



ACVATIX™

Product range overview Small valves, actuators + accessories

for radiator, floor heating and chilled ceiling applications

Self-contained thermostatic actuators RTN.. without auxiliary power

- CEN-certified and tested to DIN EN215 part 1
- Absolute noiseless actuator technology
- Long service life
- Manual setpoint adjustment, min. and max. limitation

Favorably priced thermal actuators STA.., for demanding requirements

- Absolute noiseless actuator technology
- Long service life

Electromotoric actuators SSA.. for the most demanding requirements

- Automatic detection of valve stroke
- Long service life
- Low noise
- Plug-in connecting cable

RF-controlled actuator SSA955 for radiator valves

- For integration into the Siemens Synco 900 system

Preadjustable radiator valves VDN.., VEN.., VUN..

- CEN-certified and tested to DIN EN215 part 1
- Insert can be replaced while plant is under pressure

Pressure compensated radiator valves VPD.., VPE.. (MCV) for perfect hydraulic balancing

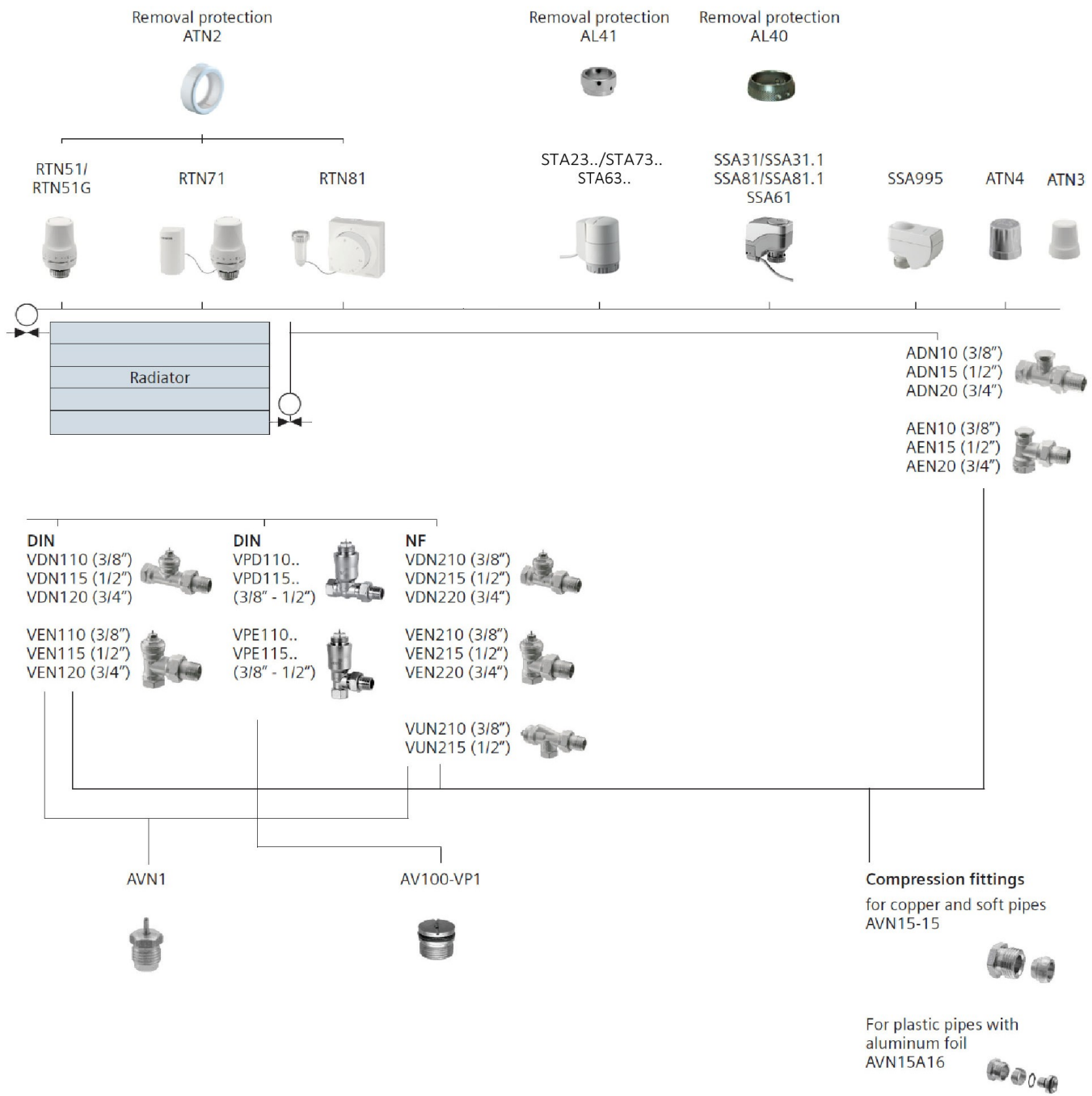
- Low noise operation
- No additional line balancing required
- Hydraulic balancing is considerable simplified
- Creates comfort and saves energy

