Series RCM-SE

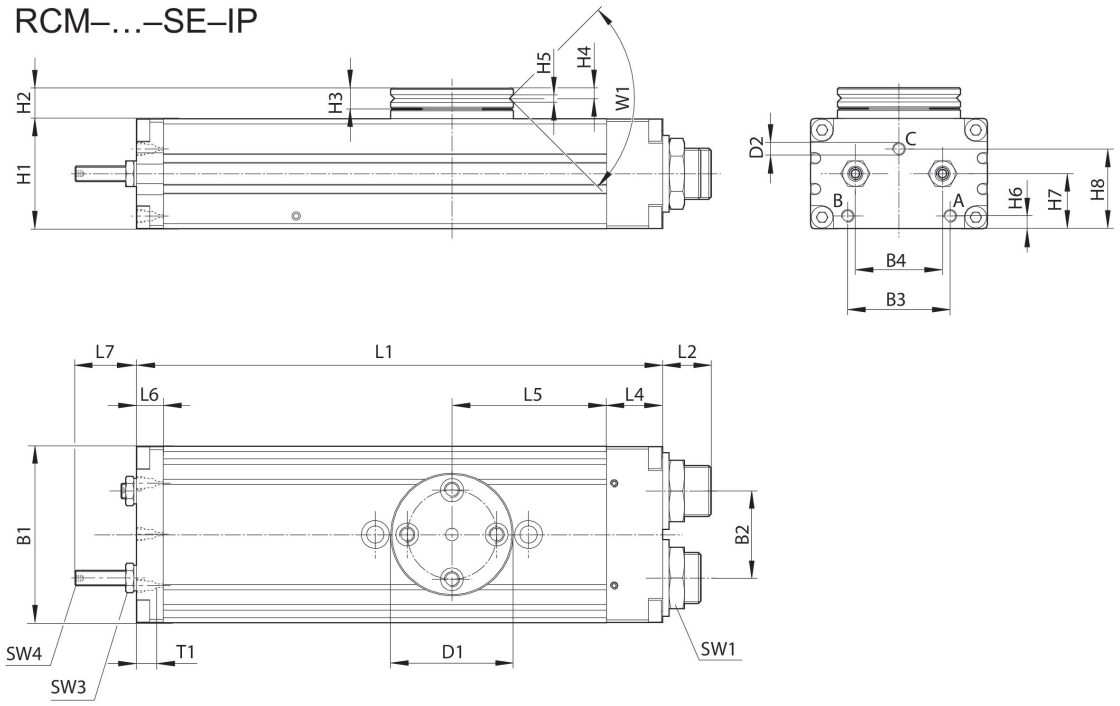
: Double piston with rack
: with magnetic piston
: elastic cushioning
: with integrated intermediate position
Ambient temperature min./max.: 5 °C ... 60 °C
Medium temperature min./max.: 5 °C ... 60 °C
Working pressure min./max.: 4 bar ... 8 bar



Frame size	Compressed air connection	angle of rotation [°]	Min. swivel times [s]	Air consumption per rotation [cm³]	Max. permissible axial bearing load [N]	Max. permissible radial bearing load [N]	Max. permissible mass moment of inertia [kg cm²]	Part No.
RCM-12	M5	0, 180	0.28	13.29	330	360	0.7	R412000395

Repetitive precision [°]	Theoretical torque [Nm]	Part No.
0.2	0.95	R412000395

RCM-12/.../-25



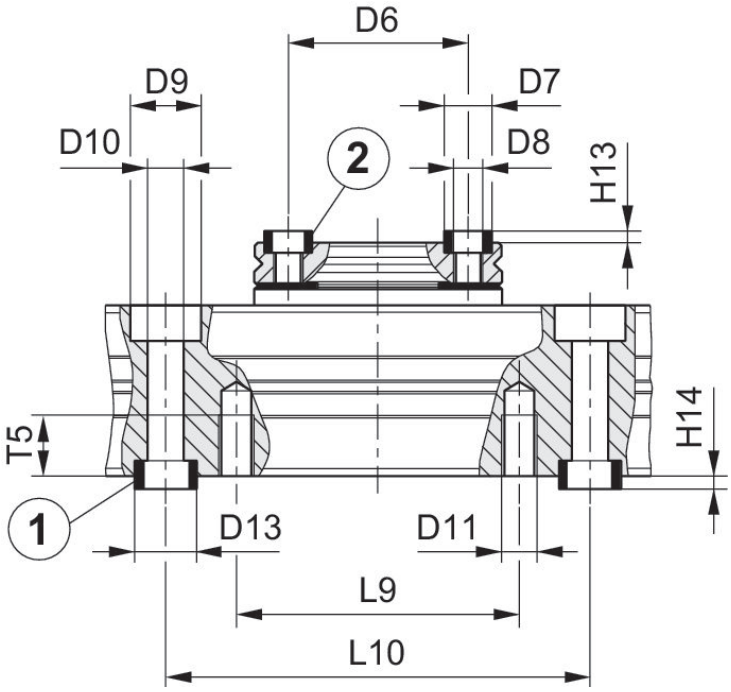
T1 = depth of thread

Part No.	B1	B2	B3	B4	Ø D1	Ø D2	H1	H2	H3
R412000395	43	18	24	18	35	M5	24	10.5	6

Part No.	H4	H5	H6	H7	H8	L1	L2	L4	L5
R412000395	2.9	2.5	3.7	12.5	18.1	136	12.5	14	40

Part No.	L6	L7	SW1	SW3	SW4	T1	W1
R412000395	8.5	17	15	7	2	4	90°

Mounting and assembly

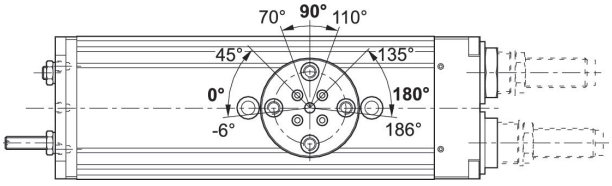


1) centering sleeve, included in the scope of delivery 2) centering sleeve

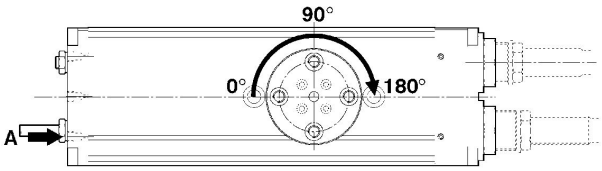
Part No.	Frame size	Ø D6 ±0,02	Ø D7 k6	Ø D8	Ø D9	Ø D10	Ø D11	Ø D13 k6	H13 +0,2
R412000395	RCM-12	25	7	M4	10	5.1	M5	9	1.6

Part No.	H14 +0,2	L9	L10 ± 0,02	T5
R412000395	2.1	40	60	8.5

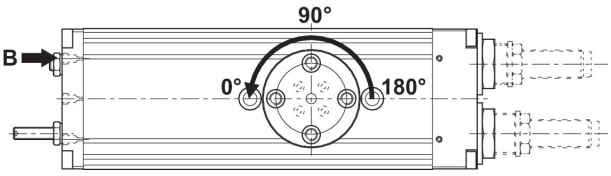
Setting range for end positions 0°/180° and intermediate position 90°



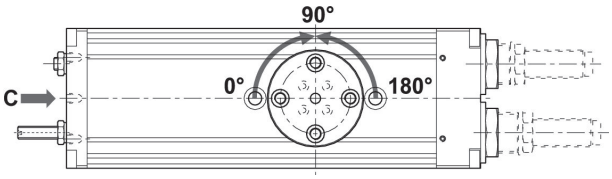
Movement into end position 180°



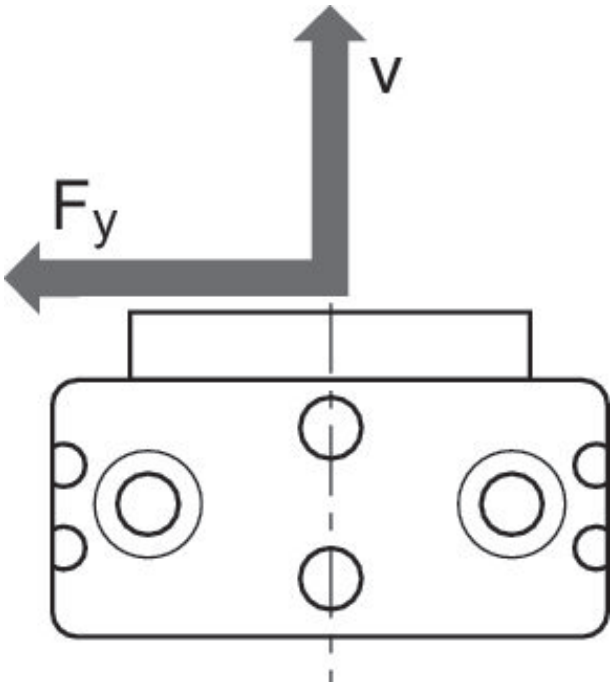
Movement into end position 0°



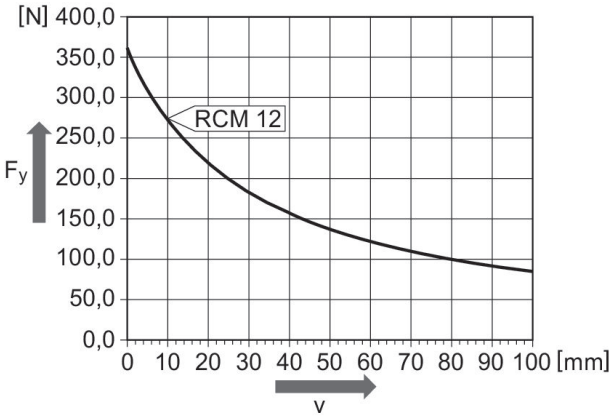
Movement into intermediate position 90°



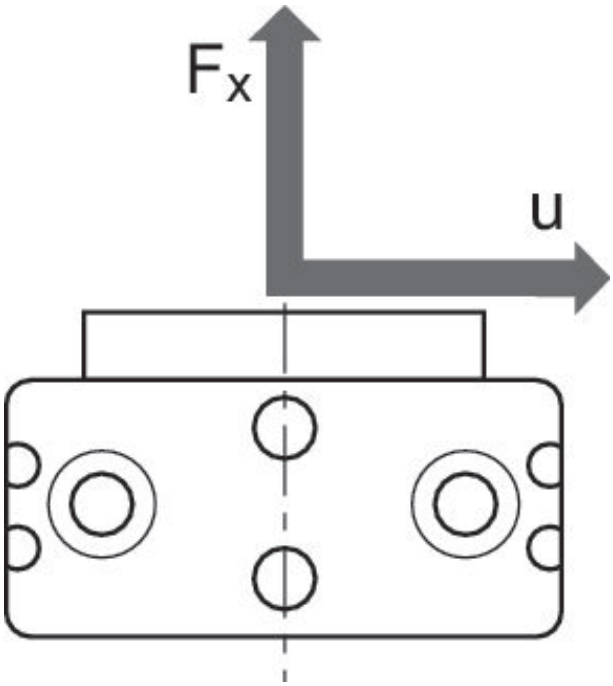
Maximum permissible radial force Fy [N] as a function of v [mm]



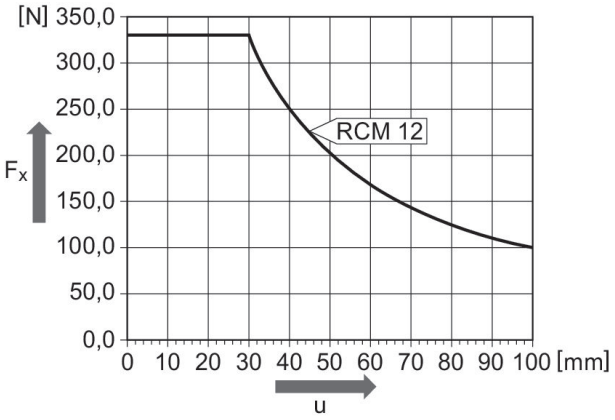
Maximum permissible radial force Fy [N] as a function of v [mm]



Maximum permissible radial force Fy [N] as a function of v [mm]

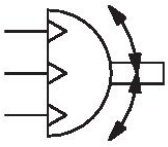


Maximum permissible axial force Fx [N] as a function of u [mm]



Rotary Compact Module, Series RCM-SE

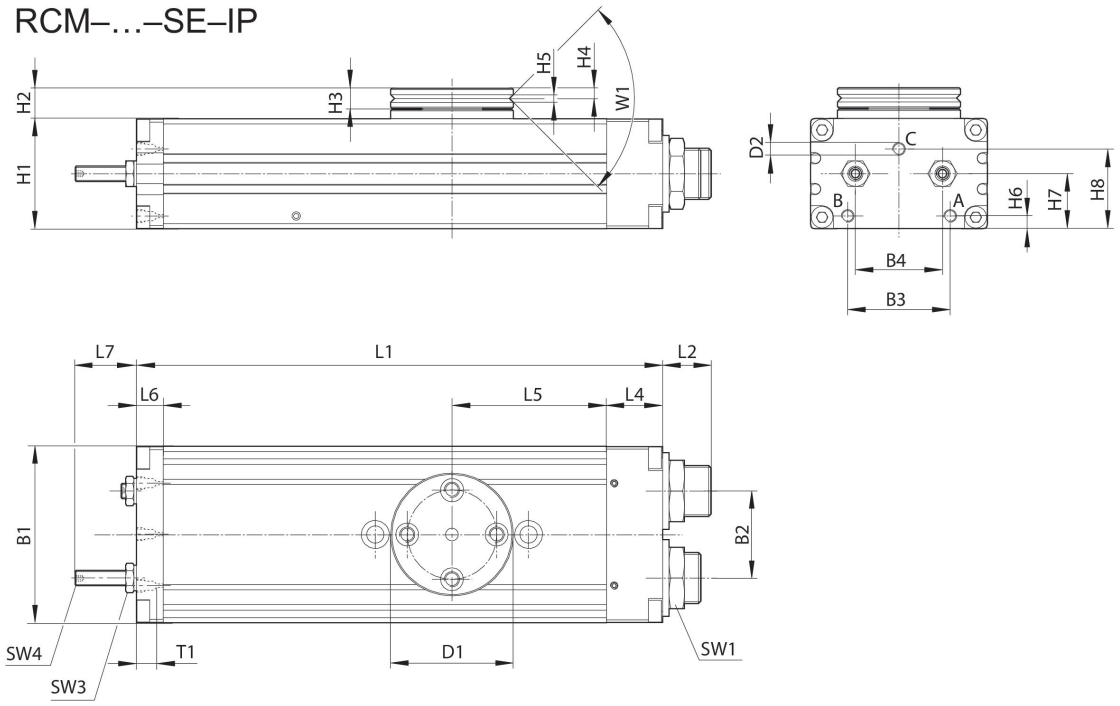
: Double piston with rack
: with magnetic piston
: elastic cushioning
: with integrated intermediate position
Ambient temperature min./max.: 5 °C ... 60 °C
Medium temperature min./max.: 5 °C ... 60 °C
Working pressure min./max.: 4 bar ... 8 bar



Frame size	Compressed air connection	angle of rotation [°]	Min. swivel times [s]	Air consumption per rotation [cm³]	Max. permissible axial bearing load [N]	Max. permissible radial bearing load [N]	Max. permissible mass moment of inertia [kg cm²]	Part No.
RCM-16	M5	0, 180	0.25	22.14	490	580	1.6	R412000396
RCM-20	M5	0, 180	0.3	37.83	620	780	3.2	R412000397
RCM-25	M5	0, 180	0.3	80.72	1160	1480	6.3	R412000398

Repetitive precision [°]	Theoretical torque [Nm]	Part No.
0.2	1.7	R412000396
0.2	3	R412000397
0.2	6.5	R412000398

RCM-12/.../-25



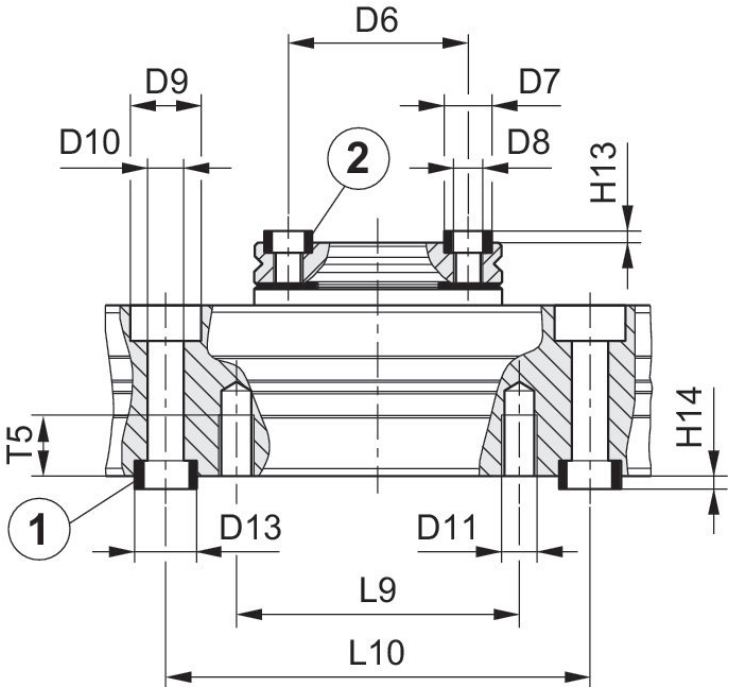
T1 = depth of thread

Part No.	B1	B2	B3	B4	Ø D1	Ø D2	H1	H2	H3
R412000396	52	24	29	24	40	M5	32	10	7
R412000397	58	30	30	30	42	M5	37	11	7
R412000398	69	34	40	34	48	M5	43	12	8

