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# **ROOM THERMOSTATS**

SUNVIC room thermostats are sensing devices which measure the air temperature within a building and switch the central heating on or off according to the required level of comfort.

Our expertise in room temperature control means that you will find a thermostat to suit a wide variety of applications. From basic 2 or 3 wire room thermostats, to radio frequency digital models we have it covered. The range includes products suitable for industrial, commercial and domestic installations.

#### Selection Guide

	TLX2251	TLX2259	TLX2356	TLX2358	TLX2360	TLM2253	TLM2257	TLM2402	TLM2453	TLM2628	TLM2802	TLX4101	TLX5101	TLX5301	TLX5302	TLX7501	TLX9201	TLX9301	TLX9401	TLX9501	TLX9701	TLX9801	TLX9901	TLXRFD
Current Rating (Amps)	1	6(2)	6(2)	6(2)	6(2)	20(9)	20(9)	20(9)	20(9)	20(9)	20(9)	4(1)	10(4)	10(4)	10(4)	2(1)	10(4)	16(7)	10(4)	4(1)	10(4)	10(4)	10(4)	6(2)
Temperature Range (°C)	3/27	3/27	3/27	3/27	0/15	3/27	-15/10	3/27	3/27	3/27	10/40	8/30	5/30	5/30	5/30	5/35	5/30	5/30	-5/15	5/30	5/30	1/5	Graphic	5/35
Changeover Contacts			•	•							•	٠		•	•	•	•		•		•	•	•	•
Tamperproof				•	•			•	•										•		•			
Radio Frequency																								
Operating Voltages	24	220/ 240	VF	220/ 240	220/ 240	220/ 240	VF	220/ 240	VF															
Accelerator Heater	•	•		•	•	•	•	•	•	•	•						•	•	•	•	•	•	•	
Adjustable Range Stops	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•	
LED Status Indicator													•	•	•		•	•	•		•	•	•	
Digital Display																•								•
Volt Free Contacts												•				•								•
0N/0FF Switch															•									
Heating Applications Only	•	•			•	•	•	•	•	•			•					•		•				
Heating & Cooling Applications			•	•							•	•		•	•	•	•		•		•	•	•	•

#### 

- High specification and reliability
- Wide range available to suit all applications
- Models available for both 240V and 24V applications
- Reliable temperature control via built in Accelerator Heater
- Tamperproof models

#### Adjustable range stops option (available on request)

- See Spares & Accessories for optional damage/ weatherproof accessories
- TLX2251 LOW VOLTAGE MODEL TO CONTROL WARM AIR HEATING
- TLX2259 CONTROLS BOILER, PUMPS, SPRING RETURN MOTORISED VALVES AND ANY DEVICE REQUIRING ON/OFF SWITCHING TLX2356 CONTROLS MOTOR OPEN/ MOTOR CLOSED MOTORISED VALVES OR ANY OTHER DEVICE REQUIRING CHANGEOVER SWITCHING
- TLX2358 Two accelerator heaters and tamperproof concealed setting (including shear off screws)
- TLX2360 FROST THERMOSTAT WITH TAMPERPROOF CONCEALED SETTING (INCLUDING SHEAR OFF SI TLX2360 FROST THERMOSTAT WITH TAMPERPROOF CONCEALED SETTING (INCLUDING SHEAR OFF SI

### 

#### Electromechanical range for medium to heavy duty applications

- High specification and reliability
- Wide range available to suit all applications
- 20Amp rated On/Off contacts
- Robust magnetically controlled switch mechanism
- Tamperproof models
- Adjustable range stops option (available on request)
- See Spares & Accessories for optional damage/ weatherproof accessories
- TLM2253 CONTROLS ANY DIRECT ELECTRICAL HEATING SYSTEM
- TLM2257 FROST THERMOSTAT TO PROTECT HEATING SYSTEMS AND MACHINERY FROM LOW TEMPERATURE DAMAGE
- TLM2402 Non-ventilated tamperproof concealed setting (including shear off screws)
- TLM2453 TAMPERPROOF CONCEALED SETTING (INCLUDING SHEAR OFF SCREWS)
- TLM2628 INDICATED OFF POSITION FOR USE WHEN A POSITIVE SWITCH IS REQUIRED
- TLM2802 CHANGEOVER BACK CONTACT RATED 5A RESISTIVE







## 

#### Electronic range

- Ergonomic design
- LED status indicator
- Internal or external sensor
- 10 Amp current rating
- Adjustable range stops
- Adjustable deadzone 0-5k

TLX5101 CONTROLS BOILER, PUMPS, SPRING RETURN MOTORISED VALVES AND ANY DEVICE REQUIRING ON/OFF SWITCHING

TLX5301 Adjustable deadzone 0-5k to provide off period between switching (i.e. heating/ cooling appliances) TLX5302 Adjustable deadzone 0-5k to provide off period between switching with manual switch for off/ auto selection

## 

### Digital room thermostat

- Ideal for combi boilers
- Easy to use with large digital display
- Responds fast to changes in temperature
- Volt free contacts
- Suitable for a variety of heating and cooling applications
- Available in silver effect

#### No neutral required

TLX7501 CONTROLS MAINS CIRCUITS, COMBINATION CIRCUITS AND HEATING/ COOLING APPLICATIONS TLX7501S SILVER EFFECT FINISH

### 

#### Electromechanical range with stylish design

- Stylish low profile design
- Large setting dial with thumbwheel operation
- LED status indicator
- Changeover contacts
- Double insulated
- TLX9501 includes user friendly tactile knob to aid visually impaired users
- Adjustable range stops
- Available in silver effect

