BR-EX26-00EN

MEX SERIES

Electric Actuator
Proportional Control Valve

FLOWMAXI

www.flowmaxi.com.tr

MEX 101

Electric Actuator
Proportional Control Valve

"The Flowmaxi MEX 101 series is a high-performance proportional control valve equipped with Siemens brand electric actuators to meet modern industrial automation needs. By eliminating the need for a compressor, this system stands out with its energy efficiency, precision, and silent operation. With high-precision position control, automatic calibration capability, and 24V/220V operating options, the MEX 101 offers maximum flexibility to the user in process control. While safe operating conditions are ensured with spring-return *(fail-safe)* models, the manual control option keeps you in control even during system failures.

Distinguished by its compact and aesthetic design, the MEX 101 prevents sudden pressure shocks thanks to its slow opening-closing feature, extending the lifespan of system components. Developed in collaboration with Siemens, this series brings quality, trust, and engineering together in a single body."

Electric Actuator Comfort
Eliminates the need for a compressor and ensures low energy consumption.

Smart Calibration & Precise Control
Automatic positioning, high repeatability, and minimum hysteresis.

Siemens Actuator Assurance
A fully compatible engineering solution with world-leading German technology.

Slow Opening / Closing
Prevents system shocks and increases process safety.

Fail-Safe Option & Manual Operation
Spring-return option and manual intervention capability with a handwheel.

Modular Connection and Ease of Compatibility
Easily integrates into different control systems thanks to standard connection dimensions.

MEX 102

Electric Actuated Proportional Control Valve

The MEX 102 series is designed to provide maximum safety, long service life, and silent operation in high-temperature processes. Thanks to its extended stuffing box design, it keeps the electric actuator away from high-temperature sources, extending the service life of both the actuator and the sealing components. With its high-temperature-resistant stuffing box design combined with a metal-backed gasket, this series can be safely used in systems operating with hot oil, steam, and high-temperature fluids. SSiemens electric actuator technology prevents pressure shocks with its slow opening and closing characteristic, while the automatic calibration feature shortens commissioning time and minimizes maintenance requirements. Its compact design, silent operation, and low energy consumption make it an ideal solution especially for processes in enclosed spaces.

Suitable for Hot Oil and High-Temperature Applications
The actuator is protected against thermal stresses thanks to the extended stuffing box design.

Smart Calibration & Precise Control
Automatic positioning with high repeatability and minimum hysteresis.

Silent and Compressor-Free Operation
Fully compatible with closed systems thanks to energy efficiency and silent operation.

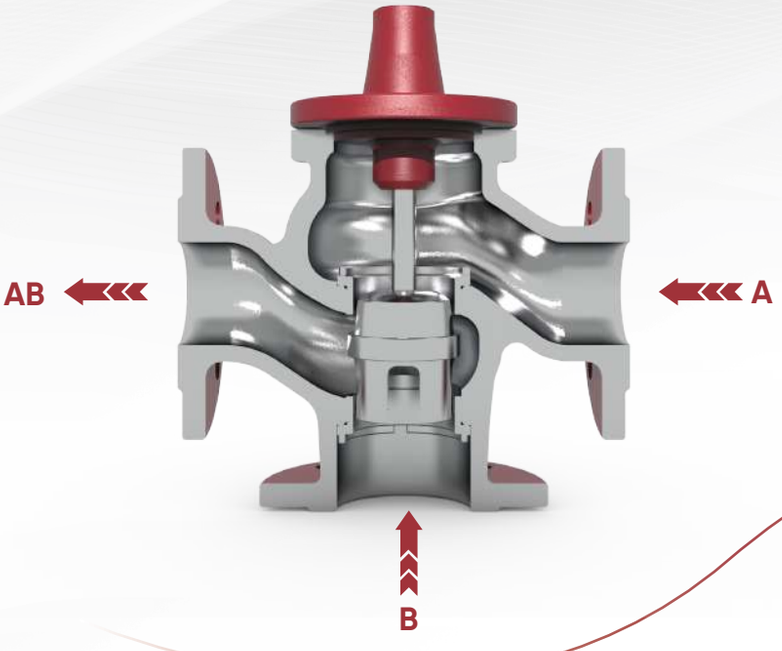
Slow Opening/Closing Movement
Prevents pressure fluctuations and extends the service life of system components.

Uninterrupted Performance
Low hysteresis and high repeatability thanks to Siemens motor technology.

Manual Operation Option
Control is in your hands with a valve mechanism that can be engaged in emergencies.

