



Superior Clamping and Gripping



Product Information

Universal swivel vane RM-W

RM-W

Universal swivel vane

Modular. Compact. Flexible.

RM-W swivel vane

with high torque for fast swiveling tasks

Field of application

To be used in clean to slightly dirty environments such as assembly or packaging areas, or wherever fast 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 standardised 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°

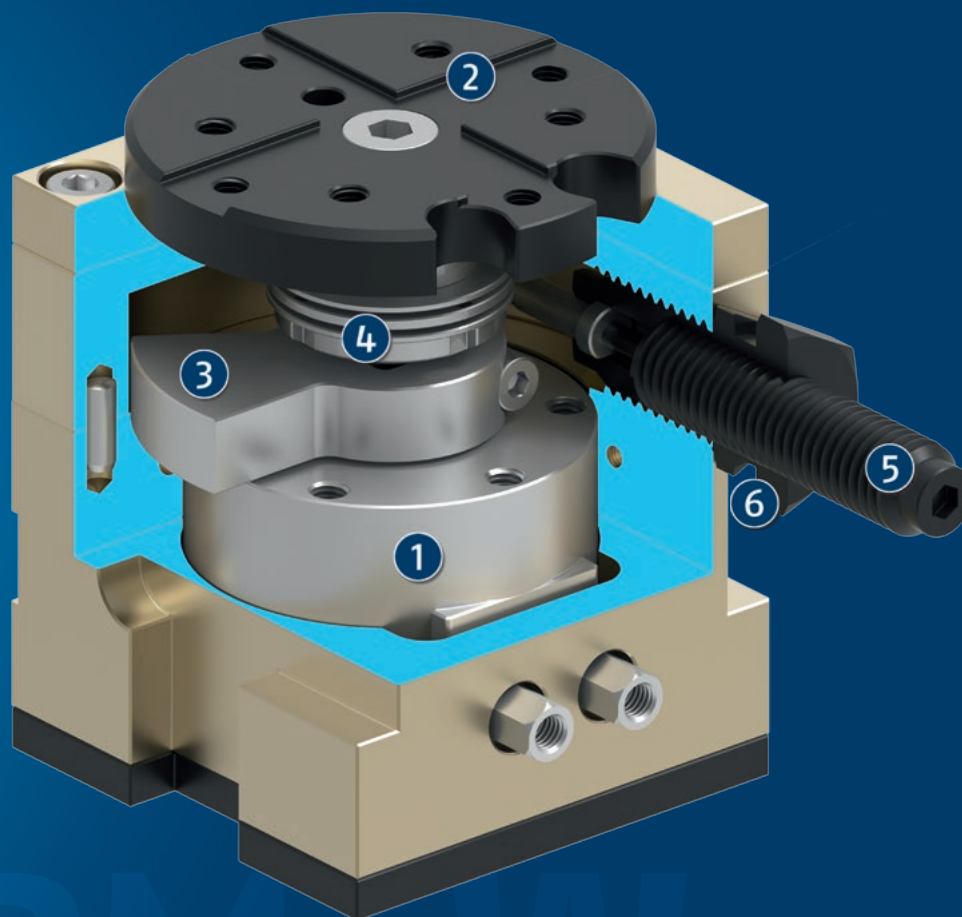


Angle of rotation
90 .. 180°

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, aligned with the rotating angle (can be optionally set between 10° - 180°)
- 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

CAD data, operating manuals and other current product documents can be found online.

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

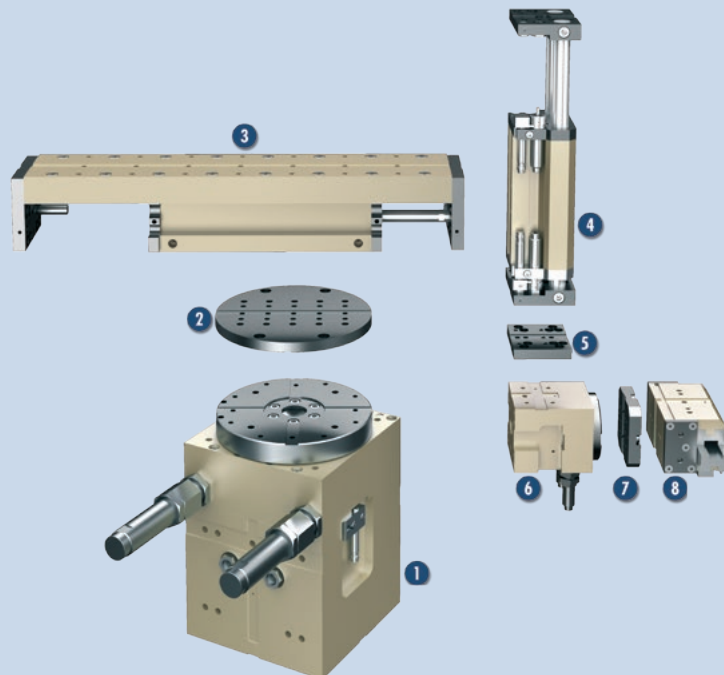
Scope of delivery: Completely ready for operation without bracket for proximity switch and without proximity switch

