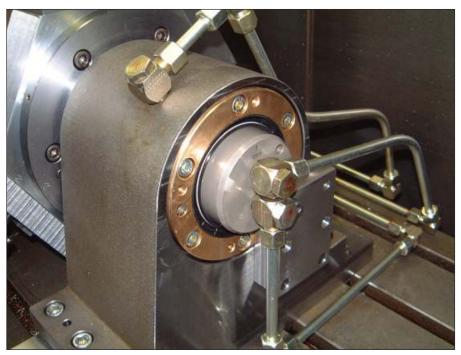


# ROTARY VALVE COUPLINGS

pmax. 350 bar



**Application example:** Rotary valve coupling builted into the support bearing of a reversible clamping device. The design of the rotary valve coupling only permits loading and unloading when the device is turned to a predefined position. This means that it is impossible for the item to become unclamped in the machining positions. Installation in the thrust bearing is extremly compact, saving valuable machining space for the clamping of workpieces.

### Important operating instructions:

The rotary valve coupling must only be operated with hydraulic fluid. All levels must be connected to the pressure generator in order to guarantee lubrication of the seals.

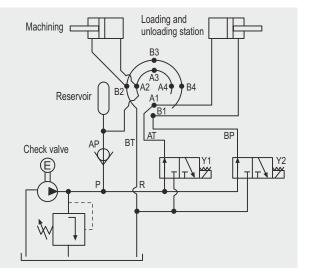
Operation must only be carried out with the screw connections fitted. Rotary valve couplings should only be used for phased operation, or at very low speeds.

The Rotary Valve Coupling must be fitted in such a way that no bending moment is exerted on either the stationary or the rotating component. It has proven effective to bolt the rotating housing with the connectors to the clamping devices and merely to secure the

rotating piston against twisting (prevent initiation of bearing forces). Only hoses should be used for the pipe connection between the torque brace and the rotary piston.

At an operating pressure of about 200 bar and above, it is recommended that a hydraulic reservoir with a storage-safety device be fitted between the check valve and connector level **A** (permanent pressure area). This reservoir is for the purpose of compensating for minor fluid loss through leakage, when the machine is at rest in the loading and unloading station. You are recommended to use only directional valves to control the rotary valve coupling (see specimen circuit).

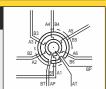
### Specimen circuit:





### Webcode: 050004

We also design and manufacture special designs



#### **General information:**

Rotary valve couplings transmit hydraulic fluid to revolving tables. The structure is designed as a rotary slide valve, which permits several hydraulic devices to be supplied simultaneously with hydraulic fluid under pressure, and independently of that, a loading and unloading station to clamped or unclamped by means of distributing valves (see specimen circuit).

### **Technical data:**

- Max. operating pressure: 350 bar
- Operating temparature:
   -10° C up to +60° C
- Max. flow rate in AT and BP: 133 cm<sup>3</sup>/s (8 l/min)
- Hydraulic fluid connection: G 1/4 threaded port, manifold connection with O-ring in the rotary piston

in the rotary piston axial and radial, in the housing radial

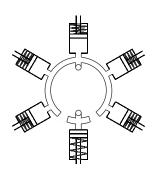


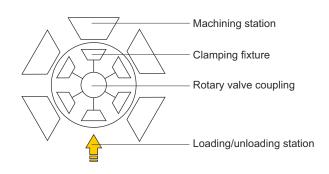
Siemensstraße 16, 35325 Mücke (Germany)

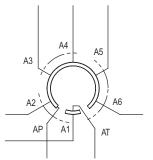
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### Rotary valve couplings

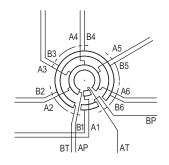






Single-acting, 1 station (loading/unloading)

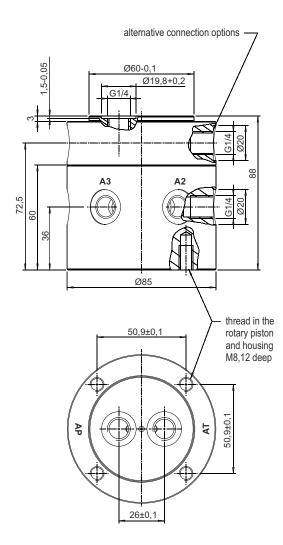
Circuit description:



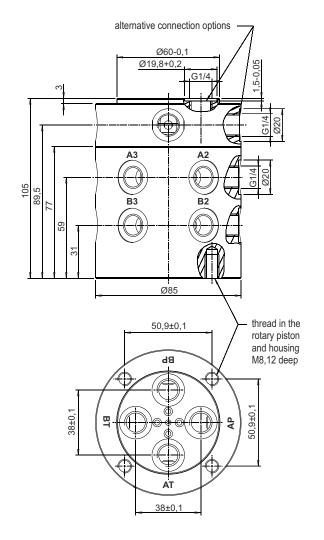
Double-acting, 1 station (loading/unloading)

