



Superior Clamping and Gripping



Product Information

Universal swivel vane RM-W

Modular. Compact. Flexible.

Swivel vane RM-W

Vane swivel unit with high torque for fast rotation tasks

Field of application

Can be used in clean to slightly dirty environments such as assembly or packaging areas, or wherever fast movement cycles are required.



Advantages – Your benefits

Stop system with integrated fine adjustment of rotation angle for sensitive adjustment of end positions

Direct drive of the rotary table with integrated rotor cylinder ensured highest repeat accuracies

Very compact design for minimal interfering contours

Solid axial and radial bearings for the rotary table for high load bearing capacities in all directions

End-position monitoring with optional standardized monitoring sets

Integrated shock absorbers with adjustable absorption characteristics for optimal damping

Standardized mounting bores for numerous combinations with other components from the modular system



Sizes
Quantity: 4



Weight
0.65 .. 8.3 kg



Torque
0.7 .. 22 Nm



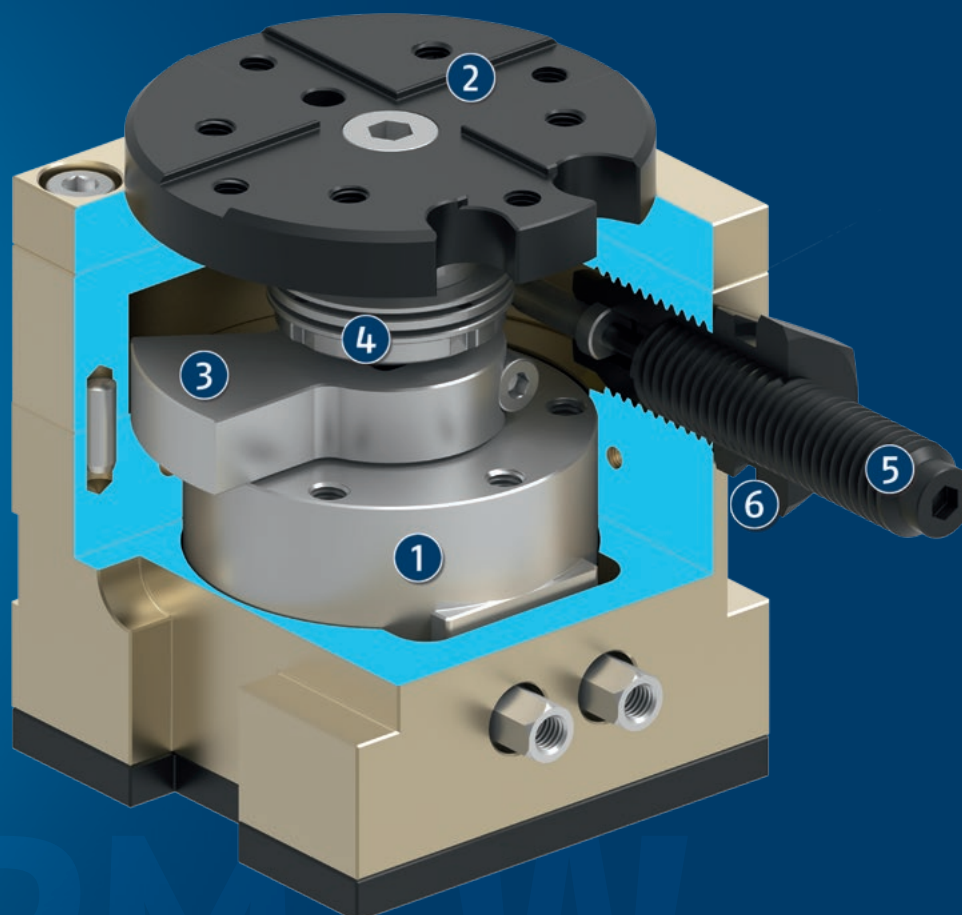
Repeat accuracy
0.036 .. 0.046°



Angle of rotation
90 .. 180°

Functional description

The drive is pneumatic and based on the rotor principle. The rotary table is very robust due to axial and radial bearings.



- ① **Drive**
Vane swivel unit as a compact, powerful drive
- ② **Mounting pattern**
Completely integrated in the module system
- ③ **Stop lever**
Hardened stop, determines the swivel angle
- ④ **Robust bearing**
Highly precise bearing due to the use of axial and radial rolling-contact bearings
- ⑤ **End position damping**
Adjusting of the damping characteristics by adjusting the damper stroke
- ⑥ **Swivel angle adjustment**
by adjusting the shock absorber

General notes about the series

Swivel vane material: Steel

Housing material: Aluminum alloy, anodized

Actuation: pneumatic, with filtered compressed air as per ISO 8573-1:2010 [7:4:4].