Part No.	H4	H5	H6	H7	H8	L1	L2	L4	L5
R412000396	3.3	2.5	5	16	21.1	140	15.5	18	40
R412000397	3.3	3	5.5	19	27.1	156	15	19	43
R412000398	4	3	5	21.5	31.1	206	19	22	60.5

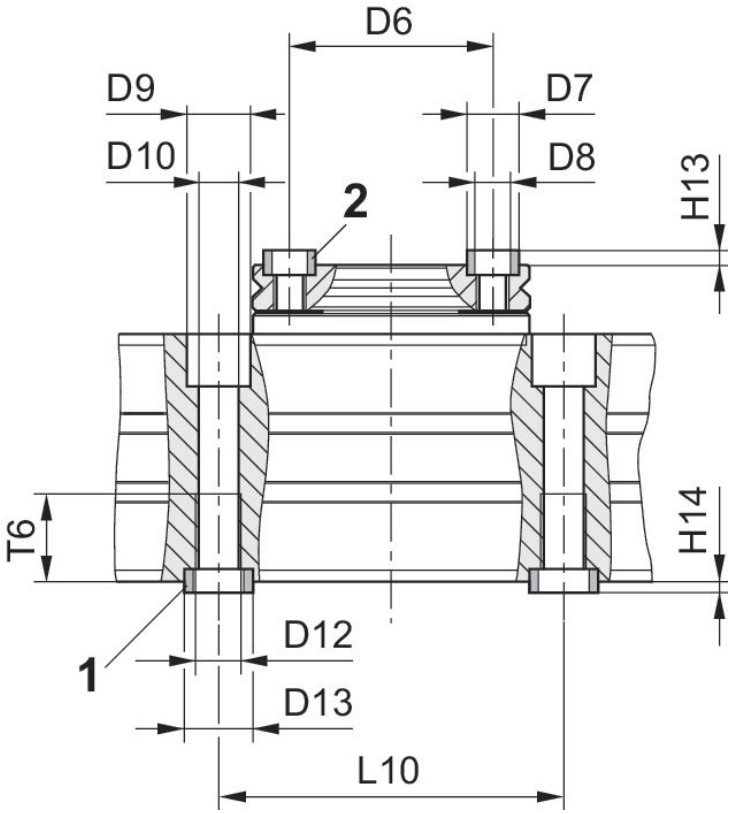
Part No.	L6	L7	SW1	SW3	SW4	T1	W1
R412000396	8.5	17	19	7	2	4	90°
R412000397	8.5	22	19	8	2.5	4	90°
R412000398	10.5	24	23	10	3	4	90°

Mounting and assembly



1) centering sleeve, included in the scope of delivery 2) centering sleeve

Mounting and assembly

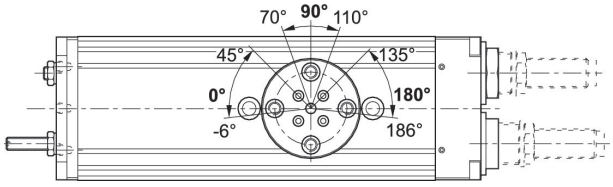


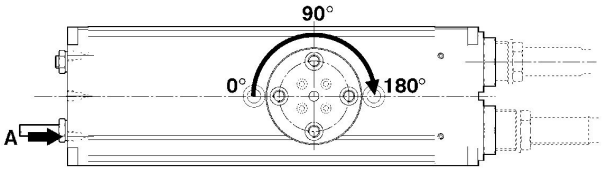
1) centering sleeve, included in the scope of delivery 2) centering sleeve

Part No.	Ø D6 ±0,02	Ø D7 k6	Ø D8	Ø D9	Ø D10	Ø D12	Ø D13 k6	H13 +0,2	H14 +0,2
R412000396	30	7	M5	10	5	M6	9	1.6	2.1
R412000397	30	7	M5	11	6.8	M8	12	1.6	2.1
R412000398	35	9	M6	11	6.8	M8	12	2.1	2.1

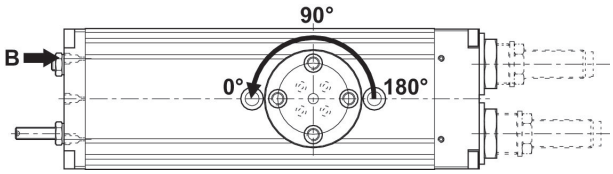
Part No.	L10 ± 0,02	T6
R412000396	60	11.1
R412000397	60	15.1
R412000398	60	15.1

Setting range for end positions 0°/180° and intermediate Movement into end position 180° position 90°

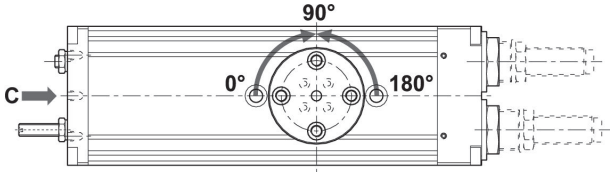




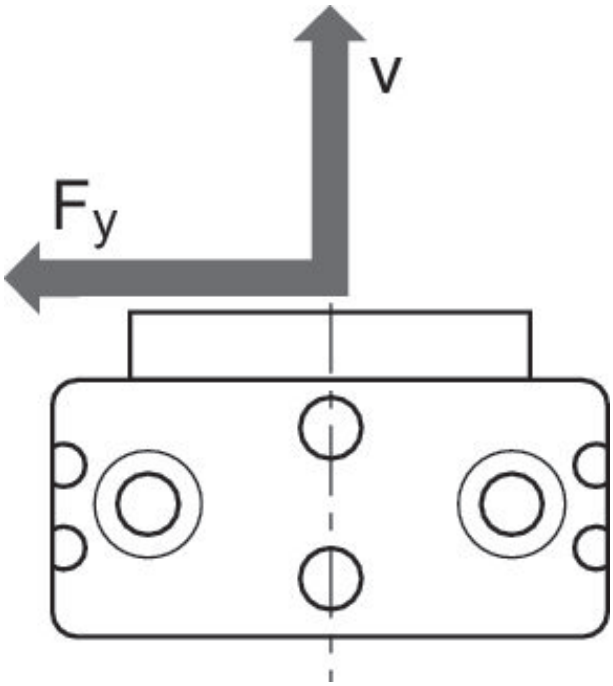
Movement into end position 0°



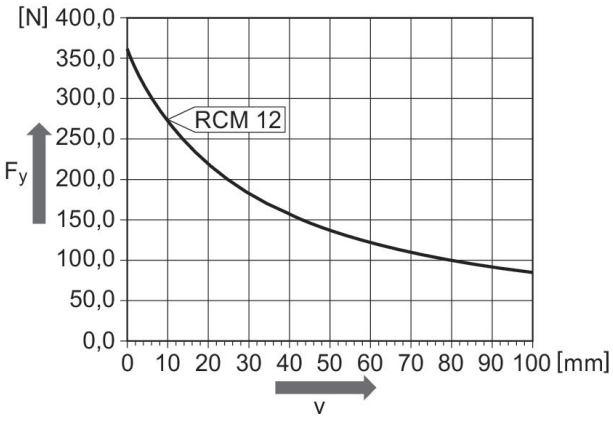
Movement into intermediate position 90°



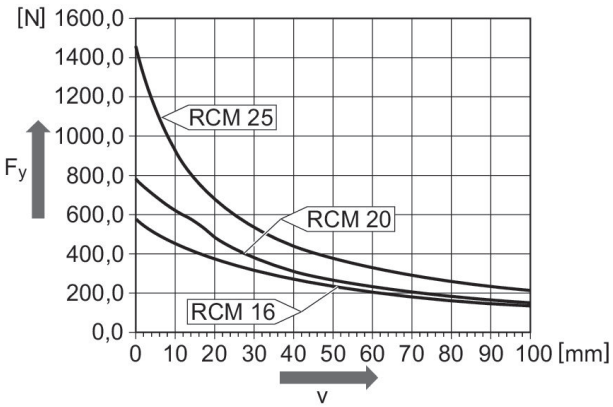
Maximum permissible radial force Fy [N] as a function of v [mm]



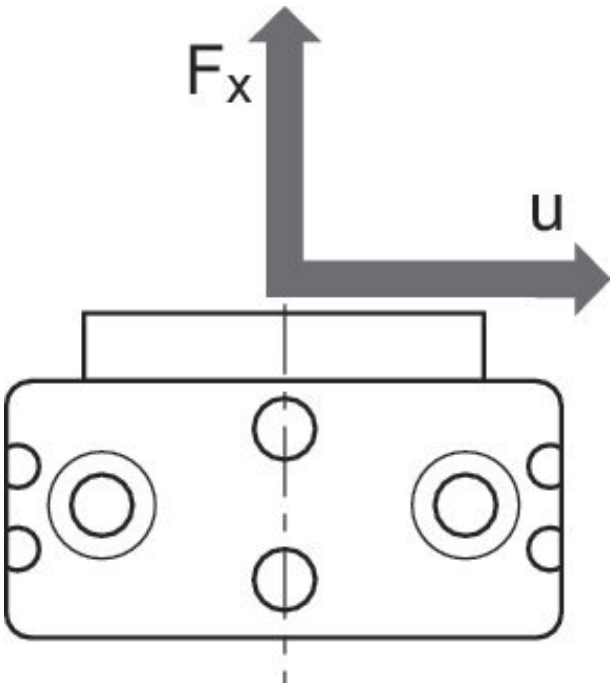
Maximum permissible radial force Fy [N] as a function of v [mm]



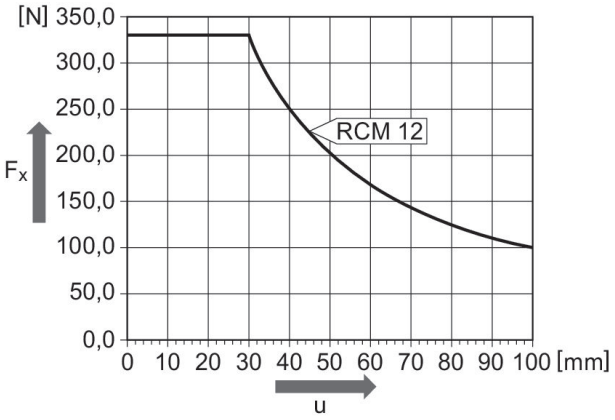
Maximum permissible radial force Fy [N] as a function of v [mm]



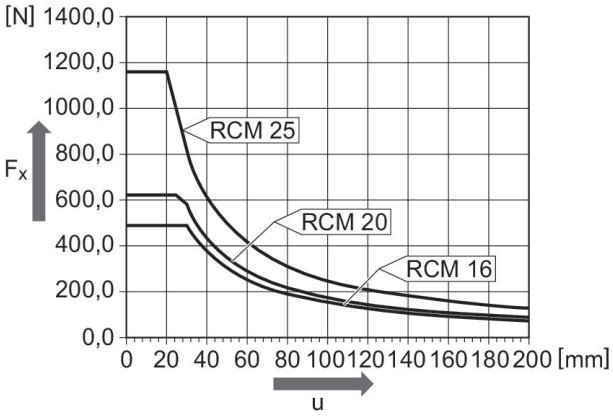
Maximum permissible radial force Fy [N] as a function of v [mm]



Maximum permissible axial force Fx [N] as a function of u [mm]

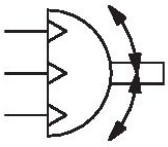


Maximum permissible axial force Fx [N] as a function of u [mm]



Rotary Compact Module, Series RCM-SH

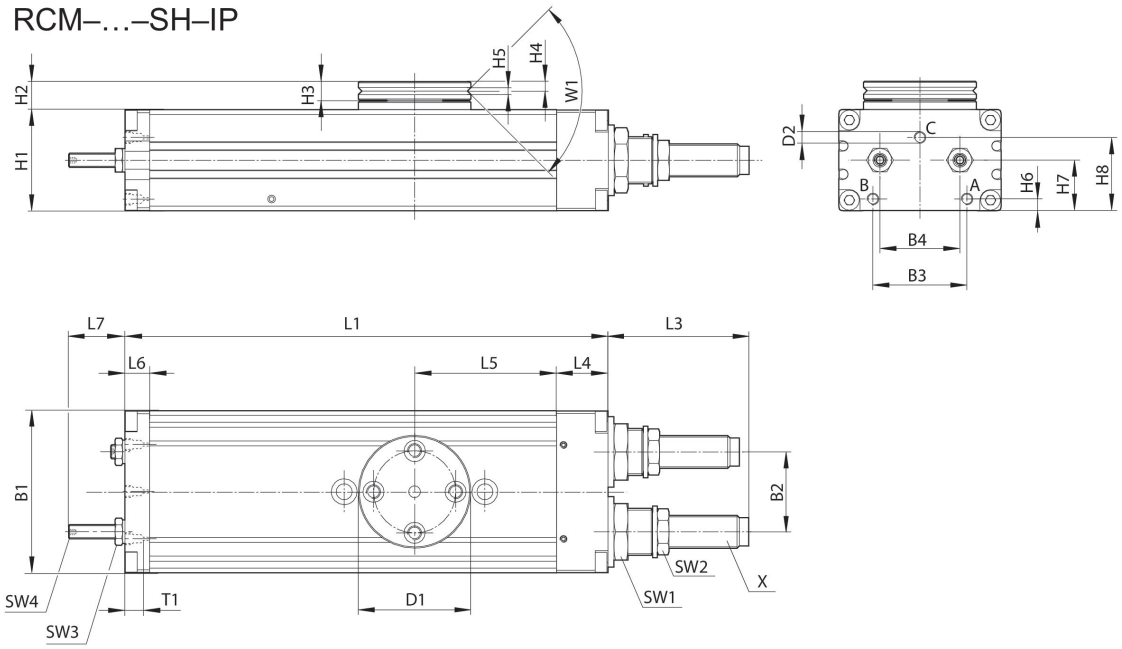
: Double piston with rack
: with magnetic piston
: hydraulic
: non-adjustable
: with integrated intermediate position
Ambient temperature min./max.: 5 °C ... 60 °C
Medium temperature min./max.: 5 °C ... 60 °C
Working pressure min./max.: 4 bar ... 8 bar



Frame size	Compressed air connection	angle of rotation [°]	Min. swivel times [s]	Air consumption per rotation [cm³]	Max. permissible axial bearing load [N]	Max. permissible radial bearing load [N]	Max. permissible mass moment of inertia [kg cm²]	Part No.
RCM-12	M5	0, 180	0.3	13.29	330	360	10	R412000399

Repetitive precision [°]	Theoretical torque [Nm]	Part No.
0.05	0.95	R412000399

RCM-12/.../-25



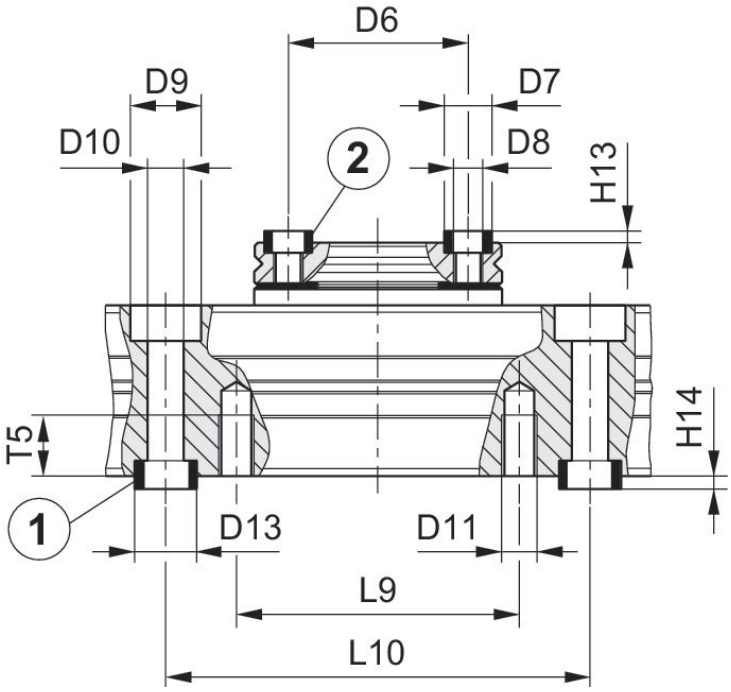
T1 = depth of thread

Part No.	B1	B2	B3	B4	Ø D1	Ø D2	H1	H2	H3
R412000399	43	18	24	18	35	M5	24	10.5	6

Part No.	H4	H5	H6	H7	H8	L1	L3	L4	L5
R412000399	2.9	2.5	3.7	12.5	18.1	136	33.5	14	40

