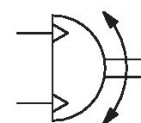
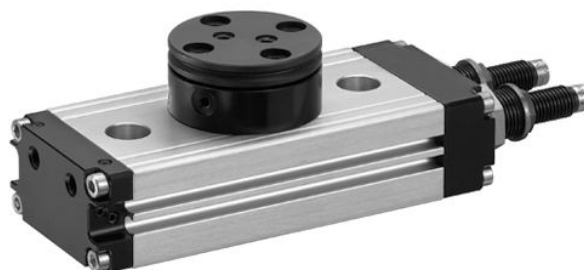


# Rotary Compact Module, Series RCM-SH

2024-04-05

R412000387

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.



## Technical data

Industry	Industrial
Diameter	12 mm
Compressed air connection	M5
Magnetic piston	with magnetic piston
Rotary compact module version	Double piston with rack
Easy2Combine	capable
Frame size	RCM-12
air duct	with air duct
Number of air ducts	2
Theoretical torque at	6 bar
Min. swivel times	0.3 s
Air consumption per rotation	5.86 cm <sup>3</sup>
Max. permissible axial bearing load	330 N
Radial shaft load	290 N
Max. permissible mass moment of inertia	10 kg cm <sup>2</sup>
Theoretical torque	0.95 Nm
Repetitive precision	0.05 °
Cushioning	hydraulic
Cushioning	non-adjustable
Min. angle of rotation	0 °
Max. angle of rotation	90 °
Min. working pressure	2.5 bar
Max. working pressure	8 bar
Min. ambient temperature	5 °C
Max. ambient temperature	60 °C
Min. medium temperature	5 °C

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Max. medium temperature	60 °C
Medium	Compressed air
Min. oil content of compressed air	0 mg/m <sup>3</sup>
Max. oil content of compressed air	1 mg/m <sup>3</sup>
Max. particle size	5 µm
Weight	0.5 kg

## Material

Housing material	Aluminum
Surface housing	anodized
Material front cover	Aluminum
Surface cover	black anodized
Material base	Aluminum
Surface base	black anodized
Seal material	Acrylonitrile butadiene rubber
Material axis	Steel, chrome-plated
Surface axis	hardened
Material rotary flange	Steel, chrome-plated
Surface rotary flange	hardened
Part No.	R412000387

## Technical information

The pressure dew point must be at least 15 °C less than ambient and medium temperature and may not exceed 3 °C.

The oil content of compressed air must remain constant during the life cycle.

Use only the approved oils from AVENTICS. Further information can be found in the “Technical information” document (available in <https://www.emerson.com/en-us/support>).

