![WIGGENS — THE MAGIC MOTION]

# Digital Temperature Controller for Heating Mantles

> Temperature accuracy lies at 0.1-0.5℃
> Suitable for heating and cooling tasks
> Can control heating units of up to 4 kW power
> Employs PID controlling, self-adjusting and self-learning feature, resulting in mitigated under-shooting or over-shooting
> Separate LED displays for set and actual temperature
> Interference-free controller according to EMC standards
> Multiple alarm settings, including upper limit, lower limit, deviation limits, etc.
> Monitoring parameters and limits can be defined
> PT100 temperature sensor with 170 mm length included
> Wide range of temperature sensors optionally available
> Choice between an RS-485 and an RS-232 connection output for use in larger systems

T — Temp. C — Control S — Safety S — Stirring

PL524 Premium

Powerful programmable temperature controller with universal input technology supports thermocouple, thermal resistance, voltage, current and other signal directly input, maximum 30 step programming, measurement accuracy of 0.1 level.

> With standard PID, artificial intelligence adjustment PID and other adjustment methods. With self-tuning self-learning function, no overshoot and no less regulation of the excellent control characteristics.
> have program control function, and intelligent algorithm with curve fitting function can obtain smooth and smooth curve control effect.
> Dual-CPU processing mode, an ARM chip for handling graphical user interface and data logging; independent single-chip CPU to ensure Real-time control and sampling to meet the stringent requirements of the industrial site; by 4KV group pulse anti-jamming test.
> nstrument with data logging, you can display real-time trends, light columns and historical trends, and provide the form of reporting data and alarm recording records. With 150M of storage space. The stored data can not only in the instrument LCD screen to the curve and the value of the playback, you can also export through the U disk on the computer for further analysis and processing.

NEW
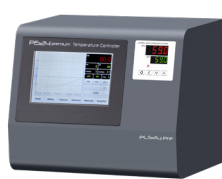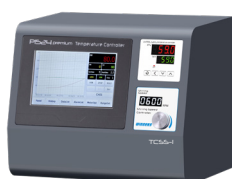
Ordering Information

Models / Specifications		TCSS	PL524 Pre	PL524 Pro	PL524 Lite	PC524
Name		Program controller for temperature and stirring	Program controller for temperature	Temperature controller	Economic temperature controller	Safety temperature protector
Screen	5" TFT touch screen	●	●			
	LED			●	●	●
Function	Heating	●	●	●	●	
	Cooling	●	●			
	Programming	●	●			
	Stirring	●				
	Safety temperature	●	●			●
Interface	RS485	●	●			
	RS232	●	●	●	●	
	Ethernet	●	●			
	USB-A	●	●			
	Alarm	●	●	●	●	
Options	Pt100	○	○	○	○	○
	Thermocouple	○	○	○	○	○
	heating mantle	○	○	○		
	matching unit	○ please reference Note 3				
	Solenoid valve for cooling	○				
	WH260 series				○	

Note 1：● Standard configration ○ Options

Note 2：TCSS，PL524 Pre，PL524 Pro working with two temperature sensors；PL524 Lite，PC524 just need one temperature sensor

Note 3：TCSS-1 matching with heating-stirring mantle
　　　　TCSS-2 matching with overhead stirrer WB2000-C
　　　　TCSS-3 matching with overhead stirrer WB1800-D
　　　　TCSS-4 matching with overhead stirrer WB1800-C or WB1800-EC

Overheated security protection　　　Temp. and Stir. Controller　　　Temperature,Stirring Speed,Cooing Valve Controller

Temp. Controller security protection

Heating Mantles

Aluminum Housed Mantles

> Rigid housing provides strength and durability while supporting the weight of the vessel
> Fabric interior to softly nest glass vessels and reduce the chance of thermal shock
> Adaptable to most vessels including larger sizes
> Withstands 4500C internal operating temperature (6500C for Series STM), enough power for most applications
> Can be adapted to special applications with custom sizes, bottom holes, and special electrical devices
> Feet on smaller sizes designed to provide stability and promote cooler exterior temperatures

Heating
&
Stirring

WTM Series

with temperature controller

EMSxxxP Series

without temperature and stirring controller

Spherical Flask Mantles

> The Series TM spherical flask mantle covers only the flask's bottom half, letting you see its full contents. Larger sizes have multiple circuits for ease of temperature control when a flask is less than half full. Splash Guards can be used with TM102 through TM117.

without temperature and stirring controller

> Poncho Safety Shields can be used with sizes 500 ml (TM107) and larger.

Specifications

Set	Order No.	Flask Capacity	Max. Flask Diameter	Watts	Depth	Outside Dia.	Height	Weight
		mL	mm	W	mm	mm	mm	kg
WTM95	TM95	50	48	60	24	159	121	1.0
WTM97	TM97	100	60	80	30	159	121	1.0
WTM99	TM99	125	70	80	35	159	121	1.0
WTM101	TM101	200	76	100	38	159	121	1.0
WTM103	TM103	250	83	180	41	159	121	1.1
WTM105	TM105	300	86	180	43	159	121	1.1
WTM107	TM107	500	101	270	51	159	127	1.1
WTM109	TM109	1000	130	380	65	191	127	1.4
WTM111	TM111	2000	170	500	86	254	152	2.1
WTM113	TM113	3000	183	500	91	254	152	2.1
WTM115	TM115	5000	220	600	109	305	178	2.8
WTM117	TM117	12000	293	2@650	147	419	229	6.8
WTM119	TM119	22000	347	2@770	173	483	254	8.5
WTM121	TM121	50000	456	3@1000	228	610	330	18.6
WTM122	TM122	72000	522	3@2000	259	660	356	20.0

Best-seller!

TM Series

without temperature controller

Stir Mantles

> The StirMantle adds electromagnetic stirring capability (50-750 rpm) to the Series TM heating mantle for spherical flasks. Heating and stirring are independent; choose either or both. Speed is easily adjusted by a single dial on the TCSS-1.
> The TCSS-1 creates and synchronizes the magnetic field. When restarting (as for removal and reinsertion of the flask), Wiggens exclusive "Synchrostart" feature maintains linkage between the field and the bar. TCSS-1 connects to the StirMantle by cord, so it may be placed outside corrosive hood atmospheres and is easily accessible.
> TCSS-1, connecting cords, and stir bar. Completely grounded.

Specifications

Set Order No.	Stir Mantles Order No.	Flask Capacity	Depth	Watts	Outside Dia.	Height	Weight
		mL	mm	W	mm	mm	kg
EMS103P	EMS103	250	42	180	159	121	2.0
EMS105P	EMS105	300	43	180	159	121	2.0
EMS107P	EMS107	500	51	270	159	133	2.0
EMS109P	EMS109	1000	65	380	191	140	2.4
EMS111P	EMS111	2000	85	500	254	165	2.5
EMS113P	EMS113	3000	91	500	254	165	2.9

EMSxxx Series

without temperature and stirring controller