



SAUTER AXT2 and AXS2.

The actuator that adapts to any unit valve.

Limitless possibilities in the minimum of space: SAUTER AXT2.

A new actuator featuring innovative technology and design.

Optimise, improve and simplify. The new SAUTER AXT2 actuator is not merely the best thermal actuator that we have ever created. It also combines elegant design with energy-efficient control precision and installation standards that are guaranteed to meet every requirement for universal, trouble-free and low-cost fitting. What this means for you: cost-effective operation every time the device is used. SAUTER AXT2 follows on logically from the successful thermal actuator technology which we have developed for unit valves and underfloor distributors in the room automation sector. Product intelligence that features maximum compatibility with almost all unit valves of different designs, with convincing innovations that break new ground.

Various equipment options: the right solution, every time.

The thermal actuator is the right choice for every application. Different versions reflect the wide range of possibilities.

▶ The SAUTER AXT2 thermal actuator comes in basic versions:

- Through valve, normally closed
- Through valve, normally open, in white or black

▶ The SAUTER AXT2 thermal actuator with manual on/off setting.

- To open a hydraulic circuit manually
- To vent an installation (e.g. when commissioning)
- Three positions: closed/50%/open

▶ The SAUTER AXT2 thermal actuator with built-in auxiliary contacts.

- To control a circulating pump
- To signal a position

▶ The SAUTER AXS2 thermal actuator with positioner.

- Together with a controller with a continuous output, 0...10 V or 10...0 V, NC or NO
- Fast running time in control mode and linear characteristic throughout the stroke

▶ The SAUTER AXT2 is the ideal thermal actuator for:

- Heating
- Radiators
- Underfloor heating
- Chilled beams
- Fan coils
- etc.