Various mounting accessories

- Simple and fast mounting
- High operation safety

Equipment combinations: Thermostatic and electric actuators, valves and fittings

Thermostatic actuators (without auxiliary power) Electric actuators (with auxiliary power) Manual knob













Accessories








Adapter (AV..)

For mounting

- thermostatic actuators RTN..
- electromotoric actuators SSA..
- RF-controlled actuator SSA955
- thermal actuators STA..

on radiator valves of other manufacturer according to table:

AV.. adapters for Siemens actuators for TRV valves of other manufacturers	AV52	AV53	AV54	AV55	AV56	AV57	AV58	AV59	AV60	AV61
										
	Comap	Danfoss RA2000	Danfoss RAVL	Danfoss RAV	Giacomini	Herz	Oventrop < 2002	Vaillant	TA < 2002	MMA Markaryd
Adapter thread	M28x1,5	—	—	—	—	M28x1,5	M30x1	—	M28x1,5	M28x1,5

AV... Adapter for Siemens thermal actuators STA...3/STP...3 on TRV valves from third-party vendors	AV63	AV64	AV301	AV302	AV303	AV304	AV305
							
	Giacomini	Pettinaroli	All valves	Comap, Markaryd (old) Herz	TA	Adapter set (5 pcs.)	Standard adapter all valves
Adapter thread	M28 x 1,5	M28 x 1,5	M30 x 1,5	M28 x 1,5	M30 x 1	All	M30 x 1,5

¹⁾ Not to be used with RTN.. (distributor for underfloor heating systems)

Connection (M30x1,5) to valves of other manufacturers, without adapter:

Heimeier, Cazzaniga, Junkers, Oventrop M30x1,5 (since 2001), Honeywell Braukmann, MNG, Beulco new

Sealing insert AV100-VP1



The sealing insert is suited for use with all radiator valves of the ranges VPD.. and VPE..

Type reference (alphabetical)

Type reference	Description	Thread [inch] ¹⁾	Design	Data sheet
ADN10	Radiator lockshield valves	$\frac{3}{8}$	straight	N2107
ADN15		$\frac{1}{2}$		
ADN20		$\frac{3}{4}$		
AEN10		$\frac{3}{8}$	angle	
AEN15		$\frac{1}{2}$		
AEN20		$\frac{3}{4}$		
ATN1	Partner clip			N2100
ATN2	Removal protection			
ATN3	Manual knob			
ATN4	Manual knob			
AVN1	Valve insert			
AVN15-15	Compression fittings for copper and soft steel pipes	$\frac{1}{2}$	Connection valve side Tube \varnothing 15 mm	
AVN15A16	Compression fittings for plastic pipes with aluminum foil	$\frac{1}{2}$	Connection valve side Tube \varnothing 16 x 2 mm	
AV52...AV61	Adapter for valves of other manufacture			