Part No.	L6	L7	SW1	SW2	SW3	SW4	T1	W1	X
R412000399	8.5	17	15	11	7	2	4	90°	M8x1

Mounting and assembly

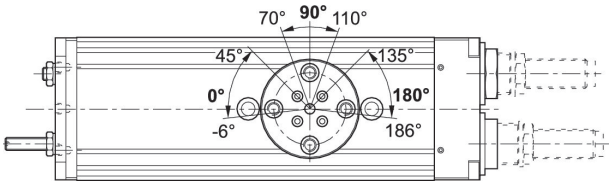


1) centering sleeve, included in the scope of delivery 2) centering sleeve

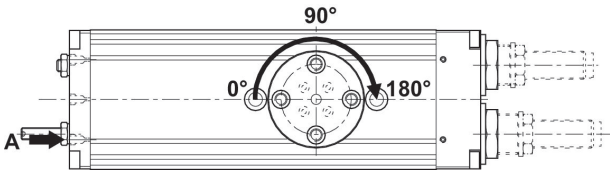
Part No.	Ø D6 ±0,02	Ø D7 k6	Ø D8	Ø D9	Ø D10	Ø D11	Ø D13 k6	H13 +0,2	H14 +0,2
R412000399	25	7	M4	10	5.1	M5	9	1.6	2.1

Part No.	L9	L10 ± 0,02	T5
R412000399	40	60	8.5

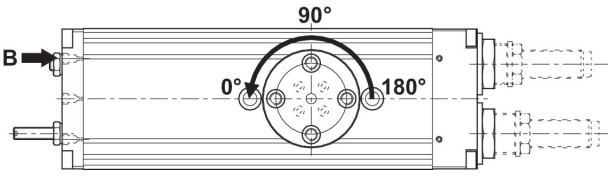
Setting range for end positions 0°/180° and intermediate position 90°



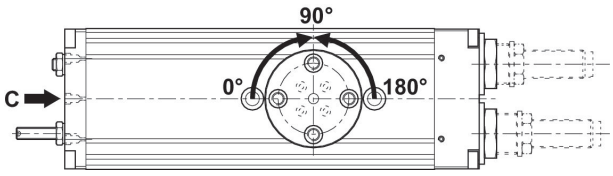
Movement into end position 180°



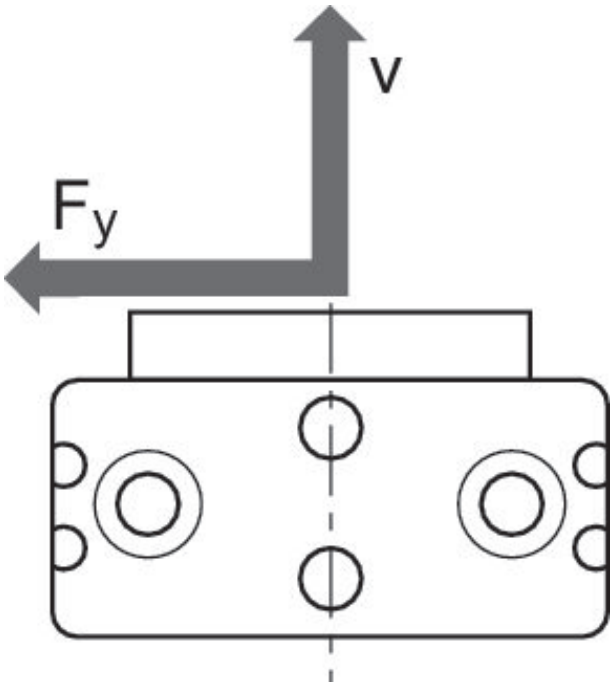
Movement into end position 0°



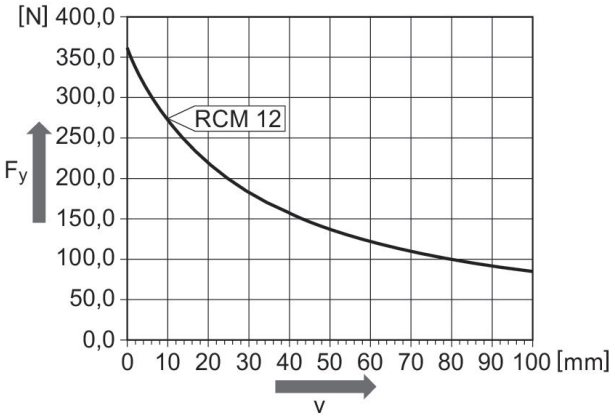
Movement into intermediate position 90°



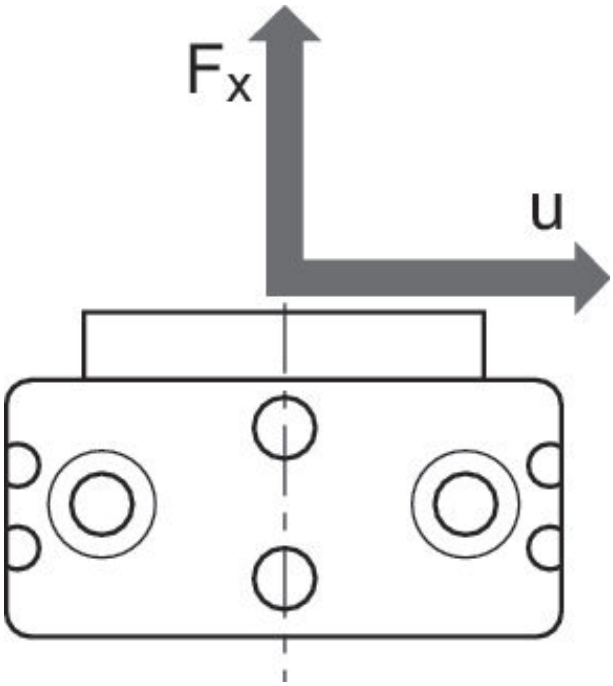
Maximum permissible radial force Fy [N] as a function of v [mm]



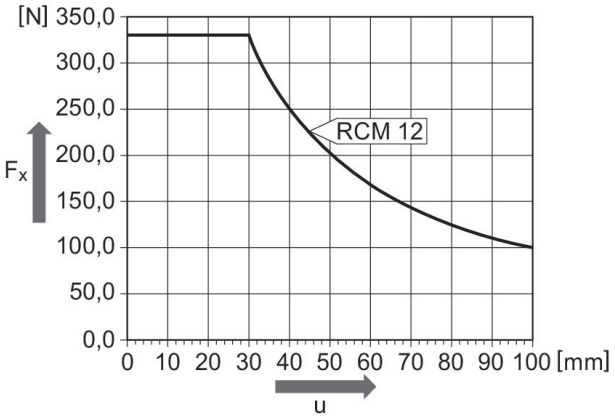
Maximum permissible radial force Fy [N] as a function of v [mm]



Maximum permissible radial force Fy [N] as a function of v [mm]

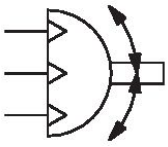


Maximum permissible axial force Fx [N] as a function of u [mm]



Rotary Compact Module, Series RCM-SH

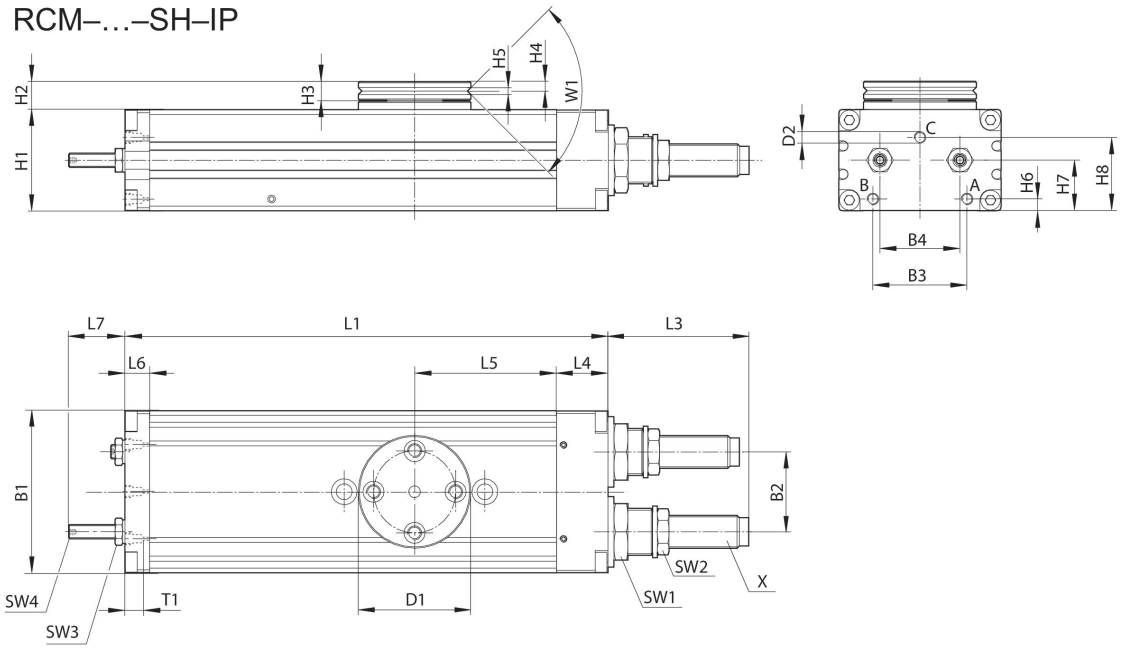
: Double piston with rack
: with magnetic piston
: hydraulic
: non-adjustable
: with integrated intermediate position
Ambient temperature min./max.: 5 °C ... 60 °C
Medium temperature min./max.: 5 °C ... 60 °C
Working pressure min./max.: 4 bar ... 8 bar



Frame size	Compressed air connection	angle of rotation [°]	Min. swivel times [s]	Air consumption per rotation [cm³]	Max. permissible axial bearing load [N]	Max. permissible radial bearing load [N]	Max. permissible mass moment of inertia [kg cm²]	Part No.
RCM-16	M5	0, 180	0.32	22.14	490	580	80	R412000400
RCM-20	M5	0, 180	0.48	37.83	620	780	180	R412000401
RCM-25	M5	0, 180	0.6	80.72	1160	1480	450	R412000402

Repetitive precision [°]	Theoretical torque [Nm]	Part No.
0.05	1.7	R412000400
0.05	3	R412000401
0.05	6.5	R412000402

RCM-12/.../-25



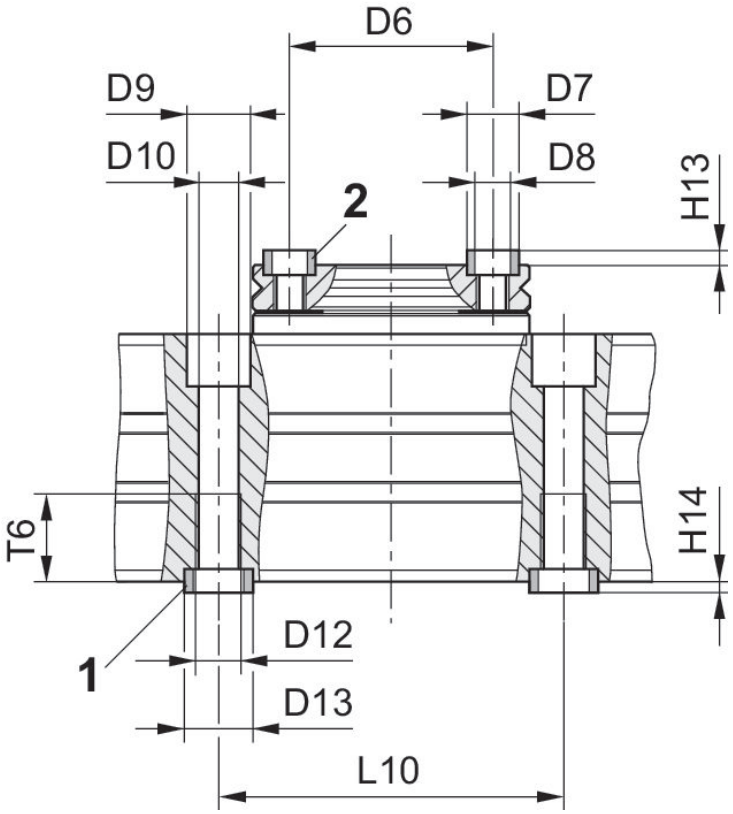
T1 = depth of thread

Part No.	B1	B2	B3	B4	Ø D1	Ø D2	H1	H2	H3
R412000400	52	24	29	24	40	M5	32	10	7
R412000401	58	30	30	30	42	M5	37	11	7
R412000402	69	34	40	34	48	M5	43	12	8

Part No.	H4	H5	H6	H7	H8	L1	L3	L4	L5
R412000400	3.3	2.5	5	16	21.1	140	34	18	40
R412000401	3.3	3	5.5	19	27.1	156	48.5	19	43
R412000402	4	3	5	21.5	31.1	206	60	22	60.5

Part No.	L6	L7	SW1	SW2	SW3	SW4	T1	W1	X
R412000400	8.5	17	19	13	7	2	4	90°	M10x1
R412000401	8.5	22	19	15	8	2.5	4	90°	M12x1
R412000402	10.5	24	23	17	10	3	4	90°	M14x1,5

Mounting and assembly

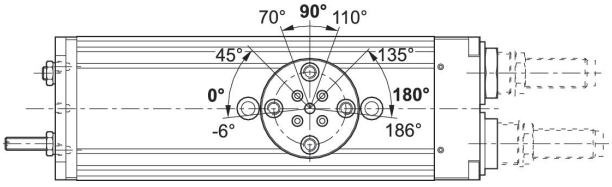


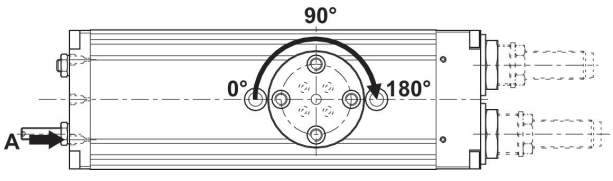
1) centering sleeve, included in the scope of delivery 2) centering sleeve

Part No.	Ø D6 ±0,02	Ø D7 k6	Ø D8	Ø D9	Ø D10	Ø D12	Ø D13 k6	H13 +0,2	H14 +0,2
R412000400	30	7	M5	10	5	M6	9	1.6	2.1
R412000401	30	7	M5	11	6.8	M8	12	1.6	2.1
R412000402	35	9	M6	11	6.8	M8	12	2.1	2.1

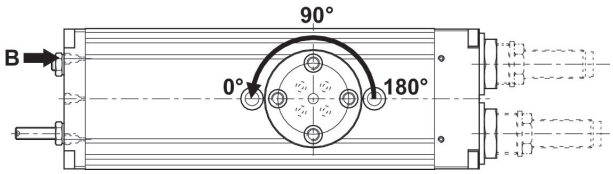
Part No.	L10 ± 0,02	T6
R412000400	60	11.1
R412000401	60	15.1
R412000402	60	15.1

Setting range for end positions 0°/180° and intermediate Movement into end position 180° position 90°