Warranty: 24 months

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.

Layout or control calculation: For layout or sizing of the modules, we recommend using our software TOOLBOX, which can be downloaded online. Verifying the sizing of the selected unit is absolutely necessary, since otherwise overloading can result.



Application example

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

- ① Rotary module, RM
- ② Adapter plate APL
- ③ LM linear module
- ④ KLM linear module
- ⑤ Adapter plate APL
- ⑥ Rotary module, RM
- ⑦ Adapter plate APL
- ⑧ Parallel gripping module, GM

SCHUNK offers more ...

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



Centering strips



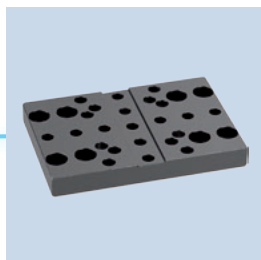
Fittings



Inductive Proximity Switches



Sensor cables



Adapter plates



PGN-plus universal gripper



Sensor distributor



Pressure maintenance valve



Pneumatic Small Parts Gripper MPG-plus



Pillar assembly systems

① Additional information regarding the products can be found on the following product pages or at www.schunk.com. Please contact us for further information: SCHUNK technical hotline +49-7133-103-2696

Options and special information

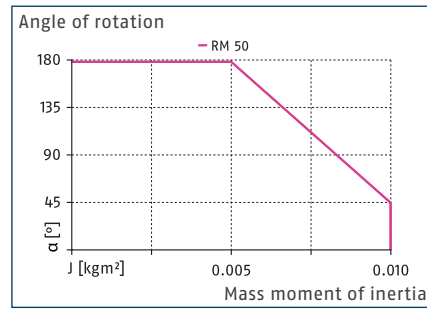
As standard, this module can be combined with numerous components from the modular system. We would be happy to assist you.

