

**SIEMENS**



# Acvatix – flexible, energy-efficient thermal actuators

A broad range of actuators and accessories for straightforward planning and time-saving, error-free installation

Answers for infrastructure.



# Thermal actuators – ready for any requirement

When choosing a thermal actuator, the optimized Acvatix™ range leaves nothing to be desired: Actuators can be ordered directly from stock in black or white. Cables are available in many versions, black or white, short or long.

The new actuators and the comprehensive adapter range ensure perfect valve-actuator combinations without no-load stroke. This is energy-efficient and creates a comfortable, stable room climate, and is also practical when replacing older actuators. Regardless of the valve used – whether from Siemens or a third-party supplier – the new actuator is a one hundred percent fit on all standard valves and distributors for floor heating systems, and can be mounted easily and error-free. The new design concept of the actuators also lets them be mounted in any position, and ensures a high level of IP protection. That's why Acvatix is always the perfect choice, even when space confined.

# Thermal range – simply efficient

## Save energy through adaptation and design

Thanks to their special construction and new adapters, Acvatix thermal actuators can be mounted on all standard valves. Hundred-percent adaptation of the valve stem prevents no-load stroke and thus temperature fluctuations. This saves energy, increases comfort, and makes it the ideal choice for renovations. Energy consumption can be further reduced with special actuators (...PR types) that are sized and optimized for parallel running. They not only significantly increase energy efficiency in parallel operation, but ensure even temperature distribution.

## Plan and install more flexibly

The modular concept of the Acvatix actuators facilitates planning, product selection, and installation. You can order actuators individually and choose between different cable lengths, control signals, and options like auxiliary switches and LED. Cables and actuators are available in white as well as black, the most commonly requested special colors for a setup that blends in with its surroundings. Thanks to optional connecting cables, a feedback function can be implemented using auxiliary switches. For floor heating systems, Acvatix provides special variants with less force, shorter cables, and an upside-down mounting option. This type of mounting is now possible with all thermal actuators.

## Straightforward and safe

The actuators can be mounted in all positions, including upside-down to save space. IP54 protection is ensured, even on cables with plug-in connections. Furthermore, these robust actuators are noiseless and designed for efficient commissioning and function checks. Positioning and LED operating state are clearly visible. The actuators are also fully backward compatible and can be correctly mounted on valves from third-party vendors using adapters. This means that older and defective actuators can be easily exchanged and projects can be modified without losing time. In the event of fire, the halogen-free cables do not release toxic halogen gases.

## Comprehensive support

With Acvatix, you can count on comprehensive support in all phases of a project, from planning to maintenance. Intensive training keeps you up to date, and practical tools as well as extensive documentation facilitate product selection and sizing, for example the HVAC Integrated Tool (HIT)\*. In addition, should your system malfunction, you can count on us to provide instant support and deliver spare parts rapidly – Siemens' global service network makes it possible.

## Highlights

- Energy savings – thanks to full adaptation without no-load stroke
- Straightforward planning and product selection – due to a complete standard range with modular product design
- Choice of colors – with actuators and cables in white or black
- High level of safety – with IP54 protection even with upside-down mounting and plug-in connections
- Long-term investment protection – thanks to full backward compatibility as well as adaptability to third-party valves
- Comprehensive support – with training, service tools, and the Siemens global service network

\* HVAC Integrated Tool online at [www.siemens.com/hit](http://www.siemens.com/hit)



Increased flexibility and simplicity in planning, installation, and commissioning – and enhanced comfort for building occupants: the Acvatix thermal actuators can be adapted to a variety of wishes and mounted error-free. They ensure optimum operation and low energy consumption.

# Acvatix thermal actuators – simply more flexible

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## 1 Modular product concept in white and black



Actuators and cables are available in white or black. Positioning signals range from DC 0...10 V modulating via ON/OFF to PDM<sup>1)</sup>. Models are available for NO<sup>2)</sup> and NC<sup>3)</sup>. Actuators and cables can be ordered individually or as pre-defined product packages.

## 2 High-quality cable range



The cables for the thermal actuators are available in different lengths, in white or black, in halogen-free versions, and with integrated auxiliary switches for the feedback from the actuator to the controller. Thanks to their plug-in connections, they can be easily connected to the actuator.

<sup>1)</sup> Pulse duration modulation (PDM) in connection with Siemens room controllers of the Desigo™ range and room thermostats

<sup>2)</sup> NO: normally open    <sup>3)</sup> NC: normally closed





### 3 Upside-down mounting and IP54 protection



The actuators can be mounted in all positions, including upside-down if space is limited, e.g. with fan coils and floor heating systems. Even in this position, IP54 protection is guaranteed. The IP54 protection class also applies to cables with plug-in connections, so that actuators can be safely exchanged without the help of an electrician.

### 4 Comprehensive range of accessories



Ideal for renovations and retrofit jobs: Accessories include a range of adapters for mounting the actuators on various floor heating distributors, valves, and valves from third-party suppliers. The automatic adaptation of the close-dimension enables error-free mounting. The accessory range also includes vandal protection, for when actuators are used in public buildings such as schools.