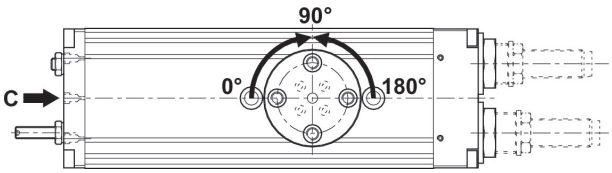




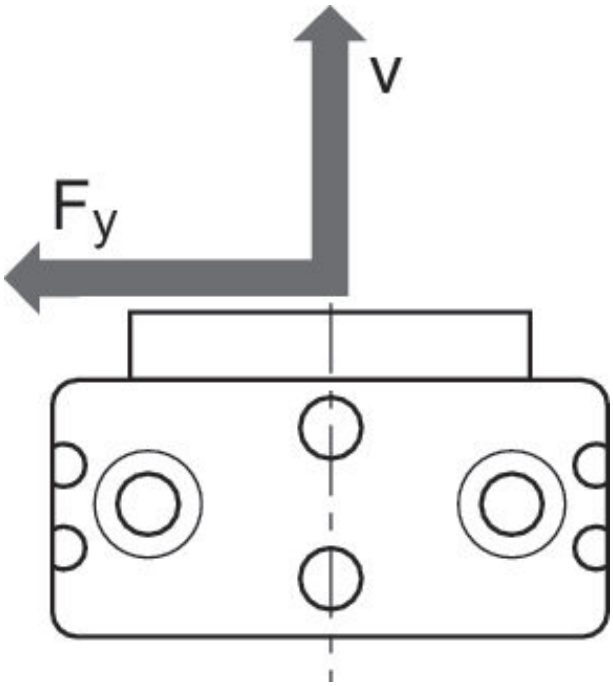
Movement into end position 0°



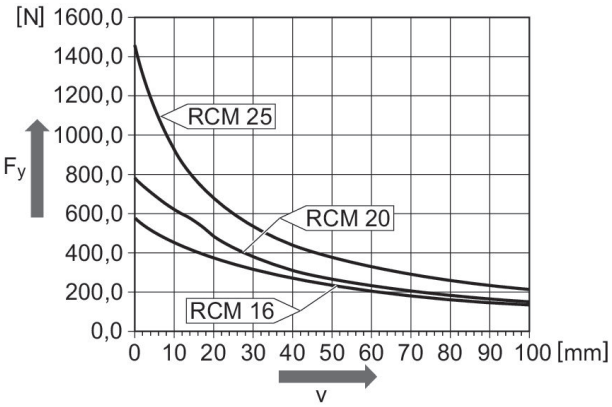
Movement into intermediate position 90°



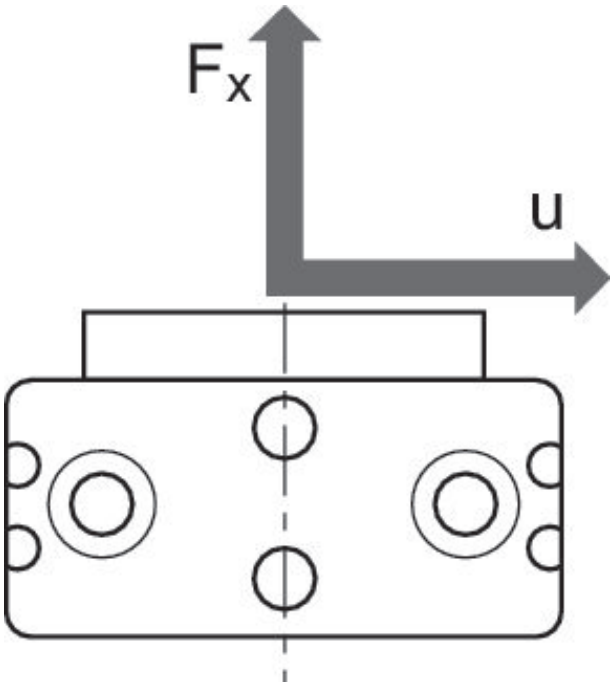
Maximum permissible radial force Fy [N] as a function of v [mm]



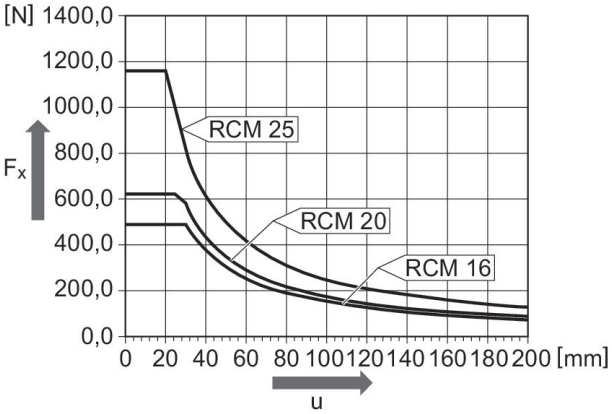
Maximum permissible radial force Fy [N] as a function of v [mm]



Maximum permissible radial force Fy [N] as a function of v [mm]

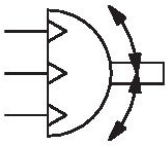


Maximum permissible axial force Fx [N] as a function of u [mm]



Rotary Compact Module, Series RCM-SE

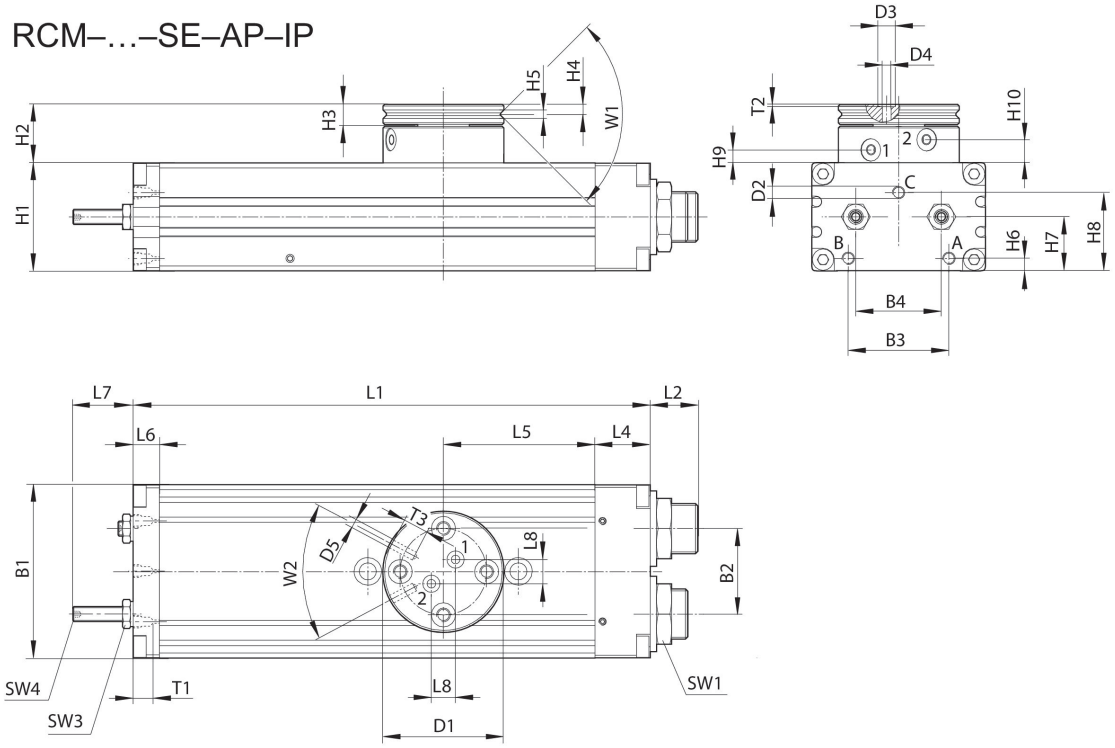
: Double piston with rack
: with magnetic piston
: elastic cushioning
: with air duct
: with integrated intermediate position
Ambient temperature min./max.: 5 °C ... 60 °C
Medium temperature min./max.: 5 °C ... 60 °C
Working pressure min./max.: 4 bar ... 8 bar



Frame size	Compressed air connection	angle of rotation [°]	Min. swivel times [s]	Air consumption per rotation [cm³]	Number of air ducts	Max. permissible axial bearing load [N]	Max. permissible radial bearing load [N]	Part No.
RCM-12	M5	0, 180	0.32	13.29	2	330	290	R412000403

Max. permissible mass moment of inertia [kg cm²]	Repetitive precision [°]	Theoretical torque [Nm]	Part No.
0.7	0.2	0.95	R412000403

RCM-12



T1 = depth of thread

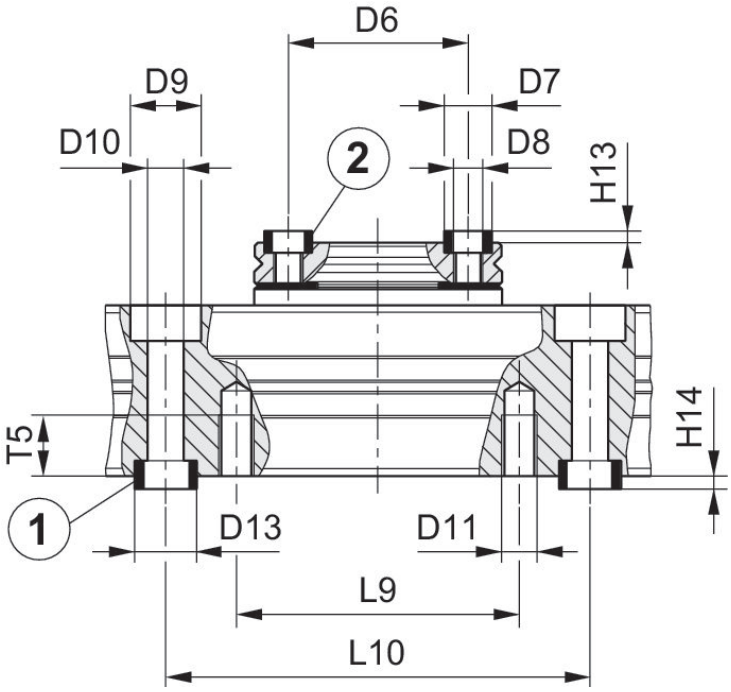
Part No.	B1	B2	B3	B4	Ø D1	Ø D2	Ø D3	Ø D4	Ø D5
R412000403	43	18	24	18	35	M5	5	2.5	M3

Part No.	H1	H2	H3	H4	H5	H6	H7	H8	H9 ±0,2
R412000403	24	17	6	2.9	2.5	3.7	12.5	18.1	3.8

Part No.	H10 ±0,2	L1	L2	L4	L5	L6	L7	L8	SW1
R412000403	6.7	136	12.5	14	40	8.5	17	7	15

Part No.	SW3	SW4	T1	T2	T3	W1	W2
R412000403	7	2	4	0.7	4	90°	56°

Mounting and assembly

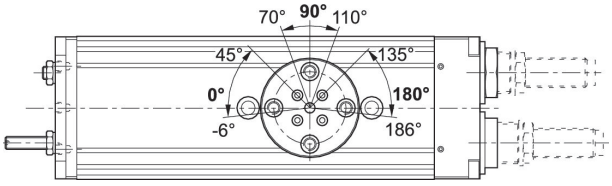


1) centering sleeve, included in the scope of delivery 2) centering sleeve

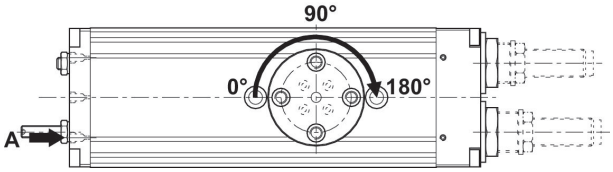
Part No.	Ø D6 ±0,02	Ø D7 k6	Ø D8	Ø D9	Ø D10	Ø D11	Ø D13 k6	H13 +0,2	H14 +0,2
R412000403	25	7	M4	10	5.1	M5	9	1.6	2.1

Part No.	L9	L10 ±0,02	T5
R412000403	40	60	8.5

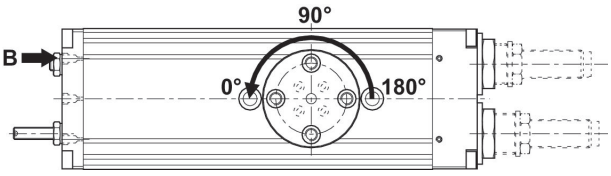
Setting range for end positions 0°/180° and intermediate position 90°



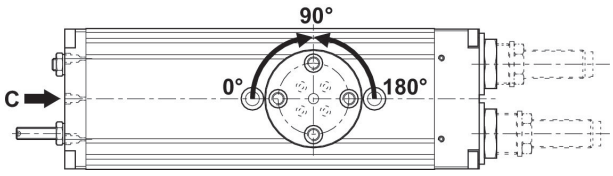
Movement into end position 180°



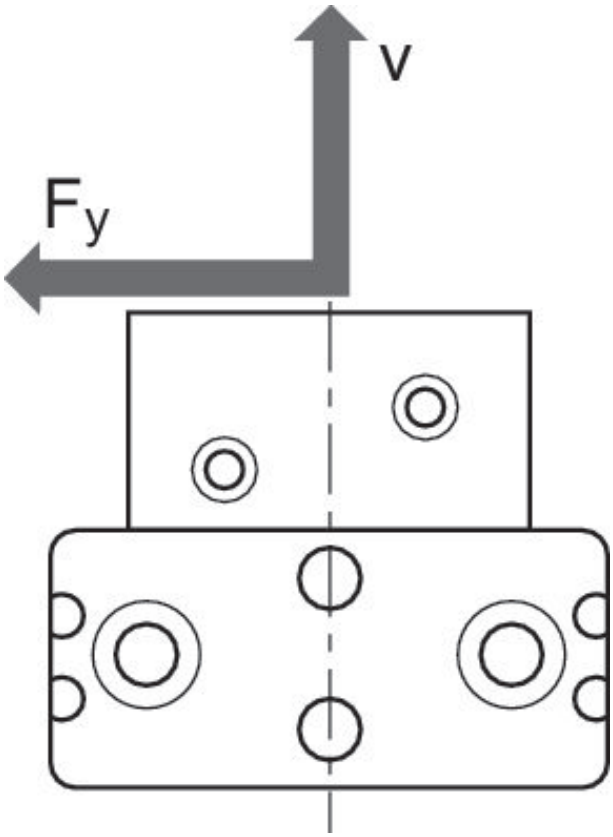
Movement into end position 0°



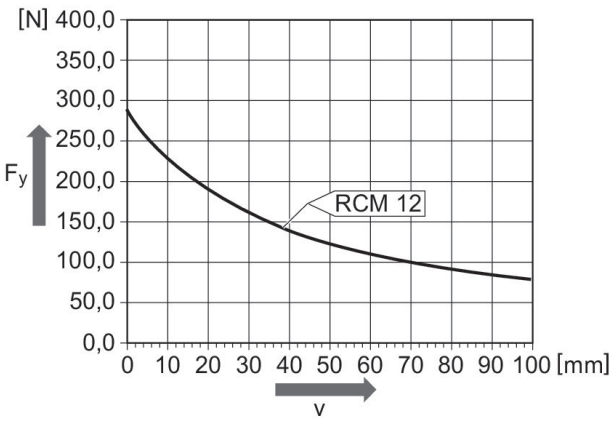
Movement into intermediate position 90°



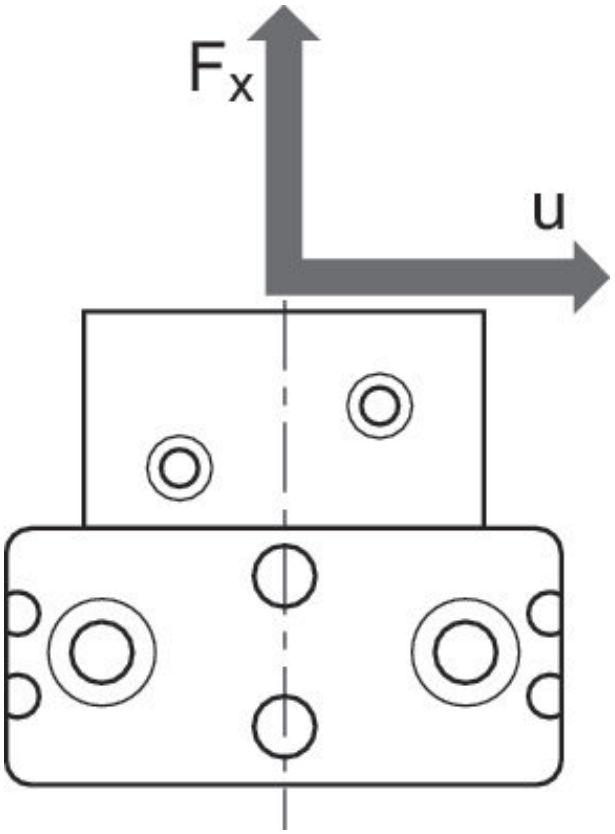
Maximum permissible radial force Fy [N] as a function of v [mm]



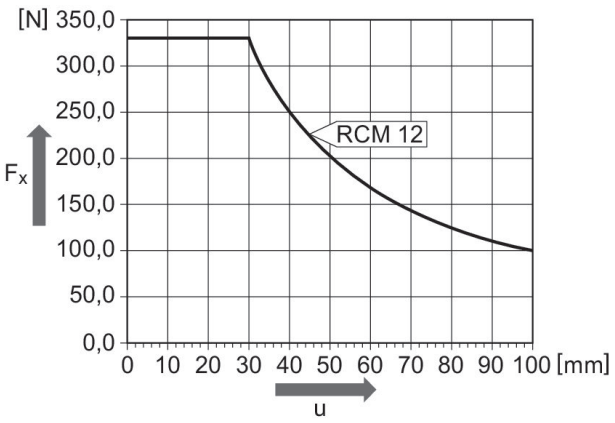
Maximum permissible radial force Fy [N] as a function of v [mm]



Maximum permissible axial force Fx [N] as a function of u [mm]

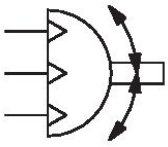


Maximum permissible axial force Fx [N] as a function of u [mm]