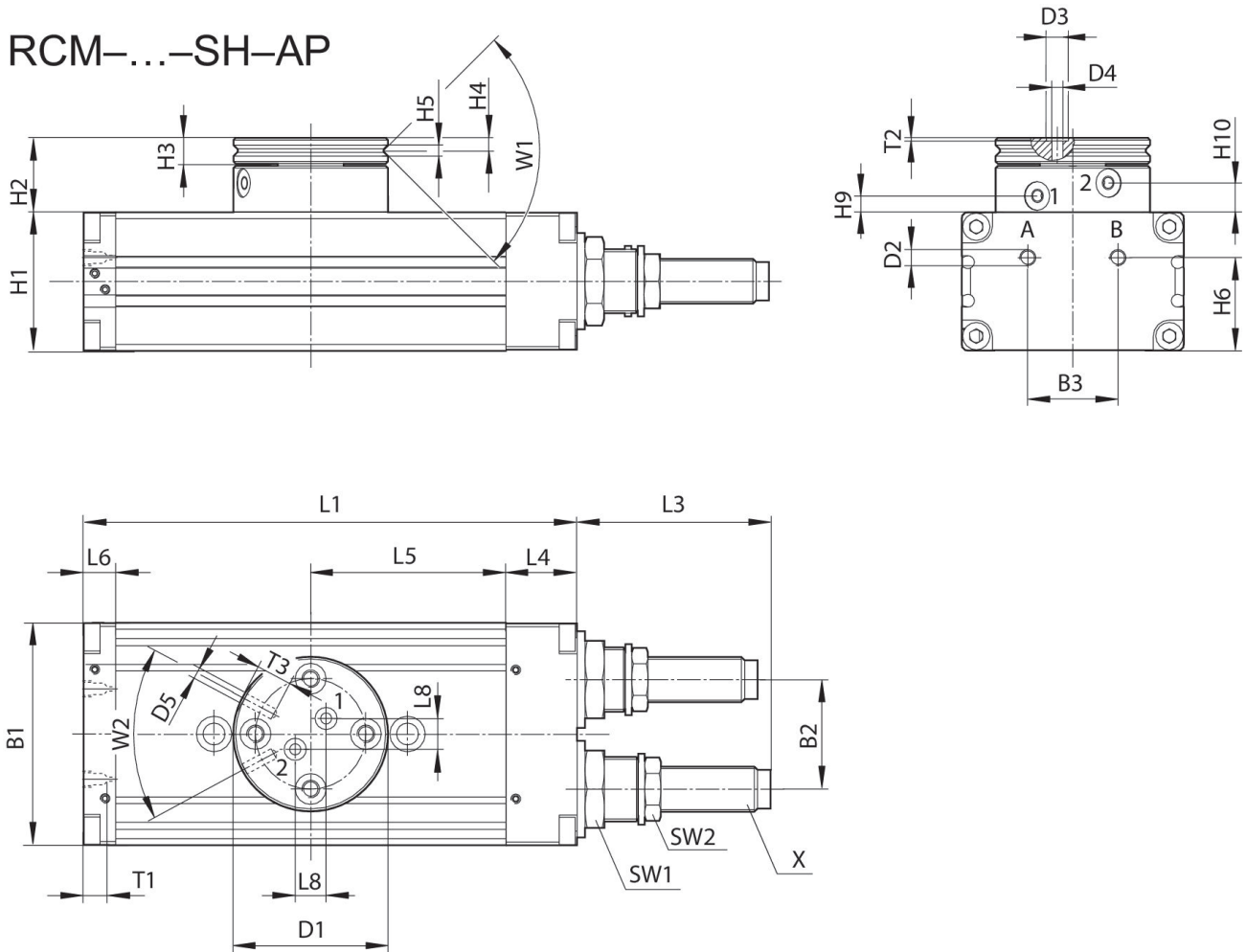
# Rotary Compact Module, Series RCM-SH

2024-04-05

R412000387

## RCM-12

### RCM-...-SH-AP



T1 = depth of thread

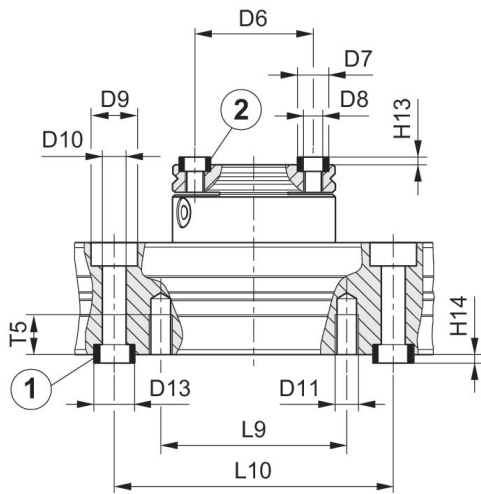
Part No.	B1	B2	B3	Ø D1	Ø D2	Ø D3	Ø D4	Ø D5	H1
R412000387	43	18	18	35	M5	5	2.5	M3	24
R412000388	43	18	18	35	M5	5	2.5	M3	24

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

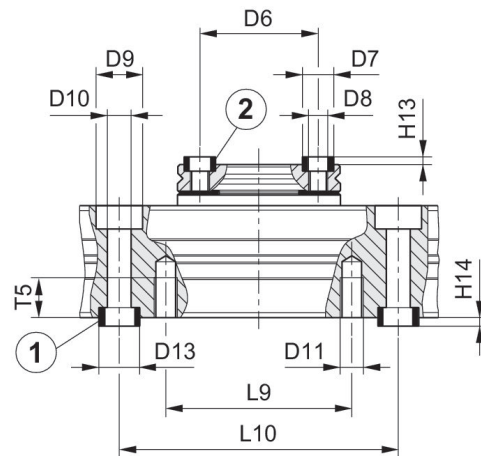
Part No.	W1	W2	X
R412000387	90°	56°	M8x1
R412000388	90°	56°	M8x1

## Mounting and assembly RCM 12



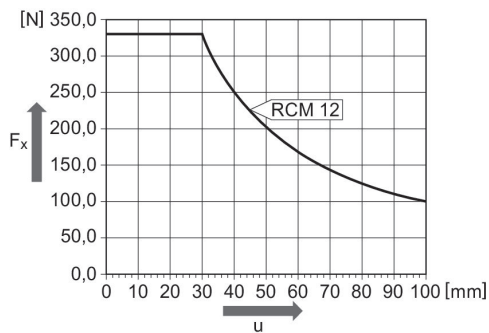
1) centering sleeve, included in the scope of delivery 2) centering sleeve

