

Operating and installation instructions!

Rotary modules DM 4 AE, DM 5 AE, DM 6 AE

Items included in the delivery

The rotary module with intermediate stop is supplied fully packaged. A listing of delivery contents can be found in the catalog entitled „Domino handling components“.



Note:

Deliveries must be checked to ensure they are complete and in perfect condition.

Technical data

Please see catalog: „Domino handling components“

The technical specifications must be heeded to maximize the service life of the modules.

Safety notes



Warning:

When installing the rotary module with intermediate stop, you must switch the power supply off. Both local and product-specific safety instructions must be observed without fail.

Installation and integration of DM 4 AE, DM 5 AE, DM 6 AE

Adjusting angle of rotation, fig 1

1. Slacken clamping screws (1) M3.
2. Stop screw (2) forward or back to accurately define the traversing path of the disc (3).
3. Securely clamping screws (1) M3.
4. Slacken cap nut (4). (SW13=DM4AE / SW17=DM5AE / SW24=DM6AE)
5. Slacken locknut (5). (SW13=DM4AE / SW17=DM5AE / SW24=DM6AE)
6. Rotary plate (3) move in position, Screw stop damper (6) forward or -back turn until Rotary plate (3) moved, then Screw stop damper (6) one turn back.
7. Retighten locknut (5) and replace cap nut (4).

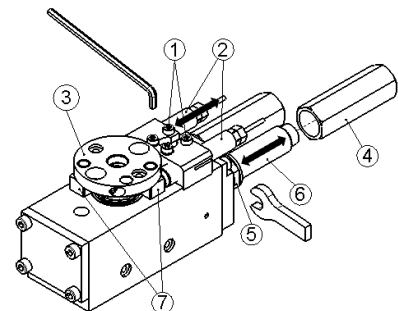


Fig. 1



Caution:

The body stop (7) and Adjust stop screw (2) must be touch together!

Setting the limit switch, Fig. 2

1. Slacken clamping screws (1). (SW6=DM4AE / SW8=DM5AE und DM6AE)
2. Limit switch (2) lead conduct to counternut (1).
3. Distance bush (3) between limit switch (2) and counternut (1) position.
4. Limit switch (2) together with distance bush (3) and counternut (1) move to stop screw (4) and attract with counternut (1).



Note:

Always check the traversing path, because it is set at the factory to the full traversing path of 90°/180°. The only difference between the 90° type and the 180° type is in the sensor lug.



Caution:

The sensor is not to contact the sensor lug, or it will be damaged. It is imperative to maintain a distance of 0.5 mm between the sensor and the sensor lug.



Note:

Wiring and connection of the limit switch is to be carried out according to the manufacturer's instructions!

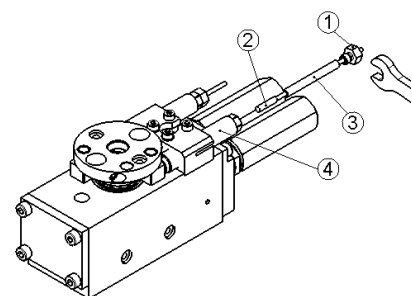


Fig. 2

Pneumatic connection, Figs. 3, 4

Remove plug (1) and fit restrictor.
Blank off the unused valve bushes with threaded plugs (2).

Function rotary module only (valve bush A and B).
Function in combination with parallel or angle gripper (valve bush C and D) see schematic diagram Fig. 4!

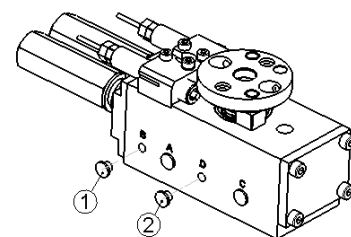


Fig. 3

Connect pneumatic hose according to schematic diagram.
Adjust restrictors (speed).



Caution:

To observe the permissible operating conditions, exhaust air restrictors must be used.
Set the restrictors so that the disc runs into the end positions without impact.

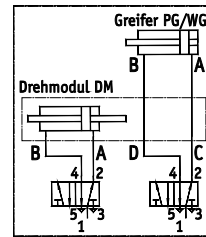


Fig. 4

Options (add-on of parallel or angle gripper, Fig. 5)

Unscrew setscrews M5 (with point) (1) at the disc.
Place module (PG or WG) (2) in position and retighten setscrews (1).



Note:

The pneumatic coupling must be thoroughly greased on assembly!

Refer to the Parallel gripper (PG ...), resp. the
Angle gripper (WG ...) instructions for more detailed information.

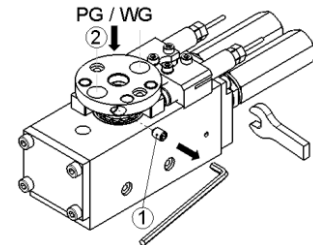


Fig. 5

Remedying faults

Problem	Cause/Remedy
Rotary module does not move	<ul style="list-style-type: none"> ▪ Check air supply (3 – 7 bar). ▪ Pressure dropped below minimum level ▪ Air lines mixed up ▪ Throttle valves closed ▪ Unused connections not capped ▪ Foreign body under rotary plate
Travel path incorrect	<ul style="list-style-type: none"> ▪ Foreign body under rotary plate ▪ Pressure dropped below minimum level ▪ Stop shock absorber not set up correctly
Module moves jerkily or too quickly	<ul style="list-style-type: none"> ▪ Throttle valves missing or incorrectly set ▪ Load too great (please see data sheet in catalog)
Module moves too slowly	<ul style="list-style-type: none"> ▪ Throttle valves set incorrectly
The motive power is declining	<ul style="list-style-type: none"> ▪ Check air supply ▪ Check seals ▪ Clean and lubricate rotary module

Maintenance and lubrication instructions

To ensure perfect operation of the module the following must be observed:

- The compressed air must be filtered, dry, oiled or oilless.
- Modules must be inspected and cleaned regularly.

Shock absorbers:



Note:

Top quality shock absorbers are used in the modules. Faulty shock absorbers reduce the service life of modules considerably and the accuracy and reproducibility of end positions can no longer be guaranteed.



Caution:

Make sure without fail that the rotary plate does not slam into its end position as this can destroy the shock absorbers. If the shock absorbers are destroyed, they must be replaced without delay.

Lubrication



Note:

We recommend relubricating pneumatic cylinders after approx. 5 million cycles. Unscrew the side caps. Lubrication involves direct application on the cylinder wall (grease type: Mobilgrease 28) and manual rotation of the rotary plate several times (repeat procedure 3 or 4 times).