RM-W 50

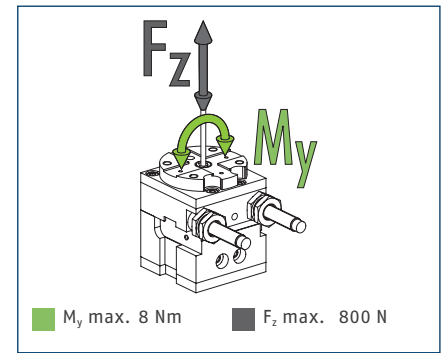
Universal swivel vane



Range of use for dampers



Flange load



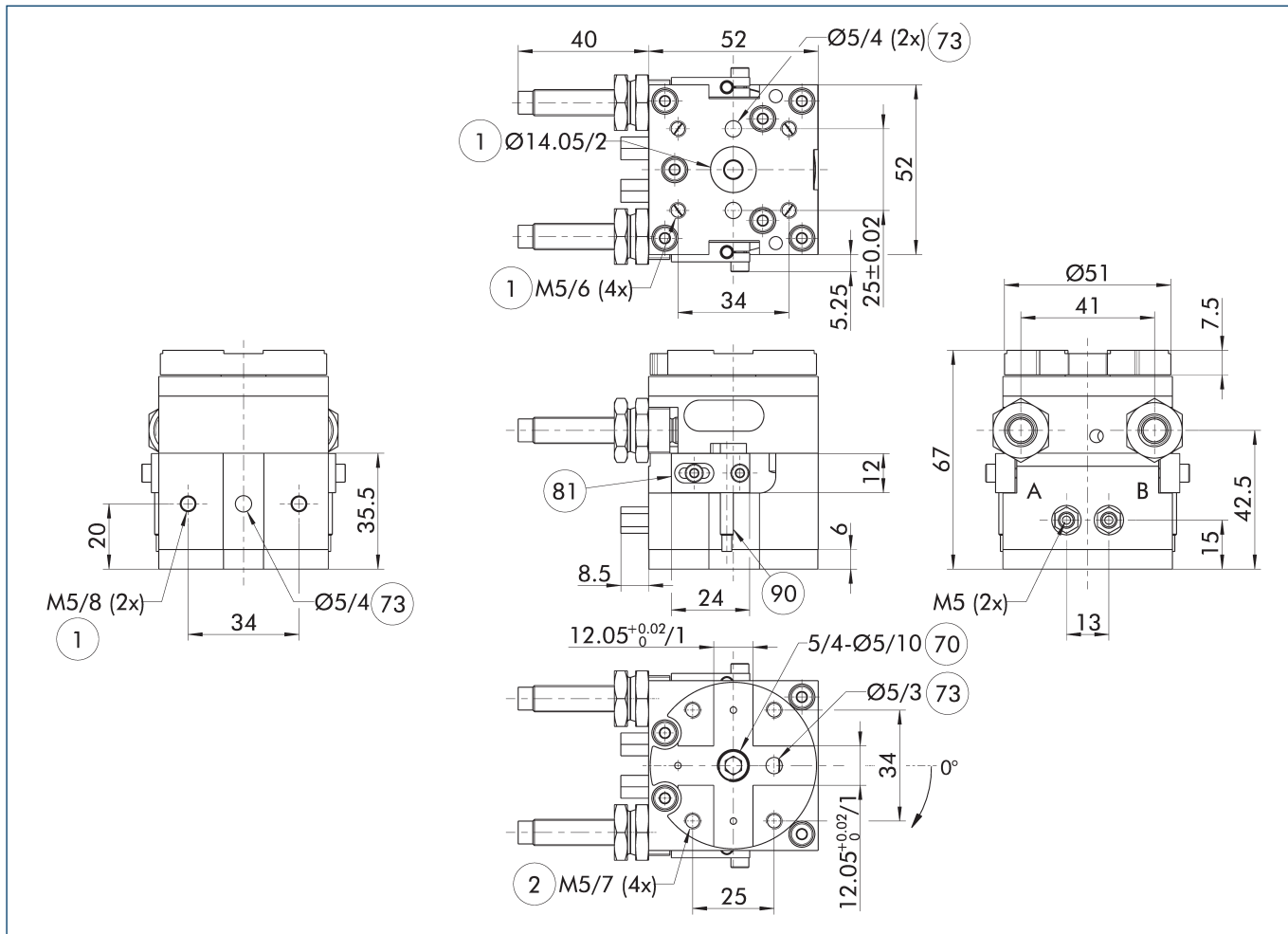
① The indicated moments and forces are static values and should not appear simultaneously. Throttling has to be done for ensuring that the rotary motion takes place without impact or bouncing, otherwise the service life reduces.

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
Protection class IP		40	40
Weight	[kg]	0.65	0.65
Cycle Time (1x rotation angle) without attached load	[s]	0.14	0.17
Fluid consumption (2 x nominal angle)	[cm³]	12.1	12.1
Nominal operating pressure	[bar]	6.0	6.0
Min./max. operating pressure	[bar]	3/7	3/7
Min./max. ambient temperature	[°C]	5/60	5/60
Repeat accuracy	[°]	0.044	0.044

① For selection of rotary modules, we recommend using our TOOLBOX sizing software, which can be found online. Verifying the sizing of the selected unit is absolutely necessary, since otherwise overloading can result.

Main view



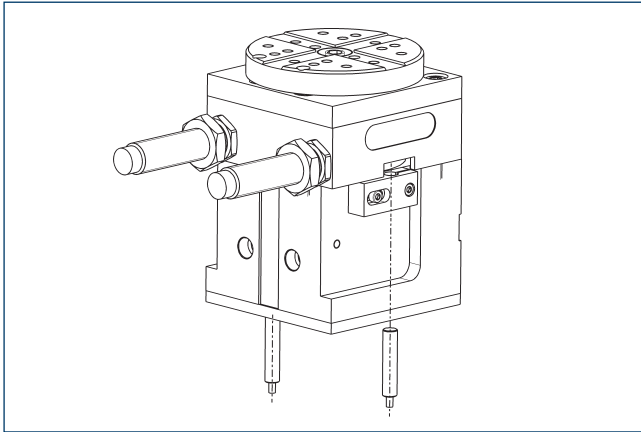
The drawing shows the unit in standard design, without considering any dimensions of the options described below.