## Mounting and assembly RCM-12

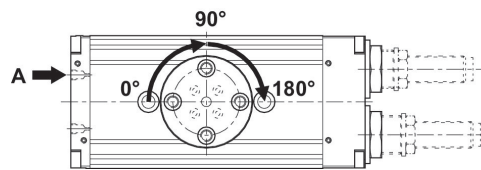


1) centering sleeve, included in the scope of delivery 2) centering sleeve

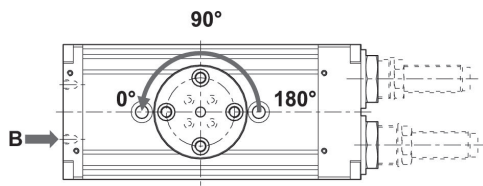
## Maximum permissible axial force $F_x$ [N] as a function of $u$ [mm] RCM 12



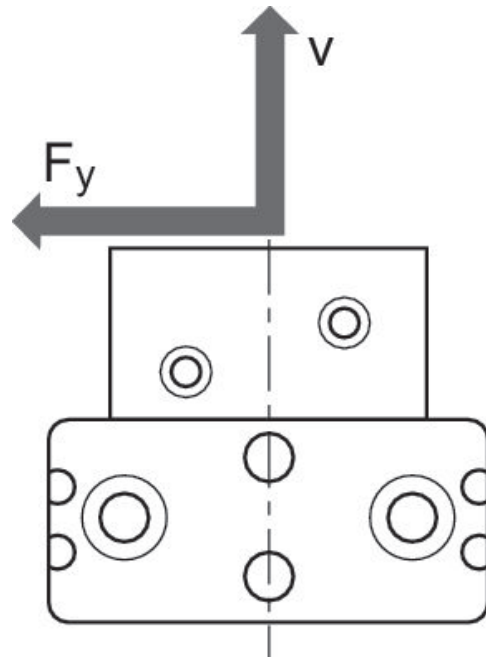
## Movement into end position 90°/180°



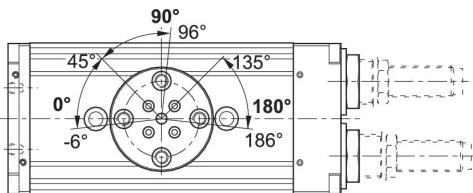
Movement into end position 0°



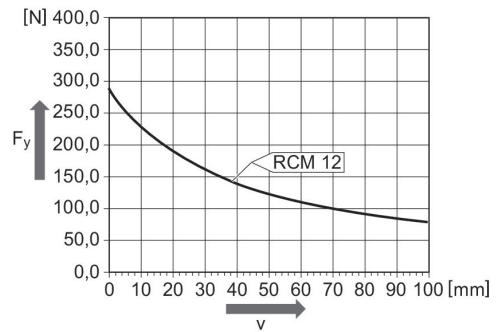
Maximum permissible radial force  $F_y$  [N] as a function of  $v$  [mm]



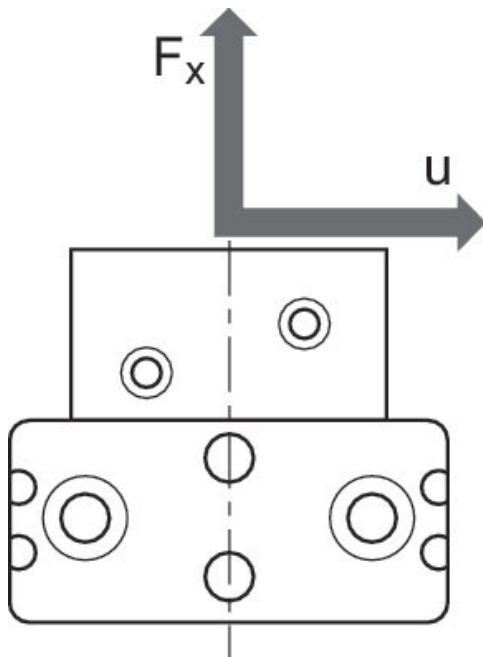
Setting range for end positions 0° / 90° / 180°



Maximum permissible radial force  $F_y$  [N] as a function of  $v$  [mm]  
RCM-12



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



Part No.	$\varnothing D6 \pm 0.02$	$\varnothing D7 k6$	$\varnothing D8$	$\varnothing D9$	$\varnothing D10$	$\varnothing D11$	$\varnothing D13 k6$	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 $\pm 0.02$	T5
R412000387	40	60	8.5
R412000388	40	60	8.5