

# Innovative, powerful, reliable.

The new motoric valve drive from Möhlenhoff.



## **OEM ACTUATOR 6**

Motoric valve drive

→ [www.moehlenhoff.de](http://www.moehlenhoff.de)

# The motoric valve drive

## Robust, reliable, powerful.

The OEM Motoric Valve Drive 6 is suitable for small valves that require a long stroke, higher force and thermally independent actuating mechanics. Key features such as the valve adapter system, the plug-in cable and IP 54 for 360° assembly have been carried over from the previous model.

Our latest OEM Motoric Valve Drive 6 offers the highest precision and reliability. With selectable force in 100, 125, 150 and 200 N variants, as well as an adjustable actuator speed of 15 or 30 s/mm, you can perfectly tailor the actuators to your individual requirements. Flexible and easy on-site intervention is also possible thanks to manual adjustment.

### Efficiency and energy saving

In addition to a low standby power consumption, the motor control via microcontroller and stepper motor also ensures maximum energy efficiency. Operating costs are kept to a minimum with a power consumption of only 1.0 W to 2.0 VA, depending on the variant.

### Intelligent sensor technology and adaptability

Our integrated sensors detect the closing or opening position of the valve quickly and accurately to ensure reliable and precise control, while the new closing dimension and flexible adapter assignment make the actuator even more versatile.

### Robust and secure

The actuator features certified IP 54 dust and moisture protection for all assembly positions, making it particularly resistant to external influences. Additionally, the disassembly safeguard, provided by a detachable locking button, ensures high operational safety.

### Powerful and user-friendly

Alongside its functional reliability and long lifespan, the actuator offers exceptionally quiet operation. The NFC functionality allows for easy configuration and control via the iOS or Android app, making operation and adjustment to the specific conditions more convenient.

### Versatility for every application

The OEM Motoric Valve Drive 6 provides the perfect solution for every application – whether as a continuous 0-10V or Modbus RTU actuator, as a

3-point actuator or in the failsafe variant.

### Fast and flexible commissioning

The OEM Motoric Valve Drive 6 offers fast initialisation after switching on. The adjustable stroke of 2 mm to 8.5 mm can be precisely set to suit the specific application, conveniently via the app if preferred. The valve stroke recognition can be activated or deactivated as needed. With selectable feedback signal ranges of 1-5 V, 0-10 V, or 1-9 V, especially with a 4-pin connection cable, the actuator can be optimally matched to different systems. Controllability extends over a variable control voltage range, linear or EQP valve curve and offset adjustment.

### Failsafe variant for maximum safety

In the failsafe version, the actuator offers reliable functionality, which is ensured by an internal, durable industrial battery. This battery limits the inrush current and increases the lifespan of the actuator. In this way, the actuator retains its compact dimensions. The battery is designed for a lifespan of at least 10 years. Additionally, the failsafe position can be set either at the factory or with the app, ensuring that the actuator moves to the desired position precisely in an emergency.

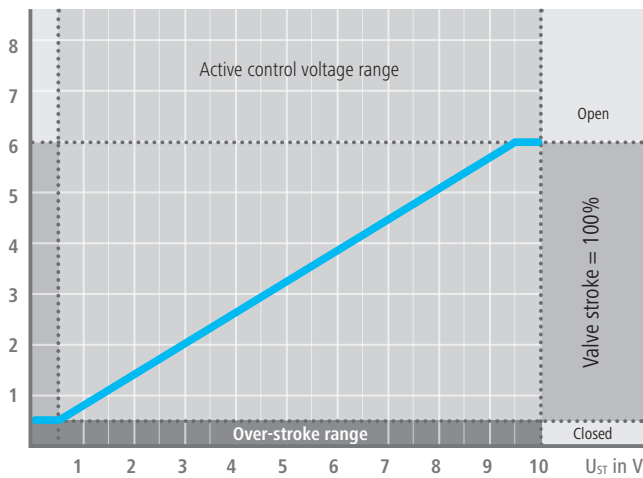


# Highlights at a glance



- ! Adjustable with the Motoric Drive app for iOS and Android devices
- ! Fast initialisation thanks to integrated sensors
- ! The "3-point variant" with valve path detection prevents idle times and enables a faster response
- ! The new closing dimension reduces the number of adapters required to cover around 99% of all small valves on the market.
- ! State-of-the-art electronic components and adaptive control behaviour reduce power consumption

Actuator stroke (mm)



Functional diagram showing MPV 46846

## Flexible and powerful

- Operating voltage: 24 V a.c. / d.c.
- Control via 0-10V signal or pulse width modulation (PWM)
- Infinitely variable and precise valve positioning

## Fast and reliable control

- Very short, thermally independent response times for improved control behaviour

## Optional functions to suit your needs

- Adaptation to customer-specific valve characteristics
- Valve stroke recognition
- 0-10 V feedback signal for position and status evaluation (MPO, MPOF)