- 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	

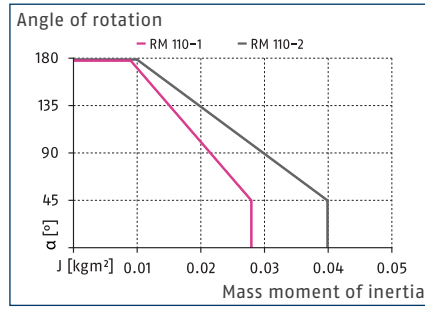
- ① Two sensors (closer/S) are required for each unit and extension cables are available as an option. For sensor cables, note the minimum permissible bending radii. These are generally 35 mm.

RM-W 110

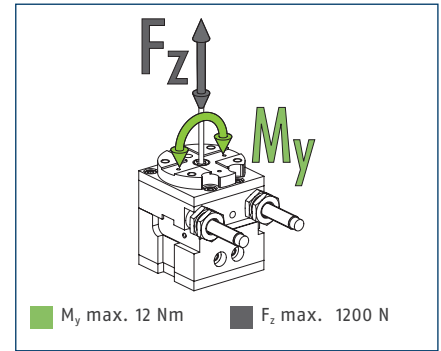
Universal swivel vane



Range of use for dampers



Flange load



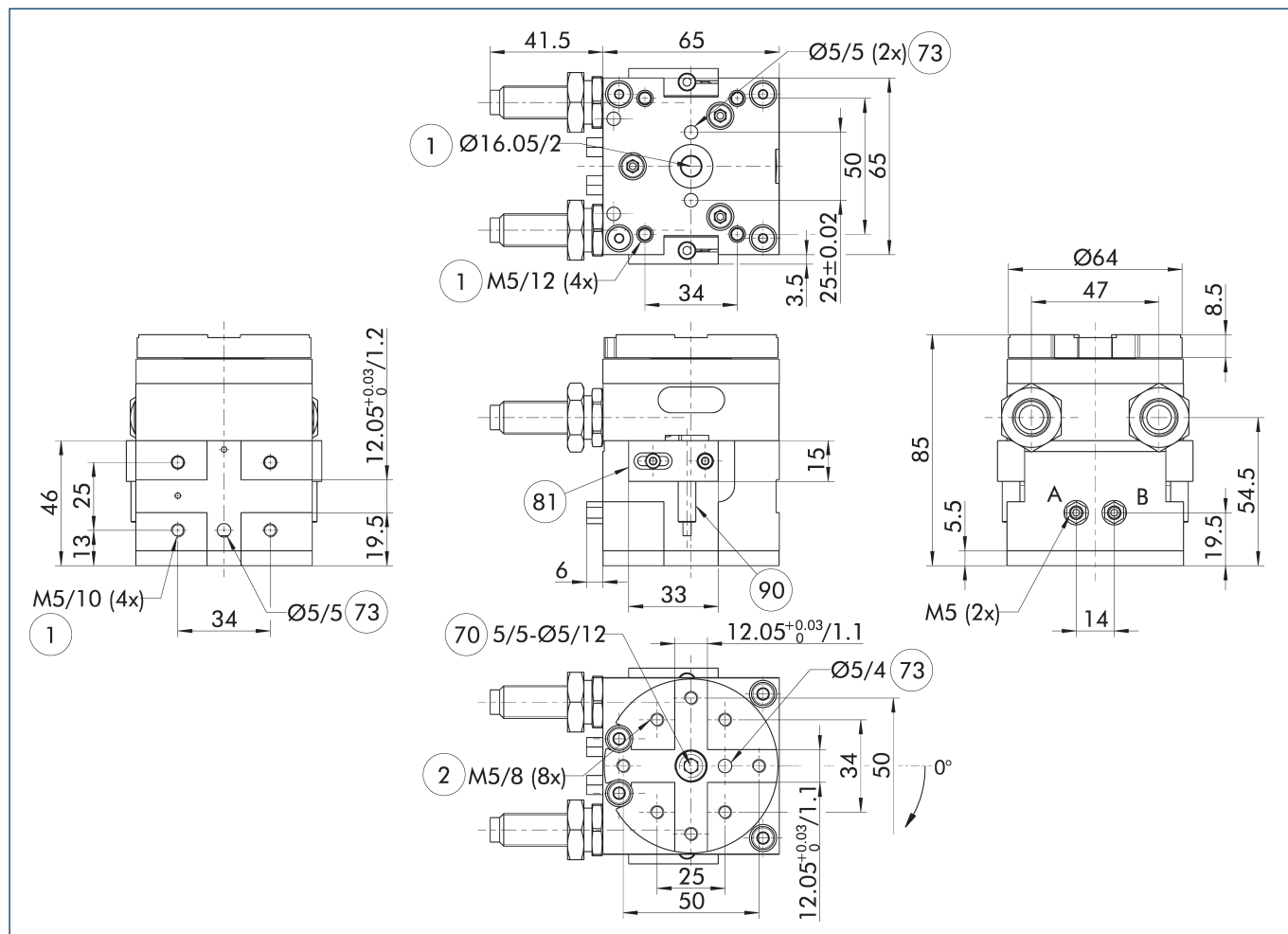
① The indicated moments and forces are static values and should not appear simultaneously. Throttling has to be done for ensuring that the rotary motion takes place without impact or bouncing, otherwise the service life reduces.