MEX 300 SERIES

Electric Actuated 3 Way Proportional Control Valve

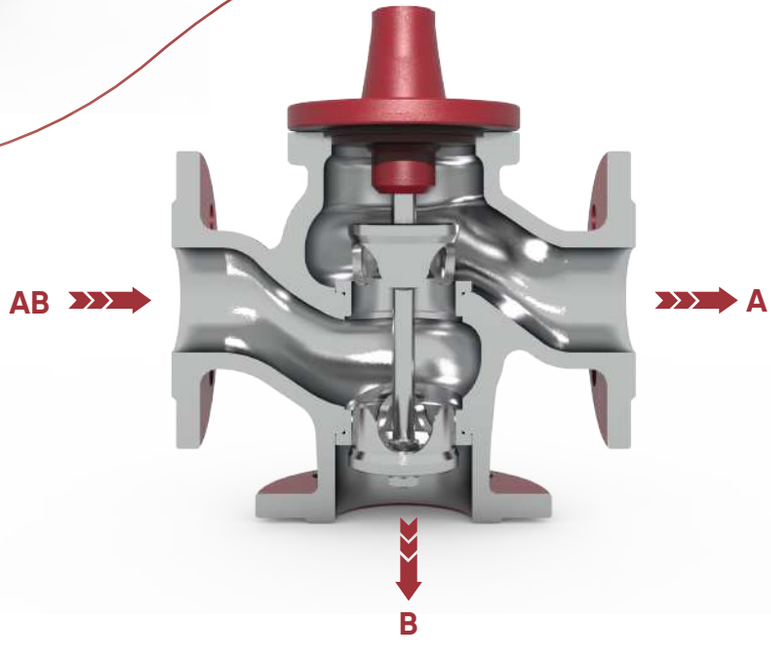


Mixing Type

It enables the controlled combination of fluid coming from two different inlet lines into a single outlet line. It is especially suitable for heat exchangers and mixing processes.

Diverting Type

It allows the fluid coming from a single inlet line to be proportionally distributed into two separate outlet lines. It is preferred in systems requiring cooling, heating, and flow direction control.

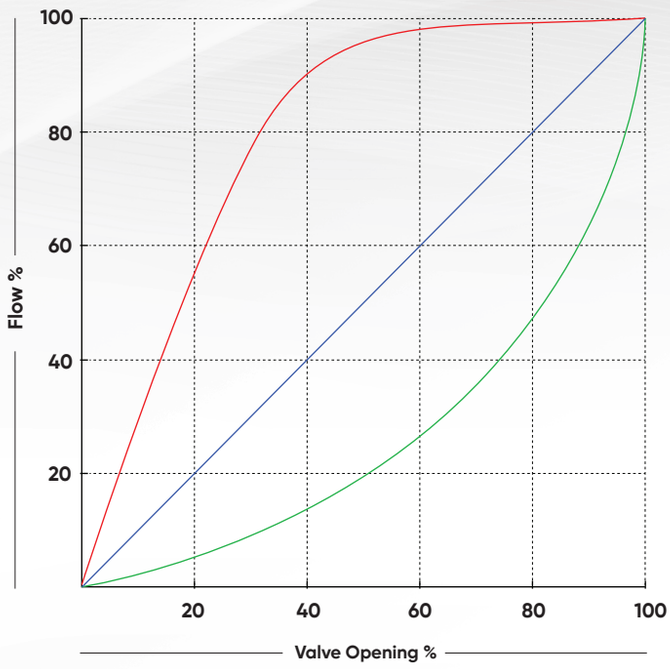


Typical Application Areas

- Proportional feed water systems for boilers
- Temperature control applications
- Energy recovery boiler systems
- Mixing lines *(chemical, food, pharmaceutical)*
- Inlet/outlet control of heat exchangers

MEX SERIES

Flow Characteristic



Fast Opening
Lineer
Equal Percentage

In control valves, the flow characteristic defines how the flow rate changes as the valve opening increases. In other words, it represents the flow curve corresponding to the opening percentage. Different characteristics are used according to application requirements.

Flow Characteristic Types and Plug Designs:

1. Equal Percentage

As the opening rate increases, the rate of flow change increases progressively. It provides precise control at initial positions and more aggressive flow in the final openings. It is especially preferred in processes with high pressure variations, and in steam and hot fluid applications.

2. Lineer

The increase in flow is directly proportional to the valve opening. It is ideal for systems less sensitive to pressure and for proportional heating–cooling applications.

3. Fast Opening

A small valve movement allows a large portion of the flow to pass. It is commonly used in on/off applications and in systems requiring rapid response, such as safety and discharge lines.