TLX9201 CONTROLS BOILER, PUMPS, SPRING RETURN MOTORISED VALVES AND ANY DEVICE REQUIRING ON/OFF SWITCHING

- TLX9201S SILVER EFFECT FINISH TLX9301 HIGH CURRENT ON/OFF CONTACTS
- TLX9401 FROST THERMOSTAT WITH TAMPERPROOF CONCEALED SETTING
- TLX9501 Volts Free suitable for combi boilers
- TLX9701 TAMPERPROOF CONCEALED SETTING TO PREVENT UNAUTHORISED ADJUSTMENT
- TLX9801 ONE TO FIVE NUMBERED SCALE FOR APPLICATIONS WHERE TEMPERATURE DIAL NOT REQUIRED TLX9901 GRAPHICAL HI-LO SCALE FOR APPLICATIONS WHERE TEMPERATURE DIAL NOT REQUIRED

## 

### **Radio frequency digital**

- Easy to install no wiring between thermostat and receiver
- Transmission range 30m (typical)
- Large digital display
- Trouble free operation (unique identity code)
- Battery powered thermostat
- Room temperature display
- Ideal for combi boilers
- Volt free contacts









# PROGRAMMABLE ROOM THERMOSTATS

SUNVIC programmable room thermostats combine the functionality of timeswitch with that of a room thermostat, allowing different target temperatures to be programmed over different time periods for central heating.

Within the Sunvic range there are three models, Simpro - the simple, intuitive switch-and-dial programmable with Service Sentinel functionality. The TLX6501, a fully feature digital programmable, and the TLX RFP Radio Frequency model, for applications where it is not practical or acceptable to run cable.

### 

Electromechanical programmable room thermostat

- Fast and simple programming
- 24 separate time periods possible
- Clock/room temperature display toggle
- Manual or automatic operation
- Frost protection feature
- Ideal for combi boiler installations
- Service Sentinel feature
- No neutral required

The Simpro programmable room thermostat has been developed firmly with the user in mind, and the Sunvic philosophy of high quality functionality and ease of use is evident in the intuitive design.

CÓM

Programming couldn't be simpler. Dip switches with clearly marked time intervals allow the homeowner to create their own preferred temperature cycle, whilst two colour-coded temperature dials allow for Comfort and Economy settings.

#### Service Sentinel (Patented Feature)

## This feature offers protection for tenants and landlord against illegal boiler negligence in compliance with Gas safety Regulation 36.

Its not always easy to gain access to the boiler in tenanted properties. Un-authorised access or failing to comply with boiler safety regulations are both dangerous and costly.

Service Sentinel offers a solution to the problem by using Intelligent circuitry to interrupt usual programmer control after a pre-determined period of time. Normal tenant control of the boiler can only resume after an authorised engineer has performed the statutory boiler check, and reset the programmer with a unique recoding key.

Service Sentinel gives the tenant 4 weeks notice when the boiler check is due by flashing a "service" message on the LCD. The red status indicators for heating and hot water will also flash continually. This gives the tenant sufficient time to contact their landlord and arrange access.

If the boiler is not attended in time the Service Sentinel does not switch OFF the power supply to the boiler, instead it kicks into "set-back" mode reducing the temperature to approximately 10°C ensuring the safety of both the tenant and property.

Simpro also gives you the option to switch between the programmed cycle to OFF or manual operation. When in manual mode, Simpro behaves as a standard room thermostat and controls the heating according to the 'Comfort' dial.





SATISFIED

DEMAND

#### **Selection Guide**

	Simpro	TLX6501	TLXRFP
Current Rating (Amps)	5(3)	5(3)	16(8)
Temperature Range (°C)	10/30	7/30	7/30
Changeover Contacts	•	•	
24 Hour Programming	•	•	•
5/2 Day Programming		•	•
Radio Frequency			•
Operating Voltages	230	230	230
LED Status Indicator	•		•
Digital Display	•	•	•
Volt Free Contacts	•	•	
Backlit Display		•	•
Optimum Start		•	•
Clock Display	•	•	•
Room Temperature Display	•	•	•
Pre-defined Control Programmes		•	•
Sentinel 'Setback' Functionality	•		
Manual Override	•	•	•
Frost Protection		•	•
Analogue Programming	•		
Digital Programming		•	•

#### 

- Fully featured 24hr, 5/2 day programmable room thermostat
- Room temperature display
- Manual override
- 6 Pre-defined and 3 User-defined control programmes
- Real time clock and day of the week display
- Large multiparameter backlit display
- Frost protection and optimum start feature
- Volt free contacts
- No neutral required



TLX6501 PROGRAMMABLE ROOM THERMOSTAT TLX6501S SILVER EFFECT FINISH PROGRAMMABLE ROOM THERMOSTAT

The TLX6501 provides control of your heating or cooling system by switching between user adjusted comfort and economy temperatures under control of pre-defined or user-defined daily programmes. Complete with Backlit display and Optimum Start feature providing maximum user comfort and control.

### 

#### Radio frequency programmable room thermostats

- Easy to install No wiring between thermostat and receiver
- Transmission range 30m (typical)
- Large Multi-parameter backlit display
- 6 Pre-defined and 3 User-defined control programmes
- Room temperature display
- Real time clock and day of the week display
- Manual or automatic operation
- Frost protection and optimum start feature

TLXRFP CONTROLS MAINS CIRCUITS AND HEATING/ COOLING APPLICATIONS



The TLXRFP programmable room thermostat has been developed for use in areas where it is not practical, or acceptable, to run cables between the room thermostat and other control components in the system.

With an attractive slim line design, multiple installation options (mounted or free standing) and 30 metre range, the RFP is a truly flexible solution.