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
Protection class IP		40	40	40	40
Weight	[kg]	1.12	1.12	1.12	1.12
Cycle Time (1x rotation angle) without attached load	[s]	0.17	0.17	0.20	0.20
Fluid consumption (2 x nominal angle)	[cm³]	30.0	30.0	30.0	30.0
Nominal operating pressure	[bar]	6.0	6.0	6.0	6.0
Min./max. operating pressure	[bar]	3/8	3/8	3/8	3/8
Min./max. ambient temperature	[°C]	5/60	5/60	5/60	5/60
Repeat accuracy	[°]	0.036	0.036	0.036	0.036

① Shock absorber version -2 should only be used for higher loads.
For selection of rotary modules, we recommend using our TOOLBOX sizing software, which can be found online. Verifying the sizing of the selected unit is absolutely necessary, since otherwise overloading can result.

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

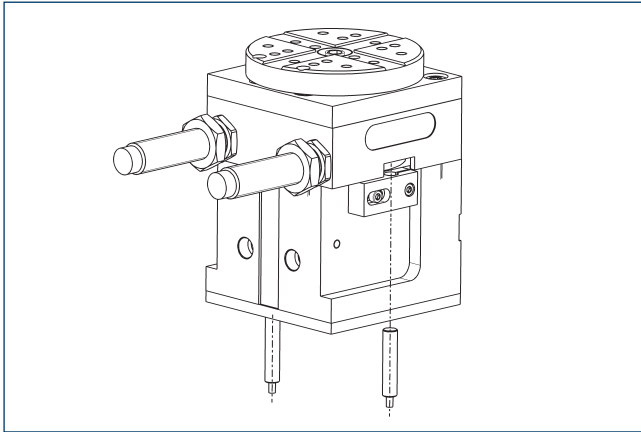
81 Not included in the scope of delivery

90 Inductive proximity switches

RM-W 110

Universal swivel vane

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	

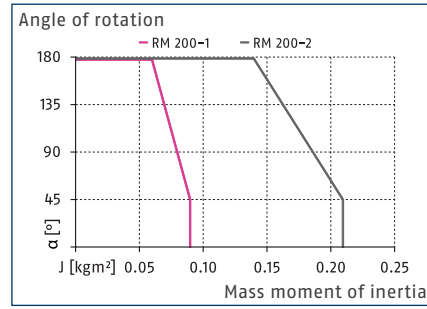
- ① Two sensors (closer/S) are required for each unit and extension cables are available as an option. For sensor cables, note the minimum permissible bending radii. These are generally 35 mm.