Operating principle: Vane swivel unit

Scope of delivery: Completely ready for operation without bracket for proximity switch and without proximity switch

Warranty: 24 months

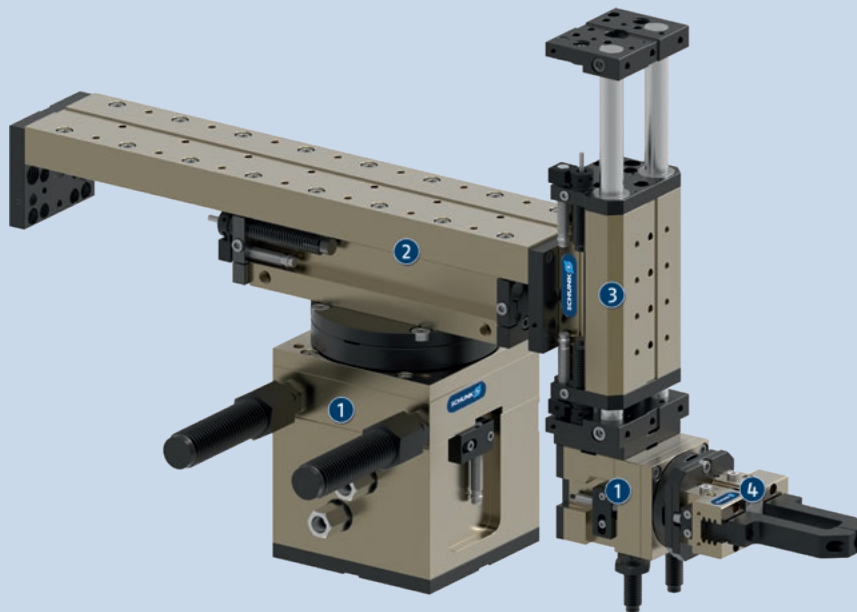
Service life characteristics: on request

Repeat accuracy: is defined as a distribution of the end position for 100 consecutive cycles.

Flange position: is always drawn in the left end position. It rotates from here to the right in clockwise direction. The arrow points out the direction of rotation.

Customized angle of rotation: More swivel angles are available on request.

Layout or control calculation: For configuration or control calculation of the units, we recommend to use our Toolbox software, which is available online. A control calculation for the selected unit must be carried out to prevent overloading.



Application example

Pneumatic dual-axis pick & place machine with two rotations of the workpiece in two axes

- ① Universal swivel vane RM
- ② Linear module LM

- ③ Linear module KLM
- ④ Universal gripper PGN-plus-P

SCHUNK offers more ...

The following components make the product even more productive – the suitable addition for the highest functionality, flexibility, reliability, and controlled production.



Gripper for small components



Universal gripper



Linear module



Pillar assembly system



Inductive proximity switches



Pressure maintenance valve

① For more information on these products can be found on the following product pages or at [schunk.com](https://www.schunk.com).

Options and special information

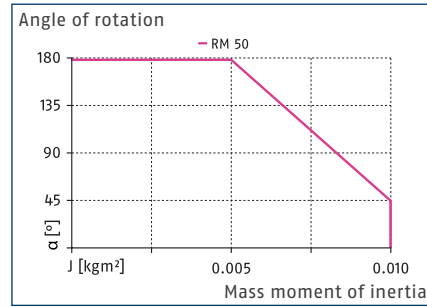
As standard, this module can be combined with numerous components from the modular system. We would be happy to assist you.