### Variants for floor heating systems



Acvatix offers a dedicated product package for floor heating systems: an actuator with 90 N that can be mounted in any position with IP54 protection and a cable 0.8 m in length – specifically designed to meet the requirements of floor heating applications.

# Thermal actuator range – from freely combinable to pre-defined



## Freely combinable range

### Connecting cable

Color		Function mod	
Equipped with		–	Function mod
Positioning signal		2-position (ON/OFF)	DC 0...10 V
		[STA..., NC]	[STA..., NC]
		[STP..., NO]	–
Standard PVC cables	0.8 m	ASY23L08	
	1 m	ASY23L10	
	2 m	ASY23L20	ASY6AL20
	3 m	ASY23L30	
	4 m	ASY23L40	
	5 m	ASY23L50	ASY6AL50
	6 m	ASY23L60	
	7 m	ASY23L70	ASY6AL70
	10 m	ASY23L100	
	15 m	ASY23L150	
Halogen-free cables	2 m	ASY23L20HF	ASY6AL20HF
	5 m	ASY23L50HF	ASY6AL50HF
	7 m		ASY6AL70HF
	10 m	ASY23L100HF	

Actuator	NC/NO <sup>3)</sup>	Operating voltage	Positioning signal	Color		
STA73/00	NC	AC 24 V	2-position	White RAL 9016	■	■
STA23/00	NC	AC 230 V			■	
STP73/00	NO	AC 24 V			■	
STP23/00	NO	AC 230 V			■	
STA73PR/00 <sup>1)</sup>	NC	AC 24 V			■	
STP73PR/00 <sup>1)</sup>	NO	AC 24 V			■	
STA73MP/00 <sup>2)</sup>	NC	AC 24 V			■	■
STA23MP/00 <sup>2)</sup>	NC	AC 230 V			■	
STA73B/00	NC	AC 24 V	2-position	Black RAL 9005		
STA23B/00	NC	AC 230 V				
STP73B/00	NO	AC 24 V				
STP23B/00	NO	AC 230 V				

<sup>1)</sup> Actuators ideal for parallel running. Pulse duration modulation (PDM) in connection with Siemens room controllers of the Desigo range and room thermostats

<sup>2)</sup> Multipack with 50 actuators (OEM) <sup>3)</sup> NC: normally closed, NO: normally open

## Pre-defined product packages

Actuator	NC/NO	Operating voltage	Positioning signal	Color	Connecting cables
STA73	NC	AC 24 V	2-position	White RAL 9016	1 m
STA23	NC	AC 230 V	2-position		1 m
STP73	NO	AC 24 V	2-position		1 m
STP23	NO	AC 230 V	2-position		1 m
STA63	NC	AC 24 V	DC 0...10 V		2 m
STP63	NO	AC 24 V	DC 0...10 V		2 m
STA73HD <sup>4)</sup>	NC	AC 24 V	2-position		0.8 m
STA23HD <sup>4)</sup>	NC	AC 230 V	2-position		0.8 m

<sup>4)</sup> Product packages specifically for the requirements of floor heating applications

White				Black			
Module DC 0...10 V	Auxiliary switch for STA	Auxiliary switch for STP	LED	–	Function module DC 0...10 V		
DC 0...10 V	2-position (ON/OFF)	2-position (ON/OFF)	2-position (ON/OFF)	2-position (ON/OFF)	DC 0...10 V	DC 0...10 V	
–	[STA..., NC]	–	[STA..., NC]	[STA..., NC]	[STA..., NC]	–	
[STP..., NO]	–	[STP..., NO]	[STP..., NO]	[STP..., NO]	–	[STP..., NO]	
							0.8 m
	ASA23U10	ASP23U10					1 m
ASY6PL20	ASA23U20	ASP23U20	ASY23L20LD		ASY6AL20B	ASY6PL20B	2 m
				ASY23L30B			3 m
							4 m
ASY6PL50			ASY23L50LD	ASY23L50B	ASY6AL50B		5 m
							6 m
ASY6PL70					ASY6AL70B		7 m
				ASY23L100B			10 m
							15 m
ASY6PL20HF							2 m
ASY6PL50HF							5 m
ASY6PL70HF							7 m
							10 m
	■		■				
	■						
■		■	■				
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The information in this document contains general descriptions of technical options available, which do not always have to be present in individual cases. The required features should therefore be specified in each individual case at the time of closing the contract.

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### Answers for infrastructure.

Our world is undergoing changes that force us to think in new ways: demographic change, urbanization, global warming and resource shortages. Maximum efficiency has top priority – and not only where energy is concerned. In addition, we need to increase comfort for the well-being of users. Also, our need for safety and security is constantly

growing. For our customers, success is defined by how well they manage these challenges. Siemens has the answers.

**“We are the preferred partner for energy-efficient, safe and secure buildings and infrastructure.”**