RM-W 200

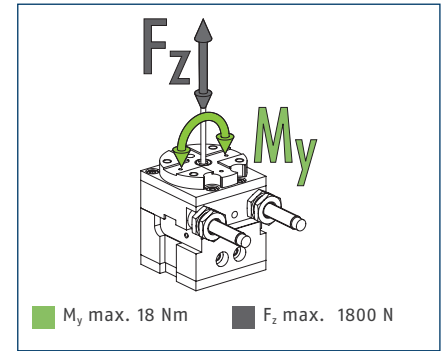
Universal swivel vane



Range of use for dampers



Flange load



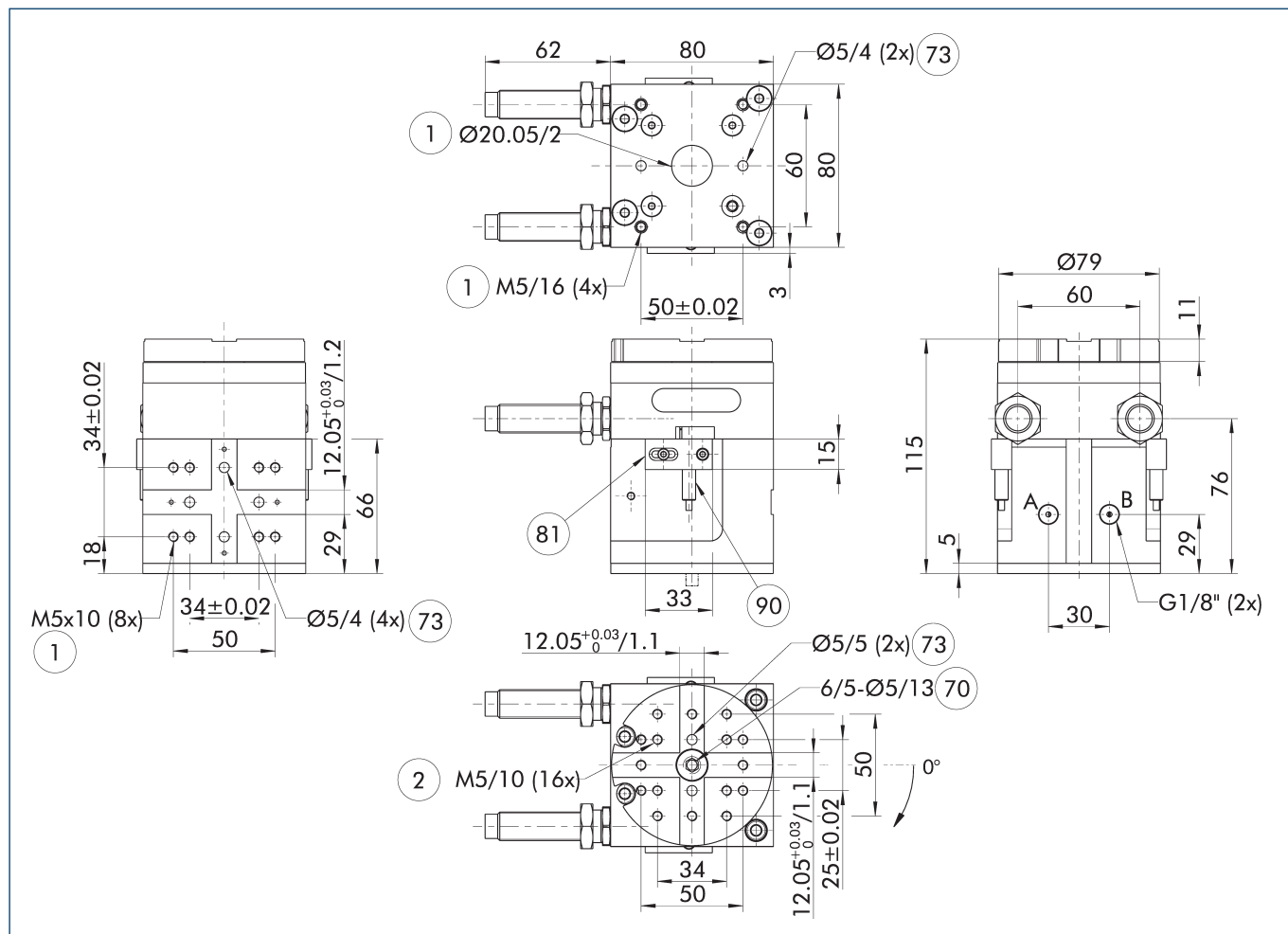
① The indicated moments and forces are static values and should not appear simultaneously. Throttling has to be done for ensuring that the rotary motion takes place without impact or bouncing, otherwise the service life reduces.

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
Protection class IP		40	40	40	40
Weight	[kg]	2.1	2.1	2.1	2.1
Cycle Time (1x rotation angle) without attached load	[s]	0.16	0.16	0.21	0.21
Fluid consumption (2 x nominal angle)	[cm³]	74.0	74.0	74.0	74.0
Nominal operating pressure	[bar]	6.0	6.0	6.0	6.0
Min./max. operating pressure	[bar]	3/8	3/8	3/8	3/8
Min./max. ambient temperature	[°C]	5/60	5/60	5/60	5/60
Repeat accuracy	[°]	0.044	0.044	0.044	0.044

① Shock absorber version -2 should only be used for higher loads.
For selection of rotary modules, we recommend using our TOOLBOX sizing software, which can be found online. Verifying the sizing of the selected unit is absolutely necessary, since otherwise overloading can result.