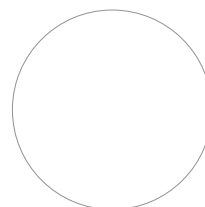
AXT211 NC
Standard version in white



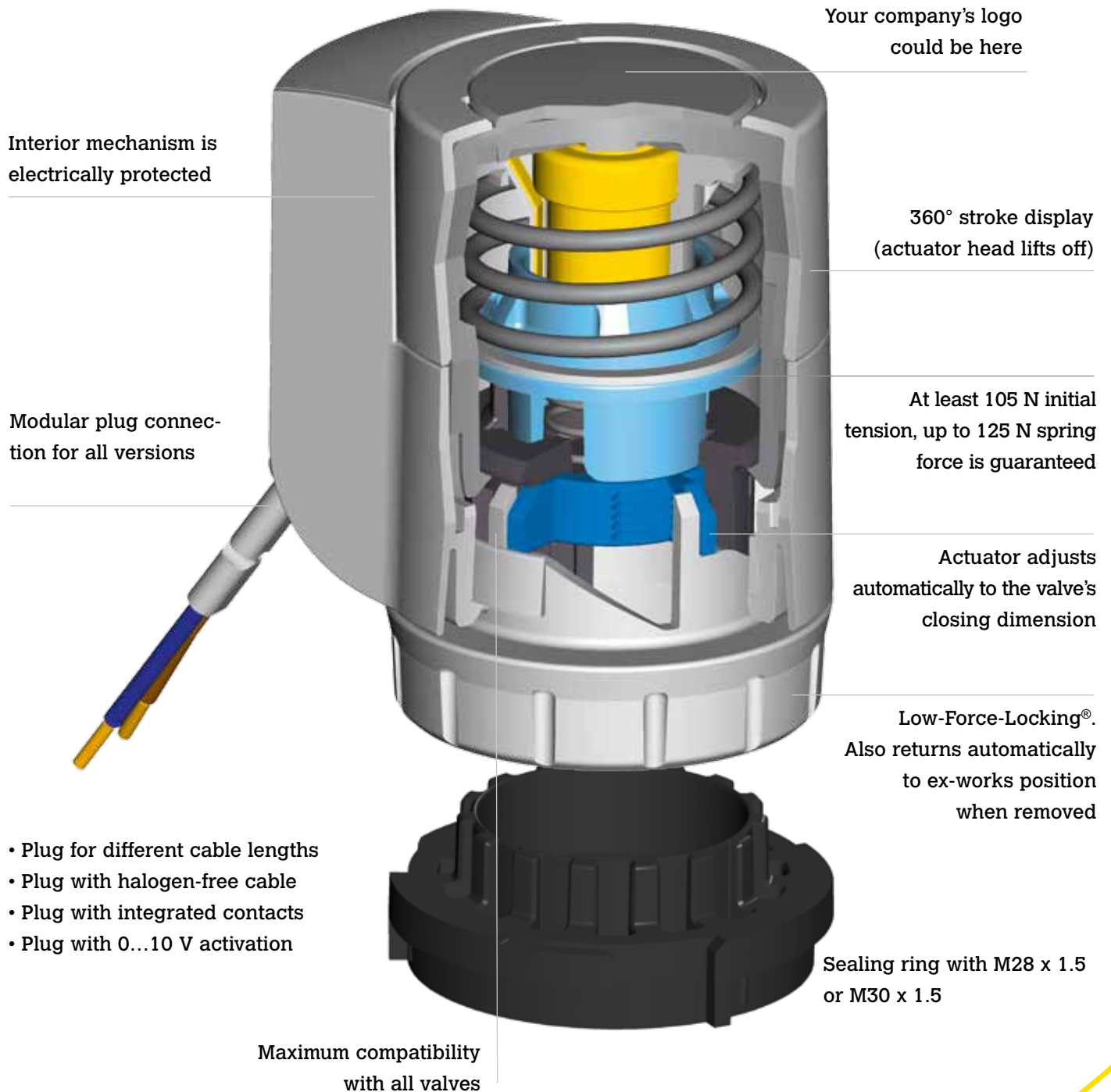
AXT211 NC
Standard version in black



AXT211 NC
with manual adjustment



Quality combined with functionality:
SAUTER AXT2 – every detail has been well
thought through.



SAUTER AXT2 makes it easy for end customers and installers: innovative functions and simple fitting.

Effortless

Low-Force-Locking®

Even in locations with difficult access, you'll install SAUTER AXT2 actuators in no time at all. Thanks to our patented Low-Force-Locking®, the actuator is quite simply placed onto the valve and connected by means of a bayonet connector; no effort is needed.

Compatible

Adapts automatically to the valve

The thermal actuator adapts automatically to the valve's closing dimension, from 8.5 to 13.5 mm (NC) and 12.5 to 17.5 mm (NO) without an adaptor, covering 90% of all valves available on the market with thread dimensions from M28 to M30. Adaptation takes place as soon as the bayonet ring is turned, and it returns to start mode as soon as the bayonet ring is turned back.

Efficient

Adaptive closing dimension with a force of 125 N

Maximum force of 125 N makes the SAUTER AXT2 the strongest thermal actuator available. Thanks to the adaptive closing dimension, we guarantee 100% tightness for sealing valves, with a pushing force of at least 105 N, and we achieve a high degree of energy efficiency even after many years of operation.

Optional

Intelligent electrical plug connection

Ideal for easy, low-cost installation. The two- or three-pin plug connections can be supplied in different customer-specific cable lengths. The simple plug-type connections to both the power supply and the activation system mean that preliminary installation takes the fitter no time at all.

Modular

Less storage space needed

The flexibility of this actuator means more flexible inventory management and space usage, because virtually any plug can be fitted to the SAUTER AXT2 – so you do not need to keep large quantities of certain devices in stock. In case of a problem, select the plug that is within easiest reach. At the same time, the actuator is interchangeable from one valve to another. No conversion work is needed – simply remove the actuator and fit it again at another location.





360° stroke display

Thanks to the large 360° indicator, the position of the actuator is easy to see from all sides. In dark corners or behind cladding, it's easy to detect positions by simply touching and feeling – even if the valve is jammed.

Visible

Two-point control, PWM, pulse-pause modulation, continuous control

The SAUTER AXT2 thermal actuator has been developed for a wide range of different applications. Depending on requirements, either simple on/off control, pulse-pause modulation or continuous control is available for intelligent unitary controllers, radiators, underfloor heating, chilled beams and so on.

Controllable

Accessories for continuous control

It couldn't be simpler! NC or NO, 0...10 V or 10...0 V, strokes of 4.5 mm or 3.2 mm – everything is possible. Use the microswitches to select the function that you want and plug the accessory into the appropriate actuator. The auxiliary contact for accessories makes it just as easy if you want to control a circulating pump.