Rotary Compact Module, Series RCM-SE

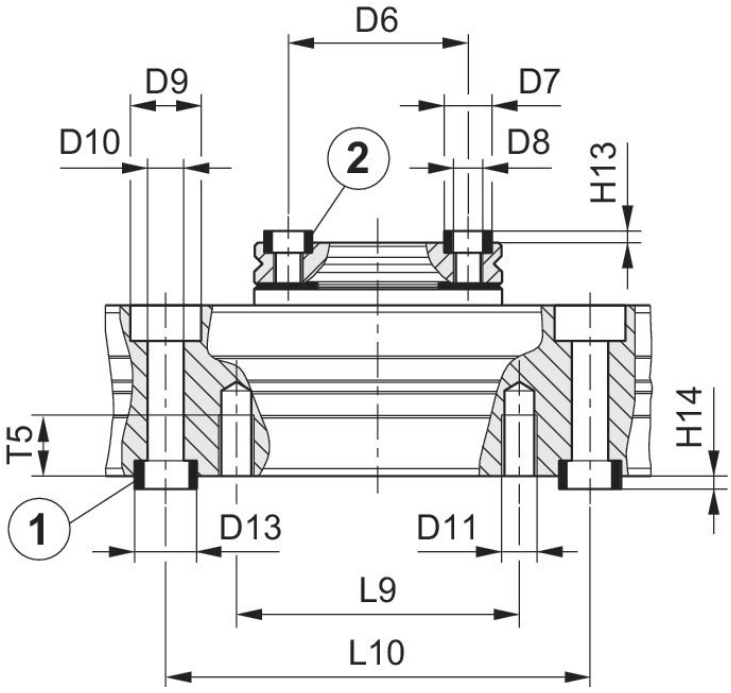
: Double piston with rack
: with magnetic piston
: elastic cushioning
: with air duct
: with integrated intermediate position
Ambient temperature min./max.: 5 °C ... 60 °C
Medium temperature min./max.: 5 °C ... 60 °C
Working pressure min./max.: 4 bar ... 8 bar



Frame size	Compressed air connection	angle of rotation [°]	Min. swivel times [s]	Air consumption per rotation [cm³]	Number of air ducts	Max. permissible axial bearing load [N]	Max. permissible radial bearing load [N]	Part No.
RCM-16	M5	0, 180	0.3	22.14	4	490	400	R412000404
RCM-20	M5	0, 180	0.35	37.83	4	620	560	R412000405
RCM-25	M5	0, 180	0.35	80.72	4	1160	700	R412000406

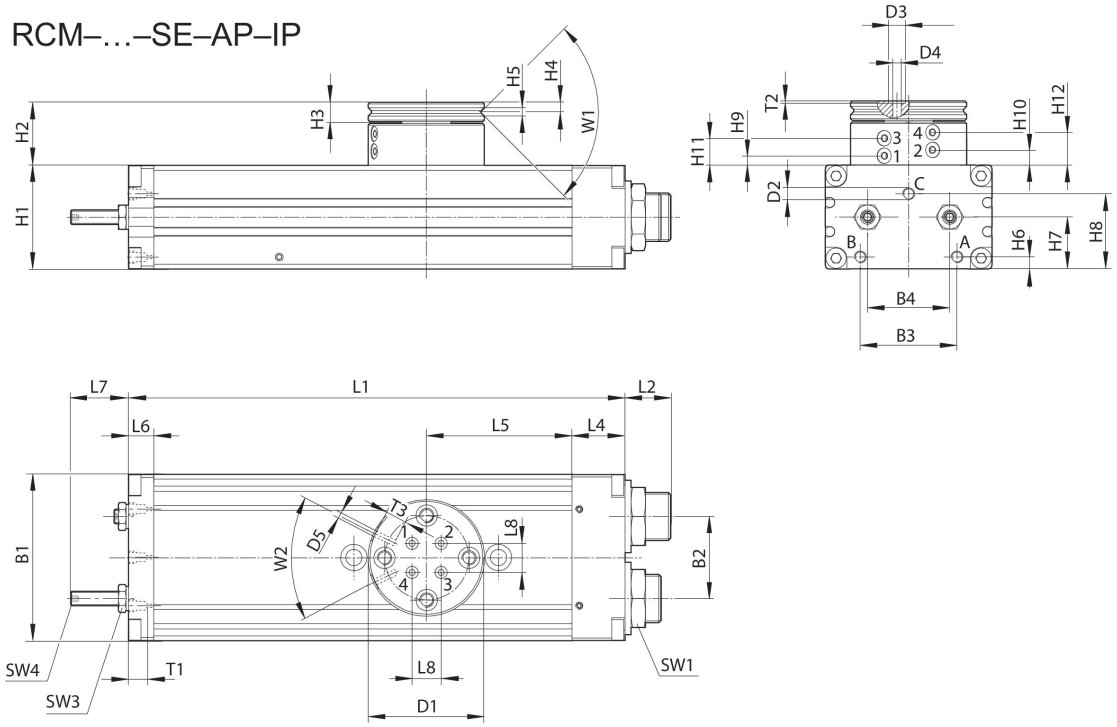
Max. permissible mass moment of inertia [kg cm²]	Repetitive precision [°]	Theoretical torque [Nm]	Part No.
1.6	0.2	1.7	R412000404
3.2	0.2	3	R412000405
6.3	0.2	6.5	R412000406

Mounting and assembly



1) centering sleeve, included in the scope of delivery 2) centering sleeve

RCM-16/.../-25



T1 = depth of thread

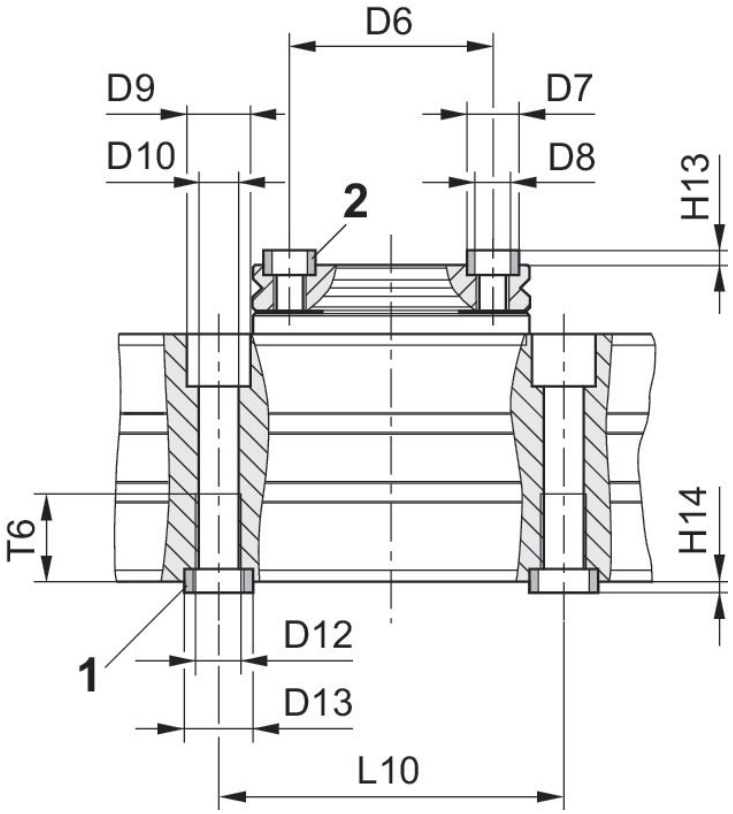
Part No.	B1	B2	B3	B4	Ø D1	Ø D2	Ø D3	Ø D4	Ø D5
R412000404	52	24	29	24	40	M5	5	2.5	M3
R412000405	58	30	30	30	42	M5	5	2.5	M3
R412000406	69	34	40	34	48	M5	5	2.5	M3

Part No.	H1	H2	H3	H4	H5	H6	H7	H8	H9 ±0,2
R412000404	32	25.5	7	3.3	2.5	5	16	21.1	3.9
R412000405	37	26	7	3.3	3	5.5	19	27.1	4.4
R412000406	43	26.5	8	4	3	5	21.5	31.1	3.9

Part No.	H10 ±0,2	H11 ±0,2	H12 ±0,2	L1	L2	L4	L5	L6	L7
R412000404	6.5	11.1	13.7	140	15.5	18	40	8.5	17
R412000405	7	11.6	14.2	156	15	19	43	8.5	22
R412000406	6.5	11.1	13.7	206	19	22	60.5	10.5	24

Part No.	L8	SW1	SW3	SW4	T1	T2	T3	W1	W2
R412000404	6	19	7	2	4	0.7	4	90°	50°
R412000405	10	19	8	2.5	4	0.7	4	90°	50°
R412000406	12	23	10	3	4	0.7	4	90°	50°

Mounting and assembly

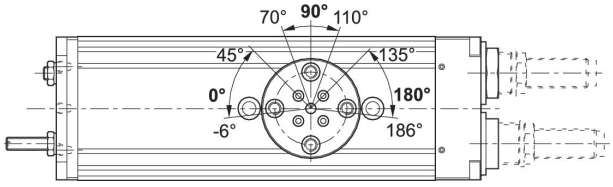


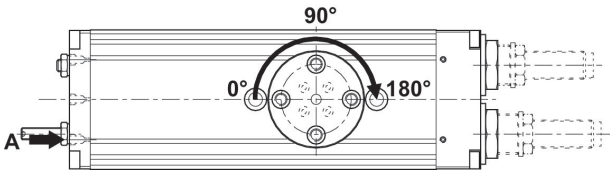
1) centering sleeve, included in the scope of delivery 2) centering sleeve

Part No.	Ø D6 ±0,02	Ø D7 k6	Ø D8	Ø D9	Ø D10	Ø D12	Ø D13 k6	H13 +0,2	H14 +0,2
R412000404	30	7	M5	10	5	M6	9	1.6	2.1
R412000405	30	7	M5	11	6.8	M8	12	1.6	2.1
R412000406	35	9	M6	11	6.8	M8	12	2.1	2.1

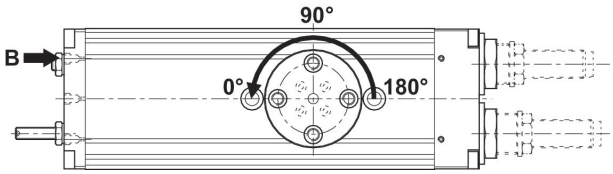
Part No.	L10 ±0,02	T6
R412000404	60	11.1
R412000405	60	15.1
R412000406	60	15.1

Setting range for end positions 0°/180° and intermediate Movement into end position 180° position 90°

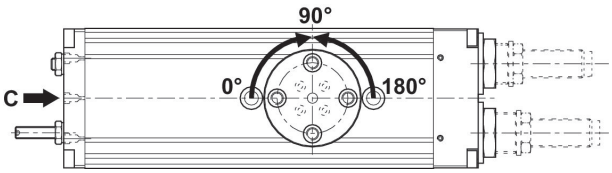




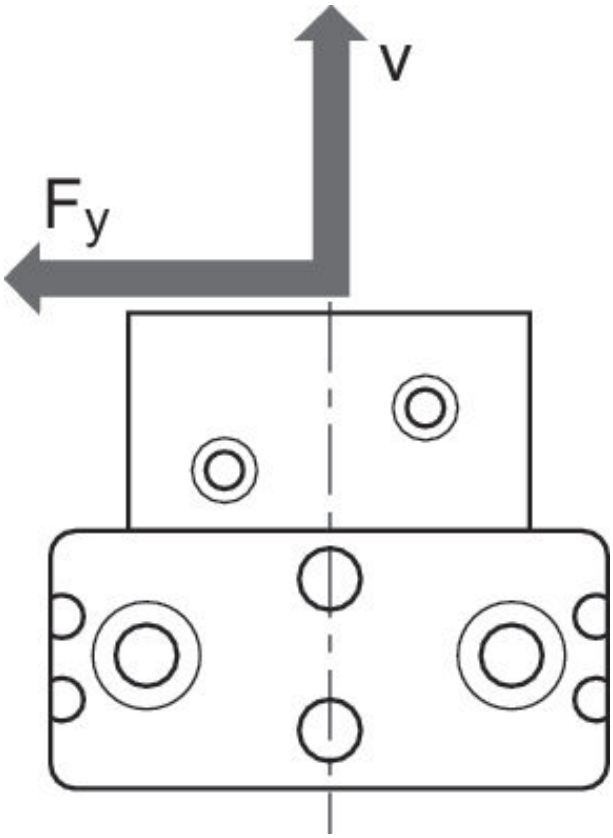
Movement into end position 0°



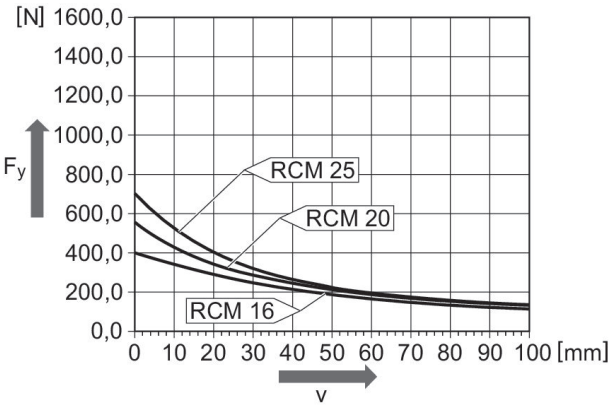
Movement into intermediate position 90°



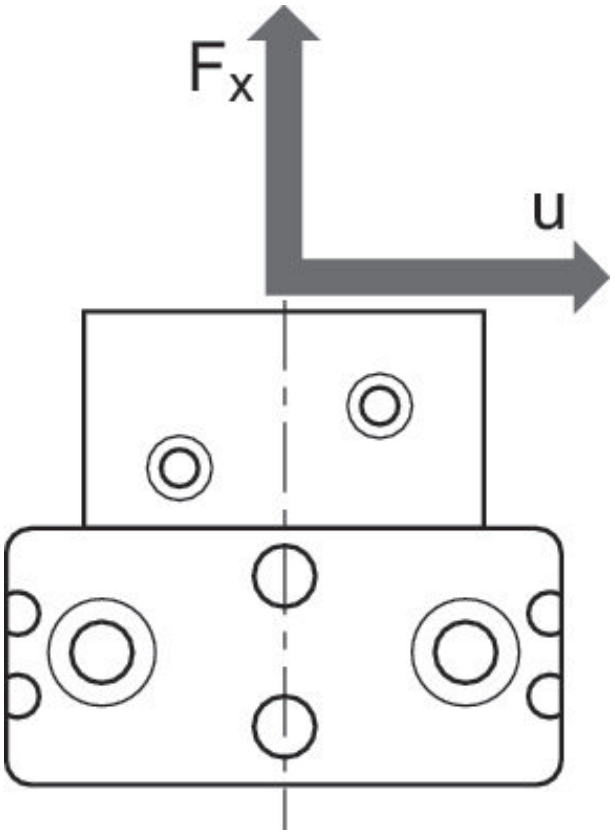
Maximum permissible radial force Fy [N] as a function of v [mm]



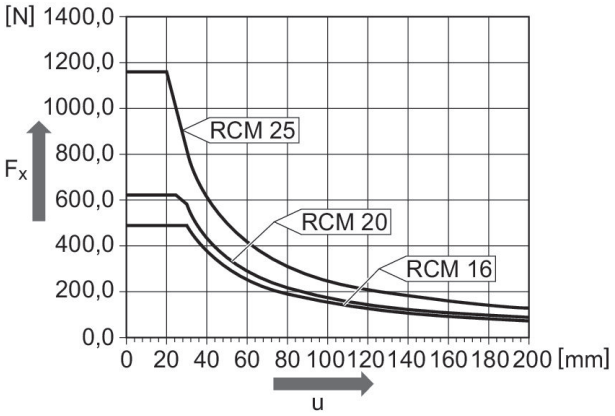
Maximum permissible radial force Fy [N] as a function of v [mm]



Maximum permissible axial force Fx [N] as a function of u [mm]

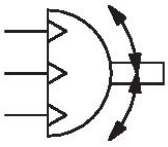


Maximum permissible axial force Fx [N] as a function of u [mm]



Rotary Compact Module, Series RCM-SH

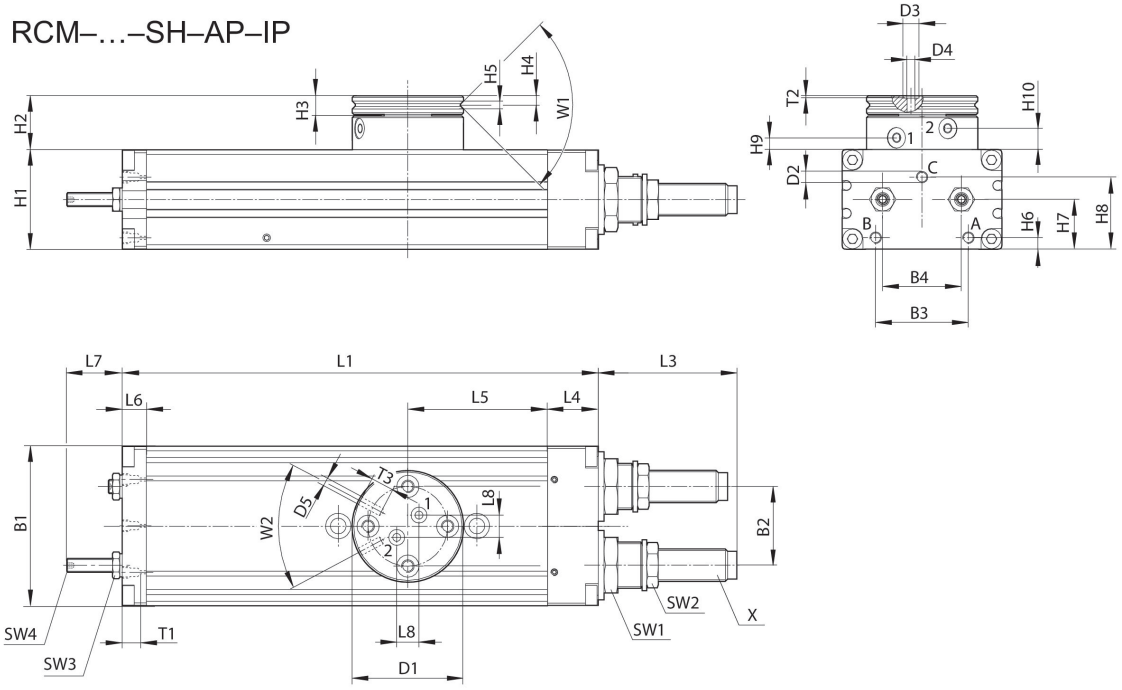
: Double piston with rack
: with magnetic piston
: hydraulic
: non-adjustable
: with air duct
: with integrated intermediate position
Ambient temperature min./max.: 5 °C ... 60 °C
Medium temperature min./max.: 5 °C ... 60 °C
Working pressure min./max.: 4 bar ... 8 bar