4. Noise-Reducing Cage Plug

Preferred in high differential pressure lines. It has a perforated structure that improves acoustic performance and reduces noise. It can be designed with linear or equal percentage flow characteristics. It provides a safe and durable solution against high pressure differences, cavitation, and vibration risks.

Siemens Electric Linear Actuator Compatible Closing Pressures

In Flowmaxi MEX series proportional control valves, high compatibility is provided with Siemens-branded linear actuators featuring different force and stroke values. In the table below, the maximum closing pressures (ΔP) for each actuator model are specified according to DN diameter. This data helps determine the correct actuator configuration during valve selection.

Actuator Features

• SAX Series – Compact design, non-spring return.

• SKD Series – Compact design, spring return.

• SKB Series – Provides high closing force, spring return.

• SAV Series – Suitable for longer stroke applications, spring return.

• SKC Series – Models with maximum force and stroke combination, spring return.

DN	Siemens Actuator	SAX..	SKD..	SKB..	SAV..	SKC..
	Stroke	20mm			40mm	
	Force	800N	1000N	2800N	1600N	2800N
15	ΔP	25	30			
20	ΔP	25	30			
25	ΔP	16	20			
32	ΔP	10	12			
40	ΔP	6	8			
50	ΔP		5	14	8	14
65	ΔP			8	5	8
80	ΔP			5		5

All models are available with 24 V or 230 V operating voltage options.

During selection, operating pressure, valve diameter, and required safety functions *(e.g., automatic closing in case of power failure)* should be considered.

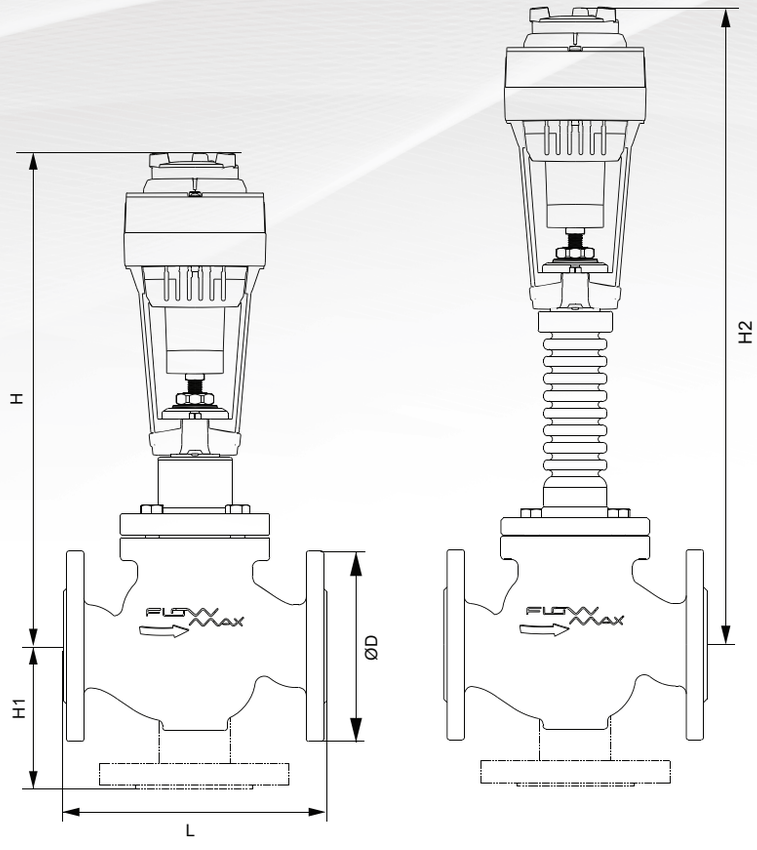
MEX SERIES

Electric Actuated Proportional Control Valve

Technical Details

Flowmaxi MEX Series control valves offer nominal diameter options from DN15 to DN150 and flexible solutions with different actuator dimensions to meet process requirements. They are designed to deliver maximum performance in industrial applications where temperature, pressure, and control sensitivity are critical.

The body dimensions comply with DIN EN 558-1 standards, and flange connection dimensions conform to PN16 standards. For high-temperature applications, a long stuffing box design can be selected, while more compact configurations are available for applications requiring shorter stroke. The MEX series increases engineering compatibility by offering a wide range of options in actuator size and body height.