Variants	Control voltage	3-point	Closing point recognition	Valve stroke recognition	Feedback signal	Display		Failsafe
						LED display	LC display	
M3P/M3V 468x6	–	✓	✓	Activatable	–	✓	Inactive	–
MPR 468x6	0-10 V	Adjustable	✓	Activatable	–	✓	✓	–
MPV 468x6	0-10 V	Adjustable	✓	Deactivatable	–	✓	✓	–
MPO 468x6	0-10 V	Adjustable	✓	Deactivatable	✓	✓	✓	–
MPM 468x6	Modbus RTU	–	✓	Deactivatable	✓	✓	✓	–
MPRF 468x6	0-10 V	–	✓	Activatable	–	✓	✓	✓
MPVF 468x6	0-10 V	–	✓	Deactivatable	–	✓	✓	✓
MPOF 468x6	0-10 V	–	✓	Deactivatable	✓	✓	✓	✓

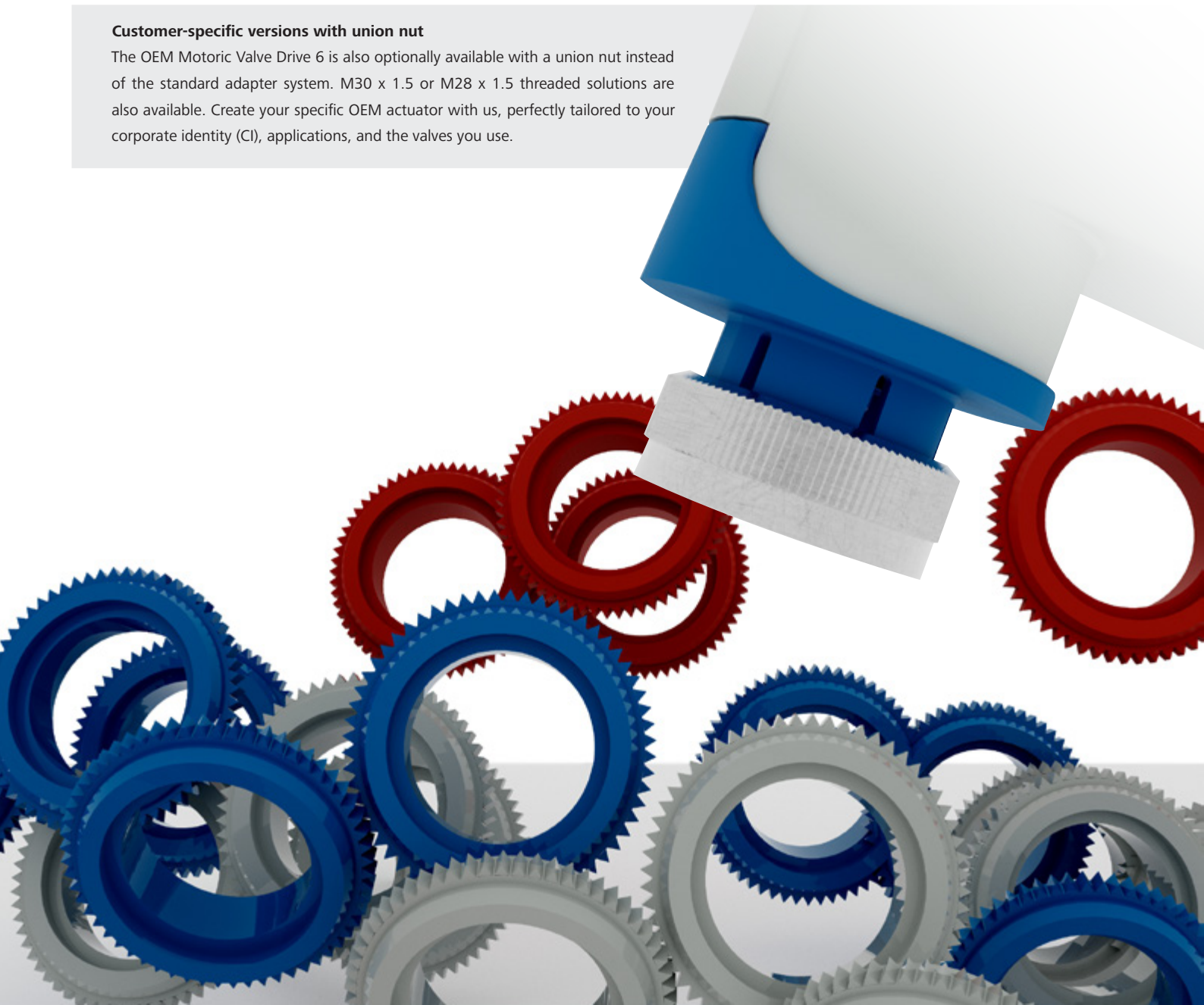
# New valve adaptation

Valve adapter	Minimum closing dimension with OEM Motoric Valve Drive 6	Valve manufacturers
VA 80 - M30 x 1.5	8.5 mm	Danfoss ABQM, Flowcon, Frese, Herz, Honeywell, IVAR, JCI, Oventrop, Sauter, Siemens, TA, Watts
VA 33 - M28 x 1.5	8 mm	Herz, JCI
VA 64 - M28 x 1.5	15.8 mm	Pettinaroli
VA 67 - M30 x 1.5	11 mm	Controlli