Programming is simple, choose from one of the six pre-defined control programs, or set up a unique user-defined programme to create a preferred temperature cycle. Both Comfort and Economy programme options are available at the push of a button. There is also the option to manually override the programmed cycles.

With built in frost protection safeguarding pipes from freezing, and optimum start for energy efficiency, the TLXRFP also delivers economic benefits.









# TIMESWITCHES AND PROGRAMMERS

SUNVIC Timeswitches and Programmers allow On and Off periods to control central heating and hot water together or independently (dependant on model). The added functionality and easy modification ensures a level of flexibility to suit a variety of lifestyles. Our philosophy is to provide tools so you control your environment, it doesn't control you!

## 

- Select switch for 24hr, 5/2 day or 7 day operation
- Select switch for fully pumped or gravity systems
- One hour boost and advance facility
- Industry standard backplate
- Direct plug-in replacement for other manufacturers product
- Long life battery back-up
- Convenient built in program

Select107XL Single Channel Electronic Timeswitch Select207XL Two Channel Electronic Programmer

The Select range makes it extremely easy for installers to satisfy the timing requirements of a wide variety of applications. The key is in the flexibility available through 'Select' functionality. There is the choice of either 24hr, 5/2 day or 7 day programming selected via dip switches at the back of the unit.

MAINS	1	2	3	4
FUSED 3A	COM	OFF	ON	
N L	1	2	3	4
MAINS	HW	CH	HW	CH
FUSED 3A	OFF	OFF	ON	ON

Select 107 Wiring Diagram

#### Select 207 Wiring Diagram

#### Built in Program:

	Mon- Fr	Sat-Sun
1st On	6.00AM	7.00AM
1st Off	8.30AM	9.00AM
2nd On	4.30PM	4.30PM
2nd Off	10.30PM	11.00PM

### **Selection Guide**

		Select107XL	Select207XL	Simplex100	Simplex200
	Analogue Programming			•	•
	Digital Programming	•	•		
	No On/ Offs per Channel	3	3	24	24
	Gravity/ Fully Pumped	•	•	•	•
	Manual Override	•	•	•	•
	24 Hour	•	•	•	•
	5/2 days	•	•		
	7 Days	•	•		
	No Of Channels	1	2	1	2
3	Boost/ Advance	•	•	•	•
	Industry Standard Backplate	•	•	•	•
	Service Sentinel Feature			•	•
	Backlit Display	•	•		
	Current Rating (Amps)	6	6	5	5
	Pre-defined Programming	•	•		
	Volt Free Contacts	•		•	
	LCD Display	•	•	•	•



### 

#### Electromechanical programmable room thermostat

- Easy to use
- "Timeline" programme select switches
- Independent control of heating and hot water
- Fully building regulations Part L compliant
- Boost and advance buttons
- Industry standard backplate
- Direct plug in replacement for most makes
- Programmer and timeclock version
- Service sentinel feature

 SIMPLEX100
 SINGLE CHANNEL 24HR ELECTRONIC TIMESWITCH WITH SERVICE SENTINEL FUNCTIONALITY

 SIMPLEX200
 TWO CHANNEL 24HR ELECTRONIC PROGRAMMER WITH SERVICE SENTINEL FUNCTIONALITY

Simplex has been developed for the needs of the homeowner or landlord who desire a central heating controller that is simple to use and easy to understand. The programmer provides a 24Hr "timeline" of manual switches to select the on/off periods for either heating or hot water. This approach means programming the unit is simple, with fast modifications as and when desired.





Simplex 100 Wiring Diagram

Simplex 200 Wiring Diagram

#### Service Sentinel (Patented)

This feature offers protection for tenants and landlord against illegal boiler negligence in compliance with Gas safety Regulation 36.

Its not always easy to gain access to the boiler in tenanted properties. Un-authorised access or failing to comply with boiler safety regulations are both dangerous and costly.

Service Sentinel offers a solution to the problem by using Intelligent circuitry to interrupt usual programmer control after a pre-determined period of time. Normal tenant control of the boiler can only resume after an authorised engineer has performed the statutory boiler check, and reset the programmer with a unique recoding key.

Service Sentinel gives the tenant 4 weeks notice when the boiler check is due by flashing a "service" message on the LCD. The red status indicators for heating and hot water will also flash continually. This gives the tenant sufficient time to contact their landlord and arrange access.

If the boiler is not attended in time the Service Sentinel does not switch OFF the power supply to the boiler, instead it kicks into "set-back" mode reducing the temperature to approximately 10°C ensuring the safety of both the tenant and property.





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FFFFFCCCCFFFF FFFFFFCCCCCF - Heating III

PERFECCIPATER PARTYLESSER - Het Witter

# THERMOSTATIC RADIATOR VALVES

SUNVIC thermostatic radiator valves (TRVs) give you control over individual room temperatures by regulating the water flow to the radiator.