Frame size	Compressed air connection	angle of rotation [°]	Min. swivel times [s]	Air consumption per rotation [cm³]	Number of air ducts	Max. permissible axial bearing load [N]	Max. permissible radial bearing load [N]	Part No.
RCM-12	M5	0, 180	0.3	13.29	2	330	290	R412000407

Max. permissible mass moment of inertia [kg cm²]	Repetitive precision [°]	Theoretical torque [Nm]	Part No.
10	0.05	0.95	R412000407

RCM-12



T1 = depth of thread

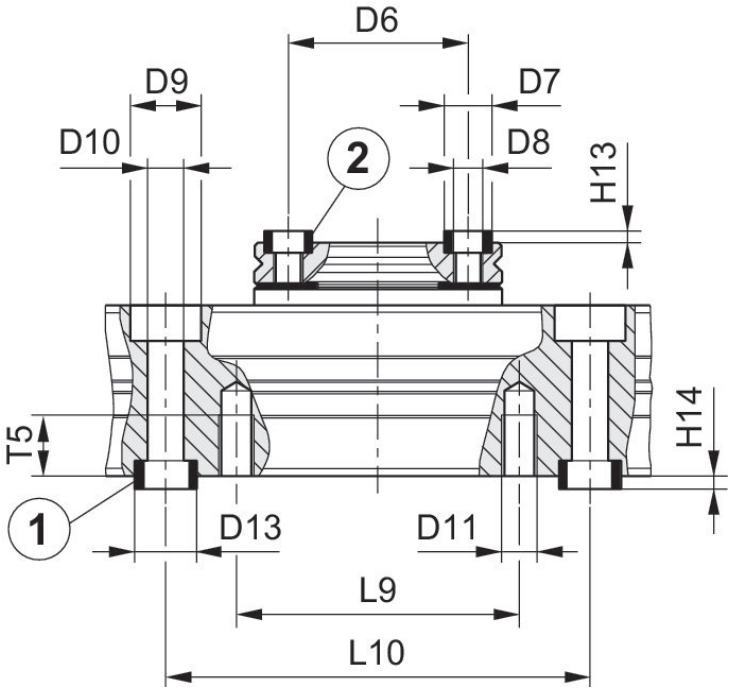
Part No.	B1	B2	B3	B4	Ø D1	Ø D2	Ø D3	Ø D4	Ø D5
R412000407	43	18	24	18	35	M5	5	2.5	M3

Part No.	H1	H2	H3	H4	H5	H6	H7	H8	H9 ±0,2
R412000407	24	17	6	2.9	2.5	3.7	12.5	18.1	3.8

Part No.	H10 ±0,2	L1	L3	L4	L5	L6	L7	L8	SW1
R412000407	6.7	136	33.5	14	40	8.5	17	7	15

Part No.	SW2	SW3	SW4	T1	T2	T3	W1	W2	X
R412000407	11	7	2	4	0.7	4	90°	56°	M8x1

Mounting and assembly

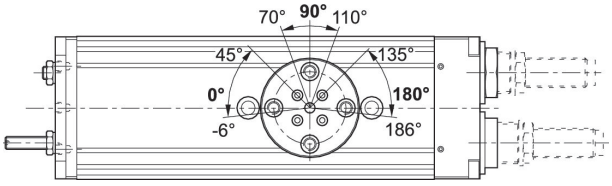


1) centering sleeve, included in the scope of delivery 2) centering sleeve

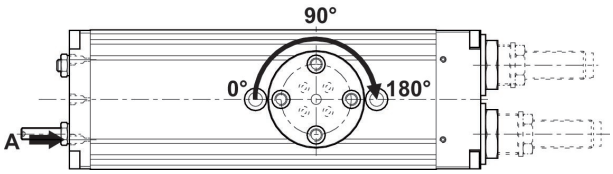
Part No.	Ø D6 ±0,02	Ø D7 k6	Ø D8	Ø D9	Ø D10	Ø D11	Ø D13 k6	H13 +0,2	H14 +0,2
R412000407	25	7	M4	10	5.1	M5	9	1.6	2.1

Part No.	L9	L10 ±0,02	T5
R412000407	40	60	8.5

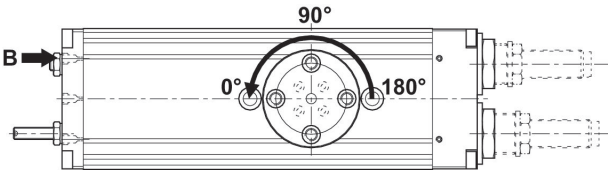
Setting range for end positions 0°/180° and intermediate position 90°



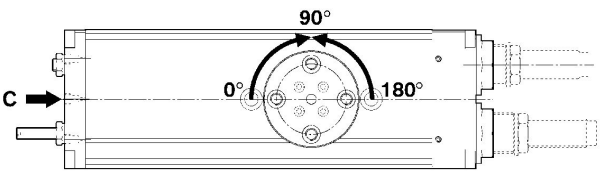
Movement into end position 180°



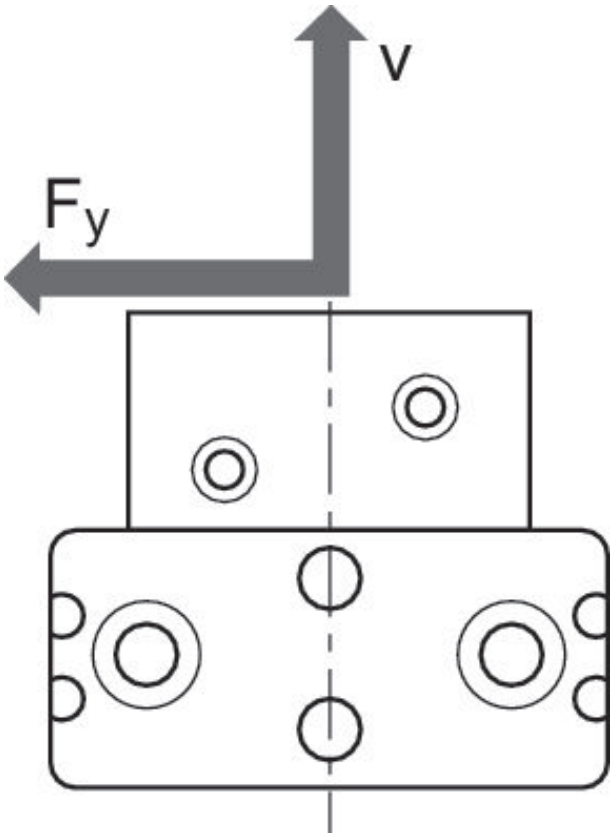
Movement into end position 0°



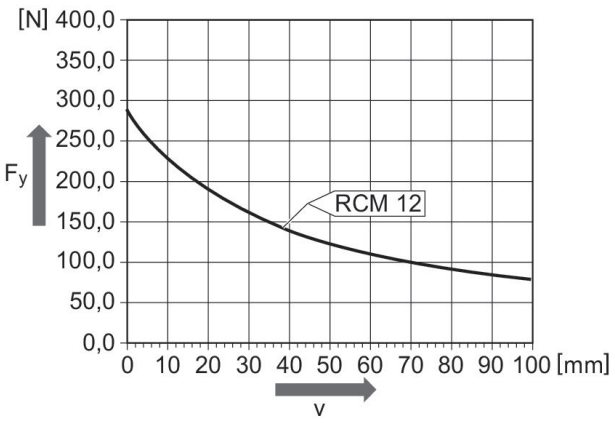
Movement into intermediate position 90°



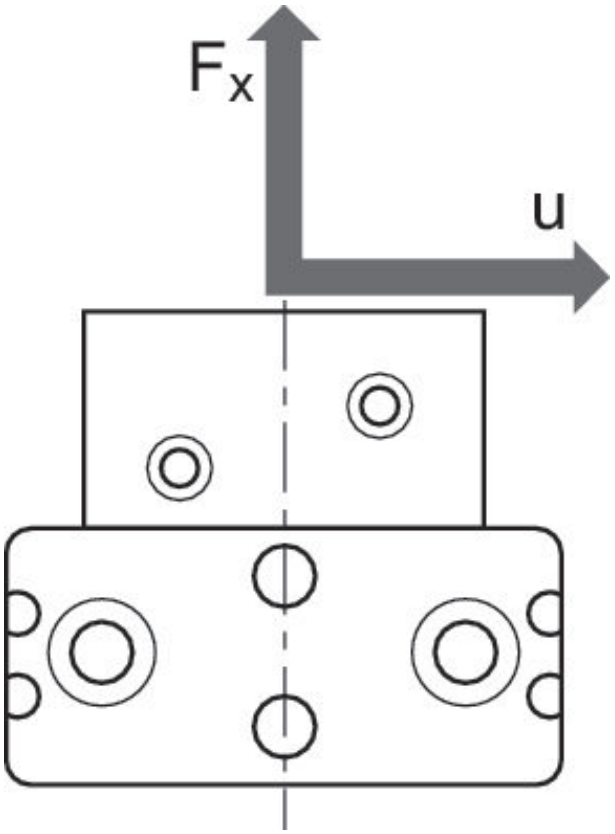
Maximum permissible radial force Fy [N] as a function of v [mm]



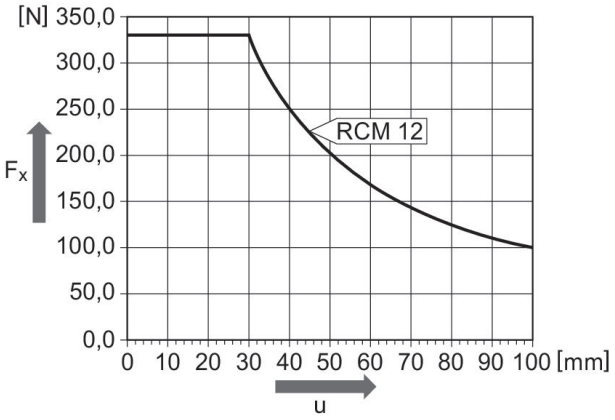
Maximum permissible radial force Fy [N] as a function of v [mm]



Maximum permissible axial force Fx [N] as a function of u [mm]

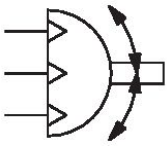


Maximum permissible axial force Fx [N] as a function of u [mm]



Rotary Compact Module, Series RCM-SH

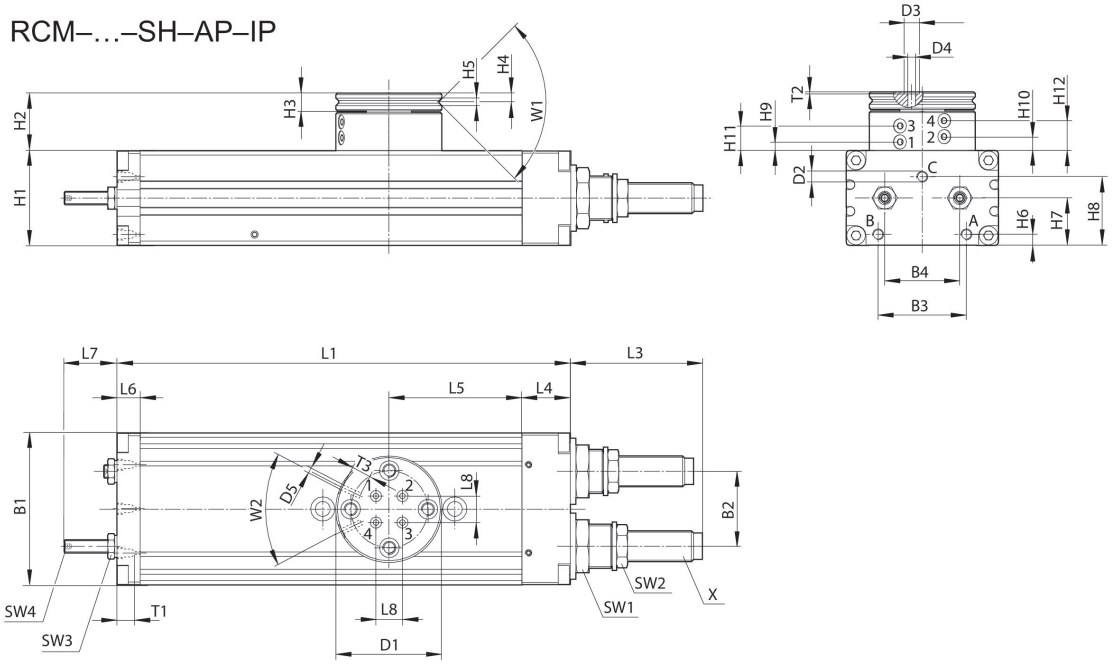
: Double piston with rack
: with magnetic piston
: hydraulic
: non-adjustable
: with air duct
: with integrated intermediate position
Ambient temperature min./max.: 5 °C ... 60 °C
Medium temperature min./max.: 5 °C ... 60 °C
Working pressure min./max.: 4 bar ... 8 bar



Frame size	Compressed air connection	angle of rotation [°]	Min. swivel times [s]	Air consumption per rotation [cm³]	Number of air ducts	Max. permissible axial bearing load [N]	Max. permissible radial bearing load [N]	Part No.
RCM-16	M5	0, 180	0.32	22.14	4	490	400	R412000408
RCM-20	M5	0, 180	0.48	37.83	4	620	560	R412000409
RCM-25	M5	0, 180	0.65	80.72	4	1160	700	R412000410

Max. permissible mass moment of inertia [kg cm²]	Repetitive precision [°]	Theoretical torque [Nm]	Part No.
80	0.05	1.7	R412000408
180	0.05	3	R412000409
450	0.05	6.5	R412000410

RCM-16/.../-25



T1 = depth of thread

Part No.	B1	B2	B3	B4	Ø D1	Ø D2	Ø D3	Ø D4	Ø D5
R412000408	52	24	29	24	40	M5	5	2.5	M3
R412000409	58	30	30	30	42	M5	5	2.5	M3
R412000410	69	34	40	34	48	M5	5	2.5	M3

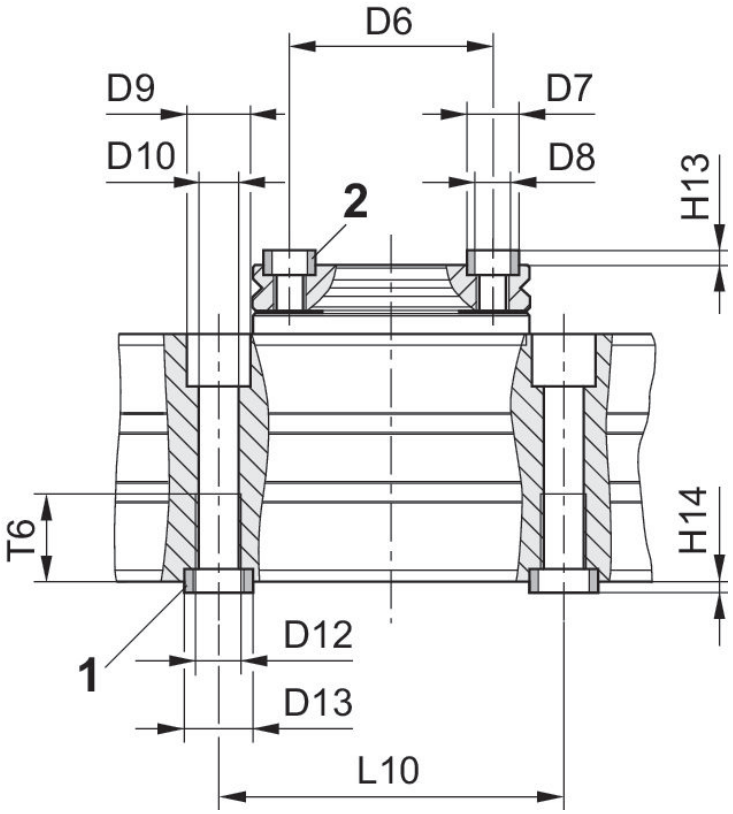
Part No.	H1	H2	H3	H4	H5	H6	H7	H8	H9 ±0,2
R412000408	32	25.5	7	3.3	2.5	5	16	21.1	3.9
R412000409	37	26	7	3.3	3	5.5	19	27.1	4.4
R412000410	43	26.5	8	4	3	5	21.5	31.1	3.9