RM-W 50

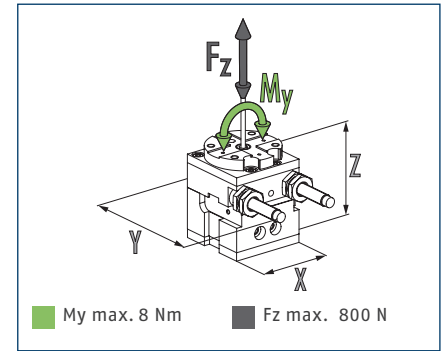
Universal swivel vane



Range of use for dampers



Dimensions and maximum loads



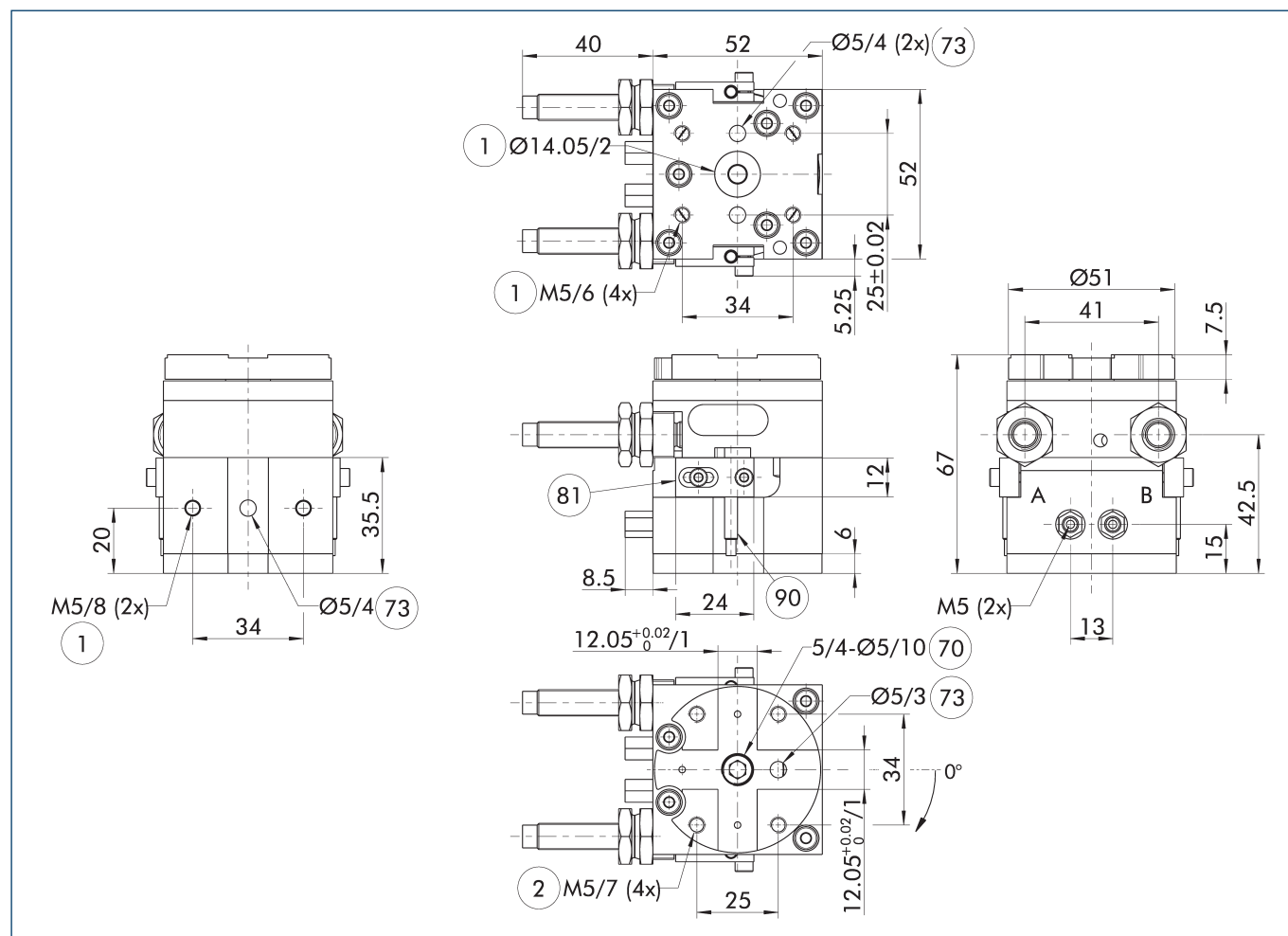
① The indicated moments and forces are static values and may appear simultaneously. Throttling has to be done for ensuring that the rotary movement takes place without impact or bouncing. Otherwise the service life reduces.

Technical data

Description		RM 50-W90-1	RM 50-W180-1
ID		0313003	0313004
Angle of rotation	[°]	90.0	180.0
End position adjustability	[°]	5.0	5.0
Torque	[Nm]	0.7	0.7
IP protection class		40	40
Weight	[kg]	0.65	0.65
Swiveling time (1x nominal rotation angle) without attached load	[s]	0.14	0.17
Fluid consumption (2x nom. angle)	[cm³]	12.1	12.1
Min./nom./max. operating pressure	[bar]	3/6/7	3/6/7
Min./max. ambient temperature	[°C]	5/60	5/60
Repeat accuracy	[°]	0.044	0.044
Dimensions X x Y x Z	[mm]	52 x 92 x 67	52 x 92 x 67

① For configuration of swivel modules, we recommend to use our Toolbox software, which is available online. Verifying the sizing of the selected unit is absolutely necessary, as otherwise overloading may occur.
Other angles are possible on request.