Within the range there are a variety of styles and finish to allow for personal choice. All Sunvic thermostatic radiator valves are available as single (TRV) or pack version (TRV plus lockshield)

- Fully reversible
- Frost protection
- Designed & manufactured to EN215 standard
- Extendible ½ inch BSP connecting tail
- Max service pressure 10 bar
- Lockshield packs available





### 

#### Thermostatic radiator valve with temperature lock feature

TRV200 THERMOSTATIC RADIATOR VALVE TRV200 PACK THERMOSTATIC RADIATOR VALVE WITH LOCKSHIELD

### 

## Thermostatic radiator valve. Sleek stylish design with temperature lock feature

TRV300 THERMOSTATIC RADIATOR VALVE TRV300 PACK THERMOSTATIC RADIATOR VALVE WITH LOCKSHIELD

### 

 Thermostatic radiator valve. Stylish robust design with

 Anti tamper temperature limit (min/max) feature

 TRV500
 THERMOSTATIC RADIATOR VALVE

 TRV500 PACK
 THERMOSTATIC RADIATOR VALVE WITH LOCKSHIELD

### 

 Thermostatic radiator valve. Sleek stylish design with

 fully chromed head, body and fittings and temperature lock feature

 TRV750
 THERMOSTATIC RADIATOR VALVE

 TRV750 Pack
 THERMOSTATIC RADIATOR VALVE WITH LOCKSHIELD

### **Selection Guide**

	TRV200	TRV300	TRV500	TRV750
Head (liquid/wax/vapour)	Wax	Wax	Wax	Wax
Temperature Range (°C)	5/27	5/27	5/27	5/27
Size (mm)	10/15	10/15	10/15	10/15
One Pipe System	1	1	1	1
Single entry/ Twin entry	S	S	S	S
Vertical Installation	•	•	•	•
Horizontal Installation	•	•	•	•
Two way valve	•	•	•	•
Positive Shut off	•	•	•	•
Frost Protection	•	•	•	•
Tamperproof	•	•	•	•
Lockshield Pack available	•	•	•	•
Lockshield Pack available	•	•	•	•









No ball or paddle

# **MOTORISED VALVES**

SUNVIC motorised valves are guaranteed to be of high quality, high reliability and high specification. Years of experience in the mastery of valve design and manufacture gives uniqueness to the products within our range.

The motorised valve is probably the hardest working component in 'wet' domestic central heating systems, so you need to be sure it belongs to a name you can trust.

Our expertise is evident in our ability to create patented technology for both actuators and valve bodies.

## 

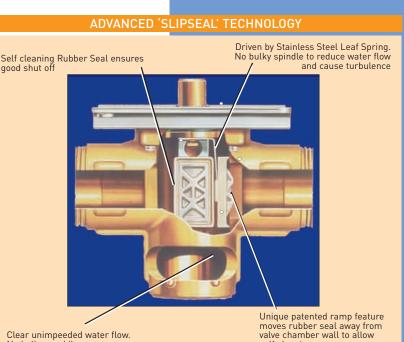
The MoMo valves are the super energy efficient option within the Sunvic range. In fact, independent testing has proved them to be up to 95% more efficient than same-duty spring return versions. The MoMo valves from Sunvic Controls operate only when the valves change position, resulting in reduced motor "on" times, lower motor temperatures, greater reliability and improved longevity. The homeowner saves on kW hours and the wear and tear on the valve and its components (such as the synchronous motor) is reduced due to longer de-energised 'Off' periods.

They are an ideal choice for all new-build, refurbishment and upgrade applications.

## 

The non-stick 'Slipseal' shoe mechanism not only provides tight shut-off, it also enables significantly improved flow rates, reduced pressure losses and creates less turbulence within the valve chamber. It has a patented 'ramp' feature that provides automatic flushing and greater resilience to system contaminates.

This technology is available on the traditional 3 Port spring return models as well as the energy saving option (3 Port MoMo).



self cleaning

SUNUIC comfort in control

#### Use the Sunvic easy guide to choose the right motorised valve for your installation

### 2 Port Selection Guide:

Complete Actuator & Valve order code	Actuator only order code	2 port	Spring return	MoMo	4 Wire	Actuator normally closed	Auxiliary switch	S.P.S.T normally open	Thumb- wheel	Flushing lever	Valve Body only order code	15mm	22mm	28mm	1/2" BSP	3/4" BSP	1" BSP	External compression	Female
	SZ 2201	•	•			•					ml 3402	•						•	
	SZ 2302	•	•		•	•					eml 3454		•					•	
	SZ 2351	•	•		•			•			eml 3503			•				•	
	SZ 2301F	•	•		•	•		•		•	ml 3401				•				•
	SM 5201	•			•						ml 3451					•			•
	SM 5203	•					•				ml 3501						•		•
	SM5205	•					•												
SMV2217	SM 5203	•					•				eml 3454		•					•	
	Any of the above SM/SZ actuators can be used with any of the ml/eml series of valves																		
SZV2286	SZ 2301	•	•		•	•		•		•	ml 3402	•						•	
SZV2212	SZ 2301	•	•		•	•		•		•	eml 3454		•					•	
SZV2228	SZ 2301	•	•		•	•		•		•	eml 3503			•				•	
SZV2288	SZ 2301	•	•		•	•		•		•	ml 3401				•				•
SZV2289	SZ 2301	•	•		•	•		•		•	ml 3451					•			•
SZV2218	SZ 2301	•	•		•	•		•		•	ml 3501						•		•
SZMV2322		•		•	•		•		•		ml 4402	•							•
	SZM 1801	•		•	•		•		•		eml 4201		•					•	
SZMV2323		•		•	•		•		•		eml 4503			•				•	
	SZM 1801	•		•	•		•		•		ml 4401				•				•
	SZM 1801	•		•	•		•		•		ml 4451					•			•
SZMV2326	SZM 1801	•		•	•		•		•		ml 4501						•		•