Part No.	H10 ±0,2	H11 ±0,2	H12 ±0,2	L1	L3	L4	L5	L6	L7
R412000408	6.5	11.1	13.7	140	34	18	40	8.5	17
R412000409	7	11.6	14.2	156	48.5	19	43	8.5	22
R412000410	6.5	11.1	13.7	206	60	22	60.5	10.5	24

Part No.	L8	SW1	SW2	SW3	SW4	T1	T2	T3	W1
R412000408	6	19	13	7	2	4	0.7	4	90°
R412000409	10	19	15	8	2.5	4	0.7	4	90°
R412000410	12	23	17	10	3	4	0.7	4	90°

Part No.	W2	X
R412000408	50°	M10x1
R412000409	50°	M12x1
R412000410	50°	M14x1,5

Mounting and assembly

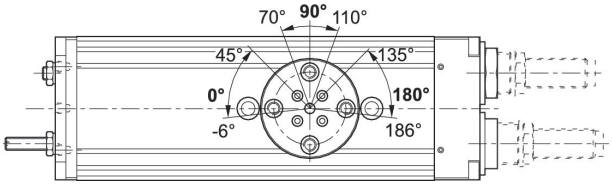


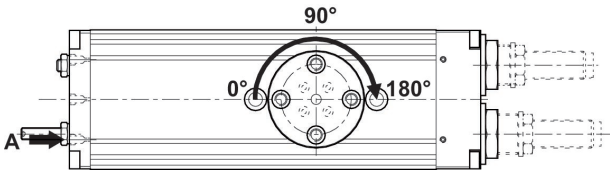
1) centering sleeve, included in the scope of delivery 2) centering sleeve

Part No.	Ø D6 ±0,02	Ø D7 k6	Ø D8	Ø D9	Ø D10	Ø D12	Ø D13 k6	H13 +0,2	H14 +0,2
R412000408	30	7	M5	10	5	M6	9	1.6	2.1
R412000409	30	7	M5	11	6.8	M8	12	1.6	2.1
R412000410	35	9	M6	11	6.8	M8	12	2.1	2.1

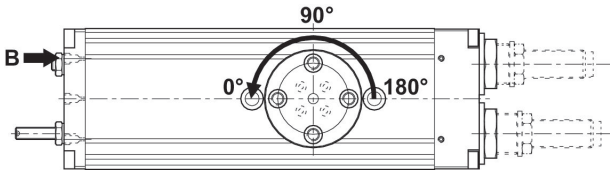
Part No.	L10 ±0,02	T6
R412000408	60	11.1
R412000409	60	15.1
R412000410	60	15.1

Setting range for end positions 0°/180° and intermediate Movement into end position 180° position 90°

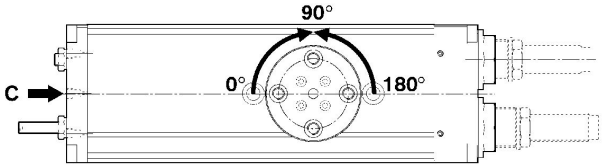




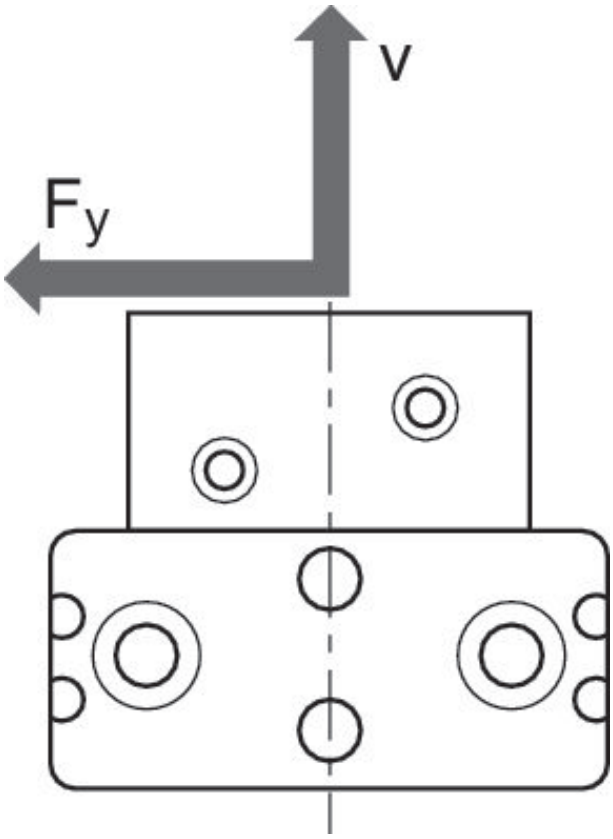
Movement into end position 0°



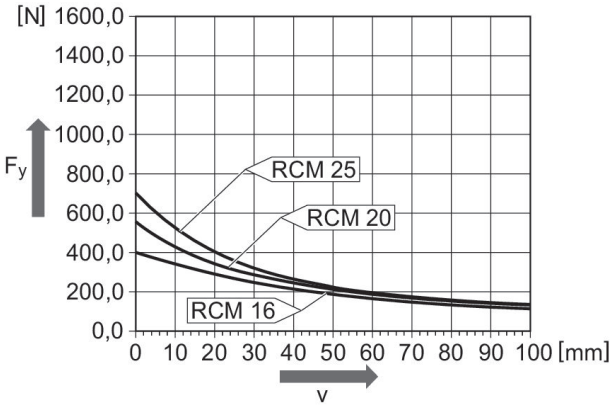
Movement into intermediate position 90°



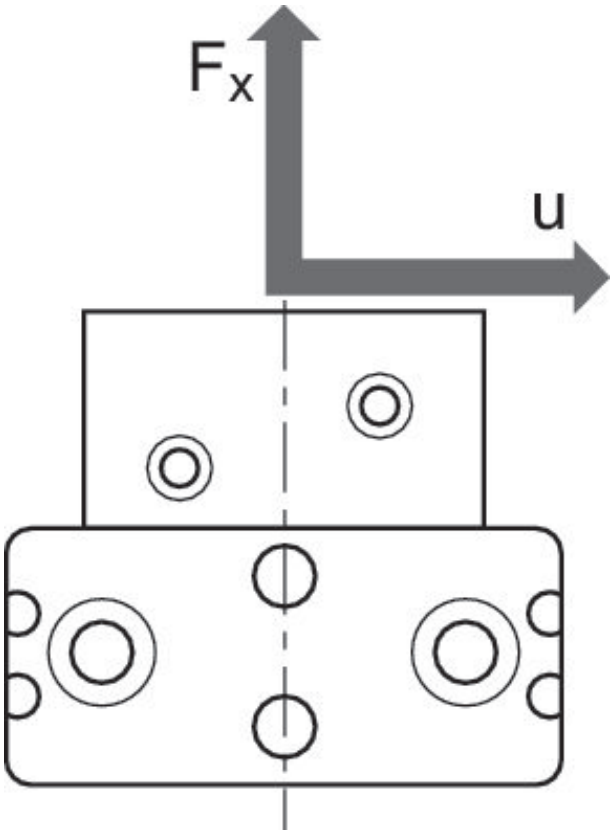
Maximum permissible radial force Fy [N] as a function of v [mm]



Maximum permissible radial force Fy [N] as a function of v [mm]

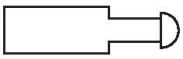


Maximum permissible axial force Fx [N] as a function of u [mm]



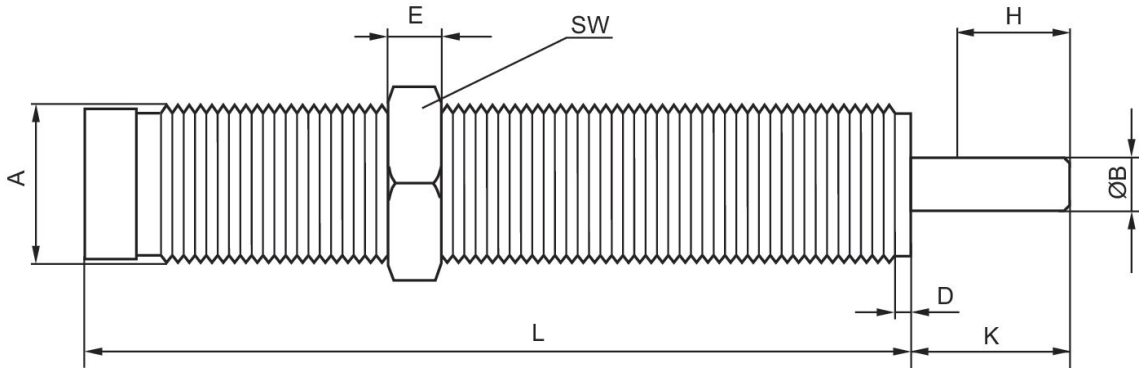
Industrial shock absorber, Series SA2-RC for RCM rotary compact modules

For series: RCM
Min. ambient temperature: 0 °C
Max. ambient temperature: 60 °C



Mounting thread	Stroke [mm]	Max. energy absorption/stroke [Nm]	Max. energy absorption/hour [Nm]	Effective mass m_e min. [kg]	Effective mass m_e max. [kg]	Min. return spring force [N]	Max. return spring force [N]	Part No.
M8x1	6	4	14400	2.8	70	2.5	6	R412004751
M10x1	6	9	21000	6	280	3.5	8	R412004752
M12x1	8.5	16	30000	17	510	3.5	7	R412004753
M14x1,5	9.5	20	40000	100	420	23	35	R412010089

Dimensions

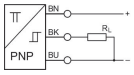
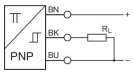
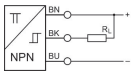
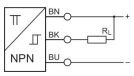


H = stroke
A = mounting thread

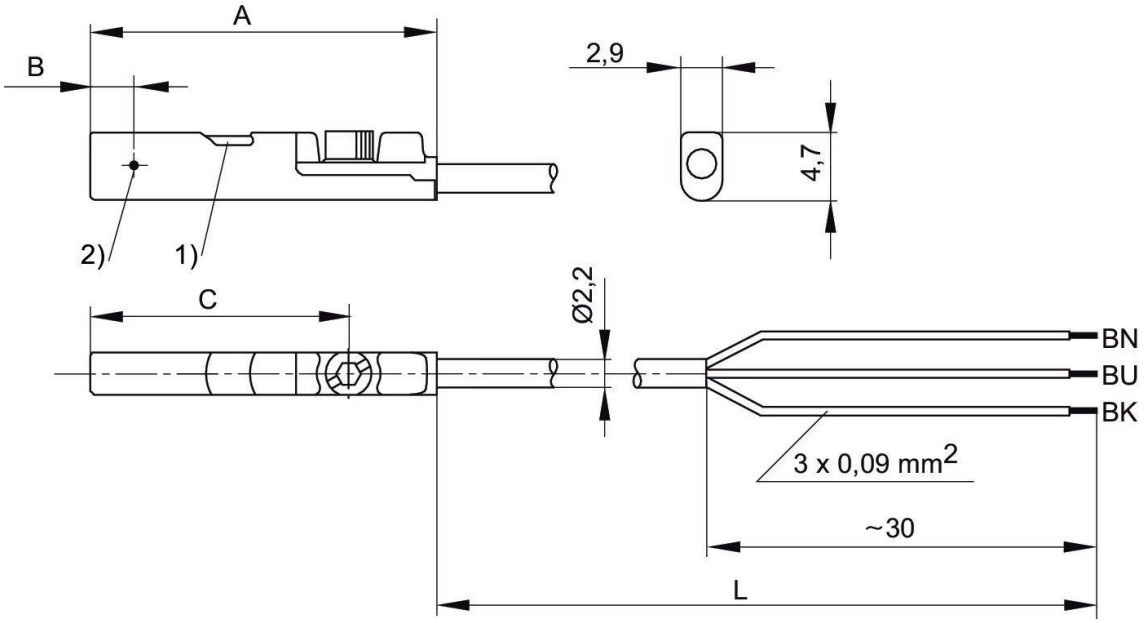
Part No.	For series	Mounting thread	ØB	D	E	H	K	L	SW
R412004751	RCM-12	M8x1	2.5	2.5	3	6	9	44	11
R412004752	RCM-16	M10x1	3	2.5	3	6	9	49.5	13
R412004753	RCM-20	M12x1	4	2.5	4	8,5	11	65	14
R412010089	RCM-25	M14x1,5	4	2.5	5	9,5	14	69	17

Sensors, Series ST4, open cable ends, Certificate UL (Underwriters Laboratories)

: 4 mm C-slot
: with cable
Direct mounting for series: PRA SSI GSU RTC CKP GPC MSC MSN RCM CVI
Indirect mounting for series: MNI CSL-RD ICM
Certificates: UL (Underwriters Laboratories) cULus RoHS
Ambient temperature min./max.: -30 °C ... 80 °C

	Direct mounting for series	Switch descr.	Cable length L [m]	Max. DC switching current [A]	Min. operating voltage DC [V DC]	Max. operating voltage DC [V DC]	Version	Part No.
	PRA, SSI, GSU, RTC, CKP, GPC, MSC, MSN, RCM, CVI	electronic PNP	3	0.1	10	30	short circuit resistant, Protected against polarity reversal	R412019680
	PRA, SSI, GSU, RTC, CKP, GPC, MSC, MSN, RCM, CVI	electronic PNP	5	0.1	10	30	short circuit resistant, Protected against polarity reversal	R412019681
	PRA, SSI, GSU, RTC, CKP, GPC, MSC, MSN, RCM, CVI	NPN	3	0.1	10	30	short circuit resistant, Protected against polarity reversal	R412019684
	PRA, SSI, GSU, RTC, CKP, GPC, MSC, MSN, RCM, CVI	NPN	5	0.1	10	30	short circuit resistant, Protected against polarity reversal	R412019685

Dimensions

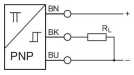
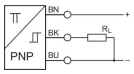


1) LED 2) Switching point
L = cable length BN = brown, BK = black, BU = blue

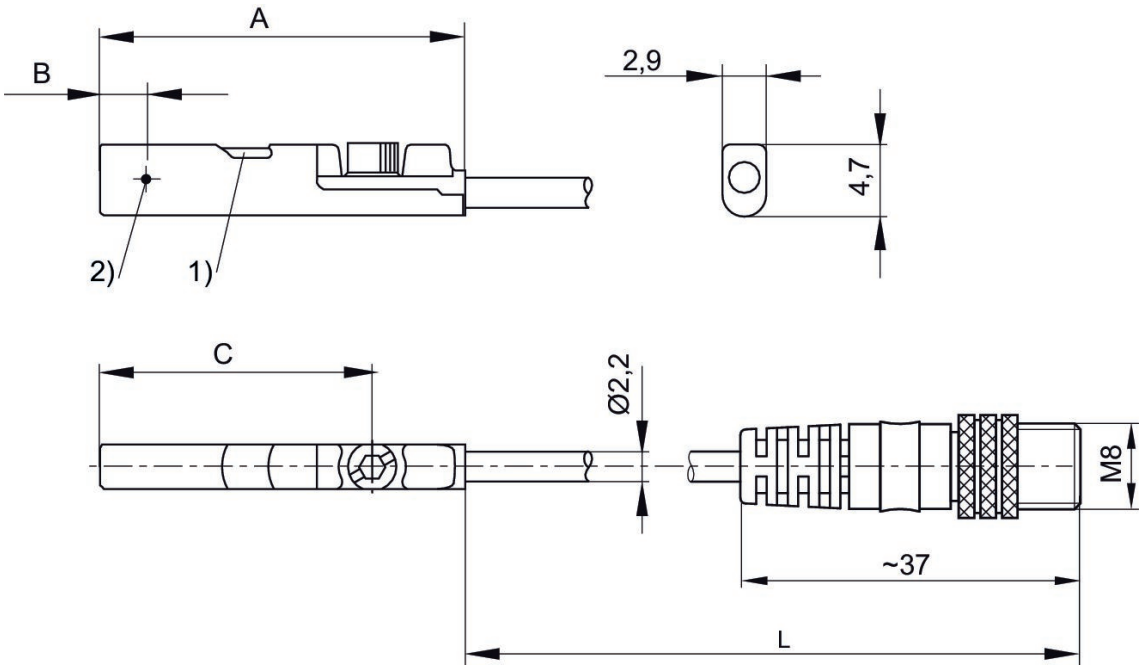
Part No.	A	B	C
R412019488	26.3	6.3	20.3
R412019489	26.3	6.3	20.3
R412019680	23.7	2.8	17.7
R412019681	23.7	2.8	17.7
R412019684	23.7	2.8	17.7
R412019685	23.7	2.8	17.7