Main view



The drawing shows the unit in standard design, without considering any dimensions of the options described below.

A, a Main / direct connection, rotary actuator rotates clockwise

B, b Main / direct connection, rotary actuator rotates counterclockwise

① Connection swivel unit

② Attachment connection

⑦0 Wrench size

⑦3 Fit for centering pins

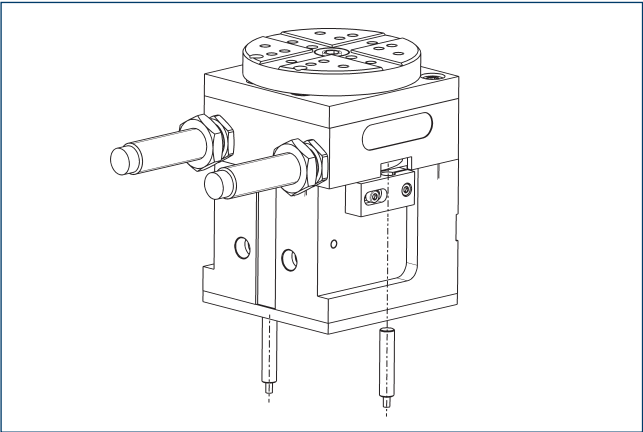
⑧1 Not included in the scope of delivery

⑨0 Inductive proximity switches

RM-W 50

Universal swivel vane

Inductive proximity switches



Directly mounted end position monitoring.

Description	ID	Often combined
Inductive proximity switches		
GMNS 50-G	0313340	●
GMNS 50-W	0313341	
GMNS 50-X	0313339	

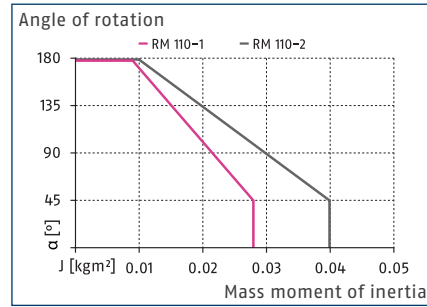
① Two sensors are required per unit for monitoring two positions. On option, extension cables and sensor distributors are available. Additional product variants of the sensor, and further information and technical data can be found in the catalog chapter sensor system.

RM-W 110

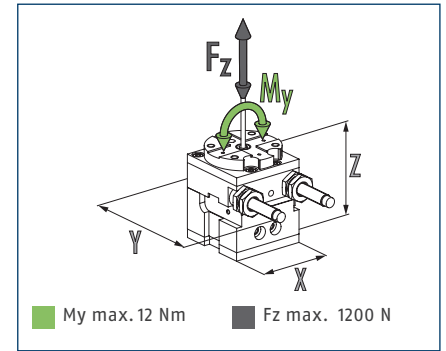
Universal swivel vane



Range of use for dampers



Dimensions and maximum loads



① The indicated moments and forces are static values and may appear simultaneously. Throttling has to be done for ensuring that the rotary movement takes place without impact or bouncing. Otherwise the service life reduces.

