



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

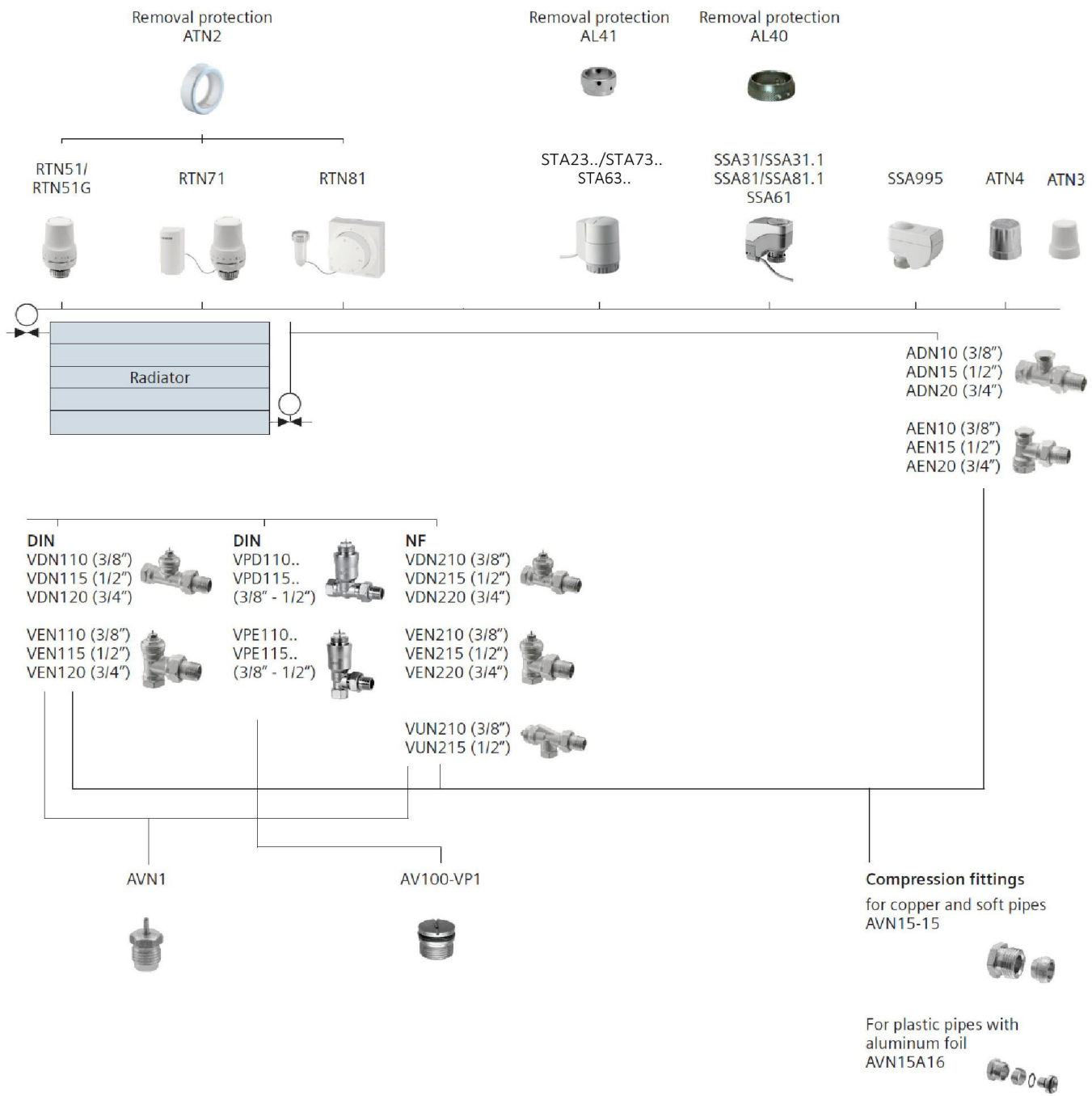
- Low noise operation
- No additional line balancing required
- Hydraulic balancing is considerable simplified
- Creates comfort and saves energy

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
Stock number	BPZ: AV52	BPZ: AV53	BPZ: AV54	BPZ: AV55	BPZ: AV56	BPZ: AV57	BPZ: AV58	BPZ: AV59	BPZ: AV60	BPZ: AV61

AV... Adapter for Siemens thermal actuators STA...3/STP...3 on TRV valves from third-party vendors	AV63	AV64	AV301	AV302	AV303	AV304	AV305	AV306
								
	Giacomini	Pettinaroli	All valves	Comap, Markaryd (old) Herz	TA	Adapter set (5 pcs.)	Standard adapter all valves	Preset able radiator valves, Markaryd
Adapter thread	M30 x 1.5	M28 x 1.5	M30 x 1.5	M28 x 1.5	M30 x 1	All	M30 x 1.5	M28x1.5
Stock number	S55174-A165	S55174-A166	S55174-A159	S55174-A160	S55174-A161	S55174-A167	S55174-A169	S55174-A171

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			

1) Connection pipe side

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	N2106	
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	N2106	
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 electromotive 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.