#### **3 Port Selection Guide:**

Complete Actuator & Valve order code	Actuator only order code	3 port	Spring return	МоМо	Diverter	Mid- position	2 Wire	4 Wire	Auxiliary switch	Thumb- wheel	Flushing lever	Valve Body only order code	15mm	22mm	28mm	1/2" BSP	3/4" BSP	1" BSP	External compression	Female
SDMV2304	SDM 1901	•		•		•		•	•	•		edt 3201		•					•	
SDMV2320	SDM 1901	•		•		•		•	•	•		edt 3706			•				•	
SDMV 2321	SDM 1901	•		•		•		•	•	•		dt 3606						•		•
SDV 2211	SD 2701	•	•			•		•	•		•	edt 2702		•					•	
SDV 2291	SD 2601	•	•		•			•	•		•	edt 2702		•					•	
SDV 2294	SD 2701	•	•			•		•	•		•	edt 2706			•				•	
SDV 2295	SD 2601	•	•		•			•	•		•	edt 2706			•				•	
SDV 2296	SD 2701	•	•			•		•	•		•	dt 2606						•		•
SDV 2297	SD 2601	•	•		•			•	•		•	dt 2606						•		•
	SD 2751	•	•			•		•	•		•	edt 2702		•					•	
	SD 2601	•	•		•			•	•		•	edt 2706			•				•	
												dt 2606						•		•
												dt 2601					•			•

Any of the above sd actuators can be used with any of the dt/edt valves

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## MOTORISED VALVES (CONTINUED)

## SPRING RETURN MOTORISED VALVES >>>>

- Spring return action
- Manual lever for filling/ draining system
- Actuator replaceable without draining down systems
- Self cleaning shoe action
- Available as complete valves or separate body and actuator
- Normally open and normally closed versions available (2 Port models only)
- Revolutionary 'Slipseal' technology (3 Port models only)

SUNVIC Spring Return Motorised Valves are designed to provide long lasting reliability and outstanding performance; the bodies incorporate twin silicone based PTFE self-cleaning shoes, which ensure both efficient shut-off in the closed position and smooth, yet hard wearing operation. Actuators and valve bodies can be purchased separately or as a complete set.

## 

- High energy efficiency
- Motor on/ Motor off Operation
- High Reliability
- Simple industry standard wiring
- Robust manual thumbwheel and valve position indicator
- Actuator replaceable without draining system down
- Replaces most make of spring return valves without wiring or pipework changes

SUNVIC MoMo valves are available as two-port or three-port in all popular sizes. Easy-to-install, MoMo valves can directly replace all other spring return valves and are compatible with standard Y and S plan type controls systems. They are ideal for all new-build, refurbishment and upgrade applications. Wiring colours are identical, and industry-standard body dimensions mean minimal, if any, pipe work changes. No changeover thermostats or special relays are required.

A robust manual thumbwheel and valve position indicator helps simplify commissioning and system checking. Actuator replacement does not require system drain-down.











# **HEAT PACKS**

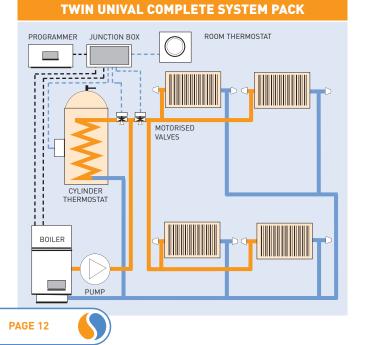
As well as off the shelf solutions, SUNVIC offer the flexibility to make up your own pack design by selecting any one of our quality products and combining them to make the pack of your choice.

Contact your local Sunvic representative for further information on custom pack design.

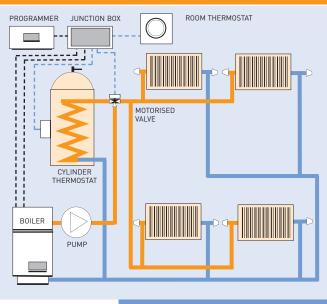
- Complete system in a single pack
- Positive, independent control of domestic hot water and central heating
- Possible to extend control system to add further zone control
- Available in timed and untimed versions
- Matched components for trouble free installation



			PACK CONTENTS											
ORDER CODE	DESCRIPTION	2 PORT MOMO VALVE SZMV 2305	3 PORT MOMO VALVE SDMV 2304	ROOM THERMOSTAT TLX 9201	7 DAY PROGRAMMER SELECT 207XL	CYLINDER THERMOSTAT SA 2452								
891-2482	Unishare MoMo Select 22mm		*	*	*	*								
891-2483	Unival MoMo Select 22mm	*		*	*	*								



UNISHARE COMPLETE SYSTEM PACK



# **ANCILLARIES**

## 

PRODUCT	ТҮРЕ	SCALE (°C)	SWITCH RATING	DIFFERENTIAL (°C)	SENSING ELEMENT
SA 2452	Cylinder Thermostat	40 - 90	5(1) A 230/240V S.P.D.T.	Approx. 9 – Non adjustable	Bimetal
SA 2601	Pipe Thermostat	45 - 85	5(1) A 230/240V S.P.D.T.	Approx. 9 - Non adjustable	Bimetal

- Easy to install
- Large control knob
- Both cylinder and pipe thermostat models available
- New Styling

The SA range of thermostats are designed for surface mounting to control the temperature of domestic hot water cylinders, pre-insulated cylinders, industrial baths or pipes.

The thermostats are attractively styled and have a large control knob to make adjustment simple, resulting in more accurate temperature setting and efficient energy control.

The SA 2452 comprises of a single pole double throw micro gap switch, suitable for loads up to 5A, 250V.

It is supplied complete with a coated expanding galvanised wire which enables the thermostat to be mounted to cylinders up to 450mm (18") diameter.

The SA 2601 pipe thermostat can be clamped onto steel or copper pipes which have a diameter between 15mm and 50mm.

## 

- Easy access 10 terminal block, 230V 10 amp
- Moulded in attractive white high quality flame retardant ABS finish
- Knock-out cable entries giving above; below, left and right surface access
- Rear knock out cable entries for sub-surface access
- Provision for easy cable clamping using cable ties
- Moulded terminal numbers to aid wiring

The SUNVIC SWC2202 ten-way wiring centre provides a compact, yet easily accessible solution to all your wiring problems. Good clearance under the terminal block ensures straightforward, easy to follow wiring.