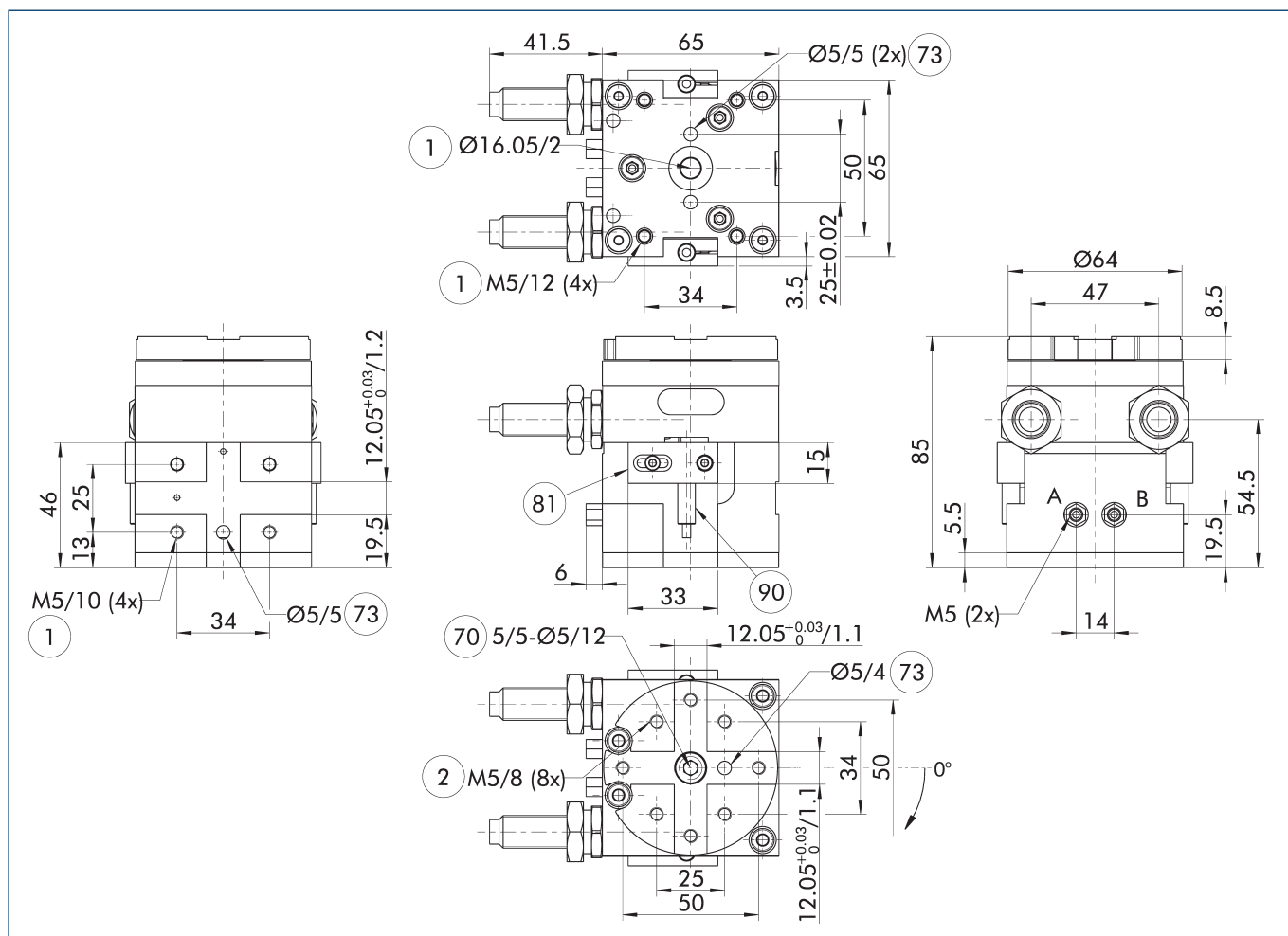
Technical data

Description		RM 110-W90-1	RM 110-W90-2	RM 110-W180-1	RM 110-W180-2
ID		0313005	0313992	0313006	0313993
Angle of rotation	[°]	90.0	90.0	180.0	180.0
End position adjustability	[°]	5.0	5.0	5.0	5.0
Torque	[Nm]	1.95	1.95	1.95	1.95
IP protection class		40	40	40	40
Weight	[kg]	1.12	1.12	1.12	1.12
Swiveling time (1x nominal rotation angle) without attached load	[s]	0.17	0.17	0.20	0.20
Fluid consumption (2x nom. angle)	[cm³]	30.0	30.0	30.0	30.0
Min./nom./max. operating pressure	[bar]	3/6/8	3/6/8	3/6/8	3/6/8
Min./max. ambient temperature	[°C]	5/60	5/60	5/60	5/60
Repeat accuracy	[°]	0.036	0.036	0.036	0.036
Dimensions X x Y x Z	[mm]	65 x 101.5 x 85	65 x 101.5 x 85	65 x 101.5 x 85	65 x 101.5 x 85

① Shock absorber version -2 should only be used for higher loads.

For configuration of swivel modules, we recommend to use our Toolbox software, which is available online. Verifying the sizing of the selected unit is absolutely necessary, as otherwise overloading may occur.

Other angles are possible on request.

Main view


The drawing shows the unit in standard design, without considering any dimensions of the options described below.