The introduction of the new closing dimension ensures full compatibility with the previous model. When the actuator is replaced the existing adapter ring can still be used, which helps to minimise the effort required for conversion. The **VA80 model** is now used exclusively for all current M30x1.5 valves on the market. This harmonisation not only simplifies replacement but also ensures consistent standardisation and efficiency.

## Customer-specific versions with union nut

The OEM Motoric Valve Drive 6 is also optionally available with a union nut instead of the standard adapter system. M30 x 1.5 or M28 x 1.5 threaded solutions are also available. Create your specific OEM actuator with us, perfectly tailored to your corporate identity (CI), applications, and the valves you use.



# Motoric valve drive features

## For OEM partners:

- Operating voltage 24 V a.c. / d.c.
- Customer-specific valve characteristics (optional)
- Max. stroke 8.5 mm
- Failsafe variants with industrial batteries
- Force 100, 125, 150, 200 N
- Actuation speed of 15 or 30 s/mm
- Maximum energy efficiency due to full motor control via a microcontroller

## For technicians:

- Adjustable via Motoric Drive app for iOS and Android devices
- Easy, tool-free, plug-in assembly
- Manual valve adjustment using a screwdriver

## For end users:

- High functional reliability and long lifespan
- Especially smooth operation and no maintenance
- Very low power consumption in standby mode
- Nearly infinitely variable, constant valve positioning
- Internal sensors for determining the closing and opening points of the valve
- The control voltage input is also suitable for pulse width modulation (PWM)
- Disassembly safeguard provided by removable locking button
- Self-locking gear in all positions
- Very short response times
- Function signalling via LCD (continuous) and LED (3-point)



### IP 54 – Moisture protection in every position

IP 54 for 360° assembly provides 100% protection in the event of leaking valves.



### Function display

LC display showing alternately actuator position, active control voltage, status display, stroke and optional backlight.



### 100% compatibility – 1 adapter, 1 connection cable

Plug-in cable and tried-and-tested valve adapter system for thermal valve actuators, adaptable for 99% of all small valves on the market, and can therefore be easily integrated into existing systems.