For use with surface mounted fixed wiring or sub-surface rear entry. Only the cable entries actually required need to be knocked out, leaving a clean, professional looking job with no unsightly or dangerous access holes.

The SWC2202 is stylish too. Its clean, sculpted appearance will make even the most complicated wiring installation look professional.





# ANCILLARIES (CONTINUED)

### 

- High quality
- High reliability
- Simply set and forget
- Ensures quiet operation
- Improves system efficiency
- Maintains optimum flow
- Automatic operation

The automatic by-pass valve is designed to maintain a minimum flow rate in heating systems fitted with TRVs (thermostatic radiator valves). When all the TRVs are open, the by-pass valve remains closed, allowing the full boiler output to circulate around the heating system. As TRVs sense that the selected room temperatures are reached and begin to close, the bypass valve starts to open, maintaining optimum flow through the boiler, thus eliminating possible damage to the boiler and pump. Installation of the by-pass valve also minimises the noise often experienced when flow through the boiler decreases.

# **ROD THERMOSTATS**

## 

#### Safety ROD Thermostat

The SUNVIC VKL3000 rod thermostat for domestic immersion heaters provides unsurpassed performance and service and, at the same time, totally overcomes all concerns about complying with the newly effective regulations pertaining to this type of control. The unit's 'one-shot' overtemperature switching action makes resetting impossible.

- Unique, patented 'One Shot' over temperature sensor
- Complies with latest European Safety Legislation EN60335-2-73
- Conforms to EN60730-1-2-9, BEAB approved
- 16 Amp rating
- Small head design, suitable for retrofit applications
- Available in 3 Standard lengths
- Simple 2 wire connection

#### **Selection Guide**

MODEL	STEM LENGTH	RANGE (°C)	DIFFERENTIAL (°C)	VOLTAGE	CURRENT RATING (AMPS)	OVERTEMP CUT-OUT (°C)
VKL 3201	7" / 178mm	40 - 70	10	230V AC	16 A	96°C
VKL 3301	11" / 280mm	40 - 70	6	230V AC	16 A	96°C
VKL 3401	18" / 457mm	40 - 70	5	230V AC	16 A	96°C

#### **VKL 3000 SERIES TECHNICAL SPECIFICATION**

Control thermostat	Overtemp. Thermostat
Contacts: Single pole	Contacts: Single pole
Function: Break on temp. rise Make on temp fall	Function: Break on temp. rise
Voltage: 230V AC	Voltage: 230V AC
Load current: 16 A	Load current: 16 A
Switch action: 1°C on opening 2 °C on closing	Switch action: 1°C on opening







### 

## ROD Thermostat

- 16 Amp rating
- Simple 2 wire connection
- Manual reset model
- Available in three standard lengths

### Selection Guide

MODEL	STEM LENGTH	RANGE (°C)	DIFFERENTIAL (°C)	VOLTAGE	CURRENT RATING (AMPS)
VKL 2201	7" / 178mm	50 - 80	10	230V AC	16 A
VKL 2251	7" / 178mm	45 - 95	Manual re-set	230V AC	16 A
VKL 2301	11" / 280mm	50 - 80	6	230V AC	16 A
VKL 2303	11" / 280mm	25 - 65	6	230V AC	16 A
VKL 2351	11" / 280mm	45 - 95	Manual re-set	230V AC	16 A
VKL 2401	18" / 457mm	50 - 80	5	230V AC	16 A

#### **VKL 2000 SERIES TECHNICAL SPECIFICATION**

Contacts: Single pole.	Function: Break on temperature rise.
Voltage; 230V AC	Load current: 16 Amps

## 

### **ROD Thermostat**

- 20 Amp rating
- Simple 2 wire connection
- Available in three standard lengths

#### **Selection Guide**

MODEL	STEM LENGTH	RANGE (°C)	DIFFERENTIAL (°C)	VOLTAGE	CURRENT RATING (AMPS)	FEATURES
VK 4251	7" / 178mm	10 - 88	10	230V AC	20 A	
VK 4252	7" / 178mm	10 - 88	10	230V AC	20 A	Pocket Clip Fitted
VK 4253	7" / 178mm	30 - 110	10	230V AC	20 A	
VK 4351	11" / 280mm	40 - 88	6	230V AC	20 A	
VK 4352	11" / 280mm	40 - 88	6	230V AC	20 A	Pocket Clip Fitted
VK 4353	11" / 280mm	60 - 120	6	230V AC	20 A	
VK 4354	11" / 280mm	60 - 120	6	230V AC	20 A	Pocket Clip Fitted
VK 4451	18" / 457mm	45 - 88	5	230V AC	20 A	

### VK 4000 SERIES TECHNICAL SPECIFICATION

Contacts: Single pole.	Function: Break on temperature rise.
Voltage; 230V AC	Load current: 20 A Not recommended for currents below 0.5A AC

# **SPARES & ACCESSORIES**

REMOTE PHIAL THERMOSTATS		
ORDER CODE	PRODUCT DESCRIPTION	
2441201	TO 1201	
2441228	TO 1228	
8113251	TO Knob	
8141202	T0/TF Escutcheon	

BOILER THERMOSTATS		
ORDER CODE	PRODUCT DESCRIPTION	
2613501	TK 3501	
2613504	TK 3504	
2623501	TKR 3501	
2623504	TKR 3504	
2651602	TF 1602	
2651603	TF 1603	
2651609	TF 1609	
2633301	TKD 3301	
2633501	TKD 3501	
2633502	TKD 3502	
8113258	TF 1603 Knob	
8511303	TK Pocket	

CYLINDER THERMOSTAT	
ORDER CODE	PRODUCT DESCRIPTION
7171500	CIT 500 Stem, immersion

Some older specification products, spares and accessories are available upon request. Please contact Sunvic customer service team for further information.