A, a Main / direct connection, rotary actuator rotates clockwise

B, b Main / direct connection, rotary actuator rotates counterclockwise

① Connection swivel unit

② Attachment connection

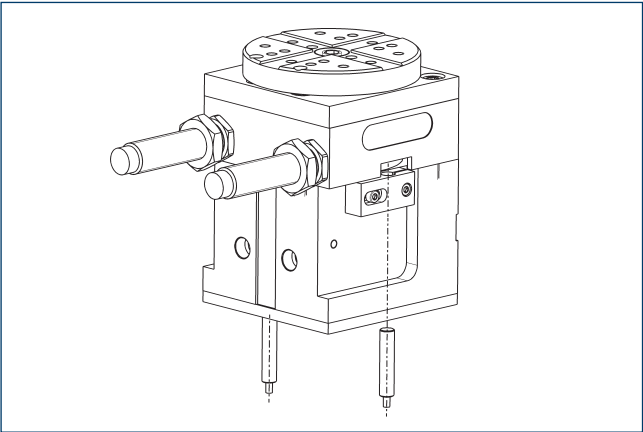
⑦ Wrench size

⑦ Fit for centering pins

⑧ Not included in the scope of delivery

⑨ Inductive proximity switches

Inductive proximity switches



Directly mounted end position monitoring.

Description	ID	Often combined
Inductive proximity switches		
GMNS 100-G	0313343	●
GMNS 100-W	0313344	
GMNS 100-X	0313342	

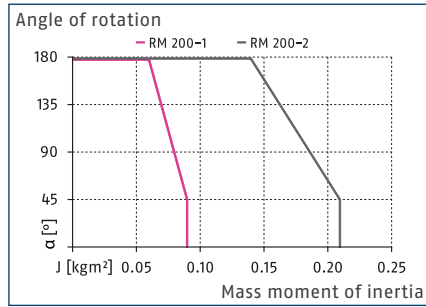
① Two sensors are required per unit for monitoring two positions. On option, extension cables and sensor distributors are available. Additional product variants of the sensor, and further information and technical data can be found in the catalog chapter sensor system.

RM-W 200

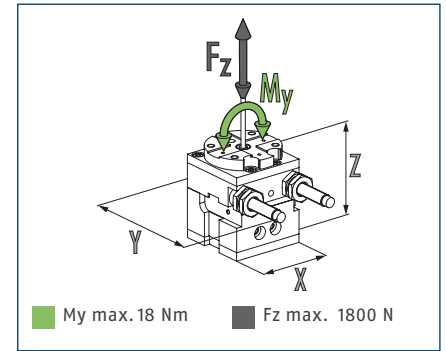
Universal swivel vane



Range of use for dampers



Dimensions and maximum loads



① The indicated moments and forces are static values and may appear simultaneously. Throttling has to be done for ensuring that the rotary movement takes place without impact or bouncing. Otherwise the service life reduces.