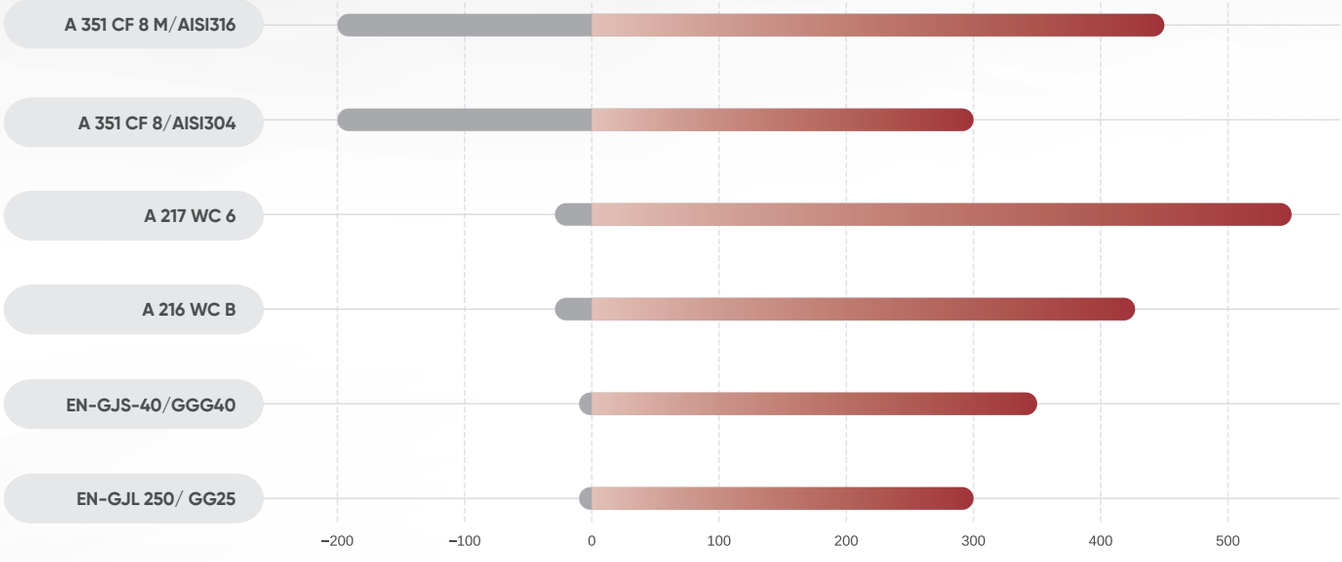


Nominal Sizes	DN	15	20	25	32	40	50	65	80
ØD	mm	95	105	115	140	150	165	185	200
L	mm	130	150	160	180	200	230	290	310
H	SAX	360			365	375			
	SKD	420			425	435	445		
	SKB								
	SKC						520	530	540
	SAV								
H1	SAX	480			485	495			
	SKD	540			545	555	565		
	SKB								
	SKC						640	650	660
	SAV								
H2	mm	70	80	85	100	105		140	

MEX SERIES

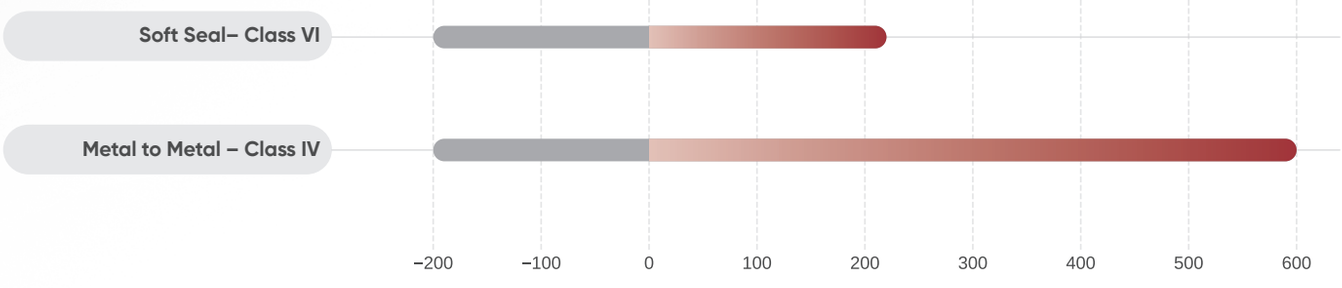
Operating Temperatures

Operating Temperature Ranges by Body Material



Temperature Range (°C)