Main view



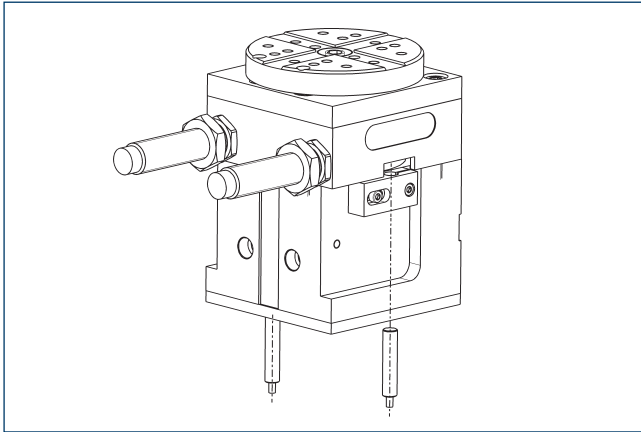
The drawing shows the unit in standard design, without considering any dimensions of the options described below.

- 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 200

Universal swivel vane

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	

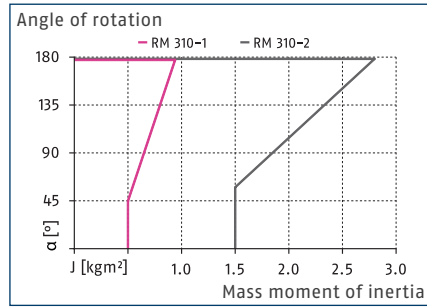
- ① Two sensors (closer/S) are required for each unit and extension cables are available as an option. For sensor cables, note the minimum permissible bending radii. These are generally 35 mm.

RM-W 310

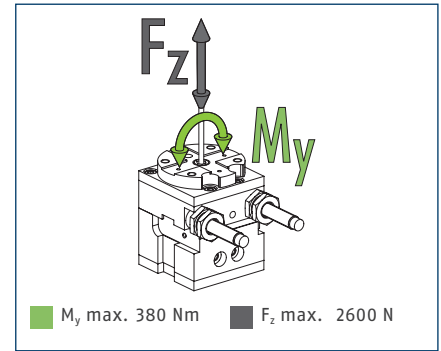
Universal swivel vane



Range of use for dampers



Flange load



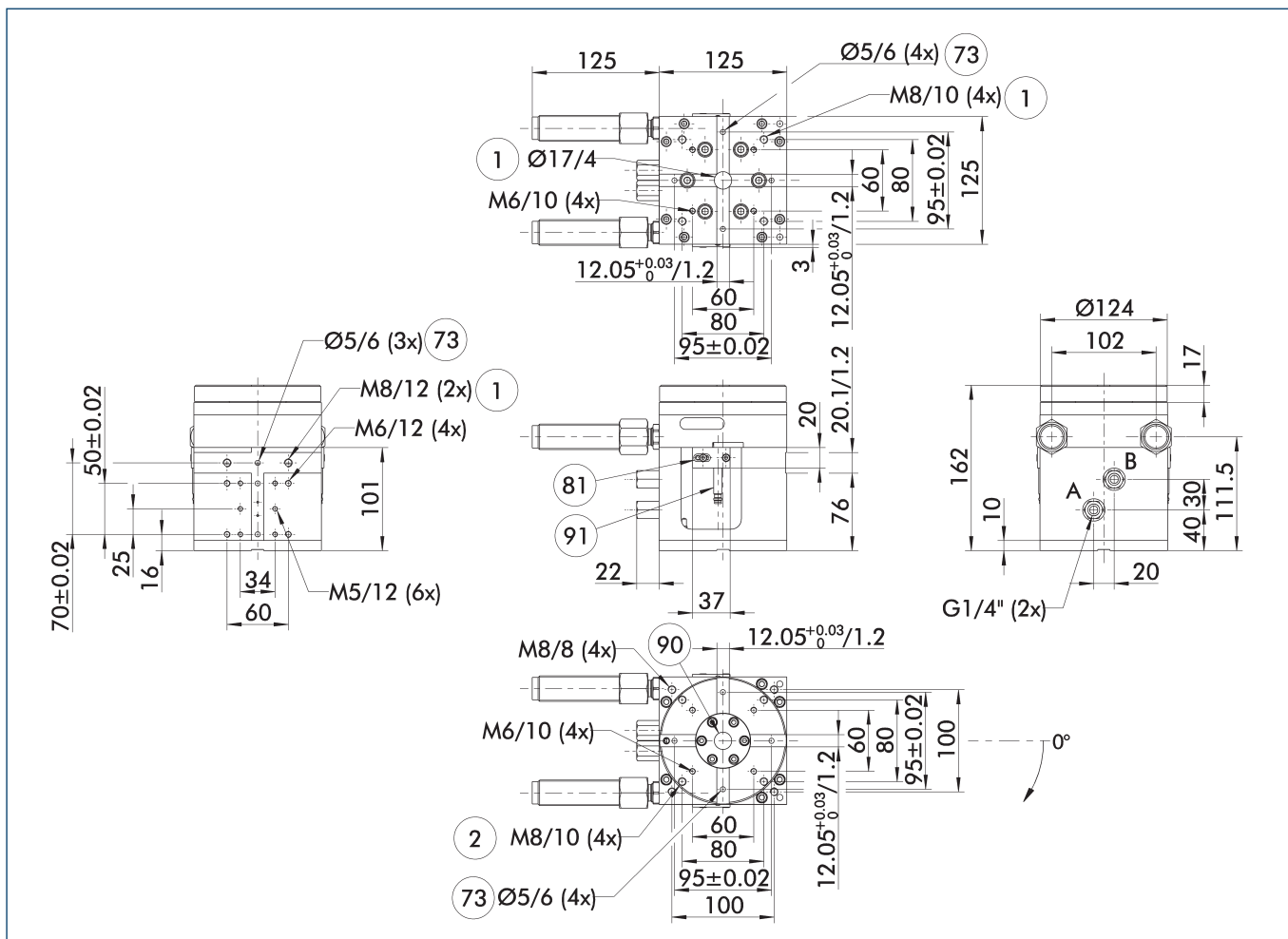
① The indicated moments and forces are static values and should not appear simultaneously. Throttling has to be done for ensuring that the rotary motion takes place without impact or bouncing, otherwise the service life reduces.