Technical data

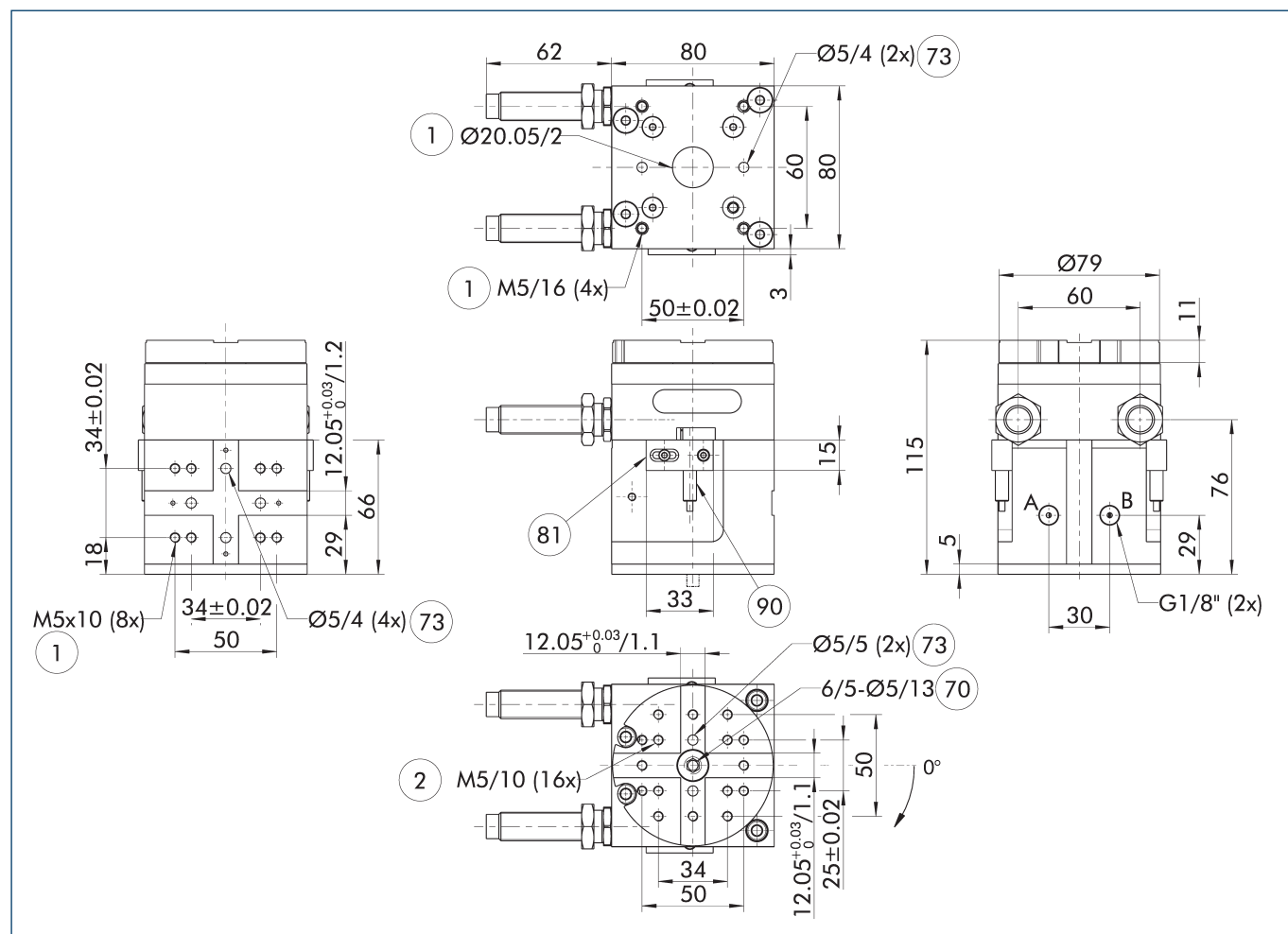
Description		RM 200-W90-1	RM 200-W90-2	RM 200-W180-1	RM 200-W180-2
ID		0313007	0313994	0313008	0313995
Angle of rotation	[°]	90.0	90.0	180.0	180.0
End position adjustability	[°]	5.0	5.0	5.0	5.0
Torque	[Nm]	4	4	4	4
IP protection class		40	40	40	40
Weight	[kg]	2.1	2.1	2.1	2.1
Swiveling time (1x nominal rotation angle) without attached load	[s]	0.16	0.16	0.21	0.21
Fluid consumption (2x nom. angle)	[cm³]	74.0	74.0	74.0	74.0
Min./nom./max. operating pressure	[bar]	3/6/8	3/6/8	3/6/8	3/6/8
Min./max. ambient temperature	[°C]	5/60	5/60	5/60	5/60
Repeat accuracy	[°]	0.044	0.044	0.044	0.044
Dimensions X x Y x Z	[mm]	80 x 142 x 115	80 x 142 x 115	80 x 142 x 115	80 x 142 x 115

① Shock absorber version -2 should only be used for higher loads.

For configuration of swivel modules, we recommend to use our Toolbox software, which is available online. Verifying the sizing of the selected unit is absolutely necessary, as otherwise overloading may occur.

Other angles are possible on request.

Main view



The drawing shows the unit in standard design, without considering any dimensions of the options described below.

A, a Main / direct connection, rotary actuator rotates clockwise

B, b Main / direct connection, rotary actuator rotates counterclockwise

① Connection swivel unit

② Attachment connection

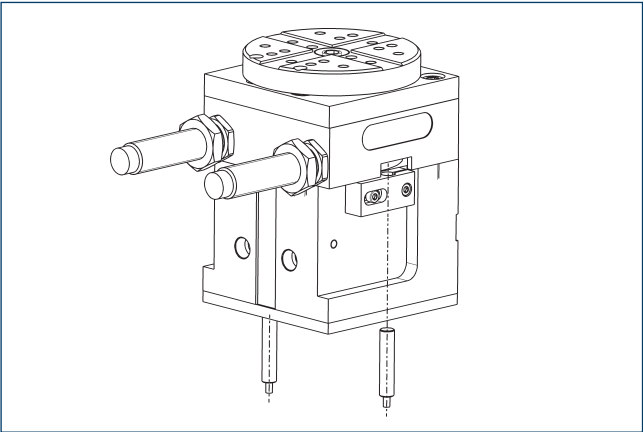
⑦ Wrench size

⑦ Fit for centering pins

⑧ Not included in the scope of delivery

⑨ Inductive proximity switches

Inductive proximity switches



Directly mounted end position monitoring.