Accessories

Protected internal mechanism

The entire electrics and the expansion element for the actuator are safely encapsulated in a protective casing. So there is no chance that the ingress of moisture could impair the device's lifetime or restrict its functionality. Smooth operation is always guaranteed, even if mounted upside down.

Safe

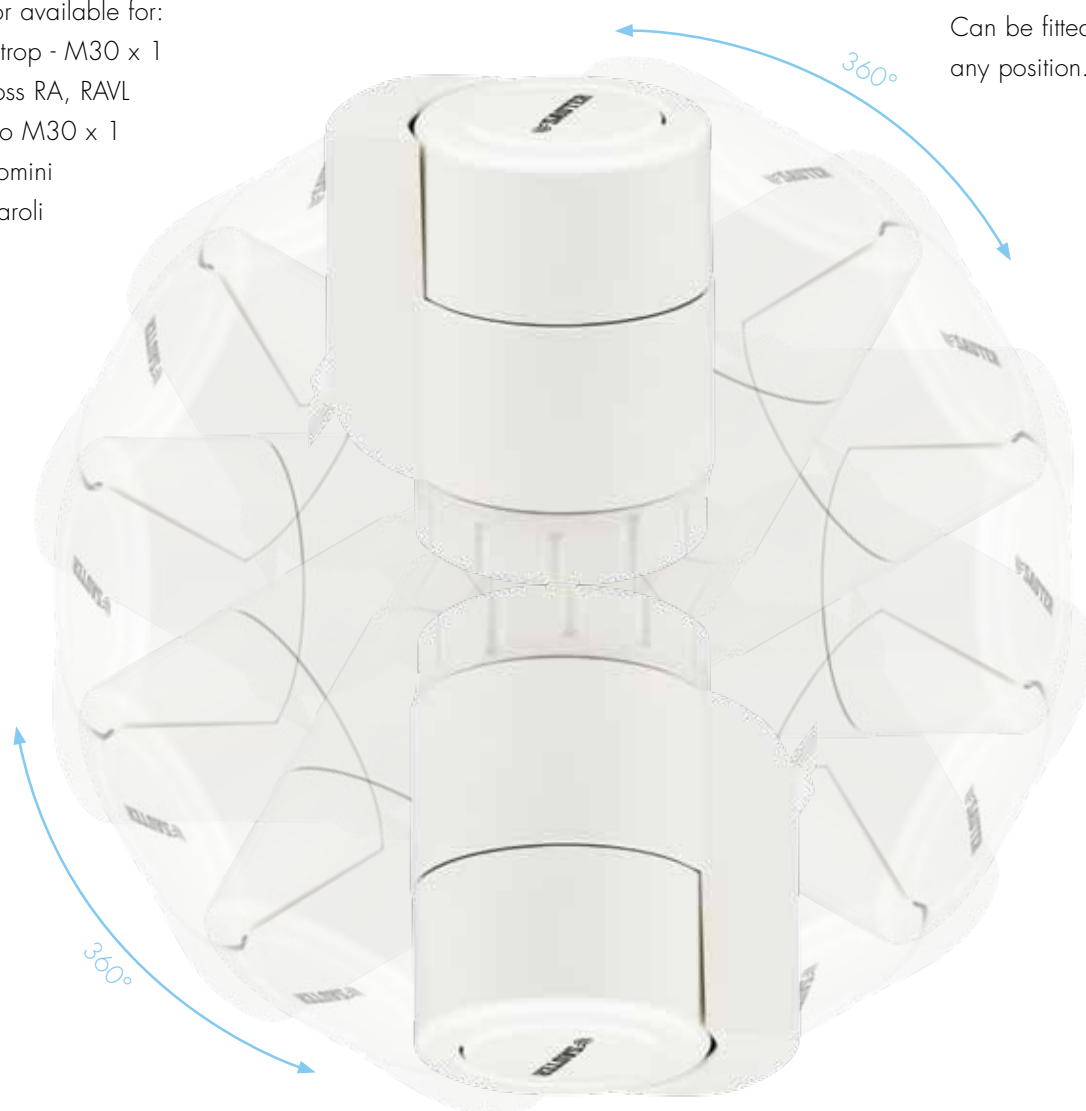
Accessories for the SAUTER AXT2 thermal actuator: **technical mastery** for every situation.