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
Protection class IP		40	40	40	40
Weight	[kg]	8.3	8.3	8.3	8.3
Cycle Time (1x rotation angle) without attached load	[s]	0.21	0.21	0.26	0.26
Fluid consumption (2 x nominal angle)	[cm³]	251.0	251.0	251.0	251.0
Nominal operating pressure	[bar]	6.0	6.0	6.0	6.0
Min./max. operating pressure	[bar]	3/8	3/8	3/8	3/8
Min./max. ambient temperature	[°C]	5/60	5/60	5/60	5/60
Repeat accuracy	[°]	0.046	0.046	0.046	0.046

① Shock absorber version -2 should only be used for higher loads.
For selection of rotary modules, we recommend using our TOOLBOX sizing software, which can be found online. Verifying the sizing of the selected unit is absolutely necessary, since otherwise overloading can result.

Main view



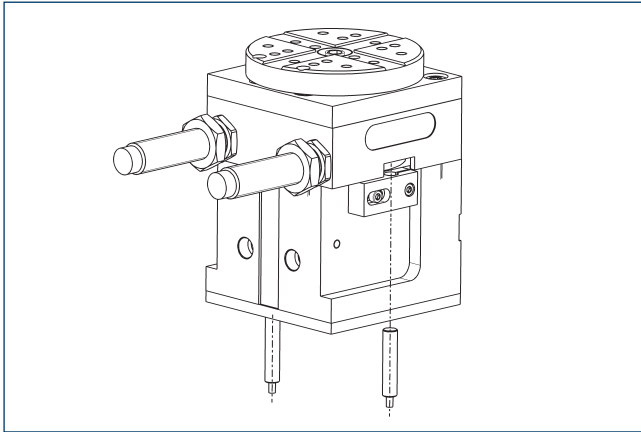
The drawing shows the unit in standard design, without considering any dimensions of the options described below.

- 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
- 73 Fit for centering pins
- 81 Not included in the scope of delivery
- 90 The hole pattern on the rotary table is identical to the bottom
- 91 Inductive proximity switches

RM-W 310

Universal swivel vane

Inductive Proximity Switches



Directly mounted end position monitoring.

Description	ID	
Inductive Proximity Switches		
GMNS 200-W	0313347	
GMNS 200-X	0313345	

- ① Two sensors (closer/S) are required for each unit and extension cables are available as an option. For sensor cables, note the minimum permissible bending radii. These are generally 35 mm.

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Folgen Sie uns



J. Lehmann

Jens Lehmann, German goalkeeper legend, SCHUNK brand ambassador since 2012 for safe, precise gripping and holding.
schunk.com/Lehmann