ROOM THERMOSTAT ACCESSORIES		
ORDER CODE	PRODUCT DESCRIPTION	
8362405	BX3 Weather Resistent case for TLX/TLM	
8371203	Guard Pack for TLX/TLM to protect against physical damage	
3172205	SEN 2205 Sensors for use with Electronic TLX	
3172301	SEN 2301 Sensors for use with Electronic TLX	
3172303	SEN 2303 Sensors for use with Electronic TLX	

TIME SWITCHES & PROGRAMMERS		
ORDER CODE	PRODUCT DESCRIPTION	
4983300	Sentinel Software Key	

у	Sentinel Software Ke	4983300
2	CB 220	4942202
2)	CB 3303 (MP2	4943303
4	Clock Timer for CLOCK BOX 49	2237227

ACTUATORS & VALVE BODIES		
ORDER CODE	PRODUCT DESCRIPTION	
4525601	DM 5601 Mid position actuator (Duoflo)	
4525651 D	M 5651 Mid position actuator & plug (Duoflo)	
6151453	MK 1453 22mm 3 port valve (Duoflo)	
8031612	CLASS "A" SYN. Motor	
8031603	Spares kit for ML/EML valves 28mm	
8031604	Spares kit for MK Valves 22mm	
8031601	Spares kit for ML valves 15mm	
8031602	Spares kit for ML/EML valves 22mm	
8031613	Spares kit for DT/EDT valves 22mm	

<b>AUTO</b>	BY-P/	ASS VA	LVES

**PRODUCT DESCRIPTION** 7171022 SBV 22 Auto By-pass Valve (22mm)

ROD THERMOSTATS			
ORDER CODE PRODUCT DESCRIPTION			
8522701	VK 11" Pkt		
8512601 VK 7 " F			
8542801 VK 18" Pkt			

ENERGY REGULATORS				
ORDER CODE	PRODUCT DESCRIPTION			
4176202	TYJ 6202			
4176303	TYJ 6303			
0002/861	TYJ Clamping Nut			
0003/861	TYJ Clamping Washer			
8111510	TYJ Black Knob			
8111509	TYJ White Knob			
8111901	ERY Black Knob			
8111902	ERY White knob			
8111602	SCALE PLATE ERX/ERY			

THERMAL RELAYS			
ORDER CODE	PRODUCT DESCRIPTION		
4182301	TDW 2301		



Class 'A' Synchronous Motor



SEN 23\*\* Electronic **Thermostat Sensor** 



### TF 1602 Boiler Thermostat



**Replacement Actuator** 



MP2 24 hr, independent control of central heating & hot water



# **SYSTEM WIRING GUIDE**

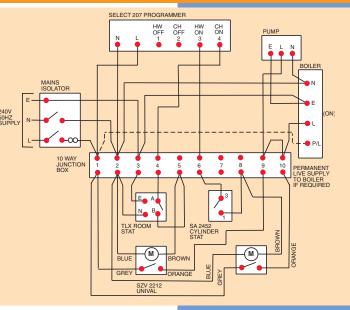
### **General Information**

- 1 All installations and maintenance must be carried out by a competent person and in accordance with current building and wiring regulations. Please consult user and installation instruction for all products used.
- 2 Please consult boiler manufacturers instructions before completing wiring of pump and boiler

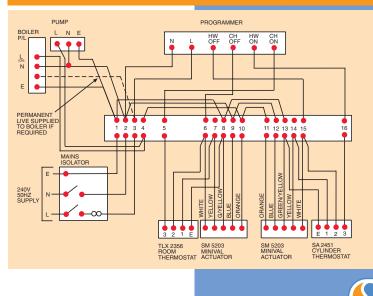
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ROOM THERMOSTAT WIRING				
Therminal	А	В	N	Е
TLX2XXX	3	1	4	Е
TLX4XXX	2	1	N/A	N/A
TLX5XXX	1	8	2	N/A
TLX6XXX	СОМ	N/0	N/A	N/A
TLX7XXX	3	2	N/A	N/A
TLX9XXX	1	3	4	N/A

TWIN UNIVAL SYSTEM: 2X2 PORT ZONE VALVE



MINIVAL SYSTEM: 2X2 PORT ( MOTOR ON/MOTOR OFF ZONE VALVE)





# **COMPATIBILITY GUIDE**

### **ROOM THERMOSTATS**

escription	SUNVIC Equivalent
mbi stat	TLX 2259,TLX 4101,TLX 9501
d room thermostat, with LED 'ON' indicator	TLX 5101
ost thermostat	TLX 5101
gital room thermostat	TLX 7501
Hour Programmable room thermostat	TLX 6501
Hour Programmable room thermostat	TLX 6501
dio frequency digital room thermostat	TLX RFD
hour programmable room thermostat	TLX RFP
ectro-mechanical SPDT no acc heater	TLX2356
d electronic room thermostat spst	TLX 5101
d electronic room thermostat with LED	TLX 5301
hr programmable room 'stat	TLX 6501
ay/2day programmable room 'stat	TLX 6501
ay/2day programmable room 'stat	TLX 6501
hr programmable room thermostat	TLX 6501
pst thermostat t/proof	TLX 2360
angeover room thermostat	TLM2802
hr programmable room thermostat	TLX 6501
d. Room thermostat	TLM 2253
gital room thermostat	TLX 7501
ogrammable room thermostat	TLX 6501
1. Room thermostat	TLM 2253
Ŭ	