Individual equipment for your actuator:

- Connector for parallel connection
- Plug with integrated auxiliary contact, switching point after 1 mm of stroke
- Plug with integrated continuous control, control direction A or B.
Options: NC/NO, 0...10 V/10...0 V, stroke and partial ranges
- Protection against removal, suitable for public buildings
- Plug with individual cable lengths or standard dimensions of 0.5...1, 2, 3, 4, 5, 6, 7, 8, 10 and 15 metres
- Plug with cable, halogen-free, in lengths of 2, 5 or 10 metres

Adaptor available for:

- Oventrop - M30 x 1
- Danfoss RA, RAVL
- Beulco M30 x 1
- Giacomini
- Pettinaroli



Compact and reliable unit valves: the **perfect counterpart** to the SAUTER AXT2.

Two that go together well.

Unit valves with an equal-percentage characteristic are the perfect complement to the SAUTER AXT2 thermal actuator. They can be used to implement quasi-continuous control. This is especially helpful if the controller does not have a continuous output available. These components – SAUTER’s AXT2 and SAUTER’s unit valves – also make up the ideal combination for maximum energy efficiency.



Through valve, 3-way valve, 3-way valve with bypass

Through valve	3-way valve	With bypass*	Nominal diameter DN, male thread	K _{vs} value m ³ /h	Δp _{max} in bar 2-way / 3-way**
VUL 010 F340			DN10 - G1/2B	0.16	4.0
VUL 010 F330	BUL 010 F330	BUL 010 F420	DN10 - G1/2B	0.40	4.0 / 1.7
VUL 010 F320	BUL 010 F320	BUL 010 F420	DN10 - G1/2B	0.63	4.0 / 1.7
VUL 010 F310	BUL 010 F310	BUL 010 F410	DN10 - G1/2B	1.0	4.0 / 1.7
VUL 010 F300	BUL 010 F300	BUL 010 F400	DN10 - G1/2B	1.6	4.0 / 1.7
VUL 015 F310	BUL 015 F310	BUL 010 F410	DN15 - G3/4B	2.5	1.6 / 1.4
VUL 015 F300	BUL 015 F300	BUL 015 F400	DN15 - G3/4B	3.5 / 4.0	1.6 / 1.2
VUL 020 F300	BUL 020 F300	BUL 015 F400	DN20 - G1B	4.5 / 5.0	1.6 / 1.0

Nominal pressure: PN16

Operating temperature: 2...120 °C

Leakage rate: 0.02% A – AB and B – AB: 0.1 %

* Nominal diameter DN10, version with compression fitting, BUL 010 F6..

** Values apply for use as a control valve

Characteristic: equal-percentage

Valve stroke: 4 mm

Seals: EPDM

Specifications

Type	AXT211 with 2-point controller		AXT211 with manual adjuster		AXT211 with auxiliary contacts		AXS211 with positioner
	24 V~ –	230 V~	24 V~ –	230 V~	24 V~ –	230 V~	24 V~
Power supply	24 V~ –	230 V~	24 V~ –	230 V~	24 V~ –	230 V~	24 V~
Actuation	2-point or PWM		2-point or PWM		2-point or PWM		0...10 V/10...0 V ¹⁾
Normally closed/open	NC/NO	NC/NO	NC	NC	NC/NO	NC/NO	NC/NO
Stroke	4.5 mm		4.5 mm		4.5 mm		3.2/4.5 mm ¹⁾
Running time	4 min		4 min		4 min		30 s/mm in control mode
Startup current	220 mA	150 mA	220 mA	150 mA	220 mA	150 mA	220 mA
Power consumption	3 W	2.5 W	3 W	2.5 W	3 W	2.5 W	3 W
Pushing force	max. 125 N		max. 125 N		max. 125 N		max. 125 N
Type of protection	Electrical safety guaranteed; can be fitted upside down						
Ambient temperature	0...+50 °C		0...+50 °C		0...+50 °C		0...+50 °C
Connection thread ²⁾	M30 x 1.5		M30 x 1.5		M30 x 1.5		M30 x 1.5
Height (including nut)	64 mm		64 mm		64 mm		64 mm
Diameter	44 mm		44 mm		44 mm		44 mm

¹⁾ Control direction and stroke can be set on the device itself; start-up time after standby is 90 s

²⁾ Or with bayonet nut, M28 x 1.5