Description	ID	Often combined
Inductive proximity switches		
GMNS 100-G	0313343	●
GMNS 100-W	0313344	
GMNS 100-X	0313342	

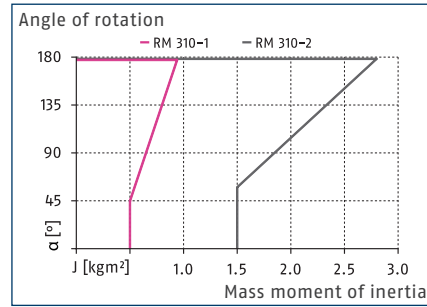
❗ Two sensors are required per unit for monitoring two positions. On option, extension cables and sensor distributors are available. Additional product variants of the sensor, and further information and technical data can be found in the catalog chapter sensor system.

RM-W 310

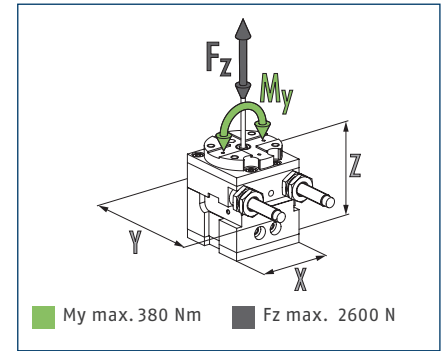
Universal swivel vane



Range of use for dampers



Dimensions and maximum loads



① The indicated moments and forces are static values and may appear simultaneously. Throttling has to be done for ensuring that the rotary movement takes place without impact or bouncing. Otherwise the service life reduces.

Technical data

Description		RM 310-W90-1	RM 310-W90-2	RM 310-W180-1	RM 310-W180-2
ID		0313009	0313996	0313010	0313997
Angle of rotation	[°]	90.0	90.0	180.0	180.0
End position adjustability	[°]	5.0	5.0	5.0	5.0
Torque	[Nm]	22	22	22	22
IP protection class		40	40	40	40
Weight	[kg]	8.3	8.3	8.3	8.3
Swiveling time (1x nominal rotation angle) without attached load	[s]	0.21	0.21	0.26	0.26
Fluid consumption (2x nom. angle)	[cm³]	251.0	251.0	251.0	251.0
Min./nom./max. operating pressure	[bar]	3/6/8	3/6/8	3/6/8	3/6/8
Min./max. ambient temperature	[°C]	5/60	5/60	5/60	5/60
Repeat accuracy	[°]	0.046	0.046	0.046	0.046
Dimensions X x Y x Z	[mm]	125 x 250 x 162	125 x 250 x 162	125 x 250 x 162	125 x 250 x 162

① Shock absorber version -2 should only be used for higher loads.

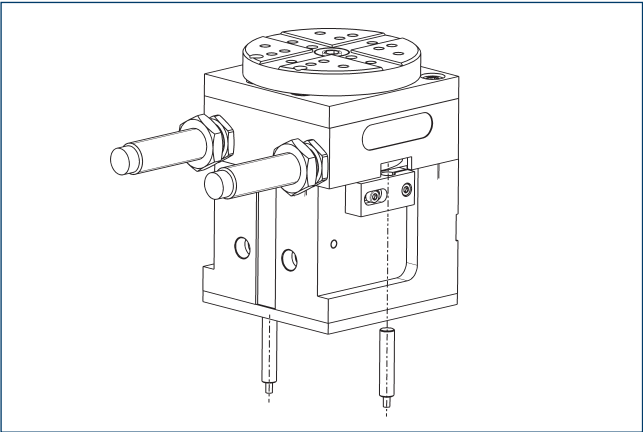
For configuration of swivel modules, we recommend to use our Toolbox software, which is available online. Verifying the sizing of the selected unit is absolutely necessary, as otherwise overloading may occur.

Other angles are possible on request.

Technical drawing of the 3D printed part showing three views: front, top, and side. The front view shows a cylindrical part with a central hole and four M8/12 (2x) holes. The top view shows a circular base with a central hole and four M8/10 (4x) holes. The side view shows a rectangular base with a central hole and four M8/12 (2x) holes. Dimensions are given in mm with tolerances. Callouts 1, 2, 73, 81, 90, and 91 point to specific features.

⑨1 Inductive proximity switches

Inductive proximity switches



Directly mounted end position monitoring.

Description	ID	
Inductive proximity switches		
GMNS 200-W	0313347	
GMNS 200-X	0313345	

❗ Two sensors are required per unit for monitoring two positions. On option, extension cables and sensor distributors are available. Additional product variants of the sensor, and further information and technical data can be found in the catalog chapter sensor system.



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