Temperature Ranges by Seat–Plug Seal Type

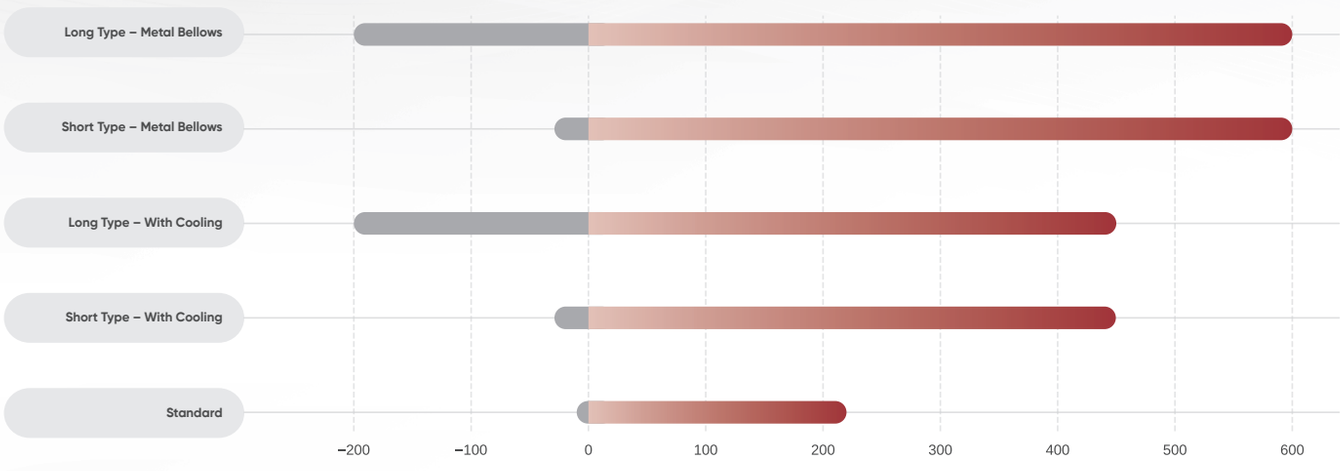


Temperature Range (°C)

MEX SERIES

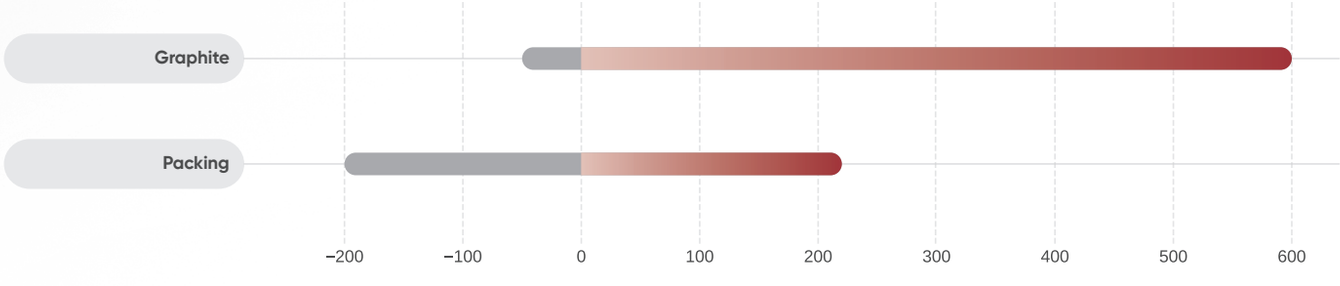
Operating Temperatures

Operating Temperature Ranges by Stuffing Box Type



Temperature Range (°C)

Operating Temperature Ranges by Packing Type



Temperature Range (°C)

MEX SERIES

Product Codes

Section	Section	Code Example
Pressure Class	PN16 PN25 PN40	PN16
Nominal Size	DN...	DN50
Type	MEX= Electric Actuated Proportional Valve	MEX
Series	1 = 2 way 3= 3 way	1
Flow Characteristic	0= Equal Percentage 1= Lineer 2= Quick Opening	0
Stuffing Box Size	1 = Short Type Stuffing Box 2 = Long Type with Cooling	1
Leakage Class	4 = Class IV (Metal-Metal) 6 = Class VI (PTFE)	6
Actuator Selection	SAX..= S1 SKD.. = S2 SKB.. = S3 SAV.. = S4 SKC..= S5	S2
Power Supply	1= 24V 2= 230V	1
Control Signal	1= 0-10V 2= 4-20mA 3= Floating Control	2
Fail-Safe Position	NO= Normally Open NC= Normally Closed	NC

Coding Example

Pn16	DN50	MEX	1	0	1	6	S2	1	2	NC

Maximum Safety in Flow Control!

Fevzi Çakmak Mah. 10576. Sk. NO:13/M Karatay/**KONYA**/**TÜRKİYE**
info@**flowmaxi**.com
+90 (850) 255 06 67

www.**flowmaxi**.com.tr