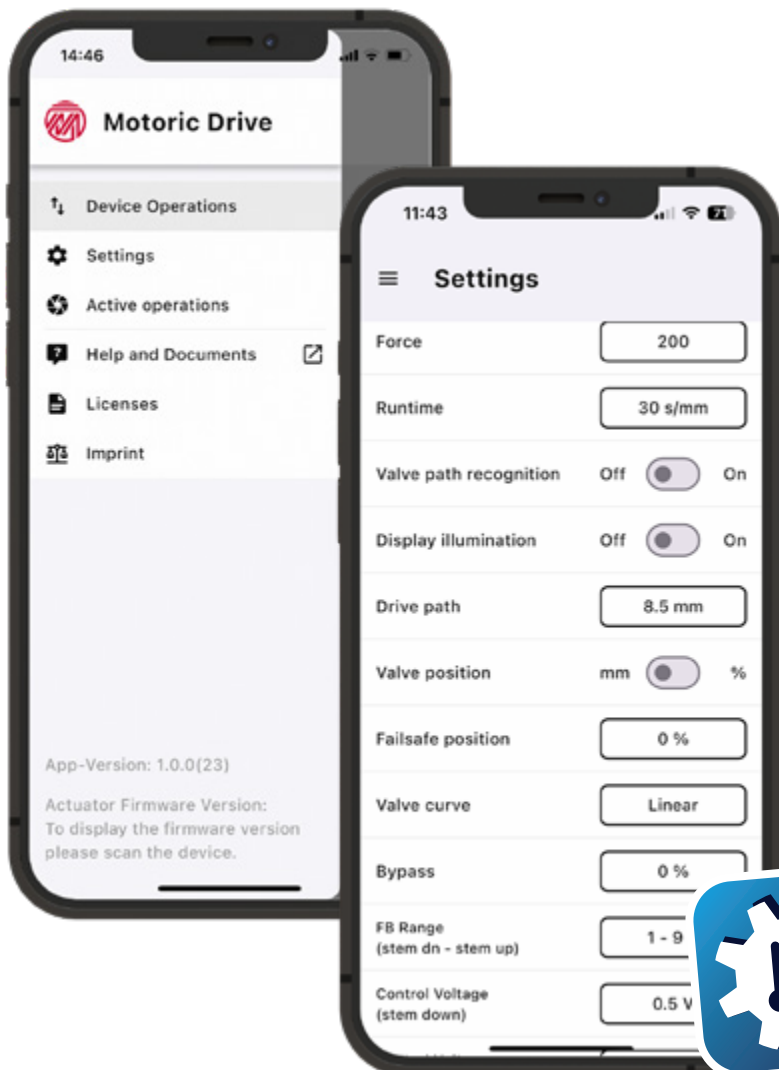


### Exceptionally quiet operation

The maintenance-free OEM Motoric Valve Drive 6 is characterised by its extremely low noise level.

# Motoric Drive app features

Function	Adjustable	Preset
Force	100, 125, 150, 200 N	125 N
Actuation time	15 or 30 s/mm	15 s/mm
Valve stroke recognition	ON, OFF	ON
Stroke	2...8.5 mm (in steps of 0.1 mm)	8.5 mm
Bypass, minimum valve position	0...50% (in steps of 1%)	0%
Control voltage – start	0...10 V (in steps of 0.1 V)	0.5 V
Control voltage – end	0...10 V (in steps of 0.1 V)	10 V
Valve curve	Linear, EQP	Linear
Stroke display	% / mm	%
Functional or standard feedback signal	1-5, 1-9 or 0-10 V	1-9 V



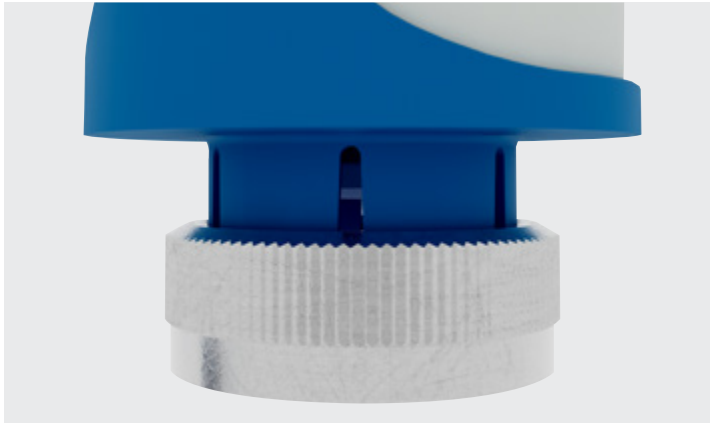
## Intelligent control with Motoric Drive app

By briefly placing the smartphone on the OEM Motoric Valve Drive 6, numerous possibilities are unlocked.

These include, among others:

- Read, adjust and transfer the actuator settings easily and securely
- Create, store and manage configurations on an iOS or Android device
- Optimise actuator properties to meet system requirements in all project phases for maximum efficiency
- Activate special functions such as valve stroke recognition, offset and valve curve
- Perform a factory reset of the motoric actuator or move it to the mounting position using the app

# Customer-specific customisations



## Union nut

The alternative to the adapter system for further differentiation as M30 x 1.5 or M28 x 1.5.



## Your logo

High-quality standard laser printing available in single or multiple colours.



## Connection cable

Plug-in and compatible with Möhlenhoff thermally continuous drives, made of PVC, halogen-free and customisable if required.



## Packaging and labelling

For specific labelling requirements in automated warehouses, we offer flexible solutions tailored to individual needs.



## Item number

To ensure easy identification and management, we print our units with unique item numbers.



## Barcode

Upon request, we can label the packaging with custom barcodes according to your specifications.

# In-depth product support



## Range of products and services

Providing application-driven advice and technical support for our products and systems is part of the services we offer to our OEM customers. We also offer in-depth product information to assist in providing customised technical literature and advertising materials.

## Guarantee of quality

Möhlenhoff has recognised testing, inspection and simulation facilities that make our high level of quality and innovation possible. This high standard is underpinned by a modern integrated management system. We also ensure that our staff are quality-driven and have a strong environmental awareness.

## Guaranteed protection from overvoltage

All Möhlenhoff products are tested and certified by independent institutes. Due to its excellent quality and safety standards, Möhlenhoff guarantees that the OEM actuators are protected from ordinary surges in the power supply network.



## Your OEM partner

Möhlenhoff GmbH has been an established player on the international market for more than four decades. Our reliability, expertise and high quality, combined with innovative ideas and partnership, have made it a highly successful player worldwide for many years. As an OEM, Möhlenhoff GmbH supplies products and complete systems for heating, ventilation and air-conditioning equipment. As a specialist in control components and systems, the company offers its expertise to manufacturers worldwide. Möhlenhoff GmbH is a global market leader in thermal valve actuators.



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