Circuit description:

AT to A1 AP to A2 – An BP to B1 BT to B2 – Bn



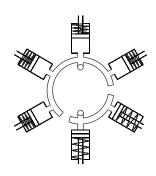
Single-acting	Order no.:
six stations	DRG-5-EW6-001
eight stations	DRG-5-EW8-001
ten stations	DRG-5-EW10-001

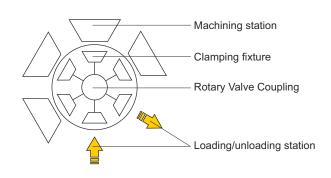


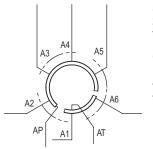
Double-acting	Order no.:
six stations	DRG-5-DW6-001
eight stations	DRG-5-DW8-001
ten stations	DRG-5-DW10-001



### Rotary valve, triggered simultaneously



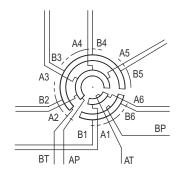




Single-acting, 2 stations (loading/unloading) triggered simultaneously

Circuit description:

AT to A1 + An AP to A2 - An-1 **BP** to **B1** – **Bn** BT to B2 - Bn-1



Double-acting, 2 stations (loading/unloading) triggered simultaneously

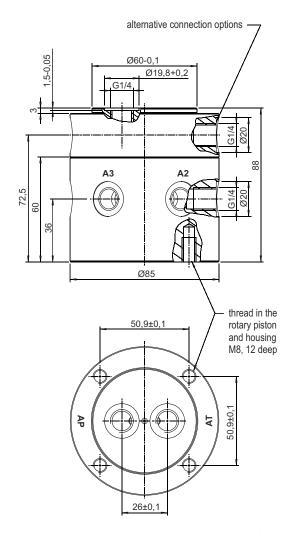
Circuit description:

AT to A1 + An AP to A2 - An-1 BP to B1 - Bn

BT to B2 - Bn-1

alternative connection options Ø60-0,1

Ø19,8+0,2



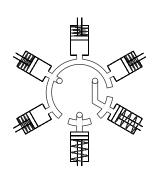
105 59 Ø85 thread in the 50,9±0,1 rotary piston and housing M8, 12 deep 50,9±0,1  $38\pm0,1$ 

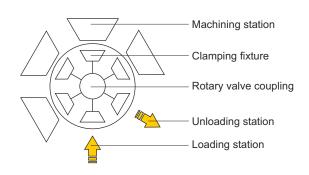
Single-Acting	Order no.:
six stations	DRG-5-EW6-002
eight stations	DRG-5-EW8-002
ten stations	DRG-5-EW10-002

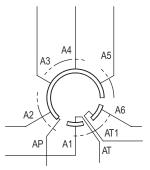
Double-acting	Order no.:
six stations	DRG-5-DW6-002
eight stations	DRG-5-DW8-002
ten stations	DRG-5-DW10-002



## Rotary valve couplings, triggered separetely







Single-acting, 2 stations (loading/unloading) triggered separetely

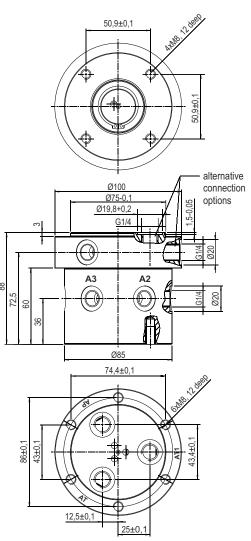
### Circuit description:

AT to A1 AT1 to An AP to A2 - An-1

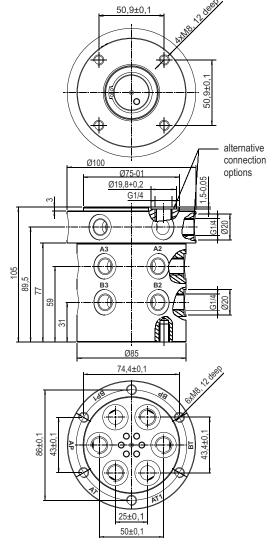
Double-acting, 2 stations (loading/unloading) triggered separetely

### Circuit description:

AT to A1 AT1 to An AP to A2 - An-1 BP to B1 BP1 to Bn BT to B2 - Bn-1



Single-actingOrder no.:six stationsDRG-5-EW6-003eight stationsDRG-5-EW8-003		
eight stations DRG-5-EW8-003	Single-acting	Order no.:
	six stations	DRG-5-EW6-003
•	eight stations	DRG-5-EW8-003
ten stations DRG-5-EW10-003	ten stations	DRG-5-EW10-003



Double-acting	Order no.:
six stations	DRG-5-DW6-003
eight stations	DRG-5-DW8-003
ten stations	DRG-5-DW10-003