ACTUATORS				
Manufacturer Model Description		SUNVIC Equivalent		
			SPRING RETURN	MoMo
Danfoss	HSA3	3 port mid-position actuator	SD 2701	SDM 1901
	HSA3D	3 port diverter actuator	SD 2601	
	HPA2	2 port actuator (normally closed)	SZ 2301	SZM 1801
	HPA2C	2 port actuator (normally closed)	SZ 2301	SZM 1801
Myson	ACT322	3 port mid-position actuator	SD 2701	SDM 1901
	ACT222	2 port actuator (normally closed)	SZ 2301	SZM 1801
	ACT228	2 port actuator (normally closed)	SZ 2301	SZM 1801

ANTODICED VALVE

MUTURISED VALVES					
Manufacturer	Model	Description	SUNVIC Equivalent		
			SPRING RETURN	MoMo	
Danfoss	HS3B/HS3	3 port mid-position actuator 22mm	SDV 2211	SDMV 2304	
	HS3B28	3 port mid-position actuator 28mm	SDV 2294	SDMV 2320	
	HS3BD	3 port diverter actuator 22mm	SDV 2291		
	HS3DB28	3 port diverter actuator 28mm	SDV 2295		
	HP22/22B	2 port 22mm	SZV 2212	SZMV 2305	
	HP28/28B	2 port 28 mm	SZV 2228	SZMV2323	
Myson	MPE 322	3 port mid-position actuator 22mm	SDV 2211	SDMV 2304	
	MPE 328	3 port mid-position actuator 28mm	SDV 2294	SDMV 2320	
	MPE 322DV	3 port diverter actuator 22mm	SDV 2291		
	MPE222	2 port 22mm	SZV 2212	SZMV 2305	
	MPE228	2 port 28 mm	SZV 2228	SZMV2323	
Honeywell	V4073A1039	3 port mid-position actuator 22mm	SDV 2211	SDMV 2304	
	V4073A1088	3 port mid-position actuator 28mm	SDV 2294	SDMV 2320	
	V4044C1288	3 port diverter actuator 22mm	SDV 2291		
	V4044C1569	3 port diverter actuator 28mm	SDV 2295		
	V4043H1056	2 port 22mm	SZV 2212	SZMV 2305	
	V4043H1106	2 port 28 mm	SZV 2228	SZMV2323	

		PROGRAMMER/ TIMECLOCK	
Manufacturer	Model	Description	SUNVIC Equivalent
ACL Drayton	LP112	Elect 24 hr. two-channel programmer	SELECT 207xl / Sentinel 200
	LS 241	Elect 24 hr. two-channel programmer	SELECT 207xl / Sentinel 200
	LP 241	Elect 24 hr. two-channel programmer	SELECT 207xl / Sentinel 200
	LS 522	Electronic 5/2 day full programmer	SELECT 207xl / Sentinel 200
	LP 522	Electronic 5/2 day full programmer	SELECT 207xl / Sentinel 200
	LS 722	Electronic 5/2 day full programmer	SELECT 207xl / Sentinel 200
	LP 722	Electronic 5/2 day full programmer	SELECT 207xl / Sentinel 200
Danfoss Randall	TS 15	Electronic 5/2 day or 24 hr. timeswitch	SELECT 107xl / Sentinel 100
	TS 75	Electronic 5/2 day or 24 hr. timeswitch	SELECT 107xl / Sentinel 100
	MP15	Electronic 5/2 day or 24 hr. mini. Prog	SELECT 207xl / Sentinel 200
	MP75	Electronic 5/2 day or 24 hr. mini. Prog	SELECT 207xl / Sentinel 200
	CP15	Electronic 5/2 day or 24 hr. two channel prog	SELECT 207xl / Sentinel 200
	CP75	Electronic 5/2 day or 24 hr. two channel prog	SELECT 207xl / Sentinel 200
	FP75	Electronic 7 day or 5/2 day full programmer	SELECT 207xl / Sentinel 200
Glowworm	Mastermind	Electro-mechanical 24 hr. two channel prog	SELECT 207xl / Sentinel 200
Horstmann	C27	Electronic 7 day full programmer	SELECT 207xl / Sentinel 200
	C21	Electronic24 hr. full programmer	SELECT 207xl / Sentinel 200
	C17	Electronic 7 day time switch	SELECT 107xl / Sentinel 100
	C11	Electronic 24 hr. timeswitch	SELECT 107xl / Sentinel 100
Landis & Staefa	RWB9	Electronic 7 day 5/2 day or 24 hr. full prog.	SELECT 207xl / Sentinel 200
	RWB7	Electronic 7 day 5/2 day or 24 hr. timeswitch	SELECT 207xl / Sentinel 200
	RWB2	Electro-mechanical 24 hr. two channel prog	SELECT 207xl / Sentinel 200
	RWB2.9	Electro-mechanical 24 hr. two channel prog	SELECT 207xl / Sentinel 200
	RWB20	Electronic 7 day two channel programmer	SELECT 207xl / Sentinel 200
	RWB40	Electronic 24 hr two channel programmer	SELECT 207xl / Sentinel 200
	RWB102	Electronic mini programmer	SELECT 207xl / Sentinel 200
	RWB200	Electronic 24 hr. two channel programmer	SELECT 207xl / Sentinel 200
	RWB 252	Electronic 5/2 day two channel programmer	SELECT 207xl / Sentinel 200

Note: This list gives common examples and is by no means exhaustive. For further information contact Sunvic controls



# **NOTES**