Type reference	Description	Thread [inch] ¹⁾	Design	Data sheet	
RTN51..	Thermostatic actuator - white (RAL 9016) - glossy or matt appearance	M30x1,5	Self acting	N2111	
RTN71	Thermostatic actuator	M30x1,5	with remote sensor		
RTN81	Thermostatic actuator	M30x1,5	with remote adjuster		
SSA31	Electromotive actuator	M30x1,5	AC 230 V	N4893	
SSA81	Electromotive actuator	M30x1,5	AC 24 V		
SSA61	Electromotive actuator	M30x1,5	AC / DC 24 V		
SSA955	RF-controlled actuator for radiator valves, Synco 900	M30x1,5	Battery-powered (LR6 / AA)	N2700	
STA23	Thermal actuators	M30x1,5	AC 230 V	N4884	
STA73	Thermal actuators	M30x1,5	AC / DC 24 V		
STA73PR/00 ²⁾	Thermal actuators without cable	M30x1,5	AC / DC 24 V		
STA63	Thermal actuators 0 - 10 V	M30x1,5	AC 24 V		
VDN110	Radiator valves	$\frac{3}{8}$	straight, DIN	N2105	
VDN115		$\frac{1}{2}$			
VDN120		$\frac{3}{4}$			
VDN210		$\frac{3}{8}$	straight, NF		
VDN215		$\frac{1}{2}$			
VDN220		$\frac{3}{4}$			
VEN110	Radiator valves	$\frac{3}{8}$	angle, DIN	N2105	
VEN115		$\frac{1}{2}$			
VEN120		$\frac{3}{4}$			
VEN210		$\frac{3}{8}$	angle, NF		
VEN215		$\frac{1}{2}$			
VEN220		$\frac{3}{4}$			
VUN210		$\frac{3}{8}$			reverse angle, NF
VUN215		$\frac{1}{2}$			
VPD110A-45	MiniCombiValves (MCV) Radiator valves featuring integrated differential pressure control	$\frac{3}{8}$	straight, DIN	N2185	
VPD110A-90					
VPD110A-145					
VPD115A-45					
VPD115A-90					$\frac{1}{2}$
VPD115A-145					
VPD110B-200					
VPD115B-200					
VPE110A-45		$\frac{3}{8}$	angle, DIN		
VPE110A-90					
VPE110A-145					
VPE115A-45					
VPE115A-90					$\frac{1}{2}$
VPE115A-145					
VPE110B-200					
VPE115B-200					

1) Connection pipe side

2) For parallel run also suitable in conjunction with PDM (duration pulse modulation) or on/off control

Technical notes

NO, NC valves

NO valves	<ul style="list-style-type: none"> Fully open when de-energized (normally open). Valve stem extended. Radiator valves like VDN..., VEN..., VUN..., VPD.. or VPE.. are usually NO valves.
NC valves	<ul style="list-style-type: none"> Closed when de-energized (normally closed). Valve stem extended. Small valves like V..P47.. are usually NC valves.

Valve and actuator combinations

NO function	<ul style="list-style-type: none"> Actuator stem is retracted when de-energized. Valve is open.
NC function	<ul style="list-style-type: none"> Actuator stem is extended when de-energized. Valve is closed.

RTN..

The thermostatic RTN.. actuators control the heat demand. They control the water flow by opening and closing the radiator valves.

- With increased heat demand the actuator stem retracts and steadily opens the radiator valve.
- With decreasing heat demand the actuator stem extends and steadily closes the radiator valve.

STA..

Radiator valves (NO valves)	STA.. actuator de-energized
<ul style="list-style-type: none"> VDN..., VEN..., VUN.. VPD..., VPE.. 	closed (NC function)

Attention

Use STA73PR/00.. actuators for DESIGO RX..

STA63

The STA63 actuator is driven by a DC 0...10 V. It is uni-directional (Y↑). When used with NO radiator valves or NC small valves, the STP63 must be used in one direction only (Y↓).

Operation				Breakdown
Direction of action	Positioning signal DC 0...10 V	Actuator stem	Valve behavior	Actuator without operating voltage
↑ STA63	Y↑ increasing	Retracted	NO opens	NO radiator valve, VD1..CLC small valve or MCV closed
↓ STP63	Y↓ increasing	Extended	NC opens	NC small valve fully open

SSA..

The electromotoric actuator is driven by DC 0...10 V (SSA61) positioning signal or by a 3-position signal (SSA31, SSA81). The description of operation in this document applies to the valve versions which are fully open when de-energized (NO).

3-position control signal

• Voltage at Y1:	Stem retracts	Valve opens
• Voltage at Y2:	Stem extends	Valve closes
• No voltage at Y1 and Y2:	Actuator maintains its current position	

DC 0...10 V

- The valve opens / closes in proportion to the control signal at Y.
- At DC 0 V, the valve is fully closed (A → AB), stem extended
- When power supply is removed, the actuator maintains its current position.

