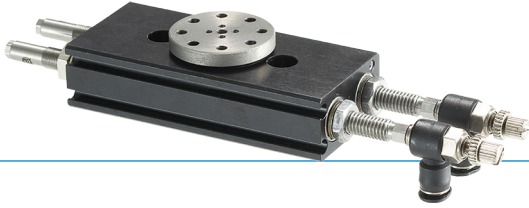


# FLAT SWIVEL UNITS

## SERIES MSF

### ▶ PRODUCT ADVANTAGES



#### “The unique”

##### ▶ **Decide for yourself!**

Flange connection or journal shaft, with or without shock absorbers: The multitude of variants ensure you always find what you need

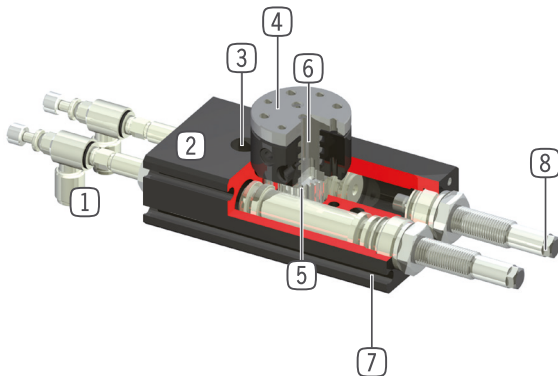
##### ▶ **Flat structure**

Thanks to the reverse double piston drive, the unit can work in operations requiring flat conditions. This is how you can build your application to save more space

##### ▶ **Infinitely adjustable swivel angle**

Become flexible and unique with the completely adjustable swivel angle that also reduces set up times

### ▶ BENEFITS IN DETAIL



#### ① **Air flow control valve**

- for speed regulation
- included in scope of delivery

#### ② **Robust, lightweight housing**

- Hard-coated aluminum alloy

#### ③ **Mounting and positioning**

- mounting possible from several sides for versatile positioning

#### ④ **Tool intake**

- with shaft extension or flange available

#### ⑤ **Force transfer**

- rack and pinion

#### ⑥ **Up to 2 way integrated air feed-through**

- for hoseless air transfer
- hose package does not have to be pivoted

#### ⑦ **Sensing slot**

- mounting and positioning of magnetic field sensors

#### ⑧ **Integrated shock absorbers with spiral groove technology**

- adjustable end position damping



## ► SERIES CHARACTERISTICS

Installation size		Version					
MSFXX		N-F001	S-F001	N-F002	S-F002	N-D2	S-D2
	10 million maintenance-free cycles (max.)	•	•	•	•	•	•
	IP41	•	•	•	•	•	•
	Magnetic field sensor	•	•	•	•	•	•
	Flange	•	•			•	•
	Shaft extension			•	•		
	Fluid feed-through					•	•
	Elastomer end position damping	•		•		•	
	Powerstop end position damping		•		•		•
	Positionability - 2 positions	•	•	•	•	•	•
	Adjustable swivel angle	•	•	•	•	•	•

## ► TECHNICAL DATA

Installation size	Swivel angle [°]	Torque [Nm]	Weight [kg]	IP class
MSF34	90-180	0,3 - 0,4	0,17 - 0,21	IP41
MSF40	90-180	0,6 - 0,7	0,26 - 0,29	IP41
MSF44	90-180	1 - 1,2	0,41 - 0,46	IP41

## ► FURTHER INFORMATION IS AVAILABLE ONLINE



All information just a click away at: [www.zimmer-group.com](http://www.zimmer-group.com). Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product. Quick, clear and always up-to-date.

# FLAT SWIVEL UNITS

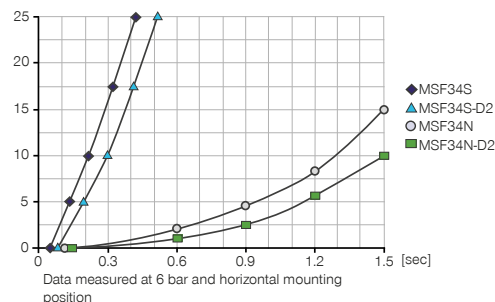
## INSTALLATION SIZE MSF34

### ▶ PRODUCT SPECIFICATIONS



#### ▶ Moment of inertia

[kg cm<sup>2</sup>] Shows the expected swivel time vs the calculated moment of inertia



### ▶ INCLUDED IN DELIVERY



2 [piece]  
Flow Control Valves - with Swivel joint  
**DRVM3X4**



2 [piece]  
Centering Disc  
**DST40800**

### ▶ RECOMMENDED ACCESSORIES



#### ENERGY SUPPLY



**GVM3**  
Straight Fittings - Barb Style Connection



**DSV1-8**  
Pressure safety valve



**DSV1-8E**  
Pressure safety valve with quick exhaust



#### SENSORS



**MFS01-S-KHC-P1-PNP**  
Magnetic field sensor angled, cable 0.3 m - M8 connector



**MFS02-S-KHC-P1-PNP**  
Magnetic field sensor straight, cable 0.3 m - M8 connector



**MFS01-S-KHC-P2-PNP**  
2-point sensor angled, cable 0.3 m - M8 connector



#### SENSORS



**MFS02-S-KHC-P2-PNP**  
2-point sensor straight, cable 0.3 m - M8 connector



#### CONNECTIONS / OTHER



**KAG500**  
Plug-in connector Straight Cable 5m - Socket M8 (female)



**KAW500**  
Plug-in connector Angled Cable 5m - Socket M8 (female)



**S8-G-3**  
Plug-in connector customizable Straight - Connector M8



**S12-G-3**  
Plug-in connector customizable Straight - Connector M12