Sensors, Series ST4, plug M8, with knurled screw

: 4 mm C-slot
: with cable
Direct mounting for series: PRA SSI GSU RTC CKP GPC MSC MSN RCM CVI
Indirect mounting for series: MNI CSL-RD ICM
Certificates: UL (Underwriters Laboratories) cULus RoHS
Ambient temperature min./max.: -30 °C ... 80 °C

	Direct mounting for series	Switch descr.	Cable length L [m]	Max. DC switching current [A]	Min. operating voltage DC [V DC]	Max. operating voltage DC [V DC]	Version	Part No.
	PRA, SSI, GSU, RTC, CKP, GPC, MSC, MSN, RCM, CVI	electronic PNP	0.3	0.1	10	30	short circuit resistant, Protected against polarity reversal	R412019493
	PRA, SSI, GSU, RTC, CKP, GPC, MSC, MSN, RCM, CVI	electronic PNP	0.5	0.1	10	30	short circuit resistant, Protected against polarity reversal	R412019687

Dimensions

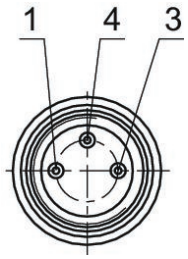


1) LED 2) Switching point
L = cable length

Part No.	A	B	C
R412019490	26.3	6.3	20.3
R412019686	26.3	6.3	20.3
R412019493	23.7	2.8	17.7
R412019687	23.7	2.8	17.7

R412019493, R412019687

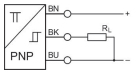
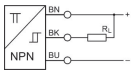
Pin assignment M8x1 (3-pin)



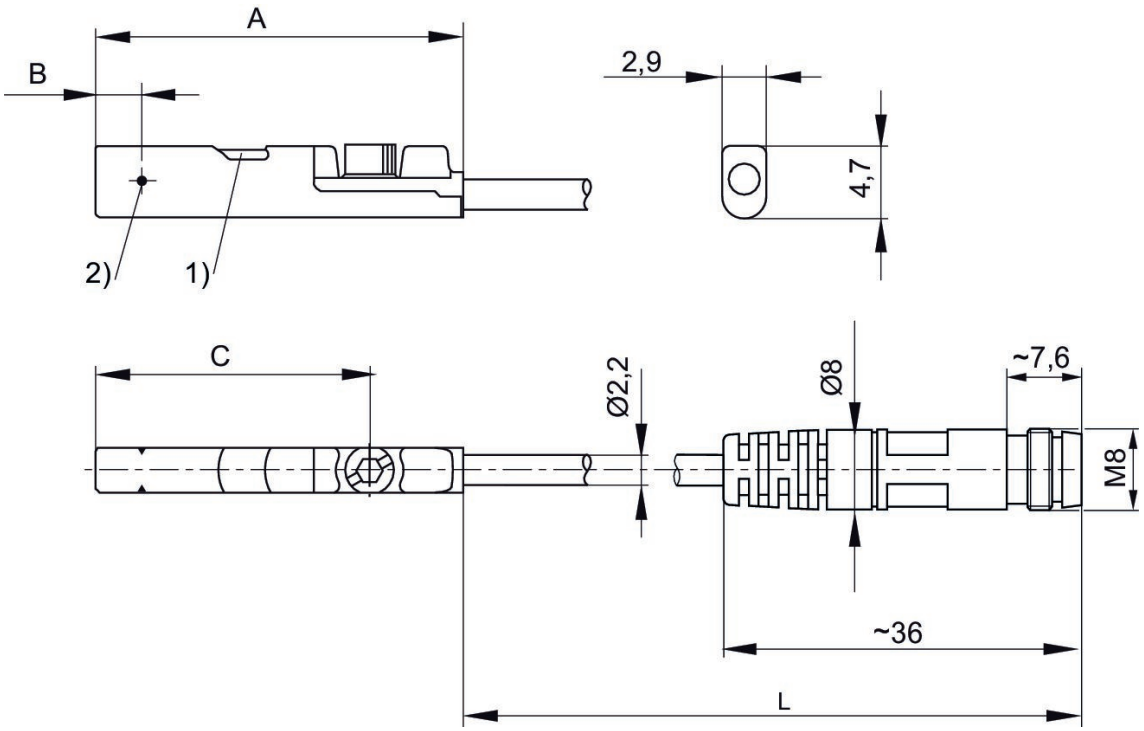
Pin	Allocation
1	(+)
3	(-)
4	(OUT)

Sensors, Series ST4, plug M8

: 4 mm C-slot
: with cable
Direct mounting for series: PRA SSI GSU RTC CKP GSP MSC MSN RCM CVI
Indirect mounting for series: MNI CSL-RD ICM
Certificates: UL (Underwriters Laboratories) cULus RoHS
Ambient temperature min./max.: -30 °C ... 80 °C

	Direct mounting for series	Switch descr.	Cable length L [m]	Max. DC switching current [A]	Min. operating voltage DC [V DC]	Max. operating voltage DC [V DC]	Version	Part No.
	PRA, SSI, GSU, RTC, CKP, GSP, MSC, MSN, RCM, CVI	electronic PNP	0.3	0.1	10	30	short circuit resistant, Protected against polarity reversal	R412019683
	PRA, SSI, GSU, RTC, CKP, GSP, MSC, MSN, RCM, CVI	NPN	0.3	0.1	10	30	short circuit resistant, Protected against polarity reversal	R412019694

Dimensions

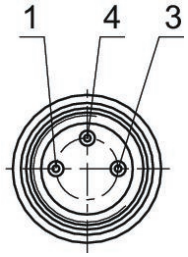


1) LED 2) Switching point
L = cable length

Part No.	A	B	C
R412019682	26.3	6.3	20.3
R412019683	23.7	2.8	17.7
R412019694	23.7	2.8	17.7

R412019683, R412019694

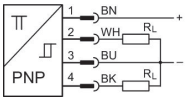
Pin assignment M8x1 (3-pin)



Pin	Allocation
1	(+)
3	(-)
4	(OUT)

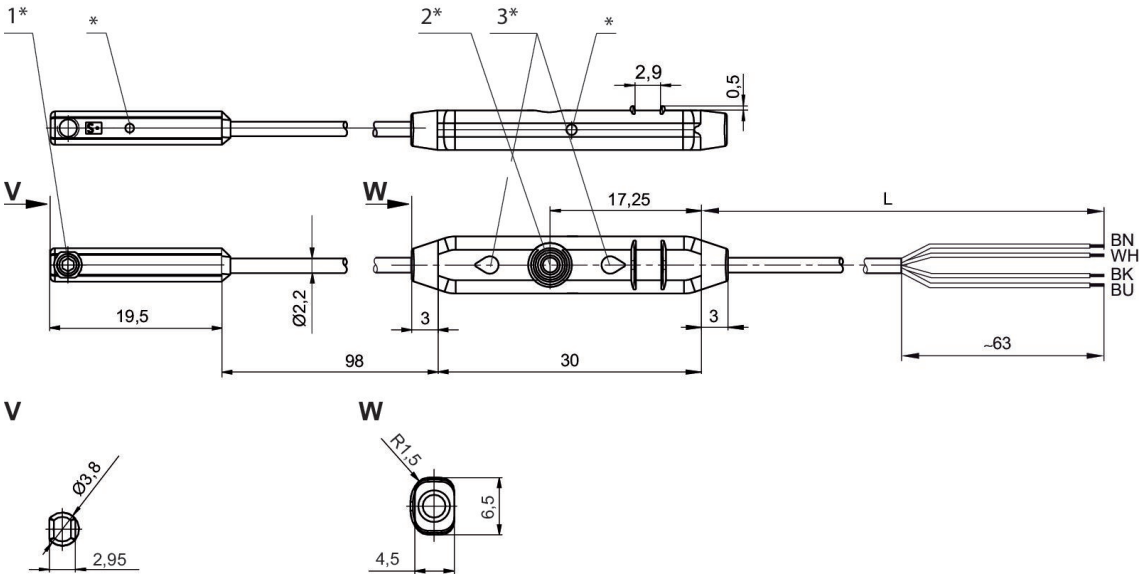
Sensors, Series ST4-2P, with cable, without wire end ferrule, tin-plated

: 4 mm C-slot
: with cable
Direct mounting for series: PRA SSI RTC GPC MSC MSN RCM CVI
Indirect mounting for series: MNI CSL-RD ICM
Certificates: RoHS
Ambient temperature min./max.: -20 °C ... 75 °C



Direct mounting for series	Indirect mounting for series	Slot width	Switch descr.	Electrical connection number of poles	Part No.
PRA, SSI, RTC, GPC, MSC, MSN, RCM, CVI	MNI, CSL-RD, ICM	4 mm C-slot	electronic PNP	4-pin	R412010139

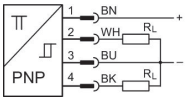
Dimensions



1* = mounting screw 2* = teach button 3* = LED
L = cable length
(2) WH=white
* Switching point

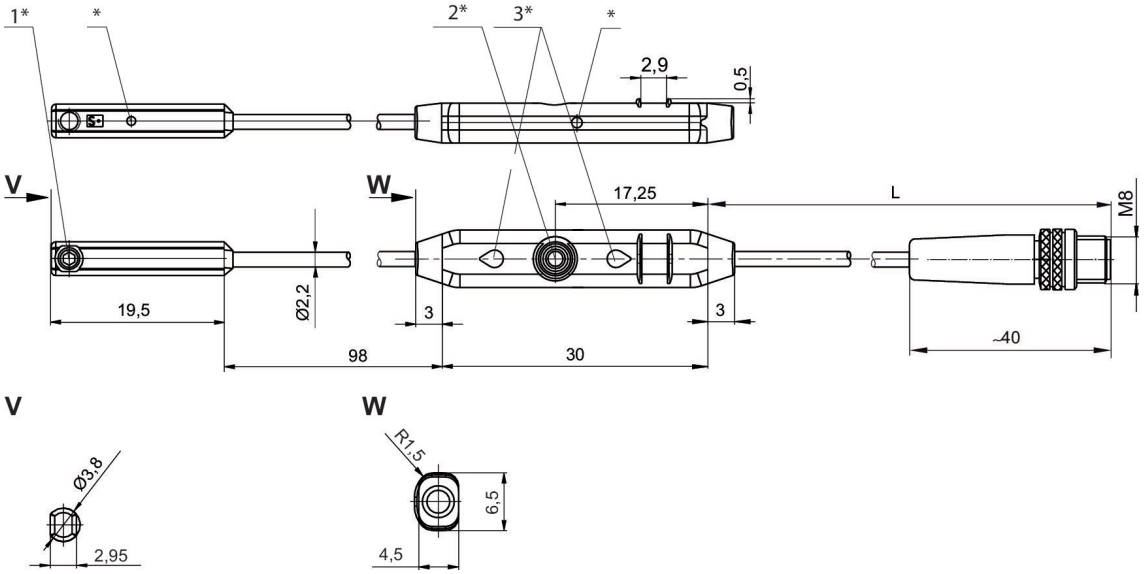
Sensors, Series ST4-2P, with cable, plug M8x1

: 4 mm C-slot
: with cable
Direct mounting for series: PRA SSI RTC GPC MSC MSN RCM CVI
Indirect mounting for series: MNI CSL-RD ICM
Certificates: RoHS
Ambient temperature min./max.: -20 °C ... 75 °C



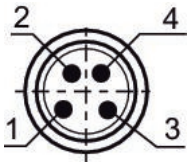
Direct mounting for series	Indirect mounting for series	Slot width	Switch descr.	Electrical connection size	Electrical connection number of poles	Part No.
PRA, SSI, RTC, GPC, MSC, MSN, RCM, CVI	MNI, CSL-RD, ICM	4 mm C-slot	electronic PNP	M8x1	4-pin	R412010140

Dimensions



1* = mounting screw 2* = teach button 3* = LED
L = cable length
* Switching point

R412010140

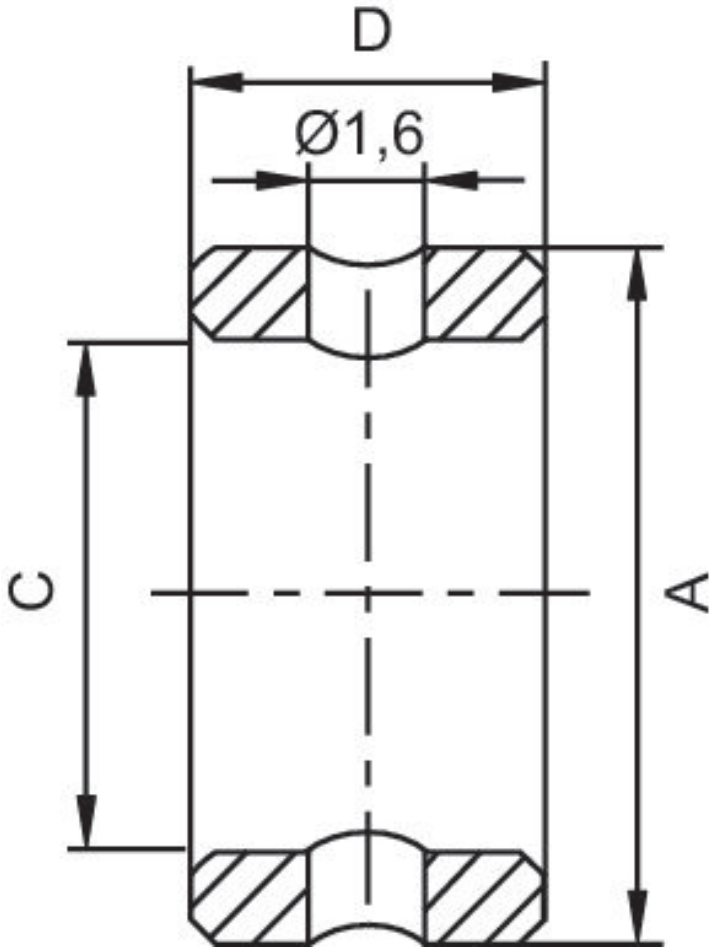


Pin	Allocation
1	(+)
2	(OUT)
3	(-)
4	(OUT)

Centering rings

External Ø [mm]	Scope of delivery [piece]	Part No.
5, 5	6	R412000669
7	6	R412000668
9	6	R412000670
12	6	R412000671
16	6	R402003731

Dimensions

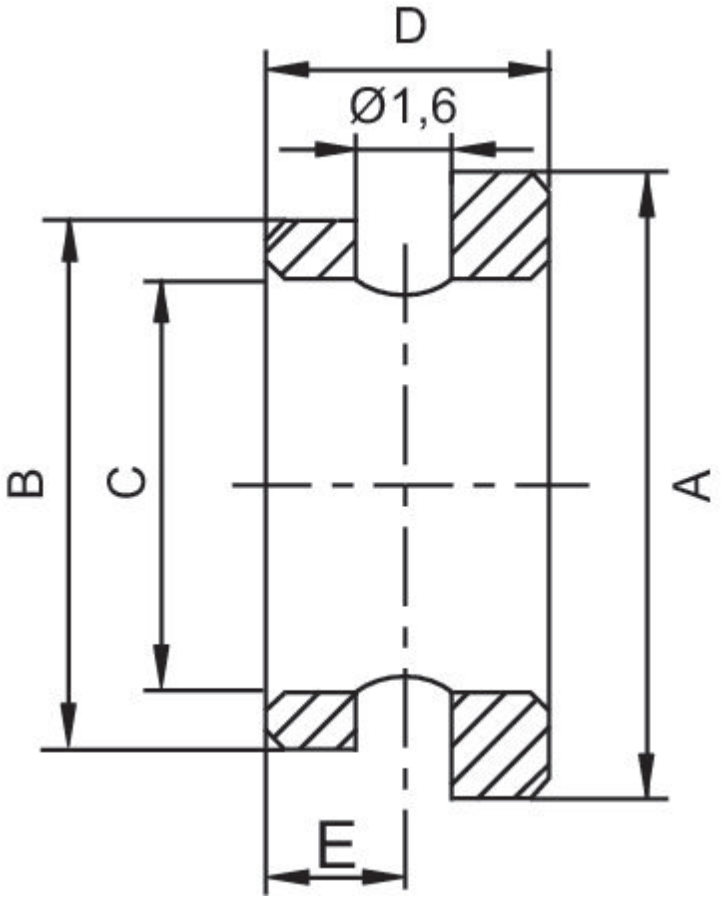


Part No.	Ø	A k6	B k6	C ±0,1	D –0,2	E +0,2
R412000669	5	5	–	3,4	3	–
R412000668	7	7	–	5,5	3	–
R412000670	9	9	–	6,6	4	–
R412000671	12	12	–	9,0	4	–
R402003731	16	16	–	11	6	–

Centering rings

External Ø [mm]	Scope of delivery [piece]	Part No.
7, 5	6	R412004030
9, 5	6	R412004032
9, 7	6	R412004033
12, 9	6	R412004034
16, 12	6	R402003736

Dimensions



Part No.	Ø	A k6	B k6	C ±0,1	D –0,2	E +0,2
R412004030	5-7	7	5	3,4	3	1,5
R412004032	5-9	9	5	3,4	3,5	1,5
R412004033	7-9	9	7	5,5	3,5	1,5
R412004034	9-12	12	9	6,6	4,0	2
R402003736	12-16	16	